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In today’s world, a company’s intellectual property is often its most valuable asset. This is true not only for technology-based businesses, but also for manufacturers, life science companies, financial institutions, healthcare organizations and many other service providers both large and small.

Intellectual property can provide a competitive advantage for its owner and can even create a separate revenue stream.

Many innovations that consumers and businesses use and rely on every day became commercially viable due to solid intellectual property protection. Intellectual property rights offer innovators and developers a time-limited exclusivity to use and profit from the fruits of their inventive and creative efforts. This exclusivity encourages innovators to create, which ultimately inures to the benefit of society as a whole.

This is your guide to intellectual property: the definitions, rationale and strategic considerations that will help advance the development of innovation into valuable assets for your organization.

The information contained in this publication does not constitute legal advice. If you need legal advice regarding intellectual property issues, please consult an attorney within an attorney/client relationship.

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TYPES OF INTELLECTUAL PROPERTY RIGHTS

Commonly referred to as IP in the global technology community, intellectual property protects inventions and creative efforts. There are several types of intellectual property rights:

Patent
• Right to exclude others from making, using, or selling an invention in the country where registered

Trade Secret
• Information that is not generally known, is valuable to a competitor, and safeguarded by its owner from disclosure and misappropriation

Trademark
• Any word or symbol that identifies and distinguishes products or services from those of competitors

Copyright
• Right to control the copying, displaying, distributing, and making of works derived from original works of art and authorship
PATENT OVERVIEW

It is important to understand what patent rights do and do not do:

**Right to exclude others**
- Patent rights **do** allow the owner to exclude others from making, using, selling, or importing an invention.
- Patent rights **do** allow the owner to prevent the importation of goods that infringe the patent.
- Patent rights **do** allow the owner to “block” competing technologies in a particular field.

**Right to use**
- Patent rights **do not** guarantee that the patent owner is free to make, use, or sell the invention. For example, if another inventor or company has intellectual property rights that cover a patented product concept, the other inventor can prevent the patent owner from taking the product to market, even though the patent holder holds a patent.
- Patent rights **do not** prevent others from “improving upon” a patented invention and obtaining patents on the improvements.
ELIGIBLE INVENTIONS

Is the invention a type that can be patented?

To be subject to patent protection, an invention must have some utility and fall within at least one of the following four categories:

- Composition of matter
- Machine
- Article of manufacture
- Process

Is the invention entitled to a patent?

To be entitled to patent protection, an invention must meet a two-part test:

1. Novel
   An invention must be novel (i.e., its features and characteristics must not already be described or embodied in the prior art).

2. Not Obvious
   An invention must not be obvious to a person of ordinary skill in the field.

In determining whether an invention is obvious, the Patent Office considers all the following:

- The scope of the prior art
- The differences between the invention and the prior art
- The skill of the typical person working in the field to which the invention relates

Examples of PATENTABLE INVENTIONS

- Mechanical devices
- Pharmaceuticals
- Chemicals and chemical processes
- Software-driven computers and certain software-controlled processes
- Manufacturing methods
- Medical treatment and diagnosis methods
- Useful articles presenting a new aesthetic appearance
PRIOR ART AND PUBLIC DISCLOSURE

Recent changes to the Patent Laws in the America Invents Act (AIA) have changed the scope of “prior art”—i.e., the body of knowledge that predates a given invention, and that may be cited against an application to patent it.

Prior art may include patents, patent applications, academic and technical journal articles, presentations and advertisements. It may also include actual devices and methods that predate the invention. Prior art can render an invention ineligible for patenting under two conditions:

- **Section 102(a)(1)** - the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the invention’s patent application
- **Section 102(a)(2)** - the claimed invention was described in an issued U.S. patent, or in either a published U.S. patent or an international (Patent Cooperation Treaty) application designating the U.S., that names another inventor and was effectively filed before the effective filing date of the invention’s patent application

However, Section 102(b) establishes a limited one-year grace period for certain activities by the inventor. Section 102(b)(1) exempts from Section 102(a)(1) any disclosure from an inventor/ joint inventor, or another who obtained information from an inventor/ joint inventor — provided such disclosure occurs within one year before the patent application’s effective filing date. That is, prior art against a given patent application is excepted if the disclosure is from the inventor(s) or someone who obtained it from the inventor(s), but all disclosures are prior art if they occur more than one year before the patent application’s effective filing date.

Similarly, § 102(b)(2) exempts from § 102(a)(2) disclosures appearing in published applications and patents if: (1) the information was obtained from the inventor/ joint inventor; (2) the information previously had been publicly disclosed by the inventor/ joint inventor (or another who obtained it from an inventor/ joint inventor) before the effective filing date of the prior art published application or patent; or (3) the information disclosed in the prior art published application or patent and invention’s patent application were owned or obligated to the same person, as of the effective filing date of the invention’s patent application.
Public uses or disclosures that are not included in the prior art are:
• Experimental uses
• Disclosures under obligation of a confidentiality agreement
• Disclosures made after a patent application is filed

See the appendix at the back of the guide for prior art flow charts.

TYPES OF PATENTS

Design Patent
• Covers the aesthetic appearance of a useful article, so long as the appearance is not dictated by its function
• Term: 15 years from the date of issuance

Utility Patent
• Covers a composition of matter, machine, process, or article of manufacture
• Term: 20 years from the filing date of the first patent application

KEY CONCEPTS TO REMEMBER
• A patent does not give the owner the right to practice the invention; rather it gives the owner the right to exclude others from doing so.
• It is critical to consider whether anyone else’s patent rights block the owner from practicing its invention.
• Patent owners can agree with other patent holders to share intellectual property rights, typically through licensing or other business arrangement.
• Patent application filing dates are now critical.
• Provide patent counsel with a complete description of the invention and its benefits, especially in electronic form, to expedite patent application preparation and filing.
• Control over public disclosures is now critical and should be controlled and corroborated.
**BENEFITS OF PATENTS**

Claiming intellectual property rights by securing a patent offers many potential benefits:
- Casts the owner as an innovator
- Becomes an asset of a business venture
- Can be licensed or sold to generate revenue
- Protects an investment in research
- Creates a marketing advantage
- Prevents competitors from claiming ownership or rights on your invention

**IMPLIED FOR NEW PRODUCTS**

Product development can be risky and expensive, especially medical or other technology products. Intellectual property rights can reduce the risk of investing in product development in two ways:

- IP rights can be sold or licensed
- IP rights can be used to defend a competitive advantage, giving the owner time to reach the market and achieve returns

Although an owner can market a product without claiming intellectual property rights, it is difficult to maximize profits from the invention or to engage business partners because others are free to copy and commercialize the invention.
FILING A PATENT APPLICATION

In the United States, there are two basic types of patent applications.

Provisional Patent Application
A provisional application is a preliminary utility patent filing that is effective for up to one year.

Benefits
• Positions the owner as the first inventor of an invention
• Lower-cost way to preserve and extend the right instead of filing a full patent application
• Allows time to evaluate and refine the concept

Concerns
• Disclosure of improvements are not covered by the provisional patent application and may cause loss of future patent rights
• Unless an additional filing is made, the provisional patent will not be reviewed by the Patent Office and will expire at the end of the term

Non-Provisional Patent Application
A non-provisional application is a full patent application that may be used for utility or design patents.

The non-provisional application places the application in the queue for examination and requires both:
• Full, formal documentation
• The non-provisional application filing fee

FOREIGN FILINGS
Intellectual property laws vary in foreign countries, but a few key rules generally apply:
• The patent is awarded to the first person to file the patent application.
• An applicant must have a registered filing date somewhere in the world no later than the date on which publication occurs.
• Some international treaties preserve the first U.S. filing date so long as international filings are made within a specified time period following the U.S. filing date.
INVENTOR’S NOTEBOOK AND COMMUNICATION GUIDELINES

An inventor’s notebook is no longer required to prove priority as only filing dates matter. In some circumstances however, an inventor may be called upon to show that a published disclosure was derived from him/her. It also helps patent counsel prepare a complete patent application for the invention.

What to record

• Description of the product design
• List of all component parts and the source of each
• Explanation of how to assemble/produce the product/perform the process
• Explanation of how to use the product or process
• Outline of experiments to prove the product or process works
• Outline of product improvements and optimization
• Records of technical discussions or experiments
• Explanation of abbreviations and special terms
• Persons having access to or having received the information
• Intended date of publication or first use of the invention

How to keep records

• Use ink and bound books
• Write in the past tense
• Sign and date each page
• Do not modify pages except by affirmative marking
• Staple any attachments to the book
• Do not leave blank pages
• Keep all original pages even if the concept changes
• Save all notebooks
• Preserve as much information as possible in electronic form
• Preserve corroborative electronic evidence of invention’s disclosure to third parties
PATENT DO’S AND DON’TS

What to Do

Know the competition
• Be aware of others’ patent holdings as well as similar and competing products on the market
• Understand relevant markets and how patents protect them

Keep good records
• Document the invention with an inventor’s notebook
• Get patent counsel involved early; provide complete information, in electronic form, to facilitate filing a patent application as soon as possible
• File additional patent applications as improvements are made

Enforce patent rights
• Mark all inventions with the patent number or “patent pending”
• Clearly notify others that your product is based on a patent or patent application (Notice of patent is necessary to recover damages)

What Not to Do
• Do not disclose or publish the invention prior to filing a patent application
• Do not discuss the invention without using a confidentiality agreement
• If you cannot file before disclosing or publishing your invention, file the patent application within one year of the date on which you first disclosed your invention, published its description, or first offered the invention for sale or used it commercially
TIMELINES

Multiple timelines affect product launch, including research and development, funding and adoption, among others. The intellectual property timeline is chief among those you should monitor.

- It is best to seek IP counsel between the imagining and demonstrating phases of development as a firm concept or design emerges
- Neither a working prototype nor formal drawings is required to begin the process

**INTELLECTUAL PROPERTY TIMELINE**

- **IMAGINING**
  - the commercial opportunity
- **INCUBATING**
  - to define commercial stability
- **DEMONSTRATING**
  - products and processes in commercial context
- **MARKET ENTRY**
  - to prove commercial viability
- **GROWTH & SUBSTAINABILITY**
  - to generate financial returns
BACKGROUND RESEARCH

After an initial search for similar technology, an attorney can conduct specialized searches for related technologies. There are several relevant searches, including the following:

State-of-the-art search
• Considers virtually all technology in a particular field

Patentability search
• Identifies the prior art in your field that may impact the ability to patent the invention

Freedom-to-operate search
• Uncovers existing patents that the invention might infringe
TRADE SECRET OVERVIEW

Any information that derives value from not being generally known or readily ascertainable and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

- Has value as long as it remains secret
- Has no expiration and infinite duration

Classic examples:
- Formula for Coca-Cola® beverage
- Colonel Sanders’ chicken recipes
TRADEMARK OVERVIEW

A trademark is a word, symbol, or device adopted and used by a manufacturer or merchant to identify goods/services and distinguish them from goods/services manufactured or sold by others.

In short, trademarks denote the source or origin of goods.

**A trademark may consist of any of the following:**
- A word or letter or a combination thereof
- A number or combination thereof
- An arbitrary choice of color if not functional
- A design or logo
- A cartoon character
- Distinctive packaging
- Configuration of the product that is nonfunctional

**TM** is used to denote common-law rights in a trademark.

**®** is used to denote a federally registered trademark.
DISTINCTIVENESS OF A MARK DETERMINES THE STRENGTH OF TRADEMARK RIGHTS:

**Fanciful or coined marks** are the most distinctive and the strongest (e.g., COMPAQ, ADVIL, KODAK, XEROX, McDonalds’ golden arches).

**Arbitrary marks** are well-known words used arbitrarily on unrelated products (e.g., CAMEL cigarettes, APPLE computers).

**Suggestive marks** suggest or subtly connote the good or service or a characteristic, feature or quality (e.g., CHICKEN OF THE SEA tuna fish, COPPERTONE suntan lotion).

**Merely descriptive marks** describe a quality, ingredient, character of product, purpose, function or use (e.g., CREME DE MENTHE chocolate mint candies, HOLIDAY INN motel) and are the least distinctive. Not registerable until, in the mind of the buying public, the mark has become primarily associated with the producer or seller and is no longer merely descriptive.

**NOTE:** Generic terms can never function as trademarks for items they define (e.g., hamburgers, cars). Marks can also become generic through misuse or insufficient protection and policing (e.g., aspirin, cellophane, super glue, escalator).
COPYRIGHT OVERVIEW

Copyright protects the expression of ideas, not ideas and facts themselves.

A copyright is a bundle of the following exclusive rights:
• Right to reproduce the work
• Right to sell or otherwise distribute the work
• Right to prepare new works based on protected works (derivative works)
• Right to perform the work publicly (such as a play)
• Right to display a work in public (such as artwork)

Copyright rights exist separate and apart from physical objects that embody those rights.

The fair use of a copyrighted work for purposes such as criticism, comment, news reporting, teaching, scholarship or research is not an infringement. In determining whether the use in any particular case is a fair use, courts consider the following factors among others:

• The purpose and character of the use
• The nature of the copyrighted work
• The amount and substantiality of the portion used in relation to the copyrighted work as a whole
• The effect of the use upon the potential market for or value of the copyrighted work
ADDITIONAL RESOURCES

For more information on intellectual property, visit the websites listed below:

- **Google Patents**, www.google.com/patents
- **Copyrights**, www.copyright.gov
- **Advanced Medical Technology Association**, www.advamed.org
- **Franklin Pierce Law School’s IP Mall**, www.ipmall.info
  *(links to 2700 IP resources)*
Flow Chart for 102(a)(1) and 102(b)(1) Analysis

Is the prior art a patent, printed publication, in public use, on sale, or, “otherwise available to the public”? 

- NO: NOT prior art under 102(a)(1)
- YES: Was the prior art disclosed before the effective filing date of the claimed invention?

- YES: Was the prior art disclosed more than 1 year before the effective filing date?
    - YES: Prior art under 102(a)(1)
    - NO: Was the disclosure made by 1) inventor 2) joint inventor or 3) by another who obtained the subject matter directly/indirectly from inventor or joint inventor? 102(b)(1)(A)
        - NO: NOT prior art under 102(a)(1)
        - YES: Before the disclosure of the subject matter, was it publicly disclosed by the inventor, joint inventor or another who obtained the subject matter disclosed directly/indirectly from the inventor or joint inventor? 102(b)(1)(B)
            - YES: NOT prior art under 102(a)(1)
            - NO: Prior art under 102(a)(1)

- NO: Prior art under 102(a)(1)
Flow Chart for 102(a)(2) and 102(b)(2) Analysis

Is the prior art a (1) US Patent or (2) A US Patent Application Publication?

- NO: NOT prior art under 102(a)(2)
- YES: Does the prior art have an effective filing date before the effective filing date of the claimed invention?
  - NO: NOT prior art under 102(a)(2)
  - YES: Does the prior art name another inventor?
    - NO: NOT prior art under 102(a)(2)
    - YES: Was the subject matter disclosed obtained directly or indirectly from the inventor or joint inventor? 102(b)(2)(A)
      - NO: NOT prior art under 102(a)(2)
      - YES: Before such subject matter was effectively filed, was the subject matter publicly disclosed by inventor, joint inventor or another who obtained the subject matter disclosed directly/indirectly from the inventor or joint inventor? 102(b)(2)(B)
        - NO: NOT prior art under 102(a)(2)
        - YES: Was the subject matter and the claimed invention, not later than the effective filing date of the claimed invention, owned by the same person or subject to an obligation of assignment to the same person? 102(b)(2)(C)
          - NO: Prior art under 102(a)(2)
          - YES: NOT prior art under 102(a)(2)