

Patents for Invention:  
Supporting the SR&ED Project

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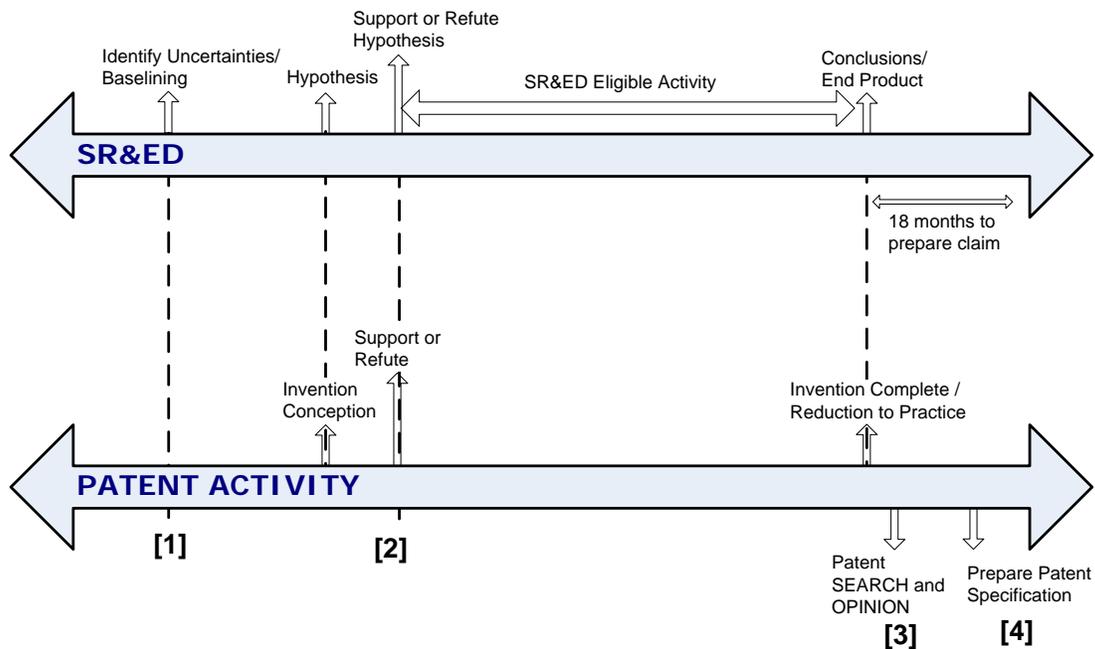
## **PATENT SEARCHING & SR&ED**

You are encouraged to perform initial patent searching on your own using [www.google.com/patents](http://www.google.com/patents). Patent searching should be performed to assist you with supporting SR&ED claims during the SR&ED process. Patent searching by patent counsel can include performance of:

- 1) SEARCH – Professional search for list of relevant patents, with initial screening for relevance; and/or
- 2) OPINION – Professional review and assessment of search results.

The activities of SR&ED can typically be mapped onto a timeline. The stages of baselining, identifying uncertainties, and hypothesis, activity, and conclusion are activities which can support a claim for SR&ED.

The Courts and the Canadian Revenue Agency (CRA) have accepted the use of patent search results to support a claim for SR&ED, which adds credibility when performed as early as possible in the SR&ED process. Ideally, patent search and opinion should be performed during the project (e.g. same fiscal year).



**Patent Activities relating to SR&ED can be summarized as follows:**

- [1] Baseline / Landscape
- [2] Hypothesis Feasibility
- [3] Patentability opinion
- [4] File Patent specification

### [1] Baseline / Landscape

A patent landscape SEARCH could be done at the beginning, prior to the first hypothesis. This assists in determining the baseline of the present state of the art. This search is typically broad and less focused since the first hypothesis has not yet been made, and therefore can result in higher search fees. However, such results are typically important for baselining of your SR&ED claim for items such as i) Number of relevant patent results, and ii) Relevance of closest patent references. Note that patent searching is intended to supplement, but not replace, company research and development.

### [2] Hypothesis Feasibility

After a hypothesis has been determined, a patent SEARCH and OPINION may be done to assist you to test feasibility of the hypothesis and/or refute the hypothesis. This search could be performed after the hypothesis, prior to any investigative activity, to enable you to determine if the hypothesis was indeed uncharted territory.

As outlined by the Tax Court of Canada, even refuting a hypothesis is eligible as part of an SR&ED claim (*Northwest Hydraulic Consultants Ltd. v. The Queen*, 1998 DTC 1839).

### [3] Patentability opinion

A preliminary patent SEARCH and OPINION on availability of patent protection should be performed once conclusions are reached, when the invention is completed and “reduced to practice” (e.g. prototype).

In appropriate circumstances, these search results may also be used as a final consideration for hindsight baselining or hypothesis support, which is often acceptable for supporting of the SR&ED claim. However, this should not be intended to replace performing of the initial baselining or hypothesis feasibility. Please contact your accounting professional for more information.

### [4] Patent specification

If the invention is new and non-obvious, based on [3], you may wish to prepare and file patent application in select countries. For example, an initial patent application can be filed in the United States and/or the Patent Co-operation Treaty (PCT).



**PATENT ACTIVITY FEES (for RDBase.net users only)**

<b>Steps</b>	<b>Timing</b>	<b>Total (Cnd. \$) + HST</b>
[1] Baseline/Landscape Search - without substantive comment	2 - 3 weeks after receiving instructions	\$ 2,500
- Automated updated landscape search list based on agreed upon class fields	per period (e.g. monthly or quarterly)	\$ 250/period
[2] Hypothesis Feasibility Search		
- Review and comment of client performed feasibility search to determine if hypothesis was in uncharted territory (up to 5 patent references)	2 - 3 weeks after receiving instructions	\$ 1,200
- Carry out independent feasibility search with review and comment on hypothesis (up to 5 patent references)	3 - 4 weeks after receiving instructions	\$ 2,000
[3] Patentability search and opinion based on conclusions/prototype	3 - 4 weeks after receiving instructions	\$ 2,000
[4] Preparing & filing patent application - if filed first in U.S. (preferred)	1 - 2 months after receiving instructions	\$ 10,000 or more

Additional fees will incur after filing, over months or years after filing of the patent application, which can sometimes amount to additional thousands at a time. Additional limitations to the search can be found at the end of this document under the title SEARCH LIMITATIONS.

Note, you may wish to track your SR&ED projects using software such as RDBase.net or other tracking programs. You may also wish to provide your patent counsel with access to your RDBase.net account. Note, however, this does not create a duty for counsel to continuously check with updates or changes to your RDBase.net projects, unless expressly agreed upon.

## **GENERAL INFORMATION - PATENTS FOR INVENTIONS**

### **Nature of Patent Right**

A patent grants its owner a legal right to exclude others for a specified term of years from making, selling or using the invention to which the patent relates. Most novel, useful and unobvious products, processes and apparatus qualify as inventions.

The length of term of the patent grant varies according to country. Typically, the term is 20 years from the filing date.

### **Novelty Requirement**

To be validly patented, an invention must not have been previously sold, used or publicly disclosed by others. In some countries, any prior sale, use, or public disclosure by the inventor or anyone else, before filing the patent application, can prevent the grant of a valid patent. A United States or Canadian patent can still be obtained if the inventor, or someone who has derived the invention from him, has previously sold, used or disclosed the invention less than one year before the filing of the application.

### **The Applicant**

Only an inventor or someone who has acquired rights to the invention from the inventor may apply for a patent. In many countries, including the United States, the inventor's signature on the application papers is required, and if the inventor is for some reason unavailable, patent counsel should be consulted.

If the inventors have assigned their rights to their employer or to someone else, it is essential that the assignee be able to document this fact. If steps have not already been taken to obtain a written assignment, such steps should be taken as soon as reasonably possible, if a patent application is to be filed.

### **Subject Matter**

Most novel, useful and unobvious products, processes and apparatus qualify for patent protection. However, not all inventions are patentable. In Canada, for example, methods of medical treatment are not patentable. Also, the scope of protection for new life forms produced through chemical or genetic engineering processes is open to question. In some countries, computer software comprising merely an algorithm is not patentable.

## **Searching**

To determine whether an invention is novel, a preliminary patentability search is usually made, in either the United States or Canadian Patent Office, or using on-line databases. While any previous patent or publication anywhere in the world which discloses the invention will usually prevent the grant of a valid patent for the invention, the cost of conducting a comprehensive world-wide search is prohibitive. Usually an investigation of limited scope in only one country or using on-line databases is made. Usually the United States Patent and Trademark Office is preferred because of the large volume of prior patents and other literature on file there.

Such a search is conducted in those classifications of patents and other literature which are considered most likely to reveal a prior disclosure of the invention. Although such a limited search cannot guarantee that a patent for any given invention is available, it should enable the inventor and his patent counsel to make a reasonable assessment of the prospects for obtaining a valid and useful patent. The information obtained from the search is also frequently of assistance in the preparation of the patent specification, which usually includes a summary of the state of the art prior to the invention. The cost of a limited search of this nature is typically about \$2,000 plus HST for mechanical inventions and \$2,000 - \$3,000 plus HST for software or electrical related inventions.

Sometimes an inventor intends not merely to patent his invention but also to manufacture, sell or use it. In so doing, he may possibly infringe someone else's patent. An infringement search (sometimes called a "right-to-manufacture search") may be indicated. Because substantial investments may be involved in order to commence the manufacture of a product, an infringement search is more thorough and comprehensive than a preliminary patentability search, and consequently much more expensive.

## **Cost of Filing an Application**

In regard to the cost of a patent application, for a very simple invention, the complete expense in the preparation and filing of the first patent application in the United States or Canada is seldom less than about \$10,000 and is more typically \$10,000-\$12,000 plus HST. The cost of preparing and filing patent applications for software or electrical related inventions tends to cost more, typically \$12,000 - \$15,000 plus HST. Professional fees vary with professional time spent. In addition to professional time, drawings must be prepared and there are government fees payable as well. More complex inventions such as high tech or biotech inventions involve higher fees. Additional fees are payable in answering Examiners' objections and are also payable at the time of grant. Such additional fees vary widely from case to case.

## **Why it Costs so Much Money to File a Patent Application**

In practice, the art of preparing a properly-written patent application is one that takes years to acquire. Most Patent Offices advise inventors to seek professional assistance in preparing a patent application. In many cases in which an inventor does not obtain proper professional assistance, the patent application prepared by the inventor is so inadequate that it cannot be salvaged later, even with professional assistance, and must be abandoned.

### **Information Required from Client**

So that we may arrange a preliminary patentability search, we should be provided with:

1. at least a brief description of the invention, including its structure operation, mode of manufacture, and intended use;
2. sketches, drawings or photographs, charts or diagrams, as appropriate, preferably including reference numerals or letters used in the description;
3. a brief summary of the most closely corresponding prior devices or technology, indicating problems with such prior art that are overcome by the invention, or advantages over such prior art obtained from the invention;
4. a summary of those structural and operational features of the invention considered to be novel and unobvious, and of any novel and unobvious results obtained.

In order for us to prepare a patent application, we must prepare or obtain: a precise description of the invention; good quality drawings or photographs, or both; a statement of any limitations on the utility of the invention (e.g. it won't work at sub-freezing temperatures); an indication of options or variants that a competitor might be inclined to use; and a summary of the state of the art prior to the invention, if available.

### **Prosecution of the Patent Application**

In most countries, including the United States and Canada, the patent application is examined by a Government-employed Examiner, for form and content, possible lack of novelty or obviousness in view of prior patents, possible failure to define or describe the invention completely, possible failure to define what the Examiner considers to be an inventive advance in the art, and many other formal and substantive requirements. In the United States, the first examination generally occurs within a year and a half of filing; in Canada the delay is at present typically at least two years from the filing of a request for examination.

In Canada, examination is not automatic. A request for examination must be filed within 5 years of the application date and an examination fee paid. Upon payment of an additional fee, expedited examination may be requested to accelerate the examination procedure where, failure to advance the application would prejudice the rights of the person requesting the expedited examination.

Any objections or requirements made by the Examiner in the form of an Examiner's Report are usually dealt with by making amendments to the specification or claims, or submitting arguments, or both, by means of a formal response filed in the Patent Office.

It is very important to realize that **additional fees will be charged after the patent application has been prepared and filed in a Patent Office**. These fees (called "prosecution charges") relate primarily to the cost of overcoming obstacles such as those described above. Prosecution charges are highly variable and will obviously depend upon the number and nature of any obstacles encountered - unfortunately, it is not possible to forecast in advance what obstacles may have to be dealt with. When obstacles do arise, the cost of dealing with them will depend primarily upon the time required to consider each obstacle, report it to the client together with recommendations for a suitable response, receive instructions from the client for responding to the obstacle, prepare an appropriate response, and present it to the Patent Office. During prosecution, we spend only the professional time necessary to implement our client's instructions to the client's advantage.

The great majority of patent applications encounter some obstacles while pending, and therefore prosecution charges must be expected. Infrequently, the only obstacles encountered raise relatively minor informal matters which may readily be dealt with. In such a case, prosecution charges would be minimal.

More typically, the Patent Office will cite at least some prior patents and other prior publications ("prior art") that is considered by the Patent Office to be relevant to the subject matter of the patent application. In such a case, the Patent Office usually goes through the formality of rejecting the application or some part thereof. To respond to such an obstacle, it is necessary to consider the prior art cited by the Patent Office in consultation with the inventor to determine its impact. Usually, several options for dealing with the rejection will be available. Those options must be considered and the one which best suits the case selected. An appropriate response (usually written) must then be prepared and filed in the Patent Office.

This process may continue - the Patent Office may refuse to withdraw the rejection, or it may pose further grounds for rejection - all of which must be overcome before a patent will be granted. Sometimes, despite our best efforts, the obstacles cannot be overcome and a patent is not granted. In other cases, we may perceive the possibility of eventual success but only at a prohibitive cost. We try to ensure that our communication to our clients is as accurate and timely as possible, so that any problems of this sort can be fully discussed and evaluated.

In a routine case, prosecution charges for Canadian applications will vary between about \$2,000 to \$3,500 each round of examination. However, with respect to U.S. patent applications, it is not unusual to encounter prosecution charges well in excess of \$3,000-\$5,000 each round of examination. Sometimes, as mentioned, the obstacles raised by the Patent Office are insurmountable and the patent application must be abandoned. If the application is to be abandoned, it is sometimes (but not always) possible to file a substitute application to overcome difficulties that are not remediable by further prosecution of the first-filed case. This will, of course, entail further fees.

### **Grant of a Patent**

If all obstacles raised by the Patent Office are successfully overcome, the patent application will be allowed. However, before a patent is granted, government issue and printing fees must be paid. A deadline for the payment of these fees will be fixed by the Patent Office. These fees are variable by country and sometimes depend upon the number of pages of the patent specification. Such fees tend to range from about \$500 to \$2,500. Grant of the patent typically follows within about two or three months after the payment of the final fee. Please note that in no circumstances do we guarantee that a patent will be granted on any application filed. Our fees are payable in full whether or not a patent is ever granted. The client must assume the full burden of the risk that a patent may not issue, and that any patent granted may be commercially worthless.

### **Foreign Filings**

Once a patent application is filed in the first country, it can be filed in most other countries within the next twelve months and, by international treaty, enjoy in those countries an effective filing date that is deemed to be the date of filing in the first country. This benefit is lost if filings in other countries are delayed more than twelve months after the first filing. In most countries, it is possible to file a patent application after the expiry of the aforementioned twelve month period if a patent for the same invention has not yet been granted elsewhere and there has been no intervening publication, prior public use or sale of the invention.

After filing the first application in Canada or the U.S., subsequent filings in other English speaking countries are usually much less costly. So if it cost, say, \$12,000 to file the first application in the U.S., the cost of filing a counterpart Canadian application might be perhaps \$2,500 to \$3,500. In foreign-language hard-currency countries, costs are higher - often \$5,000 or more. Even the cost of technical translation can run into the thousands of dollars.

For patent applications filed in a country other than Canada, we retain associates (lawyers or patent agents who reside and practice in the foreign country in which the patent application is to be filed) to assist in ensuring that the application conforms to local requirements, and in helping us to overcome any obstacles that the patent application may

encounter in the foreign country. Because foreign patent laws and practice requirements undergo frequent change, it is impossible for us to be confident that we are fully aware of all current requirements in foreign countries. Most of our partners are registered to practise in the United States Patent Office, and we try to stay abreast of significant developments in U.S. law and practice, but patent rights are sufficiently important that it is sometimes absolutely necessary and nearly always desirable that foreign associates be available to assist us in prosecuting patent applications in foreign countries.

All foreign associates charge a basic fee for assisting in prosecution of the application and will charge additional fees for each step that they take regarding the application. It is very difficult to forecast the fees that a foreign associate will charge in each case. Usually, an initial basic fee of about \$800 to \$1,500 is charged by a foreign associate. These fees are, however, beyond our control and subject to change without notice. (In many countries, there is a national tariff of fees to which each patent attorney in the country subscribes, and these tariffs may change with little advance notice). It may be advisable to obtain an up-to-date estimate from the foreign associate of the fees to be expected, before proceeding. We usually have ball-park figures readily available for most countries.

Depending upon the number of countries in which a patent is sought, it may be less costly at the outset to file an international application pursuant to the Patent Cooperation Treaty than to file several different applications in a number of countries. However, eventually it is necessary to convert the international application into a number of separate patent applications, one for each country. For example, a "European" patent application can be filed to cover many European countries; such an application is examined and prosecuted in the European Patent Office in Munich, and then is transformed into a conforming series of national patents that will have effect in a number of designated European countries. A British patent may be registered in some of the remaining British dependencies. But at present, a separate patent for each country must usually be obtained in order to protect the invention in that country. For instance, a separate patent is required in both Canada and the United States to protect an invention in these two countries.

The Patent Co-operation Treaty ("PCT"), enables a patent applicant to file a single application in a designated international receiving office and to designate, in the application, any number of the member countries of the PCT. The Canadian Patent Office qualifies as a receiving office. Some months after filing, the PCT application is separated into individual national applications for each designated country. The cost of preparing and filing an original PCT application, including official fees, is usually in the range of \$14,000 – 16,000.

Despite this high initial cost, if patent applications are to be filed in a number of countries, a substantial saving may be achieved through the PCT. Please consult us for further details. Note that a PCT case can be filed within one year of the first-filed case, just as national applications in foreign countries can, with the benefit of the priority date of the first-filed application. So, for example, a U.S. case could be filed first, at, say, a cost of

\$10,000, and a PCT case covering most other countries of interest (including Canada) could be filed almost a year later at a cost of, say, \$4,000-9,000.

### **Maintenance Fees**

Most countries, including Canada and the U.S., charge annual renewal fees during the pendency of the patent application or throughout the life-time of the patent, or both. These fees vary considerably from country to country and may also depend on the status of the patentee or applicant. Budget roughly \$800 per country per year, beginning the second year after the first filing.

### **Secrecy**

It is better to avoid any use, sale, offer for sale, disclosure or other publication of the invention until after a patent application has been filed. For filing in many countries, this is an absolute necessity.

Generally, there is no right to sue an authorized manufacturer, vendor or user of the invention until the patent is granted. Thus, there is good reason to keep the invention secret until after the patent grant. However, there are frequently offsetting business reasons for early introduction of the invention into the marketplace. No clear answer can be given that would be applicable to all situations. Legal considerations must be balanced against business considerations in each case to decide whether to publicize the invention before or after the patent has been granted.

In Canada and the U.S., a patent application is usually laid open to inspection of the public 18 months after the filing date or after the priority date, whichever occurs first. The Patent Act permits a patentee to recover reasonable compensation for any damages sustained by the patentee after the application has become open to the inspection of the public and before the grant of the patent, provided that a patent is eventually granted on the application. Accordingly, once the application has been laid open to public inspection at the Canadian Patent Office, the invention is, to a certain extent, no longer a secret (although it would still presumably not be widely known to the members of the public). The danger of publicizing the invention after the application is laid open to public inspection is clearly reduced because of the right to recover reasonable compensation provided in the Patent Act.

**For Further Information, Please Contact:**

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CANADA'S INTELLECTUAL PROPERTY AND TECHNOLOGY LAW FIRM

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## SEARCH LIMITATIONS

The object of retaining us for searching is to, for a reasonable expense, evaluate the probability that the searched subject matter is novel and therefore perhaps entitled to patent protection. The search of the U.S. Patent Office provides a good review of a vast collection of patents. However, it is possible that other relevant disclosures exist elsewhere or have not yet been published or issued to patent. Patent searching can never be exhaustive, and there is always a possibility that further searching might locate even more relevant references and those already located. The Patent Office and the courts are entitled to consider any prior publication of public use from anywhere in the world when considering the patentability of an invention. While every reasonable effort was made to locate the relevant references, please note that searching prior art references is not an exact art and is limited by the integrity of the United States Patent Office records and other information not readily available at the time the search was conducted. Moreover, if a patent application is filed for your invention, a patent examiner may locate more pertinent prior art which could impact on the patentability of your invention.

It should also be noted that the existence of a prior patent or publication is just one factor which may prevent or restrict the right to obtain a patent. That right may also be restricted by prior use or sale of the invention (whether by the prospective applicant or by others) or prior knowledge by others.

Lastly, not being exhaustive, our search cannot be relied upon to decide whether, in using, making or selling the alleged invention, an existing patent might be infringed. Such "infringement" searches are more comprehensive (and therefore more expensive) than the "patentability" search which we are conducting. If the question of infringement requires investigation an "infringement" search should (due to the potential exposure to a law suit for patent infringement) be conducted separately in each country of concern.