

# SR&ED

## INFORMATION GUIDE 2007



**CHARGER CONSULTING CORPORATION**  
SUITE 110, 5925 AIRPORT ROAD, MISSISSAUGA, ON L4V 1W1  
Ph: (416) 695-0455 Fax: (416) 695-0453

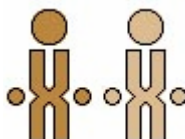
# CONTENTS

Development Funding Initiative .....	1
Criteria for Scientific Research and Experimental Development (SR&ED) .....	2
Eligibility Questionnaire .....	4
Technical Narrative Template .....	7
Sample Timesheet .....	10
Project Expenditure Form .....	11
Summary .....	12



**Charger Consulting Corporation**

in association with



**HS & PARTNERS LLP**  
**Chartered Accountants**

Suite 110, 5925 Airport Road  
Mississauga, ON L4V 1W1  
Ph: 416-622-9062 Fax: 416-695-0453  
[info@chargerconsulting.com](mailto:info@chargerconsulting.com) or [info@hsp-ca.com](mailto:info@hsp-ca.com)

# Development Funding Initiative

## Overview

The Federal government's economic plan for Canada includes providing generous financial assistance to companies who undertake business improvements, including the development of new or improved products or processes. No company is too small to obtain funding.

Canada's SR&ED\* program is the best program of its kind in the world. Your actual development costs may be reduced by over 66% through significant tax credits ranging from thousands to millions of dollars

Charger Consulting Corporation can help you identify and structure your developmental activities and prepare the necessary claim for maximum financial benefit. Our *SR&ED Information Guide* is a self-learning tool to assist companies in identifying eligible projects and properly documenting them.

\* SR&ED represents the Federal government's Scientific Research and Experimental Development Program

# CRITERIA REQUIRED FOR QUALIFYING PROJECTS

The CCRA guidelines list three general criteria, which are "essential tests" that must be met before any activity can be considered SR&ED. These criteria are:

- (i) scientific or technological advancement
- (ii) scientific or technological uncertainty
- (iii) scientific and technical content

## **i) Scientific or technological advancement**

Scientific or technological advancement involves the incorporation of a characteristic, not previously existing or available in standard practice, in a new or existing process or product.

Novelty or innovation alone is not sufficient. The activity must be a search for a scientific or technological step forward.

This criteria is to be interpreted within the context and environment of the taxpayer and the field of business. Activities undertaken to resolve technical uncertainties will qualify as SR&ED if the solutions cannot be obtained by the taxpayer through available sources of knowledge and experience of the taxpayer. For example, a taxpayer whose research merely reproduced results that was available in scientific publications, to which the taxpayer should reasonably have had access, would not qualify. However, in an industry where information is tightly guarded, a taxpayer may have to reproduce research that a competitor has already undertaken. This could still qualify as SR&ED since it would be a technological advancement to the taxpayer.

## **ii) Scientific or technological uncertainty**

CCRA has attempted to clarify the term "technological uncertainty" by stating that it can occur in either of two manners:

- a) it may be uncertain whether the goals can be achieved at all; or
- b) the taxpayer may be fairly confident that the goals can be achieved, but may be uncertain which of several alternatives (i.e. paths, routes, approaches, equipment configurations, systems architecture, circuit techniques, etc.) will either work at all, or be feasible in order to meet the desired specifications and/or targets.

This clarification suggests the technical risk criteria can be met in a number of ways, even where the taxpayer is fairly certain of success in meeting the goals of the project. For example, there may be risks that the first approach to the problem may not work, or may cost too much to produce, and therefore other approaches may have to be tried; or there may be uncertainty whether the taxpayer can

achieve the desired results within a reasonable budget. Still technological uncertainty, rather than economic or financial uncertainty, is the key criterion. CCRA recognizes that financial constraints may create technological barriers or unknowns. However, in reality while most experimental development can succeed in a technical sense, given an infinite amount of time and money, a product that works, but cannot be made at a price the consumer is willing to pay, is a failure. As well, technical uncertainties can often arise from customer specifications that are imposed on a taxpayer.

### **iii) Scientific and technical content**

In order to demonstrate scientific and technical content, the taxpayer should clearly document the objectives of the projects at an early stage in the project's evolution. The method of analysis by which the scientific or technical uncertainties are to be addressed should also be clearly set out. Finally, the results of successive R&D efforts should be documented (i.e. the process of trial and error).

In examining this criterion, CCRA will look to whether the project has been carried out by personnel who are properly qualified (i.e. have relevant experience in science, technology, or engineering).

# SCIENTIFIC RESEARCH & EXPERIMENTAL DEVELOPMENT ELIGIBILITY QUESTIONNAIRE

1. Project Name: \_\_\_\_\_

## 2. Purpose of the project:

- new product development
- improvement of existing product to create new functionality or improve product specifications
- alterations to existing product to substitute new materials/components
- work on existing product to overcome identified technical problems
- improvement to a manufacturing process
- computer system design and programming
- other (specify) \_\_\_\_\_

## 3. Technological Uncertainties:

SR&ED requires the resolution of one or more technological uncertainties. The following questions will help to identify projects that have the requisite technological uncertainty:

- a) Will the project necessitate multiple designs, design models or alternate courses of action especially at the design state? Yes  No
- b) Is there a possibility of the project failing, or that one or more false starts in attempting it may be necessary? Yes  No
- c) Will there be an abnormal amount of planning or design time required in the project when compared to other projects that do not qualify? Yes  No
- d) Is there evidence of an unresolved problem or technical challenge? Yes  No
- e) Will analysis of different approaches, configurations, etc.

- be required in order to continue the progressive plans of the project? Yes  No
- f) Is it expected that there will be high material consumption or production downtime during work on a process improvement? Yes  No
- g) Will changes to one aspect of the product/process necessitate changes to many other aspects? Yes  No
- h) Will there be extensive testing of all components of the new product/process to determine whether the project was successful? Yes  No

#### 4. Technological Advancement:

SR&ED requires that there be a technological advancement to the company. The following questions will help to identify projects, which have the requisite technological advancement:

- a) Will the prospect introduce new or improved operations? Yes  No   
 If so, is it necessary to develop in-house, a new process or an improved process? Yes  No   
 Will the improvements represent a technological advance which adds to your company's knowledge of processes? Yes  No
- b) Will the development activities result in a significant improvement to the functionality, performance characteristics or complexity of the final process? Yes  No
- c) Will development activities represent significant modifications, beyond that of routine engineering or style changes, to existing production tools or processes? Yes  No
- d) Will the development activities give rise to patent ideas, or give rise to new ideas that could be used repeatedly? Yes  No
- e) Will the prospect also qualify for funding in part by NRC - IRAP grants or other government technological assistance programs? Yes  No
- f) Will the outcome of the project not be achievable without the application of innovative concepts or techniques? Yes  No
- g) Will a significant improvement in the process be achieved such as improved quality or lower cost? Yes  No

## 5. Technical Content:

SR&ED requires that there be application of scientific method, or technical content. The following questions will help to identify whether the scientific method has been appropriately applied:

- a) Will qualified engineers or others lead the projects with significant experience working in the relevant field of technology? Yes  No
- b) Will the projects entail the assistance of university or other institutional research staff or facilities? Yes  No
- c) Is there an SR&ED department in your plant and will this department be applying a systematic approach to this project? Yes  No
- d) Are there special labs or other facilities or equipment in your plant which are primarily (over 50%), used for the SR&ED? Yes  No
- e) Will the projects be thoroughly documented? Yes  No
- Will the documents describe the purpose of the project, the technological uncertainties, test procedures and analysis, and the progress achieved? Yes  No

# Scientific Research & Experimental Development (SR&ED) Tax Claim

## Project Description

- Project Title:** Use a descriptive title (e.g. Development of a new or improved material for...).
- References:** Internal Project Number  
Internal Project Name
- Start Date:** Insert date of the beginning of the project (month, year).
- Completion Date:** Insert the end date of the project or the anticipated end date of the project.
- Background:** A paragraph of background about the current industry standard, to indicate the technological knowledge on which the company is building, so that the rest of the description makes sense.
- Project Objective:** Describe the technical objectives of the project. Although the overall development may be for a new product, the technical objectives should describe the specific technical challenges that make this eligible as R&D.
- Technological Advancement Sought:**
- What is to be achieved that will add to the technology currently available. What is the key problem solved, benefit, or opportunity associated with this advancement?
- Overall Technological Uncertainty:**
- Two or three (minimum) examples of the types of uncertainties you will run into on this type of project (e.g. we are uncertain what material will work best, and so we will need to test many).

**Methodology:**

The following methodology was used as a plan for this project: (example)

1. Background research into any related applications in same or other industries
2. Design and build samples/prototypes to understand the basic properties
3. Small scale test
4. Revise or redesign
5. Process validation by production team
6. Hand-off to production

**Activities Performed in the Fiscal Year:**

This section must CLEARLY describe what happened in the fiscal year being claimed, especially those activities that consumed a lot of labour, material, and engineering or technical time.

Chronologically list how the project progressed and how these activities serve to resolve the identified uncertainties and resultant problems.

Describe any problems encountered; how they relate to the technological uncertainties (or created the knowledge of technological uncertainties); and how they may have changed the approach, hypothesis, or project plan. If tests took place, describe the overall results and why they did or did not go as planned.

**Technological Milestones Achieved in the Fiscal Year:**

Summarize in point form the technological advances gained (that you couldn't have found in a book). Highlight any remaining uncertainties.

**Documentation:**

List relevant documentation available: project files of individuals; reports; test results; corporate project records.

## Key Engineering and Technical Personnel Involved:

### Project leader:

Name

Summary of credentials

- Education
  - degrees
  - training
  - designations
- Experience
  - years of services

### Project team:

Name

Role

Summary of credentials

- Education
  - degrees
  - training
  - designations
- Experience
  - years of services

# SAMPLE RESEARCH AND DEVELOPMENT PROJECT TIME ALLOCATION FORM

YEAR \_\_\_\_\_

NAME: \_\_\_\_\_

WEEK COMMENCING, Monday \_\_\_\_\_

DEPT: \_\_\_\_\_

EMPLOYEE NO.: \_\_\_\_\_

R&D PROJECT NUMBER	MON.	TUES.	WED.	THURS.	FRI.	SAT.	SUN.	TOTAL	ACTIVITY DESCRIPTION
XXXX-									
XXXX-									
XXXX-									
XXXX-									
XXXX-									
XXXX-									
XXXX-									
OTHER THAN R&D									
TOTAL HOURS									

REMARKS: \_\_\_\_\_

APPROVED: \_\_\_\_\_

\_\_\_\_\_

**SAMPLE**  
**RESEARCH & DEVELOPMENT PROJECT EXPENDITURE FORM**

Project Name \_\_\_\_\_

Project Reference Number \_\_\_\_\_

**DIRECT SALARY COSTS:**

Employee Name	Total Cost
<b>Total Direct Salary Costs</b>	

**DIRECT PROJECT EXPENDITURES:**

Current Expenditures:

Item	Cost
Materials	
Subcontractors - Arm's length	
Subcontractor - Non-arm's length	
Other	
<b>Total:</b>	

Capital Expenditures: Description

Item	Cost
<b>Total:</b>	

\_\_\_\_\_  
 SR&ED Controller

## SCIENTIFIC RESEARCH AND EXPERIMENTAL DEVELOPMENT (SR&ED)\*

PROJECT ELIGIBILITY	PROJECT CRITERIA	NON-ELIGIBLE ACTIVITIES
<p>What qualifies for Scientific Research &amp; Experimental Development?</p> <p>SR&amp;ED projects are classified in the following categories:</p> <p><b>Basic Research</b></p> <p>Work undertaken to advance scientific knowledge without a specific practical application in view.</p> <p><b>Applied Research</b></p> <p>Work undertaken to advance scientific knowledge with a specific practical application in view.</p> <p><b>Experimental Development</b></p> <p>Work undertaken to achieve technological advances for the purpose of creating new, or improving existing, materials, devices, products, or processes, including incremental improvements thereto.</p> <p><b>Support Work</b></p> <p>Work with respect to engineering, design, operations research, mathematical analysis, computer programming, data collection, testing, and psychological research, where such work is commensurate with the needs, and directly in support of the work described above.</p>	<p>What criteria must be fulfilled for a project to be eligible for Scientific Research &amp; Experimental Development tax credits?</p> <p>Projects must contain:</p> <p><b>Scientific or Technological Advancement</b></p> <p>Must generate information that advances our understanding of scientific relations or technologies. The taxpayer cannot obtain the solutions through commonly available sources of knowledge and / or experience even though new to the taxpayer.</p> <p><b>Scientific or Technological Uncertainty</b></p> <p>Must contain uncertainty which cannot be solved using generally available scientific or technological knowledge or experience. May occur in two ways: - it is uncertain whether the goals of the project can be achieved at all; or - the taxpayer is fairly confident that the results can be achieved but may be uncertain which of several alternatives (i.e. paths, routes, approaches, equipment configurations, etc.) will either work, or be feasible within a cost constraint.</p> <p><b>Scientific and Technical Content</b></p> <p>Must demonstrate that the SR&amp;ED project incorporated a systematic investigation going from hypothesis formulation, testing through experimentation, to logical conclusions. Work must be adequately documented and performed by qualified people.</p>	<p>What business functions cannot be claimed as Scientific Research &amp; Experimental Development work?</p> <p>Business functions, which are not SR&amp;ED work, must be excluded. These include:</p> <ol style="list-style-type: none"> <li>1) Market research or sales promotion.</li> <li>2) Quality control or routine testing of materials, devices, products, or processes.</li> <li>3) Research in the social sciences or the humanities.</li> <li>4) Prospecting, exploring, or drilling for or producing minerals, petroleum, or natural gas.</li> <li>5) The commercial production of a new or improved material, device, or product, or the commercial use of a new or improved process.</li> <li>6) Style changes.</li> <li>7) Routine data collection.</li> </ol> <p><b>Routine Engineering</b></p> <p>The improvement of existing technologies or methodologies using well established practices where the outcome is predictable.</p> <p><b>Supplier Trials</b></p> <p>Changing to another supplier where the new supplier is not really involved beyond producing a product based on an initial configuration or design.</p>

Note: Information has been transcribed from IC 864R3 Scientific Research and Experimental Development circular dated May 24, 1994. Information copyright © 1997 CCH Canadian Limited.



## **Charger Consulting Corporation**

S. Sonia Vaknin, B.A., LL.B.

Ph: 416-695-0455  
Ext. 365

Fax: 416-622-2102

Tagline: 1-866-777-0155