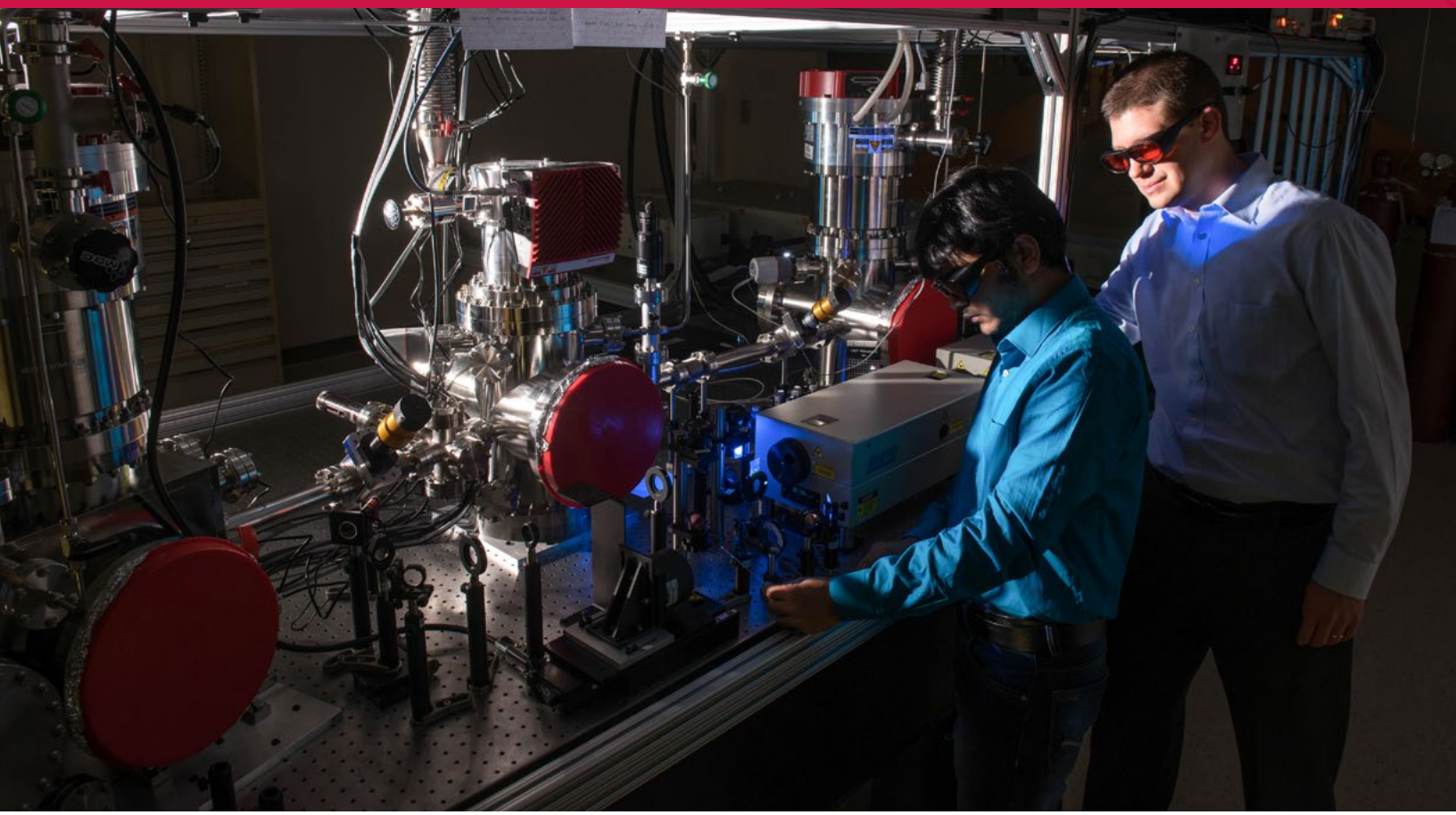
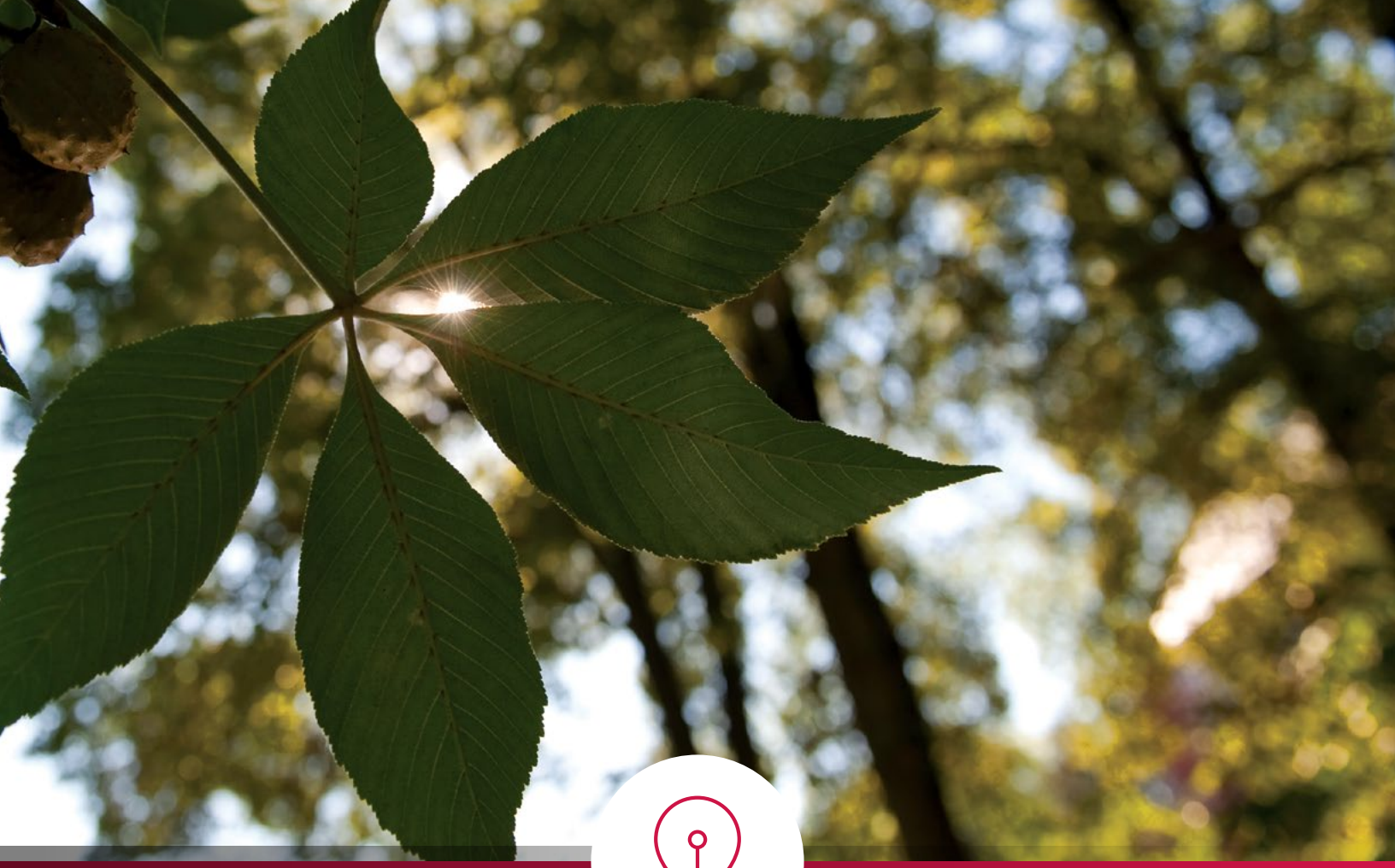
INVENTOR'S GUIDE TO TECHNOLOGY TRANSFER



The Ohio State University



INVENTOR'S GUIDE TO TECHNOLOGY TRANSFER

The Inventor's Guide to Technology Transfer outlines the essential elements of technology transfer at The Ohio State University. It was created to provide helpful information about intellectual property for inventions and copyrightable works. This guide provides convenient, clear answers to common questions from Ohio State's research community, as well as a broad overview of the technology transfer processes and related services. Useful and new information can be found at **www.ceo.edu**, or, if you have specific questions call the Corporate Engagement Office directly at 614-292-1315 or email us at **innovation@osu.edu**.

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This guide was created in August 2019. It is based on Stanford University Office of Technology Licensing "Inventor's Guide," with adaptations for Ohio State. We are very grateful to the staff of Stanford OTL for their permission to use these materials. Faculty creators should refer to Ohio State's Intellectual Property Policy and other policies for current guidelines on **intellectual property, conflict of interest and other issues**.

Advancing university research to the global marketplace

Our research programs make the university a leading force of innovation and change – locally, nationally and globally. With a long-term, comprehensive focus on commercialization, the university has built a robust set of resources to take promising discoveries from concept to market.

Brilliant faculty from our 15 colleges and other units around the university are the driving force for over 400 invention disclosures each year. This translates into nearly 300 active licenses – technologies invented at Ohio State that are impacting lives around the world.

Our **technology commercialization team** is the bridge between research and the market. Ohio State innovators are continually making groundbreaking discoveries in fields that impact the human condition: medicine, animal health, agriculture, manufacturing, logistics, international business, science and technology. We are here to help you navigate the commercialization process every step of the way. Please review this information and contact us with any questions you have.

Technology Transfer Overview

What is technology transfer?

Technology transfer is a process by which knowledge and discoveries are disseminated to the public. It can occur through publications, educated students entering the workforce, exchanges at conferences, and relationships with industry, among other things. In this guide, technology transfer is a general term that refers to the formal licensing of technology to third parties under the guidance of professionals employed by universities, research foundations and businesses.

Why would a researcher want to participate in the technology transfer process?

Participation reasons are unique to each researcher and may include:

- Making a positive impact on society
- Making innovation available for the public benefit
- Feeling a sense of personal fulfillment
- Achieving recognition and financial rewards
- Generating additional laboratory or departmental funding
- Meeting the obligations of a research contract
- Attracting research sponsors
- Creating educational opportunities for students
- Linking students to future job opportunities

What is the Corporate Engagement Office?

Ohio State has a breadth and depth that few universities possess. We're here to make the right connections, forming mutually-beneficial relationships that positively impact society by advancing innovation, developing talent and driving economic success. We work closely with inventors, companies, entrepreneurs, investors and other organizations by connecting the right people and resources to fill gaps and solve complex problems. We're here to serve you.

What is Corporate Engagement's role in the transfer of technology and inventions?

Corporate Engagement provides support to the Ohio State community in many ways, including:

- Receiving and evaluating invention disclosures which describe technology created by Ohio State faculty, staff and students
- Supporting the protection of Ohio State inventions through patenting and other means
- Assisting in finding partners and funds to support developmental and proof-of-concept studies
- Marketing Ohio State technologies to industry
- Facilitating startup company creation to bring technology to market
- Negotiating license agreements with interested companies
- Supporting long-term relationships with strategic partners that nurture early-stage discoveries into market-ready technologies and products
- Advice on Ohio State's Intellectual Property Policy

How is technology transferred?

Technology is typically transferred through a license agreement in which the university's affiliated entity responsible for technology transfer grants rights in a defined technology to a third party. At Ohio State, that entity is the Ohio State Innovation Foundation (OSIF). The licensee (the company licensing the technology) may be an established company or a new business startup. Licenses include terms that require the licensee to meet certain performance requirements and to make financial payments. These payments are shared with the inventors, OSIF, the university, and the colleges, departments and centers of the inventors.

What is the Bayh-Dole Act?

The United States Bayh-Dole Act of 1980 allows universities and other non-profit institutions to have ownership rights to discoveries resulting from federally funded research, provided certain obligations are met. These obligations include making efforts to protect (when appropriate) and commercialize the discoveries, submitting progress reports to the funding agency, giving preference to small businesses that demonstrate sufficient capability and sharing any resulting revenues with the inventors. The Bayh-Dole Act is credited with stimulating interest in technology transfer activities and generating increased research, commercialization, educational opportunities and economic development in the United States.

Technology Transfer Process

How can I work with Corporate Engagement?

We encourage you to contact the technology commercialization team during your research activities to be aware of the options that will best support the commercial potential of your research. Our technology commercialization and new ventures teams can answer your questions related to marketability, funding sources, commercial partners, patenting and other protection methods, new business start-up considerations, university policies and procedures and much more.

What are the typical steps in the technology transfer process?

The technology transfer process follows a typical pathway to commercialization. Note that these steps can vary in sequence and often occur simultaneously.

1. ### RESEARCH
   Observations and experiments during research activities often lead to discoveries and inventions. An invention is any useful process, machine, composition of matter, or any new or useful improvement of the same. Often, multiple researchers may have contributed to the invention.

2. ### PRE-DISCLOSURE
   Inventors have the option to talk with a licensing officer to discuss inventions and get guidance about the disclosure, evaluation and protection processes.

3. ### INVENTION DISCLOSURE
   This is the official, written notice of invention to the technology commercialization team that begins the formal technology transfer process. An invention disclosure remains a confidential document and should fully document your invention so that the options for commercialization can be evaluated and pursued.

4. ### ASSESSMENT
   During this time, a licensing officer and, if appropriate, new ventures representative, reviews the invention disclosure, conducts patentability review, and analyzes the market and competitive technologies to determine the invention's commercialization potential. This evaluation process will guide the strategy on whether to focus on licensing to an existing company or a new business startup.

5. ### INTELLECTUAL PROPERTY PROTECTION
   Safeguarding intellectual property (IP) with protection through patents and copyrights is crucial to fostering innovation. Without the protection of ideas, universities, individuals and licensees would not have an economic incentive to develop inventions to the point where they can be brought to market. Patent protection, a common legal protection method, begins with the filing of a patent application with the U.S. Patent Office (USPTO) and, when applicable, with foreign patent offices. Once a patent application has been filed, it typically will require several years and tens of thousands of dollars to obtain issued U.S. andforeign patents. Other protection methods include copyright, trademark and contractual use restrictions (e.g., for databases or tangible research property [e.g., biological material]).

6. MARKETING

This may involve marketing to an existing company or entrepreneurs seeking opportunities for a startup company. The licensing officer identifies candidate companies or entrepreneurs that have the expertise, resources and business networks to bring the technology to market. If a startup pathway is chosen, a new ventures manager can help recruit business talent and identify sources of capital for the company. Active involvement can dramatically influence the marketing process. Traditionally, inventors have been the best source in identifying potential licensees.

7. SELECTING LICENSEES

The commercialization team selects licensees that have the greatest potential to commercialize a technology and works with those companies to develop the appropriate financial and diligence terms to fully commercialize a technology. Inventors should work with the commercialization team to help qualify the management team and business plan, as well as help incorporate relevant diligence terms in the license agreement.

8. LICENSING

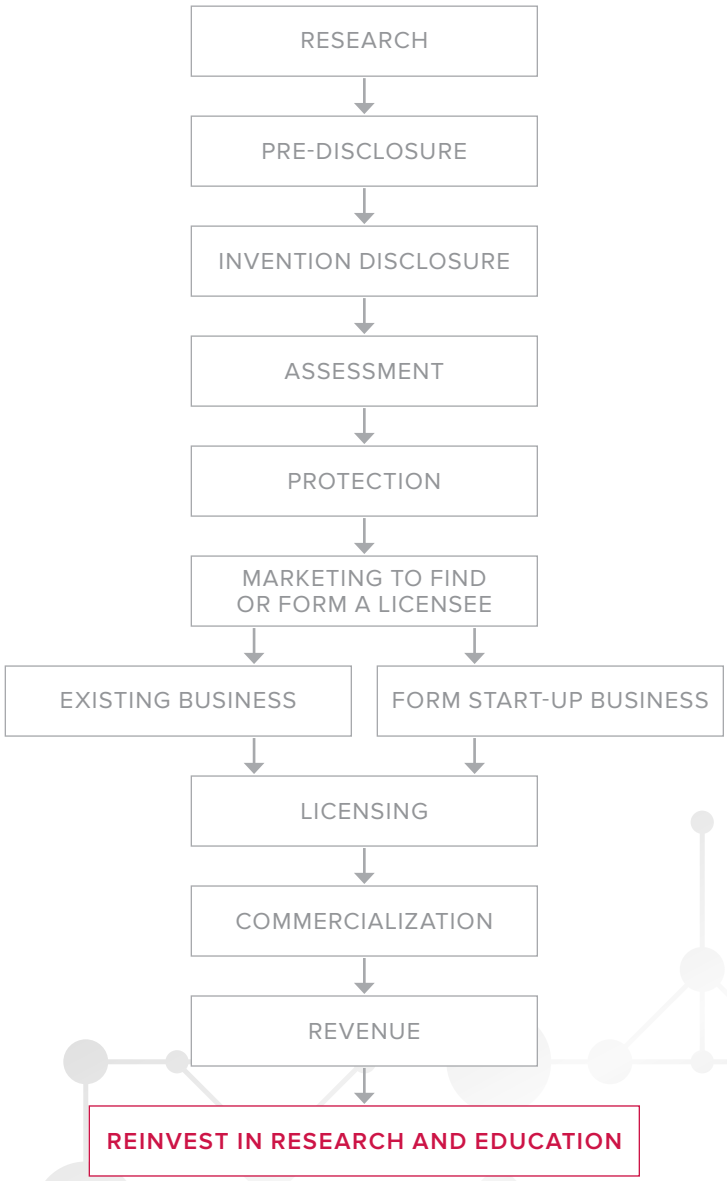
Once a licensee is identified, a licensing officer will negotiate and execute a license agreement. A license agreement is a contract with a third party in which rights to a technology are licensed without relinquishing ownership, in return for fair consideration (e.g., upfront fee, milestone payments, royalties) and other benefits. A license agreement is used with both a new startup business or with an established company. An option agreement is sometimes used to enable a third party to evaluate the technology and its market potential for a limited time before making a decision about licensing. Startup companies often use an option to raise commercialization funds prior to licensing.

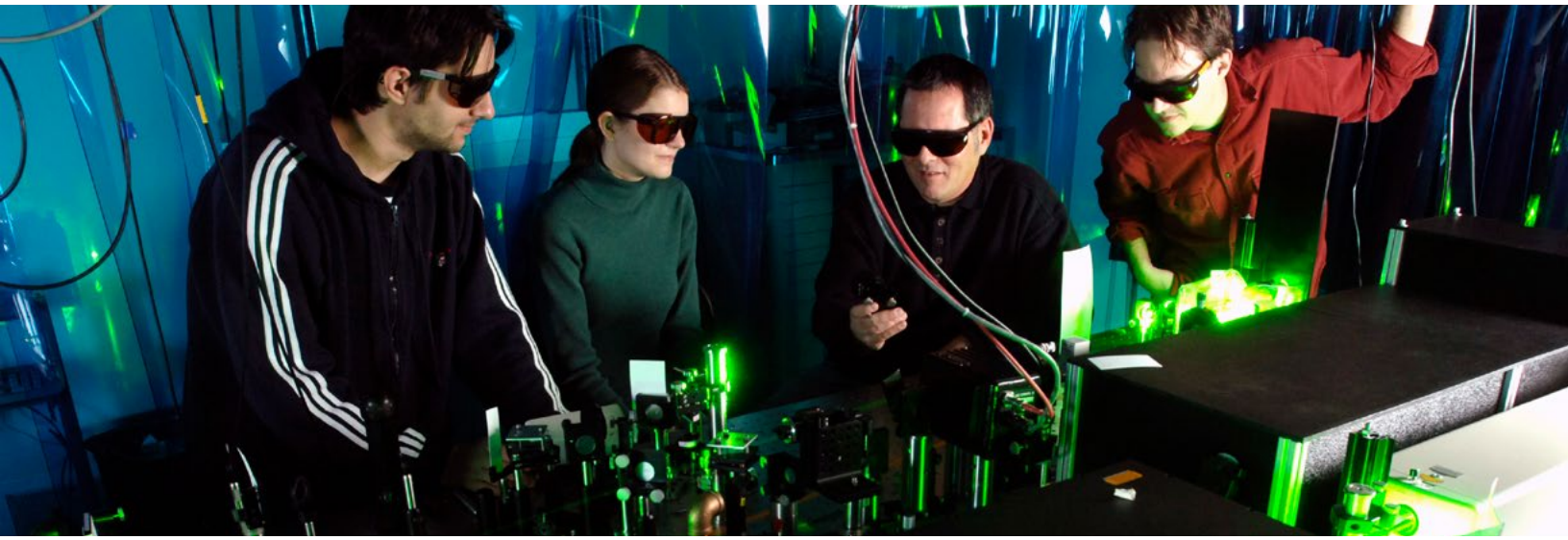
9. COMMERCIALIZATION

The licensee continues the advancement of the technology and makes other business investments to develop the product or service. This step may entail further development, regulatory approvals, sales and marketing support, training and other activities.

10. REVENUE

Revenues received by the university from licenses are distributed to inventors, colleges, departments, centers and the Corporate Engagement Office, on behalf of the university, to fund additional research and education and to encourage further participation in the technology transfer process.





How long does the tech transfer process take?

It may take months or even years to go through the protection and licensing process for a technology. The length of time will depend on the technology's development stage, the market for the technology, competing technologies, the amount of work needed to bring a new concept to market-ready status and the resources and willingness of the licensees and the inventors.

What is the inventor's role in this process?

- **Talk to the Corporate Engagement Office about your invention.** Contact a member of the technology commercialization team when you believe you have created or discovered something unique with potential commercial or research value.
- **Complete and submit the Ohio State Invention Disclosure Form** (Ohio State log-in required). To avoid risking loss of patent rights, contact your licensing officer before publicly disclosing your invention in a presentation, lecture, poster, abstract, website description, research proposal, dissertation/master's thesis, publication or other public presentation.
- **Help prepare marketing materials and identify potential licensees.** Work with your licensing officer to identify companies and contacts you believe might be interested in your invention and to create non-confidential marketing materials to share with potential licensees. Also, please be prepared to help your licensing officer respond to specific technical questions from interested companies.
- **Engage with potential business leaders if licensing to a startup company.** Often technologies are licensed to startup companies when private capital is necessary to mature the technology to the point where it can be brought to market. Some of the funds raised by the startup may be directed to the inventor(s) through a consulting agreement or to the inventor(s)' lab through a sponsored research agreement. In either case, the continued engagement of the inventor in the technical development of the invention is often necessary.
- **Respond to your licensing officer and outside patent counsel requests.** If Ohio State decides to pursue patent protection, your support is critical to reviewing the patent application for completeness and accuracy, and throughout the patent prosecution process.
- **Keep the technology commercialization team informed and remain engaged.** Please let your licensing officer know about significant developments, upcoming publications or interactions with companies related to your IP. The technology commercialization team is also interested in helping you develop the IP. Remaining engaged will allow us to guide you to potential funding opportunities or other helpful resources.

Research Considerations

Will I be able to publish the results of my research and still protect the commercial value of my intellectual property?

Yes. However, patent rights are affected by these activities. It is best to submit an **Invention Disclosure Form** (Ohio State log-in required) well before communicating or disclosing your invention to people outside of the university. There are significant differences between the U.S. and other countries as to how early publication affects a potential patent. Once publicly disclosed (published or presented in some form), an invention may have restricted or minimal potential for patent protection outside of the United States. Be sure to inform your licensing officer of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal submission, dissertation/masters thesis, publication, or other public presentation that includes the invention.

May I use material or intellectual property from others in my research?

Yes. It is important to document carefully the date and conditions of use so that we can determine if this use may influence the ownership and license rights of your subsequent research results.

If you wish to obtain materials from outside collaborators, an incoming Material Transfer Agreement (MTA) should be completed. Contact the Corporate Engagement Office for more information on incoming MTAs or send an e-mail to **contracts@osu.edu**.

Will I be able to share materials, research tools or intellectual property with others to further their research?

Yes. It is important to document items that are to be shared with others and the conditions of use. If you wish to send materials to an outside collaborator, an outgoing **Material Transfer Agreement** (MTA) should be completed for this purpose. It also may be necessary to have a **Confidential Disclosure Agreement** (CDA) completed to protect your research results or intellectual property. If you have questions concerning what template may be best to protect the material you would like to transfer please contact our office at **contracts@osu.edu** or submit a request via our **Agreements Request Forms** online.

What rights does a research sponsor have to any discoveries associated with my research?

An industry sponsored research agreement is a contract between Ohio State and a company for funding research at the university. This agreement includes terms around a number of areas, including the licensing of any intellectual property arising from the research. The university provides industry partners three options for the handling of intellectual property, including:

- an option to negotiate a license;
- a non-exclusive, royalty-free license with an upfront technology access fee; or
- an assignment of rights with an upfront technology access fee.

A technology access fee (TAF) is when a company pays an upfront fee before the research is conducted, and in exchange, the company receives known, up-front rights to any intellectual property that may result from the research. This option provides transparency and reduces the risks for companies when investing in external research. For companies who intend to execute multiple research programs, Ohio State also offers a master research agreement to further streamline negotiations on individual research projects.

View our **standard industry sponsored research agreement**.

The sponsor generally will not have contractual rights to discoveries that are clearly outside of the scope of the research. Therefore, it is important to define the scope of work within a research agreement.

Sponsored research projects are handled by the Office of Sponsored Programs. OSP representatives work closely with the technology commercialization staff on IP issues in sponsored research agreements.

What about consulting?

Consulting arrangements are not negotiated by the university. Researchers who enter into consulting agreements should familiarize themselves with the university's policies relevant to consulting activities and are expected to ensure that the terms of the consulting arrangement are consistent with these policies, including those related to IP ownership, employment responsibilities and use of IP. Your licensing officer is available to provide informal advice on how your consulting agreement relates to Ohio State IP.

This **addendum** can be used to bring your personal consulting agreement into compliance with the University **Intellectual Property Policy**.

In an effort to avoid conflicts, Ohio State has several policies governing the terms and conditions of faculty employment, academic affairs and research activities.

- **Intellectual Property Policy**
- **Faculty Paid External Consulting Policy**
- **Conflict of Interest and Work Outside the University**
- **Rights to and interests in intellectual property, patents, and copyrights** (3335-13-06)
- **Rules governing faculty, staff, and student participation in companies commercializing university research** (3335-13-07)

Invention Disclosures

What is an invention disclosure?

An invention disclosure is the official written notice of a university invention – it is the first step in protecting and advancing intellectual property. Inventions may be processes, guidelines, methods, machines, articles of manufacture, devices, software, chemicals and compositions of matter.

This document will be treated as "Ohio State Confidential." You will be contacted by a licensing officer shortly after your invention disclosure submission to discuss the invention and its potential commercial applications.

Why should you submit an Invention Disclosure?

Disclosing an invention is an important first step in fulfilling Ohio State's land-grant mission of creating and discovering knowledge to improve the well-being of our state, regional, national and global communities. The disclosure begins the process of protecting the intellectual property and finding a path to impact lives. Proceeds from technologies in the market are distributed back to the inventors and their colleges, promoting investment in continued research activities. Many funding agencies, including the federal government, require that resulting inventions be disclosed to the university.

When should you submit an invention disclosure?

Timing is a crucial factor when submitting a disclosure – an invention should be disclosed at least eight weeks prior to sharing information about the discovery publicly. This timeframe allows for an in-depth evaluation process to be completed and ensures enough time for actions to be taken to protect both U.S. and foreign rights. In the event that you cannot submit an invention disclosure at least eight weeks prior to a public disclosure, please contact us at 614-292-1315.

A public disclosure is any non-confidential oral or written communication to people outside the university that provides enough information to reveal the existence of the invention and enable a person having ordinary skill in the art to reproduce the invention. Examples of public disclosures can include: a journal article; conference proceedings or abstracts; thesis publication or defense; federally-funded grant applications upon notice of award; publicly distributed meeting notes; or discussions with third parties. When in doubt, contact us to help guide you to ensure the technology is protected.

How should you disclose an invention?

All invention disclosures should be made through our inventor portal, **Innovate**. Through this secure portal, inventors can also access invention and patent records and view their history of requests. When disclosing, be sure to:

- Choose the appropriate type of disclosure
- Include title and abstract
- Create a technical description
- Attach applicable manuscripts or papers
- Provide references or publications
- Include any funding or sponsored research information

How are disclosures addressed?

A licensing officer with subject matter expertise will assess each invention disclosure in three major categories:

1. Intellectual property - the commercialization team investigates the intellectual property landscape to identify any prior art or encumbrances related to the technology. There are multiple ways in which to protect an idea or technology: patents, copyrights and know-how are the three most frequently employed at universities.
2. Potential market - the licensing officer and, if appropriate, new ventures director perform an evaluation to identify potential licensees, business leads and/or investors for the technology. The commercialization team also considers competition, market need, stage of development, possible customers, market size, value proposition and timeframe to a marketable product in this assessment.
3. Technical merit - the team will work with the inventor(s) to determine whether any additional experiments or studies are required to help position the invention for licensing or commercialization.

What happens after I disclose an invention?

Our technology commercialization team is here to help researchers facilitate the translation of advanced research and innovation into the market where it can have an impact on people and the economy. Our team assigns the appropriate technology commercialization staff to your technology and will evaluate your disclosure. We will reach out to meet with you and begin the process of commercialization with you. Please note – an invention disclosure is not a patent application. While an invention disclosure notifies the commercialization team that an invention has been created, a separate step is required to file a patent application covering the invention.

Ownership of Intellectual Property

What is intellectual property?

Intellectual property (IP), are all rights to and interests in discoveries, inventions, tangible research property, copyrighted materials, and know-how.

Who is an inventor?

In general terms, an inventor is someone who contributed to the conception of the invention or to the creative development of an important element in reducing it to practice. Inventorship is not the same as authorship, however. A “pair of hands” who only carried out the orders of another person is not an inventor, even though such a person may be considered a co-author or contributor in a scholarly sense. Inventorship has a legal definition and will be determined by a patent attorney at the time of filing of any patent application.

Can a student contribute to an invention?

Yes, many students contribute to inventions at Ohio State under a wide variety of circumstances. Ohio State promotes student innovation, and students can be named as inventors under U.S. patent law. Typically, students will own the rights to an invention unless they created it in their capacity as an Ohio State employee. Review the **IP Policy** for details.

What if I created the invention with someone from another institution or company?

If you created the invention under a sponsored research agreement with a company, the licensing officer will need to review that agreement to determine ownership and other rights associated with the contract and to determine the appropriate next steps. If the technology is jointly owned with another academic institution, the licensing officer will usually enter into an inter-institutional agreement (IIA) that allows one of the institutions to take the lead in protecting and licensing the invention, sharing of expenses associated with the patenting process and allocating any licensing revenues. If the technology is jointly owned with another company, the licensing officer will work with the company to determine the appropriate patenting and licensing strategy.

Who owns what I create?

Ownership depends upon the employment status of the creators of the intellectual property and their use of Ohio State facilities/resources. Considerations include:

- What is the source of the funds or resources used to produce the invention?
- What was the employment status of the creators at the time the invention was conceived?
- What are the terms of any agreement related to the creation of the invention?

As a general rule, Ohio State owns inventions made by its employees while they are acting within the scope of their employment or using more than incidental Ohio State resources. **Ohio State's IP Policy** describes the applicable rules for inventive works. In some cases, the terms of a Sponsored Project Agreement or Material Transfer Agreement may impact ownership. When in doubt, it is best to call the Corporate Engagement Office for advice.

What is a patent?

A patent is a legal right that allows the holder to exclude others from making, using, selling, offering to sell and importing any patented invention. Note, however, that a patent does not provide the holder any affirmative right to practice a technology, since it may fall under a broader patent owned by others; your patent only provides the right to exclude others from practicing it. Patent claims are the legal definition of an inventor's protectable invention.

What type of subject matter can be patented?

Patentable subject matter includes processes, machines, compositions of matter, articles, some computer programs, and methods (including methods of making compositions, methods of making articles and even methods of performing business).

Who is responsible for patenting?

The Ohio State Innovation Foundation (OSIF) was formed in 2012 to hold, manage and facilitate commercialization of the university's intellectual property. OSIF contracts with outside patent counsel for IP protection, thus assuring access to patent specialists in diverse technology areas. Inventors work with the patent counsel in drafting the patent applications and responses to patent offices in the countries in which patents are filed.

What is the patenting process?

Patent applications are drafted by a patent attorney or a patent agent (a non-attorney with a science education licensed to practice by the USPTO). The patent attorney or patent agent generally will ask the inventor to review an application before it is filed and will also ask questions about inventorship of the application claims. At the time an application is filed, the patent attorney will ask the inventor(s) to sign an Inventor's Declaration and an Assignment, which evidences the inventor's duty to assign the patent to the university or OSIF.

In approximately one year or longer, depending on the technology, the patent attorney will receive written notice from the USPTO as to whether the application and its claims have been accepted in the form as filed. More often than not, the USPTO rejects the application because either certain formalities need to be cleared up, or the claims

are not patentable over the “prior art” (anything that workers in the field have made or publicly disclosed in the past). The letter sent by the USPTO is referred to as an Office Action or Official Action.

If the application is rejected, the patent attorney must file a written response, usually within three to six months. Generally, the attorney may amend the claims and/or point out why the USPTO’s position is incorrect. This procedure is referred to as patent prosecution. Often it will take at least two USPTO official actions and responses by the patent attorney before the application is allowed. The resolution can take the form of a USPTO notice that the application is allowable – in other words, the USPTO agrees to issue a patent. During this process, input from the inventor(s) will often be needed to confirm the patent attorney’s understanding of the technical aspects of the invention and/or the prior art cited against the application. The USPTO holds patent applications confidential until published by the USPTO, 18 months after initial filing.

What is an office action?

In nearly all instances, the patent prosecution process involves the issuance of one or more office actions by the examiner. After reviewing the patent application, the examiner will search prior art databases (e.g., issued patents, published applications, technical articles, etc.) to attempt to locate any relevant prior art references. In the office action, the examiner explains why each of the pending claims is allowable or rejected for either a lack of novelty or for being obvious in view of the prior art. The examiner may also believe that the claims are not sufficiently clear, or that the claims are too broad, given the actual invention.

The patent prosecution process is adversarial in nature. Relatively few applications are allowed as filed. multiple office actions may be received as the patent prosecution process continues.

The patent attorney, inventors and your licensing officer will collectively work on a response to each office action to address the examiner’s reasons for rejection. The claims may be amended in the response, but new matter cannot be added.

If the examiner is persuaded, the claims of the patent application are eventually allowed by the examiner, and an issued patent is obtained. The time frame for the entire process of filing and prosecuting a patent application to issuance varies but is typically two to five years.

What is a “final” office action?

When an examiner rejects the patent application for a second time for the same reasons as in the prior office action, the examiner calls the office action a “final” office action. This wording is somewhat of a misnomer, because the patent applicant may still:

- Seek to amend the claims again
- Request an interview to persuade the examiner in person
- File a request for continued examination (along with an additional fee)
- Appeal

Do not be alarmed by the term “final office action.” It simply means that a restricted set of rules apply to the patent seeker in the next round of patent prosecution.

What is a university inventor's role in responding to the office action?

If the decision has been made to respond to the office action, the patent attorney will be directed to obtain any necessary assistance to prepare an appropriate response. Unless the objections or rejections are purely procedural in nature, it is likely that the inventors will be contacted for their input and review of draft responses prepared by our patent attorney.

What is a notice of allowance (NOA)?

When the examiner believes the claims are sufficiently clear, not overly broad, novel and nonobvious, he/she will issue a notice of allowance (NOA), essentially saying that the patent application is ready to issue into an enforceable patent.

What types of patents are available in the United States?

A non-provisional/utility patent may be directed to useful processes, machines, compositions of matter, articles, computer programs and methods (including methods of making compositions, methods of making articles, and even methods of doing business). A plant patent covers asexually reproduced varieties of new plants (other than a tuber propagated plant, or a plant found in an uncultivated state). A design patent covers the visual ornamental characteristics embodied in an article of manufacture.

What is a provisional patent application?

A provisional patent application for an invention is a patent application that may be filed through the USPTO without some of the formalities required of a non-provisional patent application (see non-provisional patent application). A provisional patent application is not examined by the USPTO, and a patent cannot issue directly from a provisional application. A provisional patent application can be used as part of an overall strategy for invention protection. The term provisional can be misleading – be certain that a provisional patent application is afforded all of the legal protections of a full, utility patent application.

What is a non-provisional/utility patent application?

A non-provisional patent application is sometimes called a utility, regular or full patent application. The patent application is a written document that must describe the invention in such a way that would allow someone skilled in the same technical field to duplicate the invention. Preparing the patent application requires the inventors' technical expertise, as well as the patent attorney's knowledge of the technical area and patent law.

A non-provisional U.S. application and related foreign applications must be filed within one year of the provisional filing in order to receive the provisional filing date as the earliest priority date for the invention. However, an applicant only receives the benefit of the earlier filing date for material that is adequately described and enabled in the provisional application. As a result, the patent attorney needs the assistance of the inventor(s) to ensure scientific details are accurate when the first-filed application is provisional.

The formal requirements of a non-provisional/utility patent application include, among other things:

- A detailed (and enabling) description of the invention
- A description of the background of the invention
- A brief description of the drawings (if any)
- A brief description of the invention
- Drawings (when needed)
- Claims

The claims are numbered sentences at the end of the patent application that define the invention in words. The claims are thus important in at least two respects. First, the claim should recite an element/ step that is the point of novelty such that the claim is different (and non-obvious) in view of the prior art. Claims should be drafted broadly enough so others cannot make minor changes and design around the patent claims to generate an equally effective invention without infringing on the researcher's claimed invention. More than one claim can be presented, provided each claim is different.

What's different about foreign patent protection?

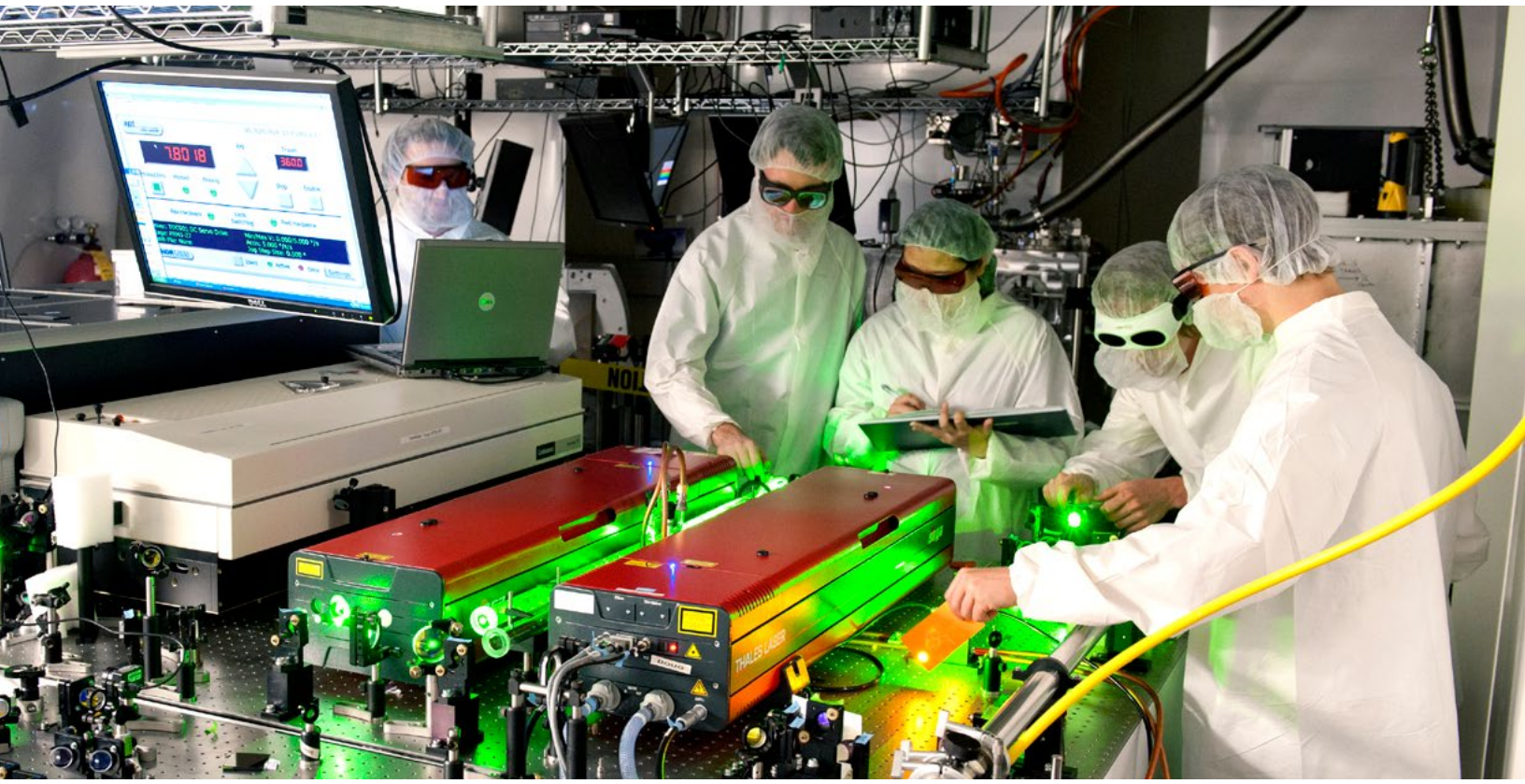
Foreign patent protection is subject to the laws of each individual country, although generally the process in many other countries similarly follows the process in the United States. In most foreign countries, however, an inventor will lose any patent rights if he or she publicly discloses the invention prior to filing the patent application. In contrast, the United States has a one year grace period after publication or public disclosure in any form during which a patent may be filed.

Is there such a thing as an international patent?

Although an international patent does not exist, an international agreement known as the Patent Cooperation Treaty (PCT) provides a streamlined filing procedure for most nations. For U.S. applicants, a PCT application is generally filed one year after the corresponding U.S. application (either provisional or regular) has been submitted. The PCT application must later be filed in the national patent office of any country in which the applicant wishes to seek patent protection, generally within 30 months of the earliest claimed filing date. The PCT provides two advantages:

- It delays the need to file costly foreign applications until 30 months after the earliest filing date, often after an applicant has the opportunity to further develop, evaluate and/or market the invention for licensing.
- The international preliminary examination often allows an applicant to simplify the patent prosecution process by having a single examiner speak to the patentability of the claims, which can save significant costs in prosecuting foreign patent applications.

An important international treaty called the Paris Convention permits a patent application filed in a second country (or a PCT application) to claim the benefit of the filing date of an application filed in a first country. However, pursuant to this treaty, these so-called convention applications must be filed in foreign countries (or as a PCT) within one year of the first filing date of the U.S. application.



What is the timeline of the patenting process and resulting protection?

Currently, the average U.S. utility patent application is pending for about two years (or 4.5 years if you filed a provisional application and then a PCT), though inventors in the biotech and computer fields should plan on a longer waiting period. Once a patent is issued, it is enforceable for 20 years from the initial non-provisional filing of the application that resulted in the patent, assuming that USPTO-mandated maintenance fees are paid.

What (and how) records should be kept to help with the patenting process?

Accurate laboratory notebooks are essential for the documentation of an invention and establishing inventorship. They may also help overcome some types of prior art. To maintain good laboratory notebooks, be sure to:

- Avoid erasures
- Use permanent ink
- Identify subject matter
- Avoid loose pages/inserts
- Provide proper and safe storage
- Have entries witnessed daily/weekly
- Identify and attach photos, drawings, etc.
- Include and explain sketches, diagrams, etc.
- Use consecutive pages and date the entries
- Make new entries; do not alter existing entries
- Clearly identify the project to which all data relate

Other Forms of IP

What is a copyright and how is it useful?

Copyright is a form of protection provided to the authors of "original works of authorship" including literary, dramatic, musical, artistic and other intellectual works, as well as computer software. Protection is available to published and unpublished works that are fixed in a tangible form, such as a book, software code or video. The U.S. Copyright Act automatically gives the creator of a work the exclusive right to conduct and authorize various acts, including reproduction, public performance and making derivative works. In some instances, OSIF registers copyrights, but generally not until a commercial product is ready for manufacture.

The university's **IP Policy** describes the applicable rules for copyrightable works.

What is a trademark or service mark and how is it useful?

A trademark includes any word, name, symbol, or combination thereof, that is used in commerce to identify and distinguish the goods of one manufacturer or seller from those of others and to indicate the source of the goods. In short, a trademark is a brand name. A service mark is any word, name or symbol that is used in commerce to identify and distinguish the services of one provider from those of others and to indicate the source of the services. **Ohio State's Office of Trademark and Licensing** administers university trademarks.

What is trademark registration?

Trademark registration is a procedure in which the USPTO provides a determination of rights based upon legitimate use of the mark. However, it is not necessary to register a trademark or service mark to prevent others from infringing upon the trademark. Trademarks generally become protected as soon as they are adopted by an organization and used in commerce. With a federal trademark registration, the registrant is presumed to be entitled to use the ® trademark throughout the U.S. for the goods or services for which the trademark is registered.

What is the policy on trade secrets?

The university generally does not keep trade secrets because research results are routinely disclosed to others and published widely. However, tangible research property (e.g., biological material) can be licensed as "know-how."

Marketing an Invention

We are committed to finding the best licensee for your invention—a company that will dedicate resources (time, money and people) to developing the technology. Marketing a technology ensures that we have found the best licensee for the technology and avoids perceived conflicts of interest.

How are most licensees found?

The technology commercialization staff uses many sources and strategies to identify potential licensees and market university inventions. Sometimes existing relationships of the inventors, technology transfer staff and other researchers are useful in marketing an invention. Market research can also assist in identifying prospective licensees.

Your licensing officer examines other complementary technologies and agreements to assist their efforts. The technology commercialization staff also attends conferences and industry events, makes direct contacts with potential licensees and uses its website to post inventions. Faculty publications and presentations are often excellent marketing tools as well, but their timing must be coordinated with the technology commercialization plan to avoid compromising patent rights.

How long does it take to find a potential licensee?

It can take months and sometimes years to locate a potential licensee, depending on the attractiveness of the invention, its stage of development, competing technologies and the needs of the market. Most university inventions tend to be in the early stage in the development cycle and thus require substantial commercialization investment, making it difficult to attract a licensee.

Can there be more than one licensee?

Yes, an invention can be licensed to multiple licensees, either non-exclusively to several companies or exclusively to more than one company, each for a unique field-of-use (application) or geography.

How can I assist in marketing my invention?

Your active involvement can improve the chances of matching an invention to an outside company. Your research and consulting relationships are often helpful in both identifying potential licensees and technology champions within companies. Once interested companies are identified, the inventor is the best person to describe the details of the invention and its technical advantages.

Startup Companies

What is a startup?

A startup is a new business entity formed by entrepreneurs to commercialize one or more related intellectual properties.

What types of technologies are suited for a startup?

Technologies licensed to a startup generally share certain characteristics:

- Applicable to a market of sufficient size to attract private capital
- At a stage of development that is too advanced for further research, but not advanced enough for a license to a corporate partner
- Connected with an inventor or technical expert that is willing to continue engagement with the technology after it has been licensed to the startup company

Technologies that demonstrate these qualities are marketed to experienced business leaders or entrepreneurs. An entrepreneur decides to license the technology and is responsible for forming the startup company.

Who forms the startup?

The entrepreneur forms the start-up company, helped by resources from the new ventures team. The entrepreneur can be from within or outside of Ohio State. The entrepreneur is responsible for demonstrating a viable plan to commercialize the invention. The commercialization team will qualify the entrepreneur and business plan, and negotiate with a representative of the company to grant a license to the new company. In order to mitigate conflicts of interest, the startup representative should not be an Ohio State personnel associated with it, the company representative should not be an Ohio State employee in order to mitigate against conflicts of interest.

An entrepreneur should consider a few key factors when thinking about becoming involved in a start-up company:

- **Development risk** – what is the probability that the technology will demonstrate the purported outcome
- **Development costs versus investment return** – what is the cost (including time) to mature the technology relative to the potential economic benefits
- **Platform technology** – what is the potential that the technology can be adapted by multiple products and/or across multiple markets
- **Competitive advantage and target market** – what is the probability that the technology offers a significantly better (and sustainable) solution than others
- **Potential revenues** – how much and how soon will revenues be produced to grow and sustain a company

What role does an inventor usually play in a company?

Ohio State inventors often serve as technology consultants, advisors or in some other technical developmental capacity. In many cases, the startup investors and management team identify the best role for an inventor, based on the inventor's expertise and interests. As the company matures and additional investment is required, the inventor's role may change. Faculty involvement with a licensee (startup or established company) will generally require a conflict of interest review before a license can be approved.

How much of my time and effort will it take?

Starting a company requires a considerable amount of time and effort. Until the startup team is identified and engaged, the entrepreneur will need to champion the formation effort. After the team is in place, you may be asked to be involved in activities such as investor discussions, helping to together a research group or helping with business strategy.

Where can I find more information about startups?

The Corporate Engagement Office's website has a startup guide that was developed to clarify and simplify the process by which faculty and staff creators may start new companies based on technology created by them at Ohio State. It is intended to establish clear, fair and consistent practices and standards for the formation of an Ohio State creator startup company. It accounts for both creators who participate in the startup and -creators who do not. The new ventures team is available to assist you and answer any questions you may have.

Commercialization

What activities occur during commercialization?

The signing of a license agreement is usually the beginning of a long term relationship. Most licensees continue to develop an invention to enhance the technology, reduce risk, prove reliability and satisfy the market requirements for adoption by customers. This can involve additional testing, prototyping for manufacturability, durability and integrity, and further development to improve performance and other characteristics. Documentation for training, installation and marketing is often created during this phase. Benchmarking tests are often required to demonstrate the product/service advantages and to position the product in the market. The licensee's performance is monitored by the technology commercialization staff for the duration of the license. Most license agreements require periodic financial or development reports from the licensees.

What is a license?

A license is a permission that the owner or controller of intellectual property grants to another party, usually under a license agreement.

What is a license agreement?

License agreements describe the rights and responsibilities related to the use and exploitation of intellectual property developed at the university. University license agreements usually stipulate that the licensee should diligently seek to bring the intellectual property into commercial use for the public good and provide a reasonable return to the university.

How is a company chosen to be a licensee?

A licensee is chosen based on its ability to commercialize the technology for the benefit of the general public. Sometimes an established company with experience in similar technologies and markets is the best choice. In other cases, a startup company may be a better option. It is rare for the University to have multiple potential licensees bidding on an invention.

What is my role during commercialization?

Your role can vary depending on your interest and involvement and on the interest of the licensee in utilizing your services for various assignments. Many licensees require the active assistance of the inventor to facilitate their commercialization efforts, at least at the early stages of development. This can range from infrequent, informal contacts to a more formal consulting relationship. Working with a new business startup can require substantially more time, depending on your role in or with the company and your continuing role within the university. Your participation with a startup is governed by university conflict of interest policies.

What revenues are generated for the university if commercialization is successful or unsuccessful?

License agreements often include requirements for payments in the form of upfront fees, minimum annual royalties, milestone payments, earned royalties and sometimes equity. Licensing fees (upfront, annual minimum, milestones) range from very modest amounts to, occasionally, hundreds of thousands of dollars. If licensed products are eventually developed and sold (which can take years), revenues are generated in the form of earned royalties. These payments are usually based on product sales and can vary considerably. If equity is included in a license, it may yield a return for the inventors and the university, but only if the equity can be liquidated through a successful public offering or the sale of the university's equity stake in the company.

Most licenses do not yield substantial royalties. A study of licenses at U.S. universities demonstrated that less than 1% of all licenses yield over $1 million. However, the rewards of an invention reaching the market are often more significant than the financial considerations alone.

What will happen to my invention if the startup company or licensee is unsuccessful? Can the invention be licensed to another entity?

Licenses typically include performance milestones that, if unmet, can result in termination of the agreement. This allows your licensing officer to pursue subsequent licensing to another business.

Proceeds Distributions

How are licensing proceeds distributed?

The Corporate Engagement Office is responsible for managing the patent expenses and licensing proceeds associated with each technology. According to Ohio State policy, revenues from license fees, royalties and equity are shared with the inventors. Proceeds distributions are described in **Ohio State's IP Policy**.

What are the tax implications of any royalty distributions I receive from the university?

License royalties are typically reported under "Other Income" in Box 3 of Form 1099-MISC. Consult a tax advisor for specific advice.

How are inventor payments distributed if there are multiple inventors and/or multiple inventions in a license?

For patented inventions, the inventors' share of royalties is divided equally among the inventors, unless all inventors agree in writing to another distribution formula of their collective choice. If multiple inventions are included in one license agreement, the technology commercialization team will develop an appropriate allocation plan.

Cycle of Innovation

The Corporate Engagement Office shares the royalties it generates with Ohio State inventors, colleges and departments, and partnering institutions. In turn, these returns are reinvested in additional research and education. Collectively, the cycle of innovation fosters the creation of the next generation of research, innovators and entrepreneurs. Every year, the Corporate Engagement Office builds relationships with Ohio State inventors and licensees while assisting in the transfer of Ohio State-generated knowledge and technology to the private sector. The important university-industry relationships developed through technology transfer and products sold by our licensees help us create a better world for all.

The Ohio State Innovation Foundations (OSIF) was formed in 2012 to hold, manage and facilitate commercialization of the university's intellectual property.

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