Canadian Intellectual Property Office
An Agency of Industry Canada

Office de la propriété intellectuelle du Canada
Un organisme d'Industrie Canada

JOHN THOMSON

Discussion Leader's Guide

PATENTS INDUSTRIAL DESIGNS COPYRIGHTS TRADE-MARKS

Canada

CIPO OPIC

Association of Canadian Community Colleges

Association des collèges communautaires du Canada

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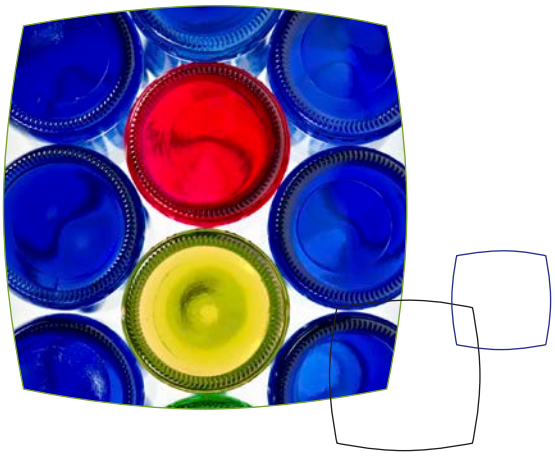
How to market an invention

A. CASE STUDY SUMMARY

John Thomson is an entrepreneur and graduate of a community college. He owns and operates a glass recycling business.



John has invented a machine — the SuperSorter — that sorts glass by colour before it is crushed and recycled. Sorted glass is more valuable than unsorted glass. Sorting glass by hand is labour intensive and expensive. John's invention will make the glass-sorting process cheaper and increase the profits for his business.

John designed the SuperSorter to fit on the glass crushing machine that he purchased from a Danish company, EcoCrusher Ltd. However, the SuperSorter could work on other glass crushing machines.

John would now like to commercialize his invention. He is seeking advice from the Office of Applied Research at his former community college on the best options to protect and then commercialize his invention.

B. LEARNING OBJECTIVES

At the end of the case study exercise, the students will be able to:

1. Explain the difference between trade secret and patent protection.
2. Explain the benefits of registering a trade-mark.
3. Explain why a non-disclosure or confidentiality agreement is required and the impact of disclosure on patent rights.
4. Explain the requirements for patent, trade secret and trade-mark protection.
5. Apply their understanding of trade secret and patent protection and trade-mark registration requirements to the facts presented in the case study.
6. Justify the best intellectual property (IP) strategy — patent protection or trade secret or trade-mark or a combination.

7. Explain the difference between a license and an assignment.
8. Evaluate the commercialization options available to John;
9. Design a commercialization strategy for John to follow and justify the chosen strategy.

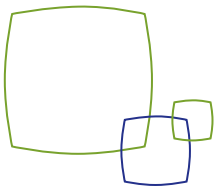
C. CASE PRESENTATION GUIDELINES

The purpose of this case study is to introduce students to the basics of IP protection and managing IP assets. The same facts may be used for other issues, such as drafting business plans, asset valuation, manufacturing scale-up, etc. These issues are beyond the scope of this case presentation guide, but may be developed by instructors with a greater business focus. Instructors should feel free to add questions or to expand on the discussion to represent specific areas of interest or expertise.

While most case studies in this series may be presented in 90 minutes, this one is based on facts that cover two inter-related but separate areas — IP protection and commercialization. It is recommended that the case be presented over two sessions, one on the first set of questions on the mechanics of patenting and trade-mark protection (what, when, where, why and how) and the second session on commercialization strategies. Note that the questions on trade-mark may be excluded if there is concern that the session will run too long; however, that should be indicated to students when the material is sent out prior to the workshop.

In the week before the case study is to be discussed, students will receive a copy of the *John Thompson — How to market an invention* case study. They will also be directed to the Canadian Intellectual Property Office (CIPO) website to review the presentation *An Introduction to Intellectual Property (IP)* (www.cipo.ic.gc.ca/introip) and the case study video (www.cipo.ic.gc.ca/john).

This can be done any time in the week prior to the case discussion, but it is suggested that the students start their case preparation with the presentation. During the preparation time, students should be encouraged to discuss the case with one another. The case also directs students to IP PANORAMA™ [1] modules (ww.ippanorama.com).



Over the following week, the case can be presented by yourself or a guest lecturer. CIPO has a pool of trained discussion leaders that are available upon request. The discussion leader will lead the discussion, ask the prepared questions, draw out discussion from the students, answer other questions as they may arise, and generally manage the discussion process.

[1] IP PANORAMA™ is a user-friendly e-learning product on intellectual property that was jointly developed by the Korean Intellectual Property Office (KIPO), the Korea Invention Promotion Association (KIPA), and the World Intellectual Property Organization (WIPO).

A general outline of the class presentation structure is as follows:

1. Introduce the guest discussion leader, if applicable.
2. Open with a general overview of and questions about IP.
3. Provide a brief overview of the case (you can use the John Thompson video).
4. Ask the prepared questions and draw out the discussion.
5. Ask additional questions, as needed, to ensure students have an understanding of the case material.
6. Conclude with asking the students to complete the evaluation questionnaire, if applicable.
7. Summarise the take-home messages for students.

When discussing the case with the students, there are a number of questions that you can ask to get the discussion started. For example:

- What are the relevant facts in this case?
- What resources did you use in preparing this case?
- How would you define IP?
- What are the different types of protection you can seek for IP?
- Do you have any IP protection if you don't formalize it?
- Why would you seek a patent? What rights will this give you?
- Why would you register a trade-mark? What rights will this give you?
- Where and how do you get IP protection?
- What is the timeframe within which you have to make an application in order to get IP protection?
- Who can you go to when you need IP advice?
- Who handles Canadian IP jurisdiction matters?

Detailed information and an outline on preparing for and leading a case discussion are available in the document *General Reference for Discussion Leaders* that can be obtained at casestudies@ic.gc.ca.

NOTE: The facts described in this teaching case are fictional and not based on any true case. Although the principles relating to patents are correct, references to particular companies and processes are purely fictitious and should not be relied on as actual engineering or manufacturing processes.

D. MAIN FACTS AND ISSUES

What are the main issues raised by this case? What facts address those issues and what other facts may we need to know? (15 to 20 minutes)

SESSION 1: On patenting, trade secret and trade-mark protection

- Is John's SuperSorter invention patentable? Does the SuperSorter meet the patent requirements?

The basic minimum requirements for patent protection are:

- **Subject matter**: the invention must fall into a patentable class of things.
- **Novelty**: the invention must be new.
- **Non-obviousness**: the invention must involve an inventive step.
- **Utility**: the invention must be capable of industrial application.
- **Enablement**: the inventor must disclose enough information to allow a person skilled in the art to practice the invention.

All of the major patent regimes include these five requirements in one form or another. The subject matter requirement is usually a threshold consideration, after which a patent application must meet the other four requirements. Countries may interpret these requirements slightly differently which impacts on the scope of rights granted.

- The Office of Applied Research advised John to keep the invention secret. Why is this important if John intends to patent? Why is this important if he does not intend to patent?
- Why did Ms. Jeffries at the Office of Applied Research insist on a formal confidentiality agreement (also known as a non-disclosure agreement) with John?
- In what countries can John patent his invention? In what countries should he patent his invention, and how should he decide? What do we need to know about the patenting process? The same questions apply to registering a trade-mark.
- How much will it cost John to patent his invention? How much will it cost him to register his trade-mark? How can he find out so that he can develop a budget?
- Where can John get more information on patenting and trade-mark protection?

SESSION 2: On commercialization

- What are John's options for commercializing his invention? What role will patents play if he chooses this option?
- What role will the Office of Applied Research play in the commercialization process?
- What should John consider if he decides to develop his own business making and selling SuperSorters?

- What should John consider if he wishes to license his SuperSorter invention? Whom should he license it to and for how much?
- Where can John get more information on commercialization?

E. CASE QUESTIONS AND ANSWERS

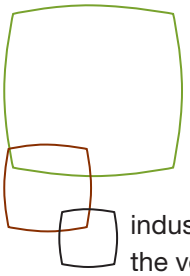
The following are specific questions that the students have been asked to review and answer. After each question are points for consideration to help with the discussion.

Questions on patenting and trade secret protection

1. Can John's invention, the SuperSorter, be protected as a trade secret and what are the costs and benefits of that option?

A trade secret grants rights over information that is treated as confidential by a company or other organization. The most famous and closely guarded trade secret in the world is the recipe for Coca-Cola. Trade secret rights translate into the ability to sue in court for a breach of confidentiality, for example, if an employee gives the confidential information to a competitor. The lawsuit entitles the holder of the trade secret to a remedy, usually in the form of monetary compensation for the harm caused by the wrongful disclosure of the secret information. In Canada, the law on trade secret protection is complicated and developed by the courts, unlike patent law where the rights are granted and protected under federal legislation (the *Patent Act*).

Trade secrets are normally used to supplement other IP rights, such as patents. Retaining trade secrecy for some facets of innovation, while patenting others, can help position an innovator as "the knowledge leader" leaving competitors in catch-up mode. Trade secrets can be used to protect technical information and know-how during research, development and testing stages of technology development.



Because trade secret protection is of lower cost than patent protection, it is often used in industries where the life cycle of the technology is short. That is likely not the case here, but, at the very least, John should retain his invention as a trade secret until he decides whether or not to patent the invention, because early disclosure may end his ability to patent the invention (see Question 2). His decision on when to patent will depend on a number of factors.

The problem with trade secrets is that it can be very difficult to keep information secret for an extended period of time. Certainly, once the SuperSorter is on the market, any competitor could reverse engineer the machine (work out how to manufacture and operate it) without direct access to confidential information. John would have little legal recourse against a competitor that did so. Usually trade secret protection is not strong enough for an invention that can be easily reverse engineered, such as a machine.

To insure secrecy about the SuperSorter, either to protect as a trade secret or to guarantee that enabling information about the invention is not disclosed prior to the filing of a patent application (because of the requirement of novelty), it would be advisable for John to make his employees sign a confidentiality or non-disclosure agreement.

Confidentiality/non-disclosure agreements generally address the following issues:

- the parties;
- the nature of the confidential information;
- the length of time that a receiving party has to evaluate the confidential information;
- the return of the confidential information;
- the obligation of confidentiality (the standard of care that must be taken with the confidential material, e.g. reasonable or best efforts);
- limits on use of the confidential information;
- the length of time information must be kept confidential; and
- other standard clauses may be included such as issues of warranty, remedies, whose jurisdiction's law govern, and dispute resolution mechanisms.

One suggestion is for discussion leaders to provide students with an example of a confidentiality/non-disclosure agreement. These may be available from the Office of Applied Research or online.

2. Why did Ms. Jeffries warn John not to discuss his invention with anyone?

One of the patent criteria is novelty. Disclosing the invention before filing a patent application may therefore impact on John's ability to patent, because the invention would no longer be new. "New" means not previously in existence.

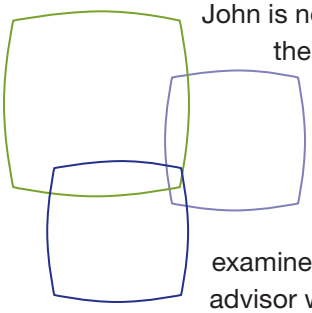
In some countries such as Canada and the United States there is a grace period. This means that an inventor can still file a patent application up to 12 months after the first public disclosure of the invention. In Japan and in Europe (European Patent Office), the grace period is six months with stringent conditions. However, in other countries, such as the United Kingdom and Germany, there is a requirement of "absolute novelty." This means that any disclosure of the invention anywhere in the world before the first filing of a patent application to establish a priority date is fatal to the application in those countries.

What is considered "disclosure" also varies between countries. For example, in Canada, a disclosure that starts the clock running must be "enabling", such that a person of ordinary skill in the art can work the invention. In the United States, merely making available for sale a product which embodies the invention constitutes disclosure that starts the clock running. Therefore, the best advice when seeking patent protection in multiple countries is to file a patent application first and disclose later. Because of the legal uncertainty of the matter, many IP professionals avoid using a grace period.

3. How would John determine if the SuperSorter is patentable — does it meet the criteria of novelty, utility and ingenuity? Is a prototype sufficient to obtain a patent?

Patents give rights for their holder to exclude others (mainly competitors) from selling, using, and making the invention for a set period of time — usually 20 years from the priority filing date. Because patents give rights to exclude, they are often thought of as negative rights — the rights to prevent others from undertaking certain activities. Note that the inventor does not have the positive right to sell, use or make. For example, these may be limited or prohibited by other laws or regulations. The priority date is extremely important because it starts the patent rights clock ticking and is the date at which the patent criteria are assessed. To be patentable, John's invention must meet the patent criteria of novelty, utility and ingenuity. This latter requirement varies the most between countries and is known as "non-obviousness" in Canada and the United States and as "inventive step" in Europe and Japan.

From the facts and the background checking done by John, the SuperSorter may meet the patent criteria — it certainly seems to be useful and his idea appears inventive. However, it is impossible to be certain about novelty and inventiveness, and important to be cautious: the invention looks novel to John, but that does not mean that it has not been previously disclosed by someone else or that it would have been obvious to a skilled person in the same field (the test for ingenuity). This is especially true in an environment where John is not regularly exposed to the "state-of-the-art" as he would be if he worked within the research and development department of a large company or at a research institution.



John's advisor on patenting will suggest that he employ an expert patent search company or patent agent to conduct "prior art searches" before investing extensively in the patenting process. Even so, it is quite possible that patent examiners in various countries will uncover prior art in the field that John and his patent advisor were not aware of.

To secure a patent in a country, John will need to convince the patent examiner in that country that his invention meets the following patent criteria:

Novelty

"New" means not previously in existence. It is determined by the national patent office and relies on a search of prior art. Prior art means publicly available disclosure prior to the patent application filing date. It may be used to challenge validity of a patent.

Utility

- U.S.: Is the invention useful for the described purpose?
- Canada: Does the invention work for the purpose for which it was intended? An invention could work but if it does not do so the way it was designed and intended to, then it may not have the desired utility. An inventor must be in a position to establish utility at the time the patent application is filed, either through demonstration or by sound line of reasoning supported by evidence.
- A prototype is helpful for establishing that the invention works (the "utility" requirement for patenting).

Ingenuity (non-obvious or inventive step depending on the country)

Non-obviousness invokes the expertise of a person skilled in the art, and asks whether such a person would have considered the invention to be obvious in light of the ordinary knowledge at the time specified by the jurisdiction:

- U.S.: Requires a consideration of knowledge existing when the invention was made.
- Canada: Requires it as of the claim date of the patent application (s. 28.3 *Patent Act*). Inventive step is similar to non-obviousness.
- European Patent Office: Defines inventive step as existing if an invention is non-obvious in regard to the state-of-the-art.
- Japan: There is no inventive step if the invention could have been easily made before the filing date by a person skilled in the art on the basis of pre-existing inventions.

Canadian legal decisions distinguish obviousness and novelty in the following manner: saying that an invention is obvious if a person skilled in the art sees it and says "anyone could have done that" whereas novelty invokes a reaction of "your invention, though clever, was already known" (*Beloit v. Valmet.* 1986 8 C.P.R. 3d). In other words, when performing a patent search, if all the necessary information pertaining to the SuperSorter could be found within one document, then this is a case where the invention would be considered to lack novelty. If however, all the information necessary to invent the SuperSorter could be found in a combination of documents (two or more), then it is a case where the invention may be obvious.

4. In what countries should John seek patent protection and how should he decide?

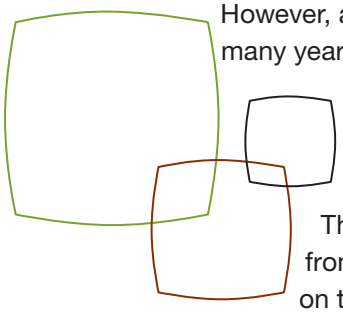
Patents are national in scope. This means that a Canadian patent only gives patent protection within Canada and a U.S. patent only gives patent protection within the United States, etc. Patents give negative rights for their holder to exclude others (mainly competitors) from selling, using and making the invention for a set period of time — usually 20 years from the priority filing date.

Patenting is expensive. While there are simplified procedures (see Question 5) for getting patents in more than one country, the cost of the application increases with every additional country. Not only will the costs increase with each extra country, there are also maintenance fees to be paid per country to keep the patent active for its full term. Therefore, John will have to make a business decision on where to patent. His decision will be determined by his budget for patenting and where his likely market for the SuperSorter will be. The latter will be based in part on his commercialization strategy.

A good strategy for John to follow is to reserve the right to file in as many countries as possible for as long as possible, while deferring large expenses and then to decide as the business develops what countries to pursue patents in. At a minimum, if John decides that his invention has worldwide application or there is a multinational company interested in licensing his invention, he should start the process of protecting

the SuperSorter in the main developed country markets of Canada, the United States, Europe, Japan and Australia, as well as emerging economies such as India, China, and possibly Brazil.

Besides considering where to seek patent protection, John should also make a strategic decision about when to file patent protection. The date the patent application is filed is a key reference point for the patent examination and establishes the beginning of the 20-year patent term. Considerations of the desired patent term and the possibility of being usurped by competitors should dictate when a patent application is filed. However, an invention that is in early stage development and will not reach the market for many years may benefit from a decision to delay filing.



The position of competitors is important because a delay in filing a patent means that a competitor working on an identical or similar invention may file an application first and thereby extinguish patent rights for others in the future. The other consideration is the length of the patent term, which now is 20 years from the filing date. It makes good business sense to have as long as possible left on the patent term after the invention is brought to market. A further consideration is that there may be some benefit to delaying to ensure that the patent application is a complete description of the invention (has all the necessary claims). It is not possible to add new subject matter to the application after the filing date. This is a common mistake made by individual inventors who try to add in new improvements as they move along the prosecution path of their application. Not filing a complete application can ultimately be very costly as the inventor will need to file new applications, resulting in more expenses.

5. Is there a process whereby John can apply for patents in many countries or does he need to apply in each country separately?

This question outlines the process for John to put his decision in Question 4 — that the SuperSorter has worldwide market potential — into action. Patents may be filed with national or regional offices and may be filed in more than one jurisdiction under the Patent Cooperation Treaty (PCT). The decision depends on commercial, strategic and cost considerations.

National Patent Offices: These act within the boundaries of a country and apply that country's patent law. In Canada, the national patent office is CIPO. Filing in a national patent office is the most cost-effective strategy for an invention which is only marketable in a small number of countries[2].This is because an international treaty, the Paris Convention, allows for priority filings amongst signatory nations, including Canada and most of its main trading partners within 12 months. This means that an inventor is given one year to file in other countries with a priority date of the filing date of the previously filed patent application (e.g. one filed at CIPO). This takes some of the pressure off deciding exactly what type of patent to file immediately while holding an early filing date for subsequent filings to rely upon — this is crucial in first-to-file patent systems (all countries, including the United States as of March 2013). Using the national patent office would be a good option if the SuperSorter had a North American market with possibly a few other key countries.

[2] The process of applying for a patent at CIPO as well as forms may be found at: www.cipo.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/wr00102.html

Provisional patent application: Another cost-effective strategy is to file a provisional patent application. Canada does not have such an application process, but the United States does[3]. It is a low-cost alternative or a preliminary step before filing a full patent application that sets an early priority date and may give time to generate interest in the invention or raise venture capital/investment. This option is often used by the research office of universities and colleges involved in technology or commercialization transfer activities.

A provisional patent application allows for a simplified filing process without any formal patent claims, oath or declaration, or any information disclosure (prior art) statement. It allows the term "patent pending" to be applied to the invention. A provisional filing should be as complete as possible and provide a written description and any drawings necessary to understand the invention.

Within 12 months, a regular application may be filed, but to claim the priority date of the provisional application, the complete filing must include at least one claim directly relating to the provisional filing.

Patent Cooperation Treaty (PCT): The third but most expensive option is to file a PCT application. A PCT application reserves for an inventor the right to seek patent protection in all countries which are signatories to the PCT at the time of filing (142 countries as of February 1, 2011). It sets the priority date in all countries as the date of the original PCT filing, which can be done at CIPO. PCT signatories include Canada, the United States, European countries, Japan and most other countries in the world. This option is a good one if John is unsure of the scope of the market for the SuperSorter but believes it could be global. It will give him the time to raise investor funds while establishing an early priority date.

The PCT is not a patent granting system, rather, it reserves the right to file with national patent offices. There is one payment for the PCT filing. Other payments for national patents may be deferred until the decision is made on where to patent.

When an application is filed under the PCT, John will receive an international search report, which checks the international application against other applications and patents, as well as an initial opinion on the patentability of the SuperSorter. He will then have the option of corresponding with an examiner about the possibility of amending his application, and, ultimately, he will receive an international preliminary report on patentability (IPRP). This is no guarantee of a patent. Local patent offices in the countries to which he subsequently applies reserve the right to conduct their own examinations, but some accept the results of the IPRP.

This means John will receive a fairly reliable indication of whether it is worthwhile to file for multiple patents in foreign countries before fees are due. He will have 30 months from the priority date (31 months in Europe) to request examination (entry into) at national or regional patent offices. In other words, within 30 months of the PCT filing, John must make the decision about the countries in which to seek patent protection. He would then request national entry with costs increasing with each country chosen.

[3] www.uspto.gov/patents/resources/types/provapp.jsp

Finally, the above three methods of filing a patent may be combined. For example, John could file a Canadian patent application (or U.S. provisional) and then use this filing date (priority date) under the Paris Convention to file a PCT, within one year of his Canadian filing date (or U.S. provisional filing date).

6. When discussing his invention with Ms. Jeffries or others, what steps should he take to protect his business and IP interests?

John should ensure that people he describes his invention to owe him a "duty of confidentiality," either because they have signed a confidentiality agreement or because they owe him a professional duty of confidence (lawyers, patent agents, accountants). Confidentiality agreements are standard business practice and confidentiality obligations are commonly included in employment and "independent contractor" agreements. They are relatively straightforward and inexpensive to adopt.

A confidentiality agreement with the Office of Applied Research is very important to preserve the "novelty" of John's invention and thus his right to patent the invention. It is a legally binding agreement which gives John the right to sue for damages if the confidential information is disclosed. Such agreements are best put into writing, which is part of good business record keeping. It would also be used as evidence in any legal action.

The two key weaknesses of confidentiality agreements are:

a. they are generally only enforceable against the parties who entered into the agreement; and

b. the damages that an innocent party can recover are limited to what the innocent party can collect from the breaching party. If the breaching party discloses very valuable information that causes the innocent party large losses, the innocent party may not be able to recover full compensation for the loss if the breaching party has insufficient funds (e.g. a bankrupt corporation or an employee).

Confidentiality/non-disclosure agreements generally deal with the following issues:

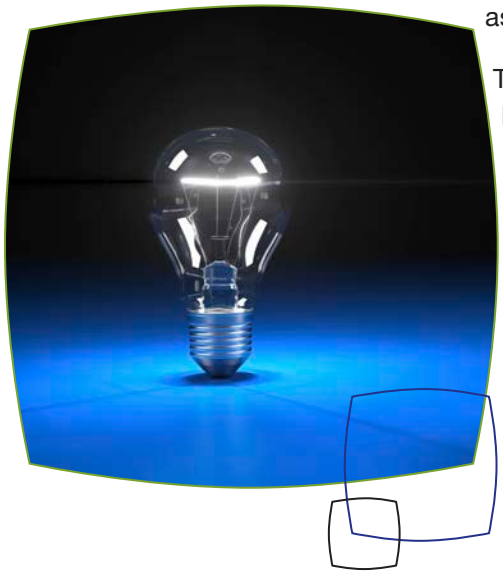
- the parties;
- the nature of the confidential information;
- the length of time that a receiving party has to evaluate the confidential information;
- the return of the confidential information;
- the obligation of confidentiality (the standard of care that must be taken with the confidential material, e.g. reasonable or best efforts);
- limits on use of the confidential information;
- the length of time information must be kept confidential; and
- Other standard clauses may be included such as issues of warranty, remedies, whose jurisdiction's law govern, dispute resolution mechanisms.

One suggestion is for discussion leaders to provide students with an example of a confidentiality/non-disclosure agreement. These may be available from the Office of Applied Research. There are also many examples available online.

Questions on trade-mark protection

1. *Should John consider seeking trade-mark protection for the name SuperSorter? If so, what are the costs and benefits of registering a trade-mark?*

Trade-marks protect words, symbols or designs, or a combination of these items used to distinguish the goods or services of one person or company from those of another. The words or phrases used cannot be clearly descriptive or deceptively misdescriptive of the wares or services identified with the trade-mark. A name such as SuperSorter and any symbols/logos associated with the name could be used as trade-marks. Trade-marks help reduce information and transaction costs by allowing consumers to estimate the nature and quality of goods before purchase. Trade-marks may be exploited for profit; they may be sold as distinct assets or may be licensed as part of a franchising deal.



There is no need to register a trade-mark. Trade-mark rights may be based on the legitimate use of the mark. In Canada and the United Kingdom, unregistered trade-marks are protected by the common law tort of passing off. Tort is a body of law that allows a person (including a corporation) injured in a specific way defined by law to obtain compensation from the person who caused the injury. The tort of passing off allows Trader A to receive compensation from Competitor B, if Competitor B causes injury to Trader A by passing their goods off as if they were A's. In the United States, the statute that covers trade-marks, the *Lanham Act* protects unregistered trade-marks, and fundamentally encodes the tort of passing off within a statute. The elements of the tort of passing off that must be proven for Trader A to win its case against Competitor B are:

a. That the name, mark and logo attached to Trader A has "goodwill."

b. That Competitor B created confusion in the market (made a representation that is likely to deceive the public).

c. That the misrepresentation by Competitor B damaged the goodwill of Trader A.

Note that the acquisition of the unregistered trade-mark requires use over time and its protection is limited to the location of the reputation (may be quite localized). Unregistered trade-marks are represented by the ™ symbol. Registered trade-marks, on the other hand, offer protection within a country, for example Canada, for 15 years and may be renewed indefinitely, so long as the trade-mark is being used. Besides the scope of protection, in most jurisdictions, registering a trade-mark gives additional protections. For example, in the United States, after five years of unopposed use, the registered trade-mark becomes "incontestable." This means that Competitor B, in the example above, cannot directly attach Trader A's mark in a trade-mark infringement suit, but must instead focus on showing a lack of a likelihood of confusion. Note that it is a common defense in any infringement action about IP to attack the validity of the IP (e.g. the patent is not

valid because it is not new, useful, or non-obvious; or the trade-mark is not a valid mark). Registered trade-marks are denoted by the symbol ®.

2. How would John go about registering his trade-mark and where?

John would register his trade-mark at CIPO. He would use a trade-mark agent to conduct an availability search (usually conducted by an expert search provider) to make sure that the trade-mark can be applied for. The agent would then draft a report and, if favourable, would prepare the application which would then be filed at the national trade-marks office (CIPO). When the office receives the application it does the following:

- Searches the trade-marks records to find any other trade-mark that may come into conflict with the one you've submitted and, if one is found, informs you of it.
- Examines the application for compliance with the requirements of the *Trade-marks Act* and Regulations and informs you of requirements which are not met by the application.
- Publishes the application in the *Trade-marks Journal*, which is issued every Wednesday.
- Allows time for opposition (challenges) to the application. Anyone may, upon payment of $750, file a statement of opposition with the Registrar. After considering the evidence filed by either or both parties, the Registrar decides whether to refuse your application or reject the opposition. The parties are notified of the decision and reasons why.

If no one files an opposition to the application, the mark is allowed. Upon payment of the registration fee and the filing of a declaration of use in the case of a proposed use trade-mark application, the mark is registered. The process is similar in other national trade-mark offices.

In addition, there is a similar streamlined international application process to the PCT — the Madrid Agreement on the International Registration of Marks of 1891 and the Madrid Protocol of 1989.

Under these treaties, after making a "home registration" or "home application", an individual or company may apply to the Bureau of WIPO for an international registration (www.wipo.int/madrid/en/). The Bureau passes the application on to the relevant national trade-mark offices (e.g. the United States and select European countries). If not refused in a limited amount of time, then the trade-mark is considered registered. There is also a Community Trade-Mark available for the whole of the European Union at the Office for Harmonization in the Internal Market (Trade Marks and Design) in Alicante, Spain.

Questions on commercializing the SuperSorter

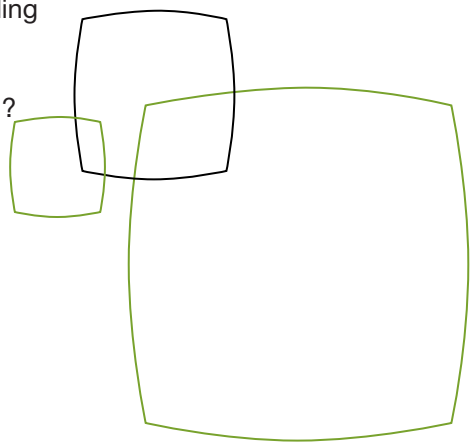
1. *Based on the facts, what are the main commercialization options available to John?*

For example:

a. Should John get into the business of making and selling SuperSorters?

b. Should John try to license his invention and to whom?

c. Are there any other options?



The main commercialization options available to John include:

- assign the invention to a company;
- license the invention to one or more parties;
- continue to make and use SuperSorters; and
- set up a company to make and sell SuperSorters.

John as the inventor of the SuperSorter will be the initial owner of the patent rights. To recap, these rights are the rights to exclude others from selling, using and making the invention. This is why patent rights are often referred to as a "bundle of rights" and that bundle may be divided in many ways.

There are two general ways to transfer some or all patent rights: assignment and licensing.

An **assignment**, in essence, transfers the ownership and control over the patent rights (the whole bundle) from the original owner (the inventor in the case of a patent) to another person or company. The person or company making the assignment is known as the "assignor" and the person or company receiving the assignment is known as the "assignee." Under the Canadian *Patent Act*, only an inventor or their legal representative (often the assignee) may apply for a patent. However, the assignment must be registered with the national patent office (CIPO). The assignment of rights is made in exchange for payment, usually in the form of royalties.

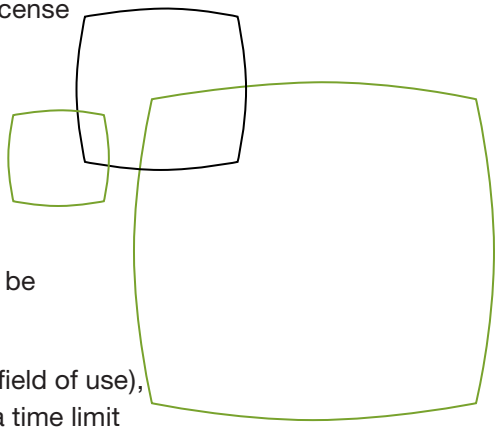
John could use an assignment to transfer the patent rights in the SuperSorter to his existing company, Frank's Hauling Inc. Frank's Hauling Inc. then in effect becomes the "owner" of the patent rights and may go on to commercialize the invention (e.g. through licensing some rights to other companies).

As an alternative, John could startup a new company and assign the patent rights to the new company set up specifically to commercialize the SuperSorter (e.g. through licensing some rights to other companies).

A **license**, on the other hand, is a grant of permission for a party to enter onto the physical property of another, that is, an agreement not to hold the party liable for illegal trespass. With respect to IP, a license is a promise not to sue a party for actions that would otherwise amount to IP infringement. The person or company giving the license is called the "licensor" and the person or company getting the license is called the "licensee."

Licenses may divide up IP rights such as the rights to make, use and sell an invention given by a patent. There are three different types of licenses: **exclusive**, **sole**, and **non-exclusive**.

- **Exclusive** does not mean that only one license will be granted, but that the licensor agrees not to grant other licenses that have the same rights within the scope or field covered by the exclusive license. For example, if an exclusive license has been granted to Company A to manufacture the SuperSorter in the United States for years, the same license cannot be granted to another Company B. However, EcoCrusher Ltd. may still receive an exclusive license to manufacture in Europe for five years.
- A **sole** license gives rights to one person or company but the owner of the patent also keeps the same rights. This means that the licensor and licensee may compete in the same market.
- A **non-exclusive** license means that the same IP rights may be licensed to many people or companies simultaneously.



Licenses usually consider things such as the type of use (known as field of use), where that use may take place (geographic scope or territory), and a time limit on the use. Note that these options are not all mutually exclusive. For instance, John could make and use SuperSorters to grow his own business in Canada, make and sell them in the United States, and license the invention to EcoCrusher Ltd. for use outside North America.

Alternatively, John could grant worldwide rights exclusively to EcoCrusher Ltd. to make, sell, and use the SuperSorter.

Licenses may be quite flexible and the terms may be open to some imagination and meet the interests of the parties. However, as for other types of contract, the terms of the license will depend on the relative strength of negotiating partners.

Licenses should clearly identify the subject matter, determine the extent of the rights or field of use (e.g. manufacture versus use), territory (e.g. worldwide versus one or more specific countries), limitations, and duration. Licenses should also clearly articulate development responsibilities, for example further research, seeking of regulatory approvals, joint development bodies, and development plans. The license may state specific milestones that must be met or the license terms are revoked. In addition to R&D milestones, if the invention is closer to market, there may be marketing obligations. Development milestones are very important to ensure that the invention is in fact commercialized and not shelved. For example, vacuum manufacturers may license patents for bagless vacuum cleaners to prevent their entry into the market because of their profits from selling vacuum cleaner bags.

Of course, one of the major issues is that of compensation for the license. Compensation may be in the form of an initial or upfront lump sum payment, may be in fixed installments depending on milestones, or may be continuing or minimum royalties (usually % of profits). Payments may also include other non-monetary benefits.

Other licensing terms may address which party has the obligation to protect and enforce the patent and bear the costs of patent infringement litigation. It should also address the issue of potential improvements on the patented invention, define these, state the rights to new IP and derivative technologies. In addition,

the license should consider whether the licensee (e.g. EcoCrusher Ltd.) may sublicense the inventions, and if so, under what conditions. This is especially important in innovative industries with frequent changes in corporate control (e.g. mergers and acquisitions).

Most licenses also address general issues such as representations and warranties (including the validity and maintenance of the patents), conditions for termination, jurisdiction, default and bankruptcy, and mechanisms for dispute resolution.

2. What will John need to consider to choose among these commercialization options? What information will he need?

John should gather as much information as he can about the patenting process and costs, about his commercialization options, and about his financing options and make a decision that he is comfortable with, and, from time to time, re-evaluate his options.

- As an entrepreneur, John is likely driven (at least in large part) by maximizing the amount of money that he recovers from his invention. However, even assuming that this is the primary consideration for John, there is no easy way to determine which route will maximize his return. Business requires judgments based on imperfect information.
- Making and selling SuperSorters is likely the most common commercialization strategy that occurs to inventive entrepreneurs, such as John.
- Assigning the patent over the SuperSorter to his existing company or a startup company will likely come with some advantages in terms of tax incentives for R&D and advantages in raising venture capital or other financing for further development.
- What strategy will best mitigate any financial risks and other legal liabilities — likely assignment of the patent rights — to his existing company or a startup company?
- EcoCrusher Ltd. is an obvious potential licensee. There may be other possible licensees, including competitors of EcoCrusher Ltd.

In determining how to commercialize an invention, the following questions should be addressed:

- Does John care if the invention remains proprietary? Can he make as much money even if others can adopt the invention?
- If John does care, can he patent it?
- If John can patent it, should he? Are there alternative, more cost-effective means to retain rights to the invention without patenting it?

The following considerations are relevant to patenting:

- How much will patent protection cost over the full cycle of patenting (drafting, filing, prosecution, maintenance)? When will John or his company as assignee incur these expenses?

The following considerations are relevant in choosing the most appropriate commercialization option for a patentable invention. These considerations, for an entrepreneur, generally come to a choice between selling

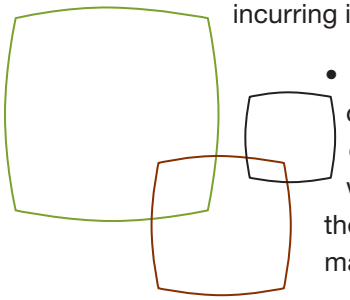
the products or services which embody the invention or licensing the invention to others to incorporate into their products/services:

- Are the likely customers individuals or commercial enterprises? What will motivate them to adopt the invention (reducing costs, enhancing profits, better functionality, status)?
- How valuable is the invention likely to be to the end customer? Does it save the customer money now? Are there alternatives to the invention, and if so what do the alternatives cost? Will users pay more for the invention than the alternatives, or do the alternatives establish a ceiling on the price customers are willing to pay for the invention? The most valuable patents are frequently improvements on existing technologies which reduce costs for the customer.
- How will the invention be marketed and sold? Is there a third party who, in one or more markets, can market and sell the product or invention more effectively than John or his company?
- Exit options: Is John's goal to grow the profitability of his business, or its attractiveness to a purchaser? If he can establish a market for his invention, is there an obvious potential purchaser? If so, is the potential purchaser local, national or global? How will the patent help the purchaser of the business make money?

F. TAKE-HOME MESSAGES FOR PARTICIPANTS

Professors or discussion leaders could develop a handout for students on take-home messages. Take-home messages for participants may include the following points:

- IP is a business tool — it is a means to an end, and not a goal in and of itself.
- A patent is not a product, and a patent does not generate sales. Patenting is an expense worth incurring if the likely return exceeds the cost.



- The ends for an entrepreneur are usually "to make money" either from operating a business or selling it. The value of a business, both in terms of operating profits and the value to a potential purchaser, usually depends on whether it has a "sustainable competitive advantage." A patent has value when the increase in value of the patented invention exceeds the cost of acquiring and maintaining the patent.
- A confidentiality/non-disclosure agreement is important to protect the invention and its patentability when discussing it with others (including companies and technology transfer offices) especially prior to filing a patent application.
- A patent is a legal tool used in court to assert the patentee's rights, with the judge being the ultimate reader of the patent. For a patent to have any value, it must not only protect the inventor's invention but be drafted and claimed as broadly as possible to prevent others from designing around the patent and acquiring the benefit of the invention without actually infringing the patent. Sometimes this is just not possible. And the strength or weakness of a patent may not be known for years until such time it is litigated. However, a professionally drafted patent will help to strengthen the patent rights. While it is not difficult to draft patent claims that describe an invention exactly, it is difficult to

draft the patent claims such that they describe the elements of the invention and all possible variants or embodiments of those elements. The latter ensures the maximum protection for the patentee and requires considerable skill in the drafting of patent claims.

- Trade-marks protect words, symbols or designs, or a combination of these items used to distinguish the goods or services of one person or company from those of another. A trade-mark is a valuable business asset. Trade-marks may be exploited for profit; they may be sold as distinct assets or may be licensed as part of a franchising deal.

- Seek assistance in developing the best commercialization strategy (assign, license or create a startup). This will include legal, financial and business advice.

G. GENERAL REFERENCES

John Thomson's Video

- www.cipo.ic.gc.ca/john

On Intellectual Property

Canadian Intellectual Property Office

- www.cipo.ic.gc.ca

US Patent and Trademark Office

- www.uspto.gov

World Intellectual Property Organization

- www.wipo.int

European Patent Office and Database

- www.epo.org/patents/searching

On Technology Transfer and Commercialization

The Association of University Technology Managers

- www.autm.org

The Intellectual Property Handbook

- www.iphandbook.org