

FIG. 228.

Intellectual Property Guide

PATENTS, TRADEMARKS, AND COPYRIGHTS

Intellectual Property Guide

PATENTS, TRADEMARKS, & COPYRIGHTS

This Intellectual Property Guide is published by the North Carolina Small Business and Technology Development Center (SBTDC), a business and technology extension program of the UNC System. It is a resource tool for the independent inventor or small company with limited knowledge of how to develop new ideas into licensable patents or commercial products. In this guide, we answer the most common questions and provide guidance on commercializing an invention. In addition, this guide includes information about trademarks and copyrights.

Author:

The North Carolina Small Business and Technology Development Center (SBTDC)

Reviewers:

David Walker

Nicole Schwerbrock, PhD

Layout and Design by:

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The North Carolina Small Business and Technology Development Center (SBTDC) is a business and technology extension program of the UNC System that provides confidential advisory and educational services to small and midsize businesses. We are part of the nationwide America's SBDC network.

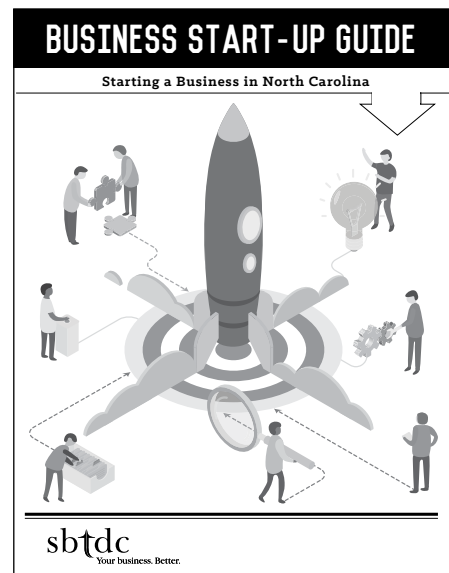
The SBTDC is funded by the UNC System in partnership with the U.S. Small Business Administration. With 16 offices across the state, each affiliated with one of the UNC System campuses, there's someone nearby ready to get you on track to a better business.

This guide, prepared by the SBTDC's technology commercialization team, is intended to help entrepreneurs and small business owners understand the value of intellectual property (IP) and the options IP affords.

In addition to this guide, we *strongly* encourage you read the SBTDC's *Business Start-Up Guide*, which is available online at <http://www.sbtnc.org/resources/publications/business-startup-guide/> and/or from your local SBTDC office or counselor.

This guide will help you navigate the business side of turning your idea into a marketable product. It reviews such topics as:

- Assessing yourself as a potential business owner.
- Determining concept feasibility.
- Examining critical issues and making important decisions.
- Legal considerations and requirements.
- Developing your business plan.
- Arranging your business financing.



The *Business Start-Up Guide* also contains a North Carolina business resource and information list.

Finally, we encourage you to contact one of the technology commercialization team members with any questions or concerns. We specialize in helping entrepreneurs build a strong business (bringing innovations from the idea stage to the market), discovering financing opportunities, producing competitive funding proposals, and accelerating success.

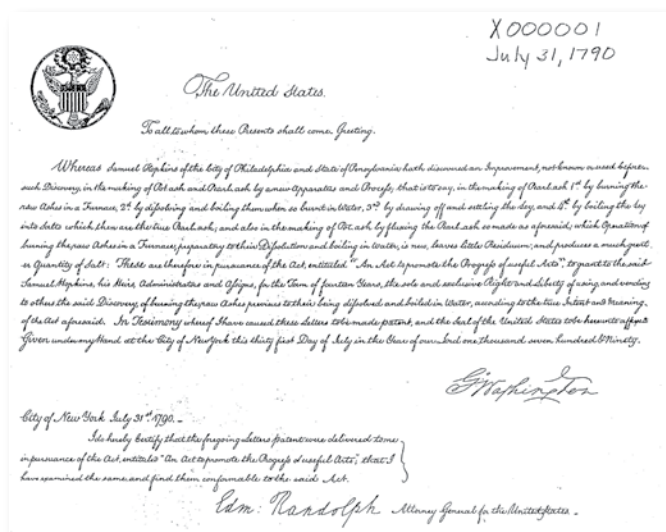
We are experienced, knowledgeable, and here to help!

Introduction

A short history of IP

The concept of IP goes back a couple thousand years—all the way to the Greeks. The notion of IP continued to evolve until the 1700s, when the Statute of Anne gave inventors and writers in Great Britain protection for their ideas for 14 years.¹ On April 10, 1790, the U.S. Congress passed the first Patent Act, which underwent many changes over the ensuing decades.² The idea was that the government wanted to ensure that inventors would have a chance to profit from their invention before others stole it from them.

About the same time, copyright laws went into effect to further protect original writers from unscrupulous people who would try to copy and sell the works as their own.



First US Patent, issued in 1790

As the industrial age grew in the US, lawsuits became more common as impostors pretended to be existing successful companies. The fakers would put out inferior products under a different company's name to gain sales for themselves while tarnishing the other company's reputation. This was one of several factors that led to the first trademark law in 1870, which was also modified over the ensuing decades.³ In the case of trademark law, the government sought to limit confusion in the marketplace; if a consumer purchased a product with a particular brand, a trademark gave that buyer a level of confidence that he or she was purchasing known goods or services from certain suppliers, and not impostors.

Today, IP protection is commonplace. According to statista.com, in 2017 there were 2,984,825 patents in force in the US.⁴ In 2018, the U.S. Patent and Trademark Office issued its 10 millionth patent (patent number 10,000,000 was for a specialized laser detection system and was assigned to Raytheon).⁵ According to the World Intellectual Property Organization (WIPO), in 2017 there were an estimated 43.2 million active trademarks registered worldwide.⁶ In recent years, the number of active trademarks has been increasing annually by almost 10%.

Using IP in business

IP protection may be available for your idea, and this guide can help you understand what kind of IP protection you may need to pursue.

Should you get a patent? If so, what kind of patent? Should you pursue a utility patent (e.g., the 3D printer)?⁷ Or a design patent (e.g., the iPhone)?⁸ Or should you keep the idea to yourself, as a trade secret (e.g., the formula for Coca Cola)?⁹

Remember that the fact that you were issued a patent does not mean your product will be a success. According to Forbes, 95% of the 2.1 million active patents “fail to be licensed or commercialized.”¹⁰ Getting the patent is only one of many steps an entrepreneur might take to successfully launch a new product.

You will also need to conduct research and plan on how to capitalize on your invention. Will you manufacture it? License it to multiple companies? Sell it?

Maybe you have a brand you are trying to protect. Is this best done by registering a trademark? You probably still have some protection whether you register a trademark or not, but is it enough? Should you register a word mark (like “Microsoft”¹¹ or “You’re in good hands with ALLSTATE”)?¹² Or a design mark (like the bullseye logo for Target stores)?¹³ Or a sound (like the Intel® tones)?¹⁴

There is a lot of information to soak up and a lot of questions that need to be asked before you can make a good decision about what your next steps should be.

Using this guide

This guide is meant to help you with those decisions by providing some basic information about IP and what you can expect if you decide to go down one commercialization path or another. It is, in many ways, a compilation of information from experts: those who are members of the technology commercialization team at the Small Business and Technology Development Center (SBTDC)]and a host of attorneys, industry experts, authors, professors, and others who are referenced throughout this guide.

We encourage you to read the passages of interest and, if you need advice, to **contact the technology commercialization team at SBTDC: <http://www.sbtdc.org/programs/tech/>**.

Of course, we can’t take the place of an attorney, and we do not provide legal advice or services. We can, however, certainly help you understand some of the basic issues in the area of intellectual property.

Intellectual property (IP) overview

IP in the United States and North Carolina

According to the U.S. Patent and Trademark Office, IP in the US contributes “more than \$6 trillion to, or 38.2 percent of, (the) U.S. gross domestic product (GDP).”¹⁵ This number is bigger than every other country’s entire GDP except China.

Every state contributes to the US worldwide IP leadership role. North Carolina is no exception. Entrepreneurs and small companies with innovative ideas in North Carolina are abundant. At the SBTDC, we work closely with these entities to help them commercialize their concepts. We have a good track record too; one indicator is the fact that 84% of recent small business innovation research (SBIR) award winners in North Carolina worked with the SBTDC.

IP is obviously extremely important to business, so it’s vital that entrepreneurs understand it. Below is a brief overview of the basic concepts of IP.

What is intellectual property?

Assets are things you own that have value. Money is, of course, an asset. So is any physical or tangible property that you own. Land, buildings, equipment, tools—these are all different kinds of property, and property you own can be an asset.

And, that includes *intellectual* property.

Simply put, IP refers to *ideas* that you own. Unlike a forklift or a car or a computer, IP is not a physical asset. It’s *intangible*.

Your idea might be an invention, a design, a way of doing things, a work of art, a brand or logo, a recipe, or any number of other concepts.

But, whatever it is, it belongs to you—you own it. It was your idea. It is a valuable resource that may bring you some kind of benefit. Your IP is an intangible asset.

Of course, assets need to be protected. You protect your cash by keeping it in the bank. You protect your buildings with alarms and property deeds.

And, you protect your IP as well.

According to the World Intellectual Property Organization, IP consists of creations of the mind (inventions, literary works, names, designs, etc.) that are used in commerce.

<http://www.wipo.int/about-ip/en/>

Four types of IP protection

There are four primary ways to protect your intellectual property:

IP tool	Type of work it protects
Patents	Inventions, methods, designs
Copyrights	Writing, idea expression (but not the idea itself), books, music, movies, etc.
Trademarks	A “mark”—that is, a word, phrase or symbol—that distinguishes one product, brand, or business from another
Trade secrets	Any valuable information that you don’t want others to know about

Each type of IP has applications in specific circumstances; sometimes a patent is appropriate, while in other situations, a trade secret might make better sense. A federal trademark registration might be useful in some situations, and a copyright may very well be needed in others.

It is important that an entrepreneur understand the differences and protections offered by each of these forms of IP. This guide is designed to help the small business person do exactly that.

Resources

- *Intellectual Property*, Justia: <https://www.justia.com/intellectual-property/>.
- The U.S. Patent and Trademark Office website offers specific information on patents and trademarks, two important types of IP protection: www.uspto.gov.
- The U.S. Copyright Office website offers information on copyrights: www.copyright.gov.
- The legal website nolo.com has a complete overview of trade secrets: <https://www.nolo.com/legal-encyclopedia/trade-secret-basics-faq.html>.

Patents

What: A right to an invention granted by the government.

Why: It keeps others from making, using, or selling the invention for a period of time.

Where you get it: The U.S. Patent and Trademark Office (USPTO).

Contrary to what you might think, a patent does not grant someone the right to make or use or work on an invention, but rather it prohibits others from doing so (i.e., “infringing”).

The law defines “infringement” as when someone, without the proper authority, “makes, uses, offers to sell, or sells any patented invention, within the United States, or imports into the United States any patented invention during the term of the patent.”¹⁶

Patent use

Most issued patents are owned by private entities. In the US, only about 4% of the patents issued between 2002–12 came from universities. In North Carolina, that number was slightly higher (5%).¹⁷

There are three kinds of patents:

Utility patent

Utility patents have been called “patents of invention.” This is the most common type of patent. A utility patent will cover a new process, product, or machine and/or some useful improvements to these.¹⁸ A utility patent can therefore provide very broad protection.

You will want to be aware of the following regarding utility patents:

- *They take a long time to issue.* The actual amount of time can vary widely, however, depending on the technological area, the complexity of the patent application, and a number of other factors. Usually, it will take between 2–3 three years to obtain a utility patent.¹⁹
- *They're expensive.* They can cost \$10,000 to \$20,000 or more (including attorney's fees), depending on a number of factors.
- *They last a long time.* A utility patent term is 20 years from the filing date.

Design patent

A design patent protects the appearance of something. A design patent generally consists of one or more drawings and is used to prevent someone else from making something that looks the same.

IP MYTH: PATENTS AUTOMATICALLY PROVIDE WORLD-WIDE PROTECTION

Each country has its own patent laws. A patent issued in the United States is effective in the United States. To get protection elsewhere, you need to file in that country.

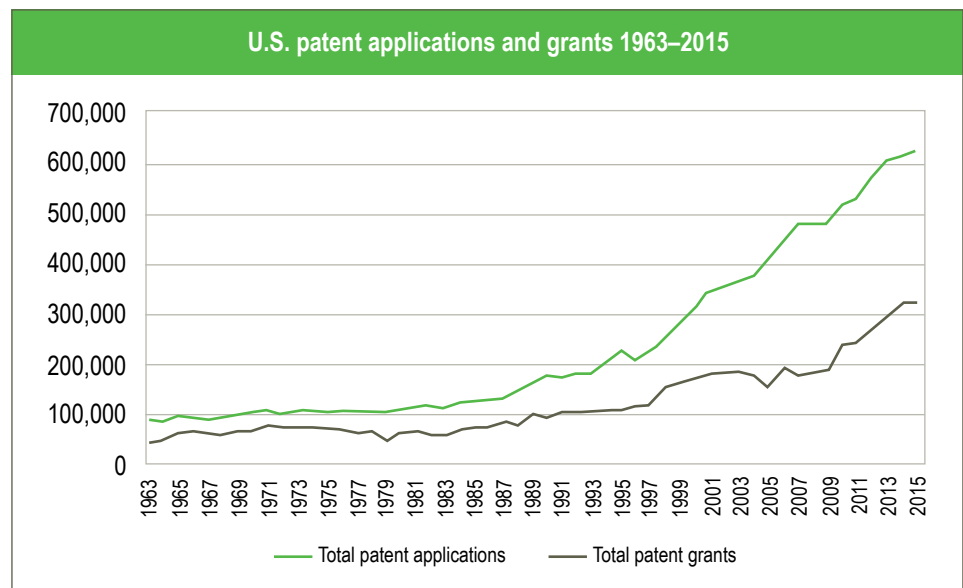
You will want to be aware of the following regarding design patents:

- *They don't take quite as long to obtain as a utility patent.* It varies, but usually the wait time is about 1–2 years.²⁰
- *They don't cost as much.* They usually cost a few thousand dollars if you go through an attorney.
- *They also last a long time.* A design patent term is 14 years from the filing date.

Plant patent

A plant patent protects plants—the kind that you find in a garden. It can be issued to someone to protect a new type of plant.

We will not discuss plant patents here, except to say that the term for a plant patent is 20 years from the filing date.



Patent pending

After you submit your application and pay your fees, you can use the term “patent pending” to inform your customers, competition, and anyone else of interest that you have filed your patent application with the USPTO.

Assignment

There is a provision for the applicant to assign the rights to the patent to another person or entity. This is an irrevocable transfer of the patent rights to the assignee.

An assignment is most often used when an inventor or group of inventors work for a company, university, or laboratory. The patent will list the individual inventor(s); the company, university, or lab will be listed as the assignee.

What may be patented?

In order to qualify for a patent, an invention has to have three elements:

It has to be novel. This means it has to be “new.” If the invention has been discussed on a website, written about in a paper, sold, offered for sale or otherwise made available to the public more than 12 months prior, the USPTO says it is *not* “novel” and cannot be patented.

It has to be useful. And that usefulness has to be specific, substantial, and credible. Also, it has to work.²¹

And, finally, it has to be non-obvious.

This can be the toughest, most ambiguous, and subjective requirement. The patent examination guidelines state that a patent cannot be granted if the idea or invention “would have been obvious . . . to a person having ordinary skill in the art to which the claimed invention pertains.”²²

When considering the “obviousness” question, ask yourself whether someone who is familiar with the area of the invention would have easily thought of the invention on his or her own.

Examples of things that *cannot* be patented

Laws of nature cannot be patented. This makes sense, of course. No one should be allowed to patent gravity, for example.

Physical phenomena cannot be patented either. This refers to things that occur naturally. For instance, you cannot patent the process of rust or an earthquake.

Nor can you patent an abstract idea, like adventure or communism.

How do I get started?

Prior art search

Find out if a patent for a similar invention has been:

- *applied for*
- *issued*
- *described in a publication or website*
- *offered for sale,*
- *sold, or otherwise previously disclosed.*

That disclosure and availability to the public is considered “prior art.” Prior art refers to the evidence that your invention was already publicly known before you filed your patent application.

The USPTO has a site that warns of invention promotion scams. These companies make exaggerated promises and claims about your idea in a scheme focused solely on getting your money. Read this:

<https://www.uspto.gov/sites/default/files/documents/ScamPrevent.pdf>

Here are some quick prior art steps you should take right away:

- *Google it.* Search stores and merchants that may be selling something similar. Check competitors, industry/trade publications, etc. Even YouTube videos on subjects related to the patent application have been considered evidence of prior art.
- *Search the USPTO database at uspto.gov.* A word search is easy to do but can be somewhat misleading and incomplete. Patents are assigned to classifications, and it is usually better to conduct a classification search.

Doing this yourself costs you nothing except time. And, if you find something, it will keep you from going forward with the next steps, which will save you thousands in attorney and filing fees.

If you come up clean, consider hiring an attorney or experienced patent agent to conduct a professional prior art search. It may cost \$2,500–\$3,000, but it could save a lot of money down the road.²³ They do this for a living and may be able to find something you could not.

However, beware of “free” searches and other scams. Some scammers will ostensibly do a “search,” find nothing, and then charge you to “help” with a patent and/or other service).

Market evaluation

Before you go down the expensive road of obtaining a patent, you should ensure that there is a viable market for your invention. Ask yourself some key questions:

- Does the product address existing needs?
- Will people really buy it? Conduct customer discovery; find out what real, unbiased potential customers think of your idea.
- Will you pay tens of thousands (maybe hundreds of thousands) of dollars to defend the patent from infringement? If you are *not* going to pay \$50K, \$100K, or more in court costs to protect your invention, why bother with a patent?
- There *may* be a genuine market-related reason to have a patent; in some cases, it might mean a huge sales boost and *could* be worth the expense.

Consider a provisional application

A “provisional” patent application (which consists of portions of a full application) may be filed quickly and comparatively cheaply. Filing a provisional application means you have 12 months to file a full application, and during that period, you can still say you have a “patent pending.”

IP MYTH: IP CREATED BY EMPLOYEES ALWAYS BELONGS TO THE COMPANY

It is vital that a business that is creating intellectual property has an existing agreement specifically detailing the agreed-to rights of any invention created by employees. This might be addressed in an employment agreement and/or an employee manual; consult an attorney.

If you need to get something on file soon, and you are not prepared to file a full application, a provisional patent application may be the way to go.

What does a patent cost?

Patent application fees

The USPTO lists the following common costs for a patent application:²⁴

	Regular fee	Small entity fee*	Micro entity fee**
Basic filing:	\$700 (paper) \$300 (electronic)	\$350 (paper) \$75 (electronic)	\$275 (paper) \$75 (electronic)
Search fee:	\$660	\$330	\$165
Exam fee:	\$760	\$380	\$190
Issue fee:	\$1,000	\$500	\$250
Processing fee:	\$140	\$70	\$35

*A “small entity” is an individual, a university, a nonprofit organization [501(c)(3)], or a business with fewer than 500 employees or affiliates.

** A “micro entity” is a “small entity” that meets certain other criteria (e.g., when the applicant meets certain gross income limits and has not been an inventor on four or more other patents, or where the applicant’s income is from a higher learning institution, etc.).²⁵

If you have more than 20 claims, additional fees may be due. Keep in mind, these costs can change at any time, so for a complete and up-to-date list, please visit the USPTO Fee Schedule on the following website: <https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule>.

Attorney fees

Most of the costs for a patent application result from attorney’s fees. The actual amount an attorney will charge is very difficult to predict. Some of the variables include:

- Different attorneys have different hourly rates.
- Prior art searches can be simple or complex.
- Some patents are relatively simple and can be completed fairly quickly, while others are more complex and can take more time.
- Responses to office actions from patent examiners can add more time and raise the costs.
- Drawing preparation costs can vary widely, etc.

The national average for attorney’s fees is \$250–\$275 per hour, with some high-quality attorneys charging as much as \$400 per hour. Hourly fees can vary geographically, too. In New York, a good patent attorney can cost as much as \$800 per hour.²⁶

Keeping this in mind, you can broadly estimate the costs as follows:

Type of invention	Examples	Attorney fees/filing
Relatively simple	board game; umbrella; retractable dog leash	\$7,000 to \$8,500
Minimally complex	power hand tool; lawn mower; camera	\$8,500 to \$10,000
Complex	simple RFID devices; cell phone	\$10,000 to \$12,000
Highly complex	MRI scanner; telecommunication networking systems; satellite technologies	\$12,000 to \$16,000
Software-related	Software, automated systems, business methods	\$16,000+

Just to reiterate, these costs can vary greatly. If the cost of your patent is higher than the range in the table this does not, by itself, represent a bad value. Note that the final cost of a difficult patent application that requires numerous amendments can be in the tens of thousands of dollars.

USPTO maintenance fees

There are additional fees to keep the patent active. As of June 2018, these fees were as follows:²⁷

	Regular fee	Small entity fee	Micro entity fee
Due 3.5 years after grant	\$1,600	\$800	\$400
Due 7.5 years after grant	\$3,600	\$1,800	\$900
Due 11.5 years after grant	\$7,400	\$3,700	\$1,850

Patent activity in North Carolina²⁸

According to the World Population Review, as of 2018 North Carolina was the ninth most populous state. However, in terms of patent application activity, it ranked 17th. Regarding the number of patents issued to North Carolina residents, our state ranked 20th out of the 50 states, plus the District of Columbia.

Invention promotion firms

The USPTO has a site that warns of invention promotion scams. There are companies that may offer to do your prior art search, draft your patent application, find licensees, conduct market research, and other services.

Investigate the company before making ANY commitments. There may be reputable firms offering these kinds of services. However, there are *definitely* many companies that will make false claims and conduct questionable “market research” in an attempt to get your money.

Generally speaking:

- Don't ask for a "free inventor's kit" from an ad.
- Investigate the company at the Better Business Bureau and the attorney general's office in the state where the company is domiciled.
- Look for deceptive sales practices (see the link from the USPTO below).
- Watch out for up-front fees. If they think your idea is so great, why would they not want to share the risk? Up-front fees (except retainers from reputable attorneys to conduct valuable legal work) are very, very common indications of scams.

We strongly encourage you to read the warning from the USPTO at this link: <https://www.uspto.gov/sites/default/files/documents/ScamPrevent.pdf> .

Resources

- *Design Patent Application Guide*, U.S. Patent and Trademark Office: November 2017. Retrieved from: <https://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/design-patent-application-guide>.
- *Founder's Handbook*, Hutchinson PLLC, Raleigh, NC: 2016. Retrieved from: http://oced.sites.unc.edu/files/2016/06/UNC_Founder_Handbook.pdf.
- *General Information Concerning Patents*, U.S. Patent and Trademark Office, Alexandria, VA: 2015. Retrieved from: <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents>.
- *Guide to Filing a Utility Patent Application*, U.S. Patent and Trademark Office: January 2014. Retrieved from: <https://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/nonprovisional-utility-patent>.
- Jassin, Lloyd J. *Trademark Basics*, copylaw.com, New York: undated. Retrieved from: http://www.copylaw.com/new_articles/trademrk.html. (Note: this attorney's site has additional information about other topics as well.)
- *Performance and Accountability Report*, U.S. Patent and Trademark Office, Alexandria, VA: 2018. Retrieved from: <https://www.uspto.gov/sites/default/files/documents/USPTOFY18PAR.pdf>.
- U.S. Patent and Trademark Office website: www.uspto.gov.

Trademarks

What: Protection for a word, phrase, symbol, or sound (i.e., a “mark”) that represents a product or a company.

Why: It distinguishes one product/brand/company from another to avoid consumer confusion.

Where you get it: In most cases, if you are the first to use the mark it is automatically yours, but you can register it with the USPTO (and there are benefits associated with doing so).

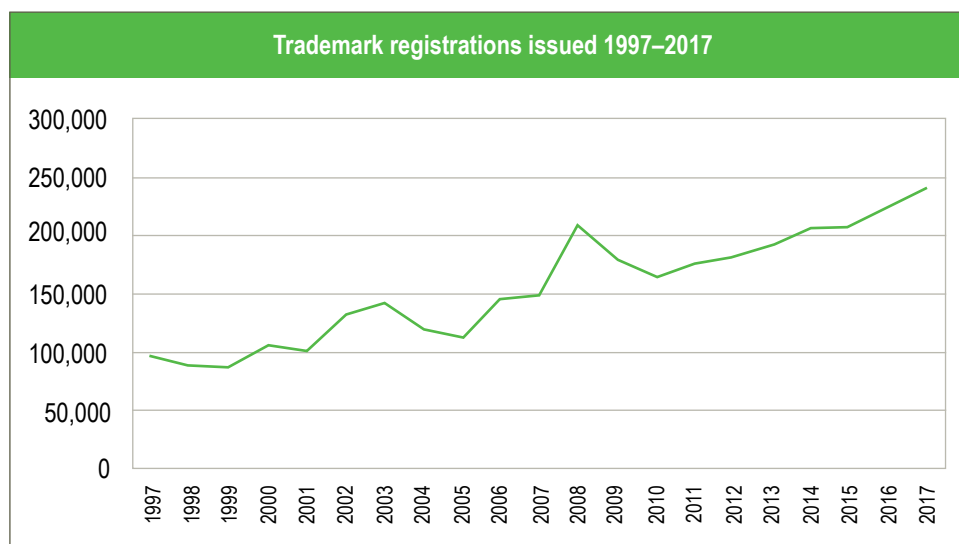
A trademark is a brand. It can consist of a word, symbol, phrase, or sound that represents a company or product. Trademarks avoid confusion in the mind of a consumer; they distinguish goods and services from each other.

Technically, there are two kinds of marks: a “trademark” (for goods) and a “service mark” (for services). For example, “HP” is a trademark for computers and printers, while “United” is a service mark for an airline.

However, most often the term “trademark” is used interchangeably to refer to both trademarks and service marks, so we will do so in this document.

Immediate effect

As soon as you use your brand (i.e., your company name, brand name, slogan/tag line, logo, etc.), you can let everyone know that your brand belongs to you by simply adding the designation “TM” to your mark. This is called a “common law mark.” There is no registration required, and you can put the “TM” on your company name, product name, logo, or slogan—anywhere your brand is identified.



Registration

You can register your mark with the USPTO, but it is not required.

However, there are some advantages to registering your trademark. These include:

- *You get a filing date*, i.e., this is the “constructive” date of first use.
- *You get evidence of ownership of the mark and the exclusive right to use it in commerce* for the goods or services specified in the registration.

- *You get the right to sue infringers* in federal court.
- *You can notify the U.S. Customs Service*, which can help block counterfeit products using your mark from entering the country.

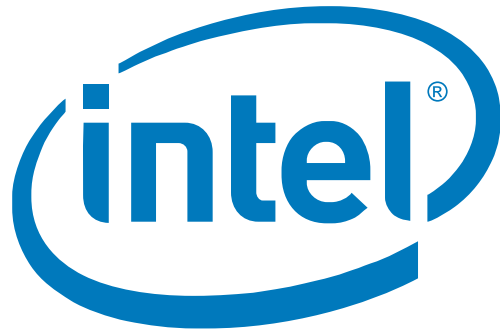
When your trademark is registered, you can use the ® symbol. This tells the world that your trademark is registered with the US government. You cannot use this symbol legally without a successful registration.

Fees

At this writing, fees for filing to register a trademark with the USPTO range from \$225 to \$500 per class of goods/services in the application.²⁹

Examples of things that can be trademarked

- A business name (e.g., Intel®).
- A product name (e.g., Intel® Core®).
- A logo (e.g., the stylized word “Intel” in a circle).
- A slogan or tag line (e.g., Intel Inside®).
- A sound (e.g., the four Intel® tones).



FYI, the USPTO has a fun page on its website with examples of trademarked sounds: <https://www.uspto.gov/trademark/soundmarks/trademark-sound-mark-examples>

Use it or lose it

It is important to use the trademark and the symbol (either “TM” or, if it is registered, ®). IP attorney David Oberdick, writing in *Entrepreneur* magazine, noted that “aspirin, zipper and thermos” were terms that were once trademarked but lost this status through the popularity of the names and the failure to use the “TM” and/or ®.³⁰

IP MYTH:

A DOMAIN NAME = A TRADEMARK

ICANN controls domain names worldwide. Trademarks can be registered in the US at the U.S. Patent and Trademark Office. Registering a domain name with ICANN does not mean the domain name is trademarked.

Examples of things that can't be trademarked

- *Existing trademarks*. E.g., you can't call your hamburger stand “McDonald's.”
- *Your name*, unless you are using it to differentiate a specific product or service. E.g., Martha Stewart trademarked her name for a number of products; Sarah Palin registered her name for political information, educational services, and entertainment services.
- *Generic words or phrases*, e.g., “happy birthday” or “walrus.”

- *Something that could confuse the market.* E.g., an electronics company named Multivox was denied a trademark because it was deemed to be too similar to Magnavox, as was a company called Seycos, which was too similar to Seiko.³¹ In both cases, the USPTO felt that the names were likely to cause confusion to consumers.
- *“Well-known”/“famous” marks.* “Wall Mart” would be a great name for a drywall company, and they would be in a completely different selling space than the huge retailer. But, they would likely not be allowed a trademark. because “Walmart” already exists and is “well known” or “famous,” and as such it is riskier in that it is prone to piracy and confusion.

IP MYTH:

**® WILL ALWAYS WIN OVER
A “TM” IN COURT**

If someone has been using a mark prior to someone else registering a similar mark, the person with the older, unregistered mark may very well prevail in a court dispute. Check out the famous “Burger King” story here: <https://read.bi/2sa3eW9>.

Other info about trademarks

- *They don’t expire* as long as they are in use and the maintenance fees are paid. Shell Oil’s trademark dates from 1904; Levi Strauss is from 1886, and Stella Artois dates to 1366.
- *You can apply online* at the USPTO’s website. A series of videos posted on the site explains nearly everything you need to know about applying.
- *There are 45 trademark classes:* 34 for goods and 11 for services. When you file, you will select a class. E.g., the brand “Apple” is registered in two classes: computers (Steve Jobs) and music (the Beatles).³²
- *Use now or “intent to use”:* to register a trademark, you have to be currently using the mark in commerce or intend to use it within 6 months of receiving a “notice of allowance” from the USPTO.
- *Evidence of the mark:* The mark must be used “in the ordinary course of trade.” You will need to provide a specimen as proof. For goods, this might mean a picture of the product with the mark on it, an example of product packaging, or a tag or label containing the mark. For services, this might mean a brochure, card, website, invoice, or advertisement showing the service in connection with the mark.
- *It does not take long to get a mark registered.* In 2017, the USPTO stated the average time to get a trademark was 9.5 months.³³



Infringement and dilution

A trademark is meant to provide a way to avoid consumer confusion. Trademark violations generally fall under two categories, infringement and dilution. The difference can be summed up this way: infringement protects the consumer, while dilution protects the mark.

Infringement

Infringement happens when someone tries to make people think they are you (accidentally or purposefully).

Dilution

Dilution happens when someone uses a “famous” mark in a way that “blurs or tarnishes” the mark.

Trademark activity in North Carolina³⁴

According to the World Population Review, as of 2018 North Carolina was the ninth most populous state. However, in terms of trademark applications activity, it ranked 30th. In trademarks issued to North Carolina residents, our state ranked 33rd out of the 50 states, plus the District of Columbia.

Resources

- *Protecting Your Trademark: Enhancing Your Rights Through Federal Registration*, United States Patent and Trademark Office, Department of Commerce: May 2016; available online from the US Government Bookstore.
- U.S. Patent and Trademark Office website: www.uspto.gov.

Copyrights

What: Protects an original, tangible literary work, picture, art, etc.

Why: It keeps others from copying/plagiarizing someone else's work.

Where you get it: The author owns the copyright when he or she creates the work but can also register it with the US Copyright Office.

What a copyright protects

A copyright protects the expression of something, but not the thing itself.

Immediate effect

As soon as an original work—a book, an essay, a piece of art, a musical recording, software, a photograph, architectural plans—is created (meaning, put in a tangible form such as on paper, film, or disk) a copyright exists. You can, of course, easily register your work at the copyright office for a small fee, and there are some benefits in doing so. However, like trademarks, protection exists whether the copyright is registered or not.

What rights does the copyright owner get?

The U.S. Copyright Office says a copyright owner gets the exclusive right to reproduce the copyrighted material, prepare derivative works based on it (e.g., translating your work into another language), distribute it, perform it publicly in different ways, and display it.³⁵

How long does a copyright last?³⁶

A copyright usually lasts for the life of the owner, plus 70 years after his or her death. However, for anonymous and pseudonymous works and works for hire, the term is 95 years from the date of publication or 120 years from the date of creation, whichever happens first.

The term is different and a little more complex for works created before January 1, 1978.

What a copyright does not protect

A copyright does not protect an idea. It protects the *original expression* of an idea in a tangible form (something on paper, film, disc, etc.).



This famous picture from the movie *Safety Last* shows Harold Lloyd hanging from the face of a clock. The image, initially published in 1923, was under copyright protection until 2019 when the copyright expired (95 years after publication).

IP MYTH: YOUR WORK MUST BE REGISTERED FOR IT TO BE COPYRIGHTED

The U.S. Copyright Office states: “Your work is under copyright protection the moment it is created and fixed in a tangible form that is perceptible either directly or with the aid of a machine or device.” Registration is voluntary, but will be required “if you wish to bring a lawsuit for infringement of a U.S. work.”

You cannot copyright a well-known phrase (e.g., “all’s well that ends well”) or information (e.g., “grass is green”). In addition (if you really want to get into the weeds), you cannot usually copyright things like individual recipes or formulas, although there may be some exceptions (e.g., a cookbook that contains recipes or a textbook with multiple formulas).

Registering a copyright

Registering a copyright can be done online, and it is a fairly simple and straightforward process. You simply provide a copy of the work, complete a form, and pay a fee.

The copyright office says that most web claims take 3 to 16 months to examine and process. Mailed-in claims take up to 28 months.

Fees

At this writing, the fee to complete a basic copyright ranges from \$35 for a single application with a single author and claimant that was not a work for hire, \$55 for a standard application, and \$85 to submit an application on paper.

Fees for other types of registrations (e.g., renewals, supplementary registrations, group registrations, etc.) range from \$55 to \$400. A list of current fees can be found at the copyright.gov website.

IP MYTH:
IF IT’S ON THE INTERNET,
I CAN USE IT

Putting something on the internet does not mean it’s in the public domain. It may still be copyrighted (whether the copyright notice is visible or not). The author or copyright owner does not lose his or her rights just because the work is posted online.

Copyright notices

According to the copyright office, an effective copyright notice will contain three elements: 1) the word “copyright” or the symbol, ©, followed by 2) the year of the first publication of the work and 3) the name of the owner of the copyright.³⁷ Some attorneys will suggest you also include a rights statement (e.g., “All rights reserved” or instructions on how others can obtain permission to use the work, if they choose).

Would you like an example of a copyright notice? Refer to the title page of this document. Or, check the back of the title pages of most published books.

Small businesses should, at a minimum, place copyright notices in their instruction manuals, white papers, websites, blogs, promotional materials, and sales sheets. Any original work should contain a copyright notice.

Infringement and “fair use”

Copyright infringement happens when someone uses a copyrighted work without permission of the copyright owner. Infringement can consist of word for word copying of a copyrighted work or re- wording something someone else wrote, even if you did so unknowingly. In one of the more famous copyright infringement suits, musician George Harrison was sued when he “subconsciously” used an old tune (*He’s So Fine* by the Chiffons) in his hit song *My Sweet Lord*.

There is a legal allowance for the use of copyrighted material under the doctrine of “fair use,” but it is very limited in scope. For example, a reviewer may be allowed to use short snippets of a copyrighted text as part of a review. By and large, however, if someone is using a part (no matter how small) of a copyrighted material without permission of the copyright owner—especially for commercial purposes or for their own gain—they could be sued for damages.

Resources

- Stim, Richard. *Copyright Protection: What it Is, How it Works*, Stanford University Libraries, undated; Retrieved from: <https://fairuse.stanford.edu/overview/faqs/copyright-protection/>.
- U.S. Copyright Office website: www.copyright.gov.

Trade secrets

What: A process, method, invention, recipe, pattern, idea, or other information that is not disclosed.

Why: To maintain a competitive advantage.

Where you get it: There is no registration; you get and maintain a trade secret by closely guarding the information.

Unlike patents, trademarks, and copyrights, trade secrets are not administered by a government agency. There is no place to register a trade secret with the federal government.

A trade secret is simply a way of protecting your IP by closely guarding the information and making sure others do so as well.

Protecting your trade secret may be best achieved through agreements that prohibit or limit disclosure of certain IP. Employment and consulting agreements that contain proper clauses can accomplish this with people who work for the company. Nondisclosure agreements (NDAs) can accomplish this with other entities.

Examples of successful trade secrets

- *The Coca Cola recipe* is probably the most famous trade secret. The company has protected it since 1886.
- *Google's algorithm* has been kept under wraps for years. Improvements and changes are usually described in vague terms.
- *WD-40's formula* was developed in 1953 and is a closely guarded secret. To maintain the secret, the company prepares the product in three separate cities.³⁸



Diligence is required

Trade secrets are notoriously difficult to protect. The law firm Baker McKenzie conducted a survey of executives in multiple industries and, among other findings, discovered that “one in five companies think or know they have had trade secrets stolen.”³⁹

If you feel someone has disclosed a trade secret in violation of an NDA or other agreement, you will likely have to prove in court that real damage had occurred to you. An attorney, writing in *Entrepreneur* magazine, noted that companies would have to prove three things: 1) that their trade secret gave them a leg up over the competition; 2) that they tried to protect the secret; and 3) that the secret was not already known.⁴⁰

Pros and cons

There are pros and cons with trade secrets. The pros include:

- *Your IP can stay hidden.* In a patent, you have to disclose your IP to the world; it's protected, but the disclosure may give ideas to competitors about how to circumvent your invention.

- *It costs almost nothing.* A patent can cost tens of thousands of dollars to obtain and even more to protect in court.
- *There is no term limitation.* As long as you can keep the info closely guarded, you can keep your secret (except, perhaps, if a limitation is spelled out in an NDA, employment, or other agreement). The Coca Cola recipe, for example, has been a trade secret since the formula was invented in 1886.
- *It can be part of a good marketing scheme.* Saying you have a trade secret can create intrigue and bring curious potential customers to your door.

The cons should also be considered. These include:

- *Your secret is only as good as your ability to keep people that know about it quiet.* As an example, Qualcomm has accused Apple of exposing their trade secrets, despite an existing confidentiality agreement.⁴¹
- *You may be susceptible to reverse engineering.* There is little or nothing to prevent your trade secret from being discovered through reverse engineering.
- *If a competitor properly* (i.e., not through theft, bribery, industrial espionage, misappropriation, etc.) *discovers your trade secret, there isn't a lot you can do about it.* If you had a patent you could sue for infringement, but if there's no patent

Resources

- WIPO has a terrific series of articles on trade secrets that can be found on their website: https://www.wipo.int/sme/en/ip_business/trade_secrets/trade_secrets.htm.
- The USPTO's trade secret policy is worth reviewing. It can be found here: <https://www.uspto.gov/patents-getting-started/international-protection/trade-secrets-policy>.

Commercialization decision factors

Additional details regarding much of the information in this section can be found in the SBTDC's *Business Start-Up Guide*, available at no charge from your SBTDC advisor or as free download on our website: <http://www.sbtcd.org/wp-content/uploads/SBTDC-Start-UpGuide.pdf>.

Market evaluation

This does *not* mean quoting a market research report that says the market size is \$5 billion.

A real, objective market evaluation is an extremely complex and comprehensive undertaking. The following questions will need to be answered truthfully and realistically. You will need to consider economic realities, industry quirks, geography, and a host of other factors.

We strongly recommend you speak with your SBTDC counselor before, during, and after your market research effort:

About the customers	About the product
Who will buy this product?	What is required to manufacture this product?
Why would they abandon their current supplier (i.e., why will they change their current behavior)?	How much will it cost to set up the manufacturing process?
How many of them are there?	Who will you need to help you? Can you get the help you need?
Where are they?	How much will the product cost to make?
How will you reach them?	How many do you have to sell to break even?
How much will they pay?	How many do you have to sell to make an acceptable profit?

Competitive landscape

Who are your competitors? Why are people currently buying from them, and what will make them want to buy from you instead?

One common way to analyze your competition is to create a table with the attributes of your product, compared with the attributes of the competition. All attributes that might make the slightest difference to a buyer must be considered: price, size, effectiveness, cost of ownership, warranty, etc. How will you differentiate yourself and your product from the competition?

A very common myth, especially among inventors, is the belief that they have no competitors.⁴² If you cannot find competitors for your product, one of two things is wrong:

- 1) *The problem you are addressing is being served a different way.* If this is the case, those providing the (possibly indirect) solution are your competition, no matter how differently they are handling it; or
- 2) *The problem is not worth addressing.* This could be due to market size, price, or simply customer disinterest.

Other questions to consider . . .

What will it cost to commercialize the product?

Let's say you are considering manufacturing a product based on your new invention. Think about what you will expect to encounter along the way. Things like:

- *Market research.*
- *Creating and testing initial (alpha) prototypes.*
- *Beta units* for test and evaluation by potential customers.
- *Production facility, equipment, and personnel.*
- *Intellectual property protection* such as patents, trademarks, etc.
- *Marketing expenditures* such as trade shows, sales costs, websites, brochures, social media, etc.
- *Administrative costs* like legal fees, accounting, insurance, office expenses, salaries, etc.
- *Customer support expenses* like warranty administration, repairs, help desks, etc.

It is very expensive to manufacture, launch, and support a product.

Do you have a reasonable chance to recoup those expenses, and if so, how long will it take?

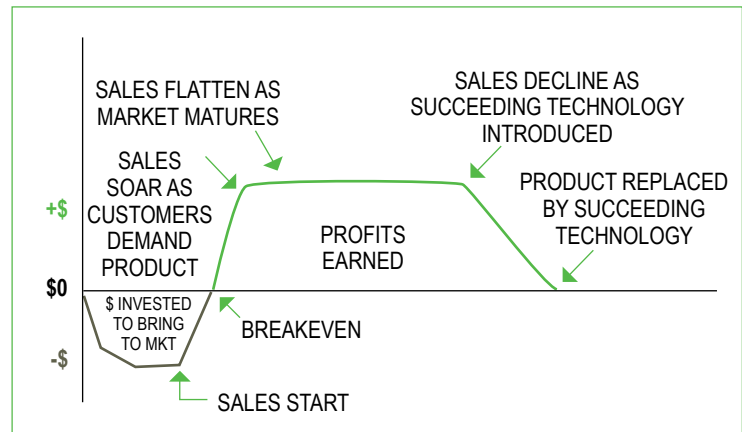
If it costs, say, \$1 million to accomplish the items listed above (and we are pulling that number out of thin air), how many of your devices will you need to sell before you start to make a profit? How long will that take?

How long is the product likely to last?

Every product has a life cycle. An idea happens, a product is born, it begins selling, a new technology comes along, the product is replaced by a succeeding technology, and the product dies.

Need an example? How about VHS tapes?

They spent years in research and development (R&D), were introduced in the late 1970s, outperformed the Betamax format, and enjoyed a huge market for many years. People could record home movies with sound and without having to get their film developed. VHS tapes could be used in VCR equipment to play and record movies and television shows. Customers flocked to video rental outlets like Blockbuster and Hollywood Video to get films they could watch at home.



Then, in the 1990s, DVDs showed up. Smaller recordable discs and tapes followed. Soon thereafter, consumers could record movies on cameras and cell phones that required no separate recording media. These succeeding technologies rendered the VHS essentially obsolete.

How long will it be before a succeeding technology replaces your invention? Will there be enough time to recoup your investment and make a reasonable profit?

What kind of profits can you expect to make before a new technology overtakes it?

Summarizing . . .

If people will buy it and a profit can be made, it makes sense to pursue commercialization. If not, you do not have a business—you have a hobby.

An entrepreneur must have objectivity and a willingness to do what it takes to ensure profitability.

Resources

- *Business Start-Up Guide*, The North Carolina Small Business and Technology Development Center, revised June 2018.
- Kawasaki, Guy. *The Art of the Start 2.0: The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything*, Portfolio/Penguin, New York, 2015.
- Nevens, T. Michael, Gregory L Summe, and Bro Uttal. *Commercializing Technology: What the Best Companies Do*, Harvard Business Review, Harvard Business Publishing, Brighton, MA: May/June 1990.
- Servo, PhD, Jenny C. *Business Planning for Scientists and Entrepreneurs*, Fourth Edition, Dawnbreaker Inc., Rochester, NY: Aug 2005.
- Timmons, Jeffrey A. *New Venture Creation*, 4th ed., Irwin, Chicago, 1994.

Overview of licensing

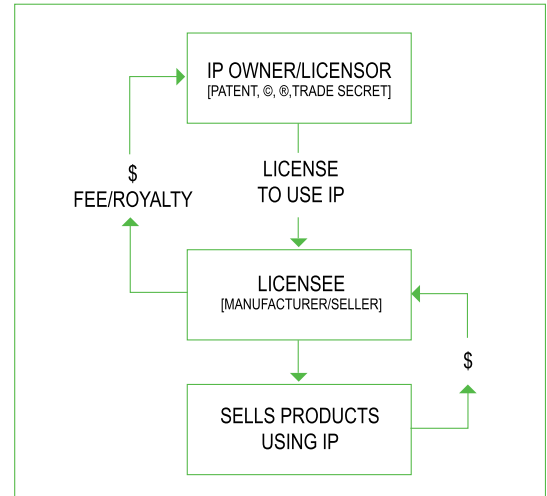
What is licensing?

An IP license allows someone to use a protected idea.

It is an agreement between the owner of a technology (the “licensor”) and a company or person who wants to use the technology (the “licensee”). The license agreement will allow the licensee to make products (or have products made) that are based on, or use, the protected IP.

In exchange, the licensee will pay a royalty or fee to the licensor.

Licenses can be for any kind of IP: patents, trademarks, copyrights, or trade secrets. And, they can be extremely lucrative. A *License Global* magazine report claimed that the Walt Disney Company saw revenues of \$56.6 billion in licensed merchandise in 2016.⁴³ Walt Disney Company owns and controls its own portfolio, as well as the ABC network, A&E, ESPN, Lucasfilm Ltd. (the Star Wars franchise), Marvel Studios, Pixar Animation, and others.⁴⁴ Disney licenses these properties to costume makers, galleries, authors, bakers, toy makers, game designers, and a number of others that are listed on Disney’s intellectual property licensing website.⁴⁵



The Peanuts cartoon characters are part of over 1,200 licensing deals worldwide with annual retail sales of over \$2 billion.⁴⁶ Walmart, McDonald’s, and other retail outlets that cater to children licensed the Despicable Me characters, and in the first three years following the movie premier, Universal Pictures (the owner of the characters) anticipated income of about \$200 million.⁴⁷

Licensing ideas in patents can be profitable as well. In the 1990s, Sandia National Laboratory developed and patented a gas sensor on a small chip. A California-based startup licensed that patent, designed circuitry and packaging around the technology, and developed two product lines: a portable gas sensor and a fixed position gas sensing system. The products were successful, and to this day, every time the company sells a sensor, they pay a royalty to Sandia National Labs.

This is a common, proven, and successful business model.

How does licensing differ from a patent assignment?⁴⁸

The biggest differences between a license and an assignment are these:

- *In a license*, the IP owner agrees to allow the licensee to use the IP in some way for a specified time, in a specified way, and maybe in a specific geographic area. This is done by a legal agreement. The licensor still owns the IP. Usually, payments are made to the licensor in the way of fees and royalties.
- *In an assignment*, the inventor grants someone an irrevocable right to the IP forever, and the assignment is done on the patent itself. If payments are made to the inventor, they are often lump sums and for a larger amount than a license fee (although there could be royalties involved as well).

	IP ownership	Rights	Method	Revocable? Termination?	Payments
License	Licensor	Limited	Agreement	Yes	Usually fees/royalties
Assignment	Assignee	Unlimited	On patent	No	Usually lump sum

What are some of the pros and cons of licensing your technology?

Pros

- **Lower costs.** If a company invents something and decides to make and sell products based on that invention, they will likely need to spend money for additional manufacturing staff, production space, equipment, tooling, raw materials and parts, product testing, marketing campaigns, sales staff, customer relations, and a host of other costs. However, if a company chooses to license the technology, those costs will be incurred by the licensee.
- **Less risk.** In addition to avoiding the costs of ramping up a production line, you can significantly reduce the risk of failure by licensing to a company with existing paths to market, production expertise, etc.
- **Avoidance of a learning curve.** Licensing to more experienced companies with greater (or different) resources will help you avoid the additional costs of your learning curve, as you try to understand the nuances of production, the marketplace, the competition, etc.
- **Flexibility.** If your technology is useful in multiple markets but you have expertise and abilities in only some, licensing allows you to reap the benefits of selling in those less familiar markets.
- **Faster to market.** Licensing may be a way to get your innovation to market faster, assuming a licensee has greater resources and expertise than you. This could be vital, especially in a highly competitive market.
- **Ongoing royalty payments.** A successful licensing agreement can result in a significant revenue stream for both the licensor and licensee for many years.

Cons

- **Possibly less profits.** Under a license agreement, a successful product will likely earn less money for you than if you had taken the manufacturing risk yourself.

When a company turns to licensing its intellectual property, it opens up a whole new world of customers, giving it money to fuel future inventions.

Tim Donnelly, "10 Tips for Licensing Intellectual Property," *Inc. magazine*



Iconix Brands (owners of the rights to Peanuts images) bring in hundreds of millions of dollars annually through licensing.

- *You do not control the innovation.* I.e., a bad licensee can poison the market. If the licensee is incompetent, provides poor customer service, or incorrectly uses the invention, your innovation could get a bad reputation and keep future buyers away. Good due diligence ahead of time can mitigate this risk.
- *Improper field of use management can stifle profits.* Having the wrong mix of licensees in certain territories and market areas can increase competition, which could lower pricing and profits—and therefore royalties. You can alleviate this risk with a good license agreement and proper strategic planning.
- *An exclusive licensee could tie up the invention.* If a licensee has control of your product but can make more money selling something else, he could choose to do so, resulting in significantly lower royalties to you. This, too, can be addressed with a good license agreement that contains milestones and/or minimum periodic royalty payments.

Key elements and considerations of an IP license agreement⁴⁹

There are many factors to consider in negotiating a license agreement. License agreements can have a tremendous amount of flexibility in some areas yet may be extremely rigid in others. Some agreement topics are applicable to certain innovations while not affecting others. As a result, agreements are generally tailored to individual situations.

We have listed some of the elements that can make or break license agreements. Some may not be applicable in all situations, but it is vital that the licensor and licensee agree on the suitable elements that are important, given their circumstances and innovations.

- *Subject matter.* Describes precisely the technology that is being licensed and the licensee's rights.
- *Rights.* What, specifically, the licensee can do (and maybe cannot do) with the licensed IP.
- *Ownership representation.* A legal oath that declares that the licensor has the right and ability to license the IP.
- *Fields of use.* This refers to places and industries where the IP might be used. For example, if the IP involved a new battery chemistry, the license could allow for manufacture and sale of car batteries using the IP, but not for cell phones. A field of use could also be geographic; that is, it could allow the manufacture and sale of products using the IP in one state or region but not in another.
- *Exclusivity/non-exclusivity.* A licensee might have exclusive rights to some or all of the IP or may share rights with another licensee (i.e., non-exclusivity). Or, one licensee may have exclusive rights in some fields of use (e.g., batteries for automobiles), non-exclusive rights in others (e.g., ion batteries for power tools), and no rights in still others (e.g., batteries in cell phones). Or, these rights could be defined geographically. For example, one licensee may be exclusive to North Carolina and non-exclusive to the rest of the southern United States. Obviously, this is a very important section of any license agreement; this section can be both flexible and complex.



According to *License Global* magazine, the most successful licensing firm in the world is The Walt Disney Company.

- **Term and termination.** How long will the license last? How may it be renewed?
- **Performance milestones and minimum royalties.** It is important that the license require a certain number of units to be sold or that a minimum royalty payout of some kind be made. This way, a competitor cannot license your competing technology and refuse to market or sell it, thus preventing it from entering the market.
- **Sublicensing.** This addresses whether the licensee can grant rights to other companies. If a sublicense is allowed, the license agreement will typically describe the terms for all parties.
- **Reports and audit rights.** The licensee may be required to report on its activities (e.g., sale efforts, sales levels, etc.), and typically the licensor will have the right to audit the related books of the licensee or have them audited by an agreed-to third party.
- **Patent numbers/marks.** Many times, the license requires a mark of some kind (e.g., a patent number or notice) on the product built using the IP.
- **Product liability.** Describes who is responsible for liabilities and related insurance.
- **Training/consulting.** Describes whether the inventor or inventing company will train and/or consult with the licensee (usually for a specified period of time).
- **Other items.** There could be any number of other areas to address, depending on the opportunity and the type of IP.

If the licensed field of use is not carefully defined, the licensor may find it has unintentionally granted rights beyond the scope of what it intended.

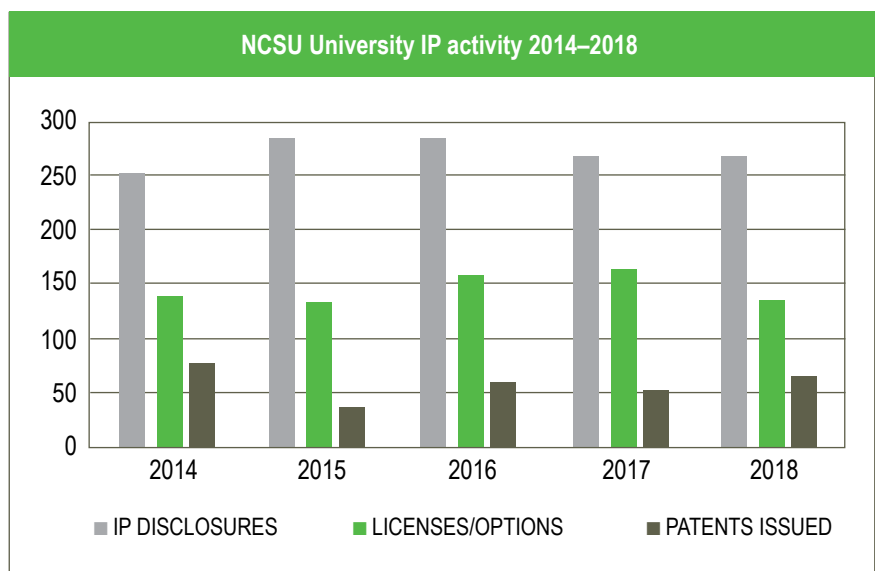
Kirsten Leute, *Anatomy of a License Agreement*, AUTM Technology Transfer Practice Manual, 3rd Ed., Vol 4, Part 1, January 2010.

I want to license an invention; how do I approach the licensor?

Finding inventions

There are a number of places to review available patents and inventions for licensing. Many national laboratories and universities with technology transfer offices will list patents available on their websites.

North Carolina State University (NCSU), for example, has a long history of creating and patenting technologies. These useful inventions are typically licensed to businesses and then become products that generate revenue for both the companies that license them and the university.



Source: NCSU University Office of Technology Commercialization and New Ventures, Statistics

What is a license option?

A license option is a tool used by licensors and licensees to “test the waters.” Usually, it will allow a licensee the right to evaluate the IP to determine whether it can be commercialized and whether there is enough potential to pursue a full license.

Approaching inventors

Getting in touch with a technology transfer office is usually easy to do. Contact information is readily available on most of their websites.

If you want to approach the university as a startup with no experience and no cash, your chances at negotiating a license could be low. However, if you can obtain the financing you need, add someone with the industry experience to your team, and demonstrate that you have a good marketing plan, your chances should significantly improve.

I have an invention; how do I approach a potential licensee?⁵⁰

Finding licensees

Many corporations have existing departments whose sole function is to seek new technologies and constantly evaluate state-of-the-art products. Samsung has a “strategy and innovation center” where they seek new technologies to bring into their product lines. Merck’s innovation center website asks: “Interested in creating the next big thing with us?” and has a link for companies looking to collaborate with them on new ideas. Procter & Gamble, Johnson & Johnson, and most other large companies have streamlined ways to interact with inventors, and the initial contact can happen right on their websites.⁵¹

Another way to garner interest may be to attend (or host a booth at) a trade show and discuss your innovation with your target companies in a somewhat closed setting.

An SBTDC client with an innovation simply chose the five largest companies in his area, emailed the technology officers at each, and received a positive response from one. This led to a successful collaboration.

Some companies are open to innovation from the outside, and some are not. But, they will probably only discover your new idea if you are the one who contacts them and tells them about it.

A few other things to consider:

When approaching a potential business partner, whether as a licensor, licensee, or in some other role, you should do your homework.

- *Know the industry.* They should perceive you as “one of us,” not as an interloper who likely has not shared their experiences and probably does not understand what they are up against.

Having IP and getting licensing revenue makes sense in some business situations, but not in others. If you can find patents that still have a useful life but are not in a business your company is still in—that’s like finding a Rembrandt.

Jonathan Retsky, Patent Litigator,
Winston & Strawn

- *Research the target.* You want to understand the company itself. Know the history and where they are in their development. What changes have they been through, and what changes do they likely see coming? How can you and your innovation address these changes?
- *Position your idea correctly.* Does the company you plan to approach need your technology, or will you be viewed as a threat? Will your product be complementary to their existing line, or will it replace someone's internal "baby"?
- *Can they make it?* Do they have the ability to produce your product, or is their manufacturing line already full? If it is full, does it make sense for them to go through the expense and turmoil to insert your concept into their manufacturing line?
- *Can they sell it?* Do they have the market paths and sales team to properly position and sell your idea?
- *Is your IP properly protected?* Before you begin discussions with them, make absolutely sure that your IP is protected; close every loophole you can find to prevent them from stealing your idea. If they can successfully reverse engineer or otherwise get around your technology, think twice about revealing your "secret sauce," even if it is patented.
- *Get an insider on your side.* If you can identify an internal champion at the target company, do so.
- *Be respectful.* Do not "hot dog" or "showboat"; do not act as if they need you more than you need them. Make yourself appealing. Compliment them. Tell them why they are the best company in the world and why you really want to work with them, as opposed to their competition. Let your valuable, innovative IP speak for itself.
- *If the answer is "no," find out why.* If it's a misunderstanding, it could be fixable. If it's not, the answer could contain a clue about your approach. Maybe the feedback can will be helpful when you approach the next company.

Resources

- *Licensing Basics for Technology and Life Sciences Companies*, Fenwick & West, LLP. Retrieved from: https://www.fenwick.com/FenwickDocuments/Patent_Licensing.pdf.
- *Licensing of Intellectual Property Assets; Advantages and Disadvantages*, World Intellectual Property Organization. Retrieved from: <https://www.wipo.int/export/sites/www/sme/en/documents/pdf/licensing.pdf>.

Strategic alliances and joint ventures

Any company with IP needs to assess whether it has the talent and resources to commercialize the idea. There may be gaps in the company (e.g., paths to market, manufacturing, etc.). In cases where licensing would mean giving up too much profit potential, but the company lacks certain key resources to bring the IP to market, a joint venture (JV) or strategic alliance can be the answer.

Difference between a strategic alliance and a joint venture

A **strategic alliance** is an agreement between companies, whether formalized or not, to work together for the benefit of both entities. A **joint venture (JV)** is more complex, involves greater resources, is governed by a written agreement, and results in the formation of a new company, owned by the JV partners.⁵²

For purposes of IP commercialization, it can sometimes be useful to think of a strategic alliance or JV as a hybrid between licensing and manufacturing.

Strategic alliances

Strategic alliances happen all the time and are sometimes formalized in agreements. As stated above, a strategic alliance happens when two or more companies come together to accomplish a specific goal that is in the best interests of all the parties involved.

Example: Coffee and books⁵³

When many people think about relaxing, they conjure up pictures of themselves curled up with a cup of coffee and a good book. In 1993, Starbucks and Barnes & Noble thought the same thing and created a strategic alliance to capitalize on this idea. They combined facilities in many locations; now, customers could peruse the shelves at Barnes & Noble bookstores, buy a book, walk a few feet to an adjacent Starbucks, and enjoy their book with a latte.



The alliance was so profitable that Starbucks began to look at other possible strategic alliances. Today, Starbucks has multiple, profitable deals with companies that sell its beans and coffee into market paths that are otherwise unavailable to Starbucks. A hugely successful example is the alliance with Kraft Foods whereby Starbucks sells its coffee beans to Kraft, which packages and sells the product in grocery stores.

Today, the Starbucks–Barnes & Noble deal has evolved so that Barnes & Noble operates hundreds of cafes within their stores that serve Starbucks coffee under a license arrangement.

Joint ventures

A JV is a form of strategic alliance, and the terms may be used somewhat interchangeably. The biggest difference between the two is that a JV results in the creation of a new entity that is usually owned by the partnering companies.

The new entity is usually set up for the specific purpose(s) of the JV, and therefore it may only exist for a limited time. In fact, while most companies will last an average of 10 years,⁵⁴ 50% of JVs end within three years.⁵⁵

According to *Harvard Business Review*, in the five years between 1999 and 2004, over “5,000 joint ventures, and many more contractual alliances” were started, and the 100 largest of these had combined revenues of over \$350 billion.⁵⁶

It may be useful to think of as JV as a hybrid between licensing and manufacturing. Probably the best definition is one written by Scott Allen: “A joint venture is a strategic alliance where two or more parties, usually businesses, form a partnership to share markets, intellectual property, assets, knowledge, and, of course, profits.”⁵⁷

Example: how a JV between competitors eased global tension⁵⁸

In the late 1970s and early 1980s, Americans were buying small Japanese cars and Detroit was losing out on manufacturing jobs. A unique solution was negotiated between Toyota and General Motors (GM): manufacture Toyota vehicles at US plants.

Toyota and GM each put up \$100M and created a JV they called New United Motor Manufacturing, Inc. (NUMMI). The target was to produce 200,000 vehicles annually for 12 years, at which point the JV would cease.

An old GM plant in Fremont, California was re-opened and produced the first Chevy Nova in 1984. In 1986, the Toyota Corolla FX came off the line.

After 12 years, the parties chose to continue with NUMMI, and the JV didn't end until 2010.

Things to consider when partnering with another company

- **Put it in writing.** It is important that every facet of your discussion and agreement be put in writing. Make note of the goals, contributions, and responsibilities of each party; the start and stop dates; and the ownership of the JV and any IP brought into the deal (as well as any IP that is created as a result of the collaboration).
- **Agree on expectations and goals.** Make certain everyone understands why you are joining together. Have specific, reachable, and mutually beneficial goals in mind and put those in writing up front. And, watch out for “mission creep” (i.e., doing more than was originally agreed upon).
- **Agree on each party's contribution.** Make certain everyone understands what each company and individual is responsible for committing to the venture. Who pays what costs? Who contributes how much money? How much time? What equipment? What specific IP? And what happens to those assets at the end of the alliance?
- **Start small but think big.** The expectation of any strategic alliance will be to achieve something meaningful for both parties. However, it may make sense to begin with caution—especially if you are unfamiliar with your partner.
- **Discuss new IP ownership and rights.** Ensure that any new IP is discussed ahead of time, before beginning the new deal.

The average business lasts about 10 years; over 50% of joint ventures end within three years.

Sources: *How long do firms live? Finding patterns of company mortality in market data*, Santa Fe Institute, April 1, 2015.

The rise of joint ventures: Elements of success, Deloitte M&A Views (podcast), Deloitte Development LLC, 2016.

- *Discuss branding, particularly use of logos outside the venture.* A JV can benefit from its own brand and identity. The new brand will likely be separate in the mind of consumers and end users. Therefore, mixing the brand with the partners' individual product lines and identities could lead to confusion in the marketplace and could diminish the potency of the JV's new brand.



- *Agree on records, who keeps them and who has access.* Financial, employee, equipment, sales, and other data need to be tracked, and each partner should have access to those records. Ensure that the responsible person or organization is identified and put in place and that access guidelines are established from the start.
- *Agree on profit distribution and liability responsibilities.* Most important is profit distribution and liability responsibilities. If these are not defined clearly at the start, you are only asking for trouble.
- *What if someone can't (or doesn't) do their job?* Provisions should be made for those individuals and partners who don't hold up their end of the deal. Exits, termination clauses, and recourse for unpaid fees or non-performance in violation of the agreement should be set up ahead of time. If one partner doesn't perform, the other partner will generally be injured in some way, and compensation (involving mediation or other legal action) should be indicated.
- *Determine who's in charge.* Corporate governance details should be outlined ahead of time. How will the organization be managed? Who will serve in what capacities? What will each person's role in the organization or alliance be? Who will he or she answer to? And what authorities does management have? Can they hire and fire? Can they increase or dock wages? Can they modify assignments?
- *Agree on assessing, pivoting, and exits.* Finally, the progress of the JV or alliance should be continually assessed, so that if necessary the new entity or effort can pivot and react according to new information or discoveries. The agreement should allow for this to a degree, without allowing for "mission creep."

There should be an agreed-to, hard exit, and it should be well-defined in the agreement before the activities begin.

Resources

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- Servo, Jenny C. *Business Planning for Scientists & Engineers, 4th ed.*, Dawnbreaker, Rochester, NY, August 2005.
- *The rise of joint ventures: Elements of success (part one)*, Deloitte M&A Views (podcast), Deloitte Development, LLC, 2016; Transcript can be found at: <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/mergers-acquisitions/us-ma-episode5-transcript-joint-ventures-part1.pdf>.

Should you make/sell it yourself?

Introduction

If your innovation is something that has a strong likelihood of market success, you will probably make the most profit by making and selling it yourself, if you have access to the markets and are able to establish a production line.



But, establishing these things requires—at a minimum—access to resources, experience, and a lot of money. We strongly advise you to work with your SBTDC counselor when considering whether to make and sell something yourself.

Considerations

- **Resources.** There are three basic types of resources you will likely need: materials, people, and facility/equipment.
 - **Materials.** Make sure you have all the materials you need as close to your plant as possible to minimize your costs. If your product requires that you have, say, a large amount of overseas imports, it might make sense to establish your manufacturing plant near a port where those materials can be obtained at the lowest possible cost.
 - **Personnel.** Not only will you need access to the materials needed to make the products, you will need to be in a place where properly trained labor is available for hire. There needs to be a readily available, qualified workforce adjacent to your base of operations. For example, if you will need a lot of engineering help, it might make sense to locate near a good engineering school.
 - **Equipment.** Make sure you know where you will get the equipment you will need to manufacture the products. If you need tooling, how will you get it made? If you need molds, where will you have them produced? Ensure you have these questions answered first, before you start.
- **Experience.** There is no substitute for management that has been through the process before and can provide the benefit of experience. Advisers, mentors, and others who have successfully built companies will be invaluable to you. Their ideas, suggestions, and leadership will likely be the thing that ensures the success of your venture.
- **Cost.** One of the most important considerations is cost. Put simply, it is very expensive to manufacture and sell *anything*.

Example of a process

Once you have an idea, you generally need to patent it. The term “patent prosecution” refers to the process of writing and filing a patent application and pursuing protection for this patent application with the patent office. This process is expensive.

Some of these fees are outlined in the “Patents” section of this guide; patents can easily cost tens of thousands of dollars to obtain.

Then, when you decide to pursue manufacturing, you will need to create a business. For liability protection, you will probably want to create an LLC or corporation. Using the business entity, you will need to conduct R&D to:

- Develop one or more proof-of-concept prototypes (or alpha units).
- Confirm that the item is manufacturable.
- Make sure your idea works as you think it will.
- Explore ways to improve the product.
- Determine how long the product will likely last.
- Identify any areas that need to be addressed that you didn’t think of at the outset of the process.

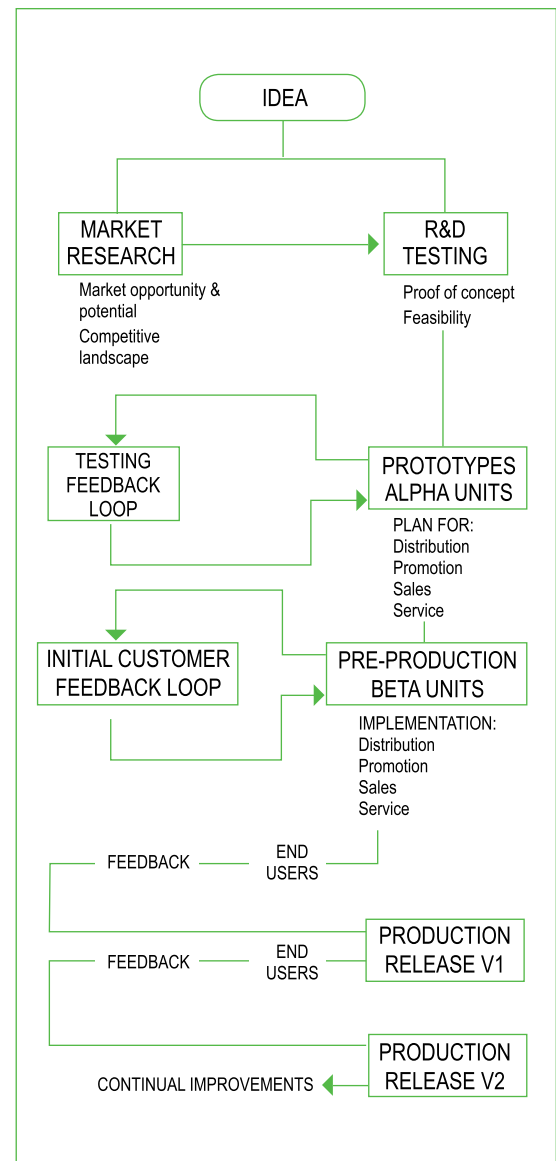
Typically, this process will require some lab space, and you may need the assistance of some technicians, engineers, and/or scientists as well. It may also require equipment for assembly and testing. Even working with a prototyping center at a local university or nonprofit can cost a significant amount.

Next, you will need to produce pre-production (beta) units. These are the versions you will test with specific potential customers to gain feedback, make necessary corrections, and finalize your initial product.

After incorporating data from the beta testing, you will need to go into production. For this, you will need the people and resources to support production, inventory, packaging, shipping, marketing, sales, customer support, and possibly other functions. To support these operations (and ensure you comply with various labor laws), you might need a human resources expert. You will also need accounting and legal expertise.

In addition, you will need management and R&D functions to keep operations flowing efficiently and stay ahead of the competition.

This process can be extremely expensive. You should make sure you understand exactly what you will need, when you will need it, how much it will cost, and how you plan to pay for it all.



Risk

As you can see, establishing a company to manufacture the products yourself comes with a great deal of risk. There will be massive expenditures and complex, interactive systems to establish before you sell your first product. You need to be ready, willing, and able to take all of that on.

Other possible paths to market (e.g., licensing) will be less risky and might make more sense, even though you may ultimately see less in profits. An honest self-assessment may indicate that you have what it takes to be a successful manufacturer. Or, it may suggest that you would be better off pursuing a different commercialization strategy. Your market research and customer discovery efforts may indicate that you have a terrific opportunity to introduce your own product line. Or, they might show that you would be better off partnering with an established company.

The key is to conduct honest, objective evaluations of all these factors. We strongly recommend reviewing the SBTDC's *Business Start-Up Guide* to help make your determination.

Whatever you decide, let your ego and greed go and give your idea the best chance of success you can.

Resources

- Kawasaki, Guy. *The Art of the Start*, Penguin Books, New York: 2004.
- Ries, Eric. *The Lean Startup*, Crown Publishing Group, New York: 2011.

We also *strongly* suggest you speak with a counselor at your regional SBTDC office. You can find your local office on our website: sbtcd.org. To make an appointment to speak with a counselor, simply click "Request Counseling" at the bottom of the page.

Technology transfer

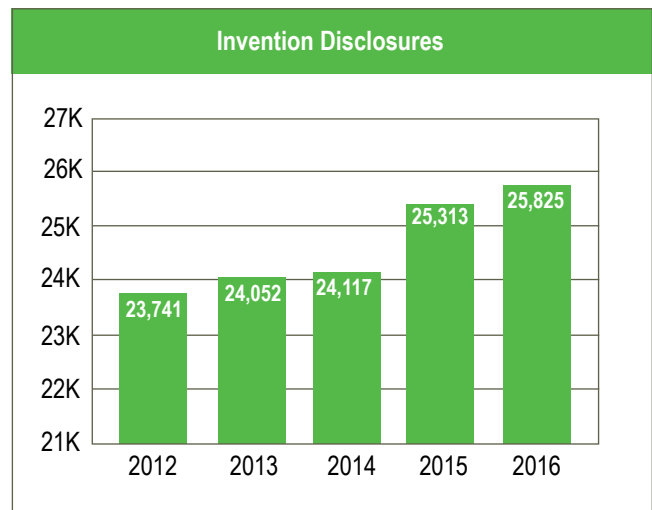
What is technology transfer?

The Organization for Economic Co-operation and Development (OECD) and the World Bank define technology transfer this way:

“Technology transfer is the process of transferring scientific findings from one organization to another for the purpose of further development and commercialization.”⁵⁹

Universities, national laboratories, and companies are constantly coming up with new ideas and innovations. According to the National Science Foundation, R&D performed in the United States in 2015 totaled \$495 billion and was expected to rise to \$510 billion in 2016.⁶⁰

Universities, however, don't sell products, and neither do national laboratories. Many times, businesses will invent a new idea that isn't in their market area; one SBTDC client recently invented a residential-focused energy saving device, though their market focus is in the aerospace industry. In these cases, the opportunity exists for these entities to transfer their technology to others who have the market paths, production capacity, equipment, and other capabilities necessary to commercialize the innovation. This is called “technology transfer.”



Invention disclosures are confidential reports written by inventors to a university to determine whether a patent should be filed. The number of invention disclosures at US universities has increased in recent years.

The tech transfer office

Most larger universities have an office of technology transfer (OTT), especially those that engage in research. These offices are tasked with finding “homes” for their technologies—places where the ideas and patented innovations of university faculty, staff, and students can be turned into products. Companies that are interested in these technologies can do so by negotiating license agreements with the tech transfer offices and begin the commercialization process.

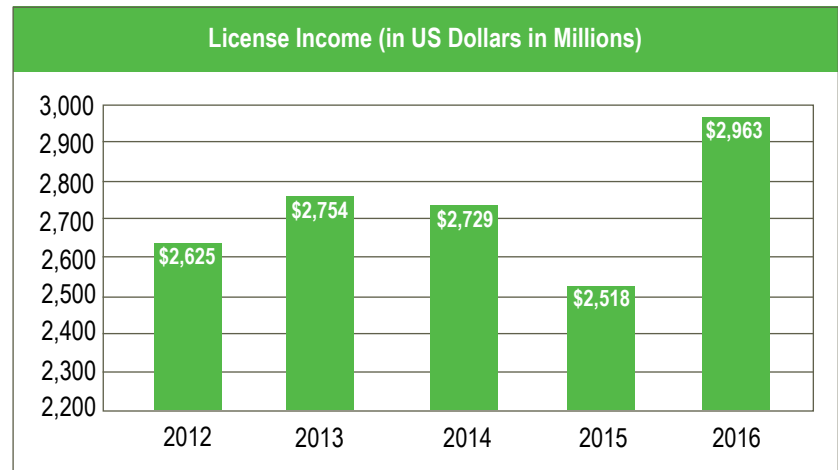
Process of tech transfer offices⁶¹

The process of a typical tech transfer starts with:

- **Evaluating ideas.** These ideas are typically in the form of invention disclosures (see the chart above⁶²) that are required to be submitted by campus researchers to the tech transfer office. The evaluation may be done by a staff member with expertise in the area or by an IP committee of some kind.
- **Examining ideas.** The OTT and/or IP committee will examine and determine the history (e.g., disclosures, prior art, etc.), ownership, potential conflicts of interest, potential market, and stage of development of the IP for the purposes of determining whether some form of IP protection such as a patent or copyright is warranted.

- *Licensing ideas.* Many times, the OTT will have specific companies in mind when it comes to choosing licensees, or they may target specific industries. It is common to find university websites that describe IP available for licensing.

The OTT typically negotiates an option or full license with interested businesses and manages those licenses in accordance with the license agreement and the university's own interests. (University income realized from licensing over the past few years is shown on the "License income" graph).⁶³ This will typically result in a significant income stream for the licensor (i.e., the university or lab) and for the inventor (typically a professor or researcher at the university who usually shares in license income).



Income realized from license revenue to US universities expressed in US dollars (millions).

Working with a tech transfer office

Working successfully with the OTT begins by working successfully with the inventor(s). Get to know the researchers that created the technology personally. Understand them, their motivations, and their work.

As a small business, you should know that the OTT is not going to necessarily welcome you with open arms. They will be looking for a company/team to partner with; their success will be tied to your success, so they will choose their licensees carefully. It will be up to you to prove that you will be successful; you will need to convince the OTT that you are the best chance they have for the success of products based on the innovation.

You can do this by emphasizing:

- The experience of you and your company.
- The knowledge you have of the industry.
- Your ability to complete the R&D (possibly working with the university or lab; the inventor(s) need to be your friends) and move the idea to a production process.
- Your ability to optimize the production process.
- Your understanding of the market. (You want to demonstrate that you have the market paths in place.)
- You have the required equipment, personnel, and management skills in place to properly create and manage a new product line based on the acquired IP.

Obtaining a license option agreement will, in the final analysis, come down to negotiation. You need to create and foster a relationship with the university so they view you as a partner. You can do this by:

- Contributing to the university. A cash contribution in related areas that grab the eye of the OTT and the inventor cannot hurt and will almost certainly help your cause.
- Working with the research lab and the university inventors personally. Their comments may help sway the OTT when the license decisions are made.



As a source of revenue for universities, OTTs can have a huge effect. For instance, as of this writing there are 358 active startups associated with UNC-Chapel Hill alone. Startups associated with the entire UNC System realize a combined \$10 billion in annual revenue.⁶⁴

The OTTs across North Carolina are an amazing resource of possible new product lines and potential revenue for companies seeking new business opportunities. Your company may want to consider these as a source for new product lines and technology ideas.

Resources

- The NCSU University Office of Research Commercialization has a wealth of information on its website relating to the technology commercialization process: <https://research.ncsu.edu/commercialization/>.
- *What is Tech Transfer, Anyway?* The Association of University Technology Managers (AUTM). Retrieved from: <https://autm.net/about-tech-transfer/what-is-tech-transfer>.

IP valuation guide

Introduction

In 2012, a small, California-based company called Blue River Technology developed an innovative idea: they figured out a way to *automate* the ability to differentiate between plant species. They secured two grants (totaling about \$650,000) from the National Science Foundation's Small Business Innovation Research program and went to work to turn their idea into a commercial product.⁶⁵

In 2017, John Deere paid \$305 million to acquire the little company.⁶⁶

Deere, of course, wasn't acquiring the company to get its revenue stream or obtain its customer list; Deere wanted the company's IP. Blue River's IP had tremendous value in the agriculture industry. It represented the possibility of a new artificial intelligence-driven product line that allows farmers to treat only specific areas. Deere recognized the market potential and paid a huge sum, realizing that owning this IP could pay tremendous dividends in the future.

Blue River paid much less to protect and develop its idea, so how did it know its invention was worth nine figures, as opposed to, say, \$1M, \$2M, or even \$50M?

Valuation of intellectual property is partly a science, but it is mostly an art; it will always come down to a negotiation. The purpose of this section is to investigate different valuation methods for IP, coupled with a discussion regarding what one encounters in the real world when trying to sell an idea.



Why value IP?

There are many reasons to place a value on IP. An established IP valuation is essential when a company is seeking investments, examining potential licensing models, or contemplating a merger or acquisition. The company will need to understand the value of its IP if it finds itself in financial trouble or is seeking to liquidate some of its assets.

And, as you will see, the true value of IP is not the amounts on the balance sheet, and not even the figure calculated using various, accepted methods. The true value of IP is what can be negotiated.

Valuation approaches⁶⁷

There are a number of approaches, each accepted in certain circles, that are used to place a value on IP. We will go through the five most common.

Generally accepted accounting principles (GAAP)

There is a set of rules in accounting commonly called GAAP. These rules dictate how to record and account for financial transactions in a company.

Cash is an asset. If a company has \$100 cash in the bank, that cash shows up on a balance sheet as \$100.

Equipment is an asset as well. If a company paid, for example, \$20,000 for a piece of machinery, this will show up as an asset on the balance sheet too, but it will be discounted over time as the equipment is used.

Cash, equipment, and other items (such as inventory and accounts receivable) are all valuable to a company and will be shown on a balance sheet as assets.

IP is considered an asset as well. However, unlike cash or equipment, IP is considered an “intangible” asset. Applying a value to IP is not as obvious as, say, cash or equipment.

Under GAAP rules, only the actual costs to acquire the patent should be counted toward the asset on the company’s balance sheet. Therefore, if the company spent \$20,000 to file, prosecute, and obtain a patent, it could list that cost as an intangible asset, and amortize (i.e., gradually write down) the value of that asset over its lifetime (e.g., 20 years for a utility patent).

The value of IP on a balance sheet isn’t an accurate reflection of reality, however. Consider Google, which is a very famous brand. The brand name is worth a tremendous amount of money for its recognition and reputation. USA Today recently stated that Google’s brand is worth \$302 billion.⁶⁸ However, if you look at Google’s balance sheet, its intangible assets are only a little under \$3B.⁶⁹

The point is, GAAP can assign some value, but that value rarely reflects the actual market value of the innovation. For that reason, other valuation methodologies have been developed.

The 25% rule

For decades, there was an accepted rule of thumb that a licensee should pay a licensor a royalty rate equivalent to 25% of the net profits of the specific products that use the IP. Recently, US courts have rejected this concept, but if nothing else, the 25% rule can be a good starting point for negotiations.

Market approach

The market approach values the IP asset by looking at comparable transactions. For example, if a company is selling a technology into the market, a valuation method using the market approach might be to use the profit margin. How much does the company make from the technology? Would one expect a similar profit margin from similar technologies?

Alternatively, are there comparable transactions involving similar technologies between businesses? Have there been reports of sales of patents or licenses in the industry? Of course, reported transactions would need to be considered in the context of the sale (e.g., Did the sale involve a bankruptcy? Was it part of a legal settlement or estate sale? Etc.).

The Google logo is displayed in its characteristic multi-colored font (blue, red, yellow, blue, green, red).

Google’s balance sheet reports its intangible assets at a little under \$3B. However, Google’s brand alone has been estimated to be worth over \$300B.

Cost approach

In the cost approach, the valuation would be determined based on the development costs. This approach might be used in determining whether to license or reverse engineer a technology. How much would it cost to develop a process on your own that would be a competitive or replacement technology, compared with simply licensing the know-how from someone else?

Income approach

The income approach considers how the IP will be of value to the purchaser. In this approach, the actual portion of the IP that is directly related to profits is determined, and profits are projected over a period of years. Then a discount rate or the weighted average cost of capital (WACC) of the buyer is applied to determine the net present value of the IP. An alternative to the buyer's WACC might be the published WACC of the industry from a market research report.⁷⁰

Negotiating a license

Whichever valuation approach the seller or buyer uses, the other party will very likely use an approach that differs. One should expect that the seller will estimate the value of the IP to be high, while the buyer will estimate that the value will be low.

Therefore, when deciding on the valuation of IP, an actual deal will almost always be made by means of negotiation, which will be the final determinant of the IP value. Still, you have to start somewhere, and these valuation methods are proven, acceptable ways to begin the valuation process.



To that end, we offer the following tips on negotiating:

- *Research your valuation ahead of time.* Know your IP valuation from several approaches so you have an idea what to expect. This will allow you to understand the position of serious parties and help eliminate others who might be a waste of your time.
- *Know what you want and need before you begin negotiating.* It makes no sense to begin a negotiation with no idea as to what you will need to get out of the deal.
- *Make sure you are dealing with the decision makers.* Some companies will send a negotiator who does not have the authority to conclude a deal. That person's job is, many times, one of data-gathering and "softening up." The other party may use this tactic to gain knowledge ahead of a true negotiation and wear down the person on the other end of the table. If someone can wear you down, you are more apt to accept an inferior deal, just to be done with the process. Do not waste your time with underlings who have to get a deal approved by someone else. Only deal with a decision maker.
- *Make sure everyone agrees on the ground rules.* Ensure both parties recognize the objective to be reached. Before you start, make sure everyone agrees on the topic and scope of the agreement. Are you offering rights on patent A or patent B? Make sure everyone agrees that the discussion will center around A, B, and C, and that X, Y, and Z are not on the table.

- *Be courteous, respectful, and professional; do NOT “get personal” or emotional.* If someone is discourteous or unprofessional to you, be sure to respond in a courteous, respectful, and professional manner. Do not get bogged down in name-calling, and if the other party engages in such behavior, do not take the bait. Your professionalism and respect will (with most people) be an advantage; the other party will likely come up to your level, if you do not fall to theirs. (If the other party persists in demonstrating unprofessional behavior, you might want to think twice about dealing with them at all; there are other fish in the sea.)



- *Be willing to walk away.* It's one of the most effective negotiating techniques.
- *Don't be afraid to make the first offer.* If you know the value of the IP and are willing to negotiate in good faith to get the best, fairest deal, then there is no reason why you shouldn't make the first offer.
- *If they say “no,” find out “why.”* If you have made what you believe to be a good, fair, and reasonable offer and it is rejected, find out the reason. Are you missing something? Is there something about the market that you don't know? Or is there some other circumstance that is unrelated to your offer (for example: a factor internal to the other party such as a new budget or a decision to move in a different market direction)?
- *Listen.* What are the needs of the other party? Are they seeking something (maybe something aside from the item being negotiated) that you can provide to make the deal work? Are they misinterpreting your message? Don't remain fixated on your side of the table. Listen to what the other party is saying and react accordingly.
- *Don't let your feelings get hurt.* A common tactic is for the other party to disparage or otherwise downplay the value of your IP. Recognize that for what it is: a tactic to try to justify a lower license payment.
- *Be persistent, but reasonable.* If a facet of the deal hurts you, don't agree to it. If part of the deal is bad, don't accept it. Be persistent. Do not allow a bad deal to happen just because you want to get something done. Conversely, if a request from the other side is reasonable and you can meet it, meet it. There is no reason not to give someone what they want if it is easy to do and facilitates the negotiating process. It will motivate the other party to respect you more and make things easier as time goes on.
- *Do what you say you will do, even if it costs you.* Others may not agree, but we believe that one's word and reputation are more important than money. Many people will renege on promises or agree to do things with no intention of following through. Some will initially agree to a clause in a contract or agreement, only to object to it later. These people are not worth your time. And, if this is the way *you* act, then you are not worth theirs.
- *Consider your interests and that of the other party.* A truly successful negotiation is one where both parties walk away happy. You get what you want and they get what they want. Ask the other party what they want and do what you can to make that happen. Tell them you want them to get what they need; you are there to try to make the best deal possible for both of you.

In the end, neither party should feel like they “lost.” The reason for this (beyond the simple morality of looking out for one another and being kind and considerate) is, if one party feels as though they got the bad end of a deal, they will remember that—and you never know when you might meet that person or that business again. It’s best that a negotiation doesn’t leave a bad taste in someone’s mouth.

Resources

- Fisher, Roger and William Ury. *Getting to Yes: Negotiating Agreement Without Giving In*, 3rd ed., Penguin Books, New York: 2011.
- Heberden, Tim. *Intellectual Property Valuation and Royalty Determination*, Wolters Kluwer Law & Business, 2011; Retrieved from: https://brandfinance.com/images/upload/ip_valuation_royalty_rates.pdf.
- Timmons, Jeffrey A. *New Venture Creation: Entrepreneurship for the 21st Century*, 4th ed., Irwin, Chicago: 1994.

Summary

The future of intellectual property

Inventions and innovation will continue in the US and around the world. The numbers of issued US patents increased dramatically for the last half-century (between 1963 and 2013). Since 2014, the numbers have leveled off somewhat, but we are still seeing about 1 million new inventions patented every three years.

With current breakthroughs in nanotechnology, the advent of artificial intelligence, and advanced machine learning, we are seeing striking advances in medicine, food production, transportation, entertainment, and nearly every other facet of daily life.

This translates into a vast number of opportunities for individual innovators, entrepreneurs, and small businesses. The key to success in IP, however, is to adhere to sound business principles without stifling the innovative spirit.⁷¹

In general, we can offer a few final pieces of advice:

Be objective

It is common to think of your idea as your “baby.” And, no one wants to think their baby is ugly.

But, recognizing and accepting the limitations of your idea early on (e.g., maybe the market isn't there or perhaps the idea is an improvement rather than an innovation) can save you thousands of dollars. Likewise, getting your idea vetted, realizing potential improvements, and making early adjustments can save you thousands down the road.

Don't be afraid of negative advice or feedback. Be agile and ready to pivot if needed. Your idea may be perfect as it is, it may need some tweaking, or it may simply not have any market potential. Whatever you find out as you go down this road, you need to be objective and willing and able to accept reality.

Assess your resources

Assess your personal finances

- Do you have the money for a patent?
- Do you have the money to start a business?
- Do you have collateral you could use for a business loan?
- Do you have access to outside investors?

Assess your time constraints

- Do you work full-time/have little spare time?
- Do you know anyone who has free time and could work with you?

It's difficult to make predictions, especially about the future.

Attributed to Niels Bohr
(may also be an old
Danish proverb)

Assess your personal skills

- Do you have the technical skills to invent the product and develop a marketable version?
- Do you have the business skills to commercialize the invention (e.g., accounting, finance, marketing, sales, management, etc.)?

Assess your personal drive and goals

- Do you have the determination to potentially fight an uphill battle for multiple years?
- Do you *really* want to run a business, and do you accept the risks?

Legal assessment

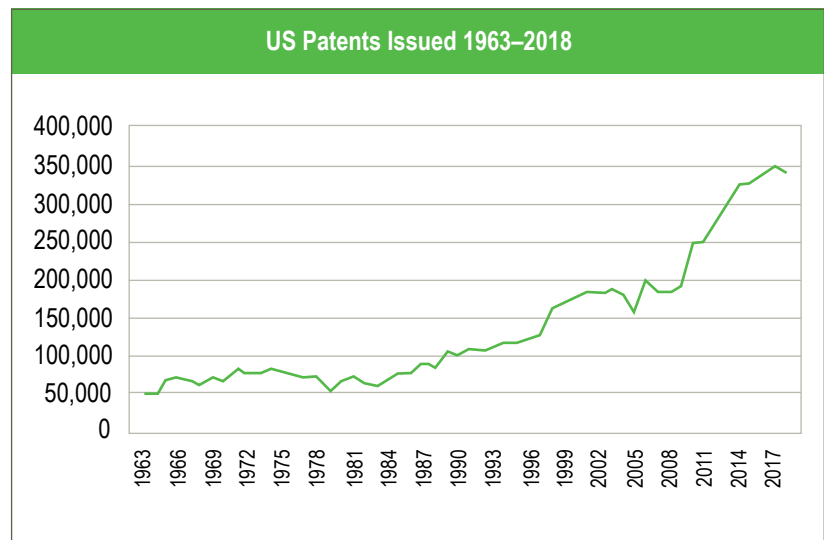
- Do you know how you will commercialize this idea (e.g., licensing, manufacturing, JV, or something else)?
- What kind of business will you create (e.g., an LLC, corporation, or other form)?
- Do you have the necessary contracts and agreements in place (e.g., non-compete agreements, NDAs, employment agreements, etc.)?

Resources: The SBTDC technology commercialization team

Finally, we strongly encourage you to check out the SBTDC's *Business Start-Up Guide*, which is available from your local SBTDC office or counselor or as a free download on our website: <http://www.sbtcd.org/wp-content/uploads/SBTDC-Start-UpGuide.pdf>. It will help you navigate the business side of turning your idea into a marketable product.

The development of your idea will be exciting and demanding. As you move forward, the SBTDC technology commercialization team, its general business counselors, and other specialty-area advisers will be standing ready to assist wherever we can. Please do not hesitate to contact us for our no-cost services.

Webpage: <http://www.sbtcd.org/programs/tech/>.



©	Copyright symbol, usually placed on a work to indicate that the work is “under copyright” (i.e., someone owns the work). See also “Copyright.”
Copyright	A form of intellectual property law that protects original works of authorship including literary, dramatic, musical, and artistic works (e.g., novels, movies, songs, software). (Ref: U.S. Copyright Office.) See also “©.”
Design patent	A patent granted for a new, original, and ornamental design of an article of manufacture; only the appearance is protected. (Ref: U.S. Patent and Trademark Office.) See also “Non-provisional patent application,” “Patent,” “Patent pending,” “Plant patent,” “Provisional patent application,” and “Utility patent.”
Filing date	The date on which the application is received by the office. (Ref: U.S. Patent and Trademark Office.)
IP	Intellectual property; an asset that consists of a creation of the mind that is used in commerce (e.g., an idea, invention, brand name, slogan, written work, etc.).
Non-provisional patent application	One of two types of utility and plant patent applications (the other being “provisional”). A non-provisional is the application that gets reviewed by the U.S. Patent and Trademark Office and will hopefully lead to the grant of a patent. (Ref: U.S. Patent and Trademark Office.) See also “Design patent,” “Patent,” “Patent pending,” “Plant patent,” “Provisional patent application,” and “Utility patent.”
Patent	A type of property right granted by the US government to an inventor to exclude others from making, using, offering for sale, or selling an invention in the US. (Ref: U.S. Patent and Trademark Office.) See also “Design patent,” “Non-provisional patent application,” “Patent pending,” “Plant patent,” “Provisional patent application,” and “Utility patent.”
Patent pending	A term meaning that a provisional or non-provisional patent application has been submitted to the U.S. Patent and Trademark Office. (Ref: U.S. Patent & Trademark Office.) See also “Design patent,” “Non-provisional patent application,” “Patent,” “Plant patent,” “Provisional patent application,” and “Utility patent.”
Plant patent	A patent granted for a new, asexually reproduced plant. (Ref: U.S. Patent & Trademark Office.) See also “Design patent,” “Non-provisional patent application,” “Patent,” “Patent pending,” “Provisional patent application,” and “Utility patent.”

Prior art	Any prior description or evidence of an invention.
Provisional patent application	One of two types of utility and plant patent applications (the other being “non-provisional.”) A provisional is a patent application that can later be used by the applicant to secure a filing date, while delaying some of the costs. (Ref: U.S. Patent and Trademark Office.) See also “Design patent,” “Non-provisional patent application,” “Patent,” “Patent pending,” “Plant patent,” and “Utility patent.”
®	Registered trademark or service mark symbol. It is placed adjacent to a trademark or service mark that has been registered at the U.S. Patent and Trademark Office. (Ref: U.S. Patent and Trademark Office.) See also “Service mark,” “SM,” “TM,” and Trademark.
Service mark	A name, logo, slogan, or other mark that identifies and distinguishes the source of a service. (Ref: U.S. Patent and Trademark Office.) See also “®,” “SM,” “TM,” and “Trademark.”
SM	Service mark symbol for a mark that may not be registered with the U.S. Patent and Trademark Office; sometimes also called a “trademark,” it may also use the “TM” symbol. (Ref: U.S. Patent and Trademark Office.) See also “®,” “Service mark,” “TM,” and “Trademark.”
TM	Trademark symbol for a mark that may not be registered with the U.S. Patent and Trademark Office. (Ref: U.S. Patent and Trademark Office.) See also “®,” “Service mark,” “SM,” and “Trademark.”
Trade secret	Information, unknown by others, that is used in business and provides an economic advantage.
Trademark	A name, logo, slogan, or other mark that identifies and distinguishes the source of goods or services. (Ref: U.S. Patent and Trademark Office.) See also “®,” “Service mark,” “SM,” “TM,” and “Trademark.”
USPTO	United States Patent and Trademark Office.
Utility patent	A patent granted for a new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof. (Ref: U.S. Patent and Trademark Office.) See also “Design patent,” “Non-provisional patent application,” “Patent,” “Patent pending,” “Plant patent,” and “Provisional patent application.”

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