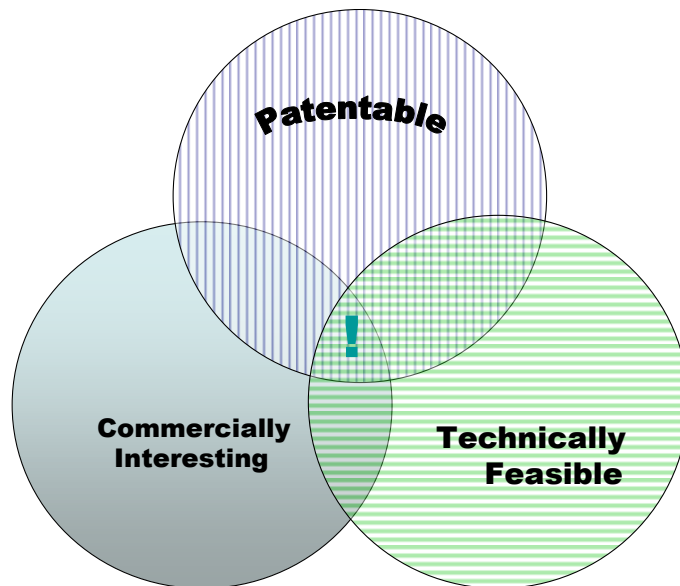


# BASIC COMPONENTS OF AN INVENTION PROTECTION PROGRAM



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# **BASIC COMPONENTS OF AN INVENTION PROTECTION PROGRAM**

## **INTRODUCTION**

A technology-based business needs an organized program for protecting its intellectual property (“IP”). Publicly traded companies have an obligation under Sarbanes-Oxley to protect significant corporate assets, and in our ever more knowledge-based economy, a company’s proprietary technology may be among its most valuable assets.

An invention protection program typically is just one part of a broader intellectual property strategy implemented to support the company’s business plan. This paper focuses on the protection of work product created by a company’s research and development personnel, as opposed to IP acquired by licensing or corporate acquisition or merger. The invention protection program outlined here deals with new inventions. An IP audit can be conducted to identify a company’s already existing IP.

Also, the invention protection program outlined here should be customized to the circumstances of a particular business and to the particular technology or development program, especially in the case of a joint development program with another company.

## **INTELLECTUAL PROPERTY IS A CORPORATE ASSET**

Each scientist, engineer and others whose work for a company involves research or development of technology, including, e.g., the development of new products or product improvements, new or improved processes, testing or production equipment, etc., likely is making inventions having potential commercial value to the company. Some of the inventions may be patentable, but whether or not patent protection is sought, the invention is a corporate asset.

The statutory or common law of most states provides that inventions made in the course of employment, at least in situations where the employee’s duties include research or development, are owned by the company. Nevertheless, it is prudent to have all employees sign an employment agreement when first hired, with a provision for ownership of inventions by the company. Where an employment agreement was not signed when the employee was first hired, carefully planned remedial steps are possible and should be taken.

Significant objectives of any invention protection program include recording and capturing the benefit of inventions (patentable and otherwise) of scientists, engineers and others working for the company. Recommended components of an invention program include:

- **Record keeping by R&D personnel**
- **Invention disclosure forms (IDFs)**
- **Periodic review of IDFs by company management**
- **Patent applications (as appropriate)**
- **Trade secret protections (as appropriate)**

### **RECORD KEEPING BY INVENTORS**

Regardless of the type of intellectual property, whether inventions, copyrightable works, trademarks, trade dress, etc., the first step is identification. The goals of keeping notebooks and other records of R&D work is to identify inventions made by company personnel, to aid the company in establishing ownership of inventions, and to support the preparation of patent applications when the decision is made to do so (see Invention Reviews by Management, below). The records should be complete, chronologically sequenced, and legibly written in permanent ink. As a practical matter, a regularly followed system for keeping notes and making reports is an important advantage in proving the authenticity of an invention record.

Each employee (including independent contractors, etc.) whose duties involve research or development of technology should be required to maintain a paper or secure electronic record of his or her work. One example is the traditional “laboratory notebook” with permanently bound, numbered pages. The notebook or log should include good detail as to the nature of the work, results (both positive and negative) of experiments, ideas for alternative or supplemental lines of investigation, etc. Ideally, records are entered daily, or not be less frequent than weekly.

Each page or electronic log entry should be read and witnessed by a colleague in the company. Again, this should be done regularly, at short intervals. The witnessing colleague should be someone other than a potential co-inventor of any invention set forth in the records being witnessed. A suitable legend at the bottom of each page would be, e.g., “Read & Understood,” with space for the witness’s signature and the date of signing.

The laboratory notebooks (or records of whatever format is used) should be collected and maintained in good order and in a secure location by a designated person.

## **INVENTION DISCLOSURE FORMS**

Notebooks, notes and reports do not substitute for the prompt submission of an invention disclosure form (“IDF,” aka Invention Record, etc.), and prompt IDF submission is especially important when research, engineering, and development work are not regularly recorded in notebooks and reports. A sample IDF is provided as Attachment A.

An IDF should be prepared by R&D personnel for each invention they consider to have potential commercial significance. It should be witnessed by a company colleague who is believed not to be a co-inventor of the subject matter disclosed. Even if the decision is made not to seek patent protection, the IDF serves to document the invention. The forms should be conveniently available electronically or in hard copy.

In general, encouragement from senior management goes a long way toward ensuring that R&D personnel take time to obtain the form and complete an IDF for each significant development. Many corporations institute an invention rewards program to add incentive to duty. Numerous variations exist in such programs. Typically, no reward is given merely for completing an IDF, but a reward may be given if a patent application is filed, if a patent issues, or both. In some cases, an additional reward is given for inventions that are commercialized by the company. The rewards vary widely and may involve, for example, an awards dinner held by a member of senior management or bonuses in amounts ranging from hundreds to more than a thousand dollars per inventor or per invention.

In one major corporation, it was determined that patent applications were filed on approximately one-quarter of the invention disclosures submitted by company personnel. An invention rewards program resulted in a significant increase in IDF submittals, with approximately the same percentage being found appropriate subject matter for patenting.

The IDF must, at least, provide a brief description of the invention and how it works and the identity of those principally involved in the work. It should be emphasized, however, that conclusions presented in an IDF, such as the identity of the inventor(s), are necessarily preliminary and subject to revision. Additional information sought by an IDF typically includes some or all of the following.

### **Who...**

- thought of the invention?
- did the work to show that the invention is practical?
- witnessed the work or the results?
- wrote the descriptions of the invention?
- received reports of the invention?

**What...**

- is the nature of the invention?
- problem is solved by the invention?
- means were used previously to solve the problem?
- materials were actually used to make the invention?
- equivalent materials would likely work?
- ranges of proportions, temperatures, pressures, and times would work?
- records support the answers to these questions?
- further work is planned toward development of the invention?
- rights, if any, does the government or do others hold in the invention?

**When (if ever) ...**

- was the invention completed?
- was the first prototype made?
- was the invention first disclosed outside the company? (And to whom?)
- was the invention first used commercially?

The information provided in an IDF may become important for any of several reasons. Most notably, the IDF is evidence of the company's ownership of the invention. Also, the information may be useful in determining novelty (and hence patentability) of the invention. Additional uses include:

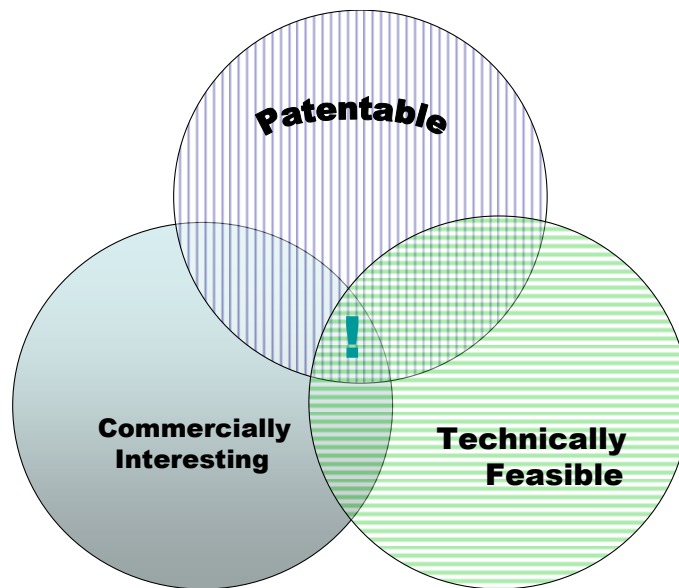
- preparation of a government report or contract report
- preparation of a patent application and subsequent prosecution of the application in the U.S. Patent Office and foreign Patent Offices, e.g., to distinguishing over prior art
- interference proceedings in the U.S. Patent Office to establish a date of invention prior to that of another applicant
- litigation.

Many companies have established a formal Document Retention Program or at least policies for determining which documents should be kept and for how long. It is best to adopt and follow such policies consistently. Documents such as IDFs and laboratory notebooks preferably should be retained for the life of any related patents.

## **INVENTION REVIEWS BY MANAGEMENT**

A particular invention or technology development may or may not be patentable. In either case, however, protection as a trade secret may be more appropriate than seeking a patent for the company. In some cases neither trade secret protection nor patenting is warranted. The company should establish a management committee to review IDF's and decide whether or not to seek patent protection for any significant inventions and, if not, whether or not to designate the invention for trade secrecy. Preferably, submitted IDF's should be reviewed regularly by the committee, e.g., monthly or quarter annually.

The review committee typically considers both the technical merits and feasibility of an invention and its potential commercial significance. Patentability can be evaluated at that time or later. In some cases a preliminary report is obtained for consideration by the committee as to the likely patentability of the invention. This may involve a preliminary search for relevant "prior art" and an analysis of the search results. The Venn diagram below illustrates these decision factors.



**Consider patent protection for inventions in the triple-overlap region.**

A key consideration in determining whether to seek a patent on an invention disclosed in an IDF is whether securing patent protection for the invention would support the company's business plan. An invention may be valuable because it will be commercially implemented by the company or because it is a potentially viable alternative which the company wishes to control.

In some cases, it may be commercially advantageous to secure patent protection for the purpose of licensing others.

Additional considerations in making the decision whether or not to seek patent protection for an invention include, for example:

- could infringement by others be readily detected?
- could the company avoid infringement of a patent obtained on the same invention by a competitor?

As noted above, it is generally advisable, before deciding to pursue patent protection, to have the company's patent attorney study the disclosure in the IDF and compare it to the prior art in order to determine whether the invention is likely patentable. Typically, the question is whether the scope of protection available for an invention is sufficiently commercially valuable to warrant the cost of preparing and prosecuting the patent application. If the prior art search shows that the complete invention has been patented or described in a printed publication before the date of invention or more than one year before the application can be filed, the invention is "anticipated," and a valid patent cannot be obtained.

More commonly, the search does not find full anticipation of the invention but does find related subject matter in the prior art. In such cases, the patent attorney attempts to predict whether or not the invention would be found to meet a second statutory requirement for patentability, namely, non-obviousness. The invention, at the time it was made, must not have been obvious to one having ordinary skill in the pertinent technology area, in light of the prior art identified by the search. There may still be embodiments of the invention, e.g., versions of the product or process including one or more particular features that are not obvious and are of sufficient commercial significance to be worth patenting.

Frequently, an IDF containing patentable subject matter will not support a worthwhile patent application because the desired scope of protection is broad, but the available examples do not substantiate the desired broad claims. Sometimes, regardless of the intended scope, the available data is inconsistent for reasons that have not been clarified. In such cases, consideration should be given to carrying out additional experiments to generate adequate data in order to cure the defects. If it is decided that such additional work is not justified, there arises the option of filing a patent application containing hypothetical or "paper" examples. It should be recognized, however, that a patent containing hypothetical examples can be challenged if the examples prove to be inaccurate.

Alternatively, a narrower patent application may be filed or the invention may be held as a trade secret.

## **PREPARATION OF PATENT APPLICATIONS**

When an IDF disclosure appears to meet the company's criteria for seeking patent protection, the company's patent attorney is instructed to prepare a proposed draft of a patent application for review by appropriate company personnel, including the inventor(s). Suitable drawings are prepared if the nature of invention permits illustration. The application must contain a description adequate to enable others to practice the invention, including a disclosure of the best mode, that is, the best way the inventor contemplates for carrying out the invention, and at least one specific example describing how to make and use the invention. If the best mode known at the time of filing the application is not set forth, the validity of any resulting patent may be challenged.

Patent applications filed with the US Patent Office typically require more than a year, commonly at least 2 years or more, to prosecute to completion. If the invention had not yet been publicly disclosed at the time the U.S. application was filed, the company has the option of seeking corresponding patents in other countries. Such corresponding foreign patent applications can claim the benefit of the filing date of the U.S. application if they are filed within one year of the U.S. filing date. It should be recognized, however, that the cost of securing patent protection outside the U.S. can be quite high.

At least a certain amount of time and assistance would be required on the part of the company's inventor(s) to support the patent application process. Likewise, the company's management should stay engaged in the process to determine periodically whether further investment in the patent application is appropriate to support the company's business plan. In certain cases a patent application can be abandoned early enough to avoid publication of the application by the U.S. Patent Office, possibly thereby preserving the invention as a company trade secret.

Banner & Witcoff would be happy to provide additional details and assistance to your company in developing an intellectual property strategy and, in particular, in setting up a corporate invention program as part of that strategy.

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ATTACHMENT A

# TECH CORPORATION

## Invention Disclosure Form

1. **Invention Title:**  
(short title that describes the invention)
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2. **Inventor's Names and Home Address, Work Phone Number, & Citizenship:**  
(include mailing and home address if different)

INVENTOR NAME	HOME/MAILING ADDRESS	PHONE	CITIZENSHIP

4. **Business Area:**  
(The area where the invention would be applicable for present or future commercial activity.)
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- 

5. **Date Invention Was First Conceived:**  
(Identify, as closely as possible, the date when a full version or embodiment of the invention was conceived. Attach any supporting documentation.)
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6. **Describe Any Third Party Agreements Relating to the Invention:**  
(Was this developed with an outside company or a subsidiary?)

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7. **Has The Invention Been Disclosed Or Offer For Sale To Any Third Party? If So, Provide Brief Information.**  
(Attach additional sheets, if needed.)

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## Description of the Invention

1. **Describe the general nature of the invention.**  
(Attach additional sheets, if needed.)

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2. **Describe the problem with the existing systems.**  
(Attach additional sheets, if required.)

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3. **Describe any other solutions to the problem that exist today.**  
(Attach additional sheets, if required.)

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4. **Describe the known problems with the existing solutions.**



(Attach additional sheets, if required.)

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**8. Describe the advantages of the invention.**

(Describe the invention's advantages, e.g., improved or new product functionality, product features, process improvement, etc. Attach additional sheets, if required. )

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Signature of Inventor

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Date of Signature

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Signature of Inventor

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Witness:

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Signature of Witness

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Date of Signature

\_\_\_\_\_  
Printed Name of Witness

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**Please submit to:**

**Company Reference No.:**

**Banner & Witcoff Reference No:**