INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER
AT NEW MEXICO STATE UNIVERSITY:
INCREASING THE IMPACT OF UNIVERSITY RESEARCH
Contents:

1. About the Guide
2. Phase One: Research and Disclosure
4. Phase Two: Evaluation and Protection
11. Phase Three: Commercialization and Licensing
17. Questions and Answers
Universities play foundational roles in innovation and economic development ecosystems. Intellectual Property (IP) management and technology commercialization represent strategies and pathways through which the discoveries and innovations of the NMSU community may have the greatest scholarly, economic, and social impacts. Crafting a comprehensive IP and technology commercialization policy challenges contributors to consider the many ways in which university innovations are developed and how they may be moved off campus to larger markets.

NMSU’s leaders seek to support a “culture of innovation” in which discovery, research and development, and entrepreneurism are encouraged throughout the system: in education, training, professional development activities, as well as through access to commercialization programs and resources. The university recognizes that its community members (including faculty, staff, and students) may create commercially valuable IP as part of their teaching, scholarship, research, and service duties.

NMSU’s administration strives to foster an environment that will provide advice and assistance to creators of IP, offer cost and benefit sharing IP agreements with faculty and staff, and assure compliance with such agreements. To this end, we seek to advance four principles:

1. The dissemination of knowledge developed on campus to the widest range of beneficiaries is a fundamental mission of NMSU, and one in which IP management and technology commercialization play key roles.
2. There must be incentives, both professional and financial, for NMSU community members to engage in technology commercialization activities.
3. The policies and procedures governing and guiding IP management and technology commercialization should, foremost, encourage excellence in scholarly work in support of the public interest.
4. Members of the NMSU community must work together to optimize the benefits of NMSU discoveries and innovations for creators, the university, and the public.

About the Guide

This guide introduces you to NMSU’s Office of Intellectual Property and Technology Transfer (IP Office) and outlines three phases of technology transfer at NMSU:

- Research and disclosure
- Evaluation and protection
- Commercialization and licensing

Each section of this guide provides a brief overview of one of these areas, along with frequently asked questions about related processes. Additional information on NMSU’s IP Policy is available at http://arrowheadcenter.nmsu.edu/intellectual-property/ip-policy. There is also more information available on the IP Office webpage at http://arrowheadcenter.nmsu.edu/intellectual-property.

Note:

This guide is based on the University of Michigan’s “An Inventor’s Guide to Technology Transfer,” with adaptations for NMSU and the Office of Intellectual Property and Technology Transfer at NMSU’s Arrowhead Center. We are grateful to Robin Rasor, Ken Nisbet, Mark Maynard, and the staff of the UM Office of Technology Transfer for their assistance and permission to use these materials.

Throughout this manual, unless specifically described otherwise, the term inventor includes individuals listed on a patent as well as contributors who have shared in creating the value of IP that is not patented.
Observations and experiments during research activities often lead to discoveries and inventions. An invention is any novel useful process, machine, composition of matter, or any new or useful improvement of the same. If your research has led to an invention (or what might be an invention), the most important thing you can do is contact the IP Office and discuss submitting an Invention Disclosure Form (IDF).

An IDF is the written notice of invention to the IP Office that begins the formal technology transfer process. An IDF confidentially discloses your invention so that options for commercialization can be evaluated and pursued. By contacting the IP Office and submitting the IDF, you can get advice and guidance on:

- Publishing and presenting your work while protecting the commercial value of IP.
- Legal issues involving your rights, the rights of research sponsors, and the rights of the university.
- Understanding potential areas of application for your work you may not have considered.
- Understanding potential educational and social benefits of commercializing your work.

Contact the IP Office with any questions you might have about an existing or potential invention. The earlier you contact us, the more options we can provide as your work is developing.

FREQUENTLY ASKED QUESTIONS

Research Considerations

Q: What is “intellectual property”?
A: Intellectual property refers to inventions and/or material that may be protected under patent, trademark and/or copyright laws, and sometimes by contract.

Q: Will I be able to publish the results of my research and still protect the commercial value of my IP?
A: Yes, but since patent rights are affected by these activities, it is best to submit an IDF well before communicating or disclosing your invention to people outside of NMSU. Once publicly disclosed (published or presented in some form), an invention may have restricted or minimal potential for patent protection. Be sure to inform the IP Office of any prior or future presentations, lectures, posters, abstracts, website descriptions, research proposal submissions, Master’s theses, dissertations, publications, or other public presentations that include the invention.

Q: Why is patent protection important?
A: In general, licensees (i.e., individuals or companies who pay for the right to use or market your invention) are not interested in inventions if they are not patent-protected. A
patent’s duration is essential in estimating an invention’s future commercial value and the return on the licensor’s investment. Patent protection also allows for the inventor and NMSU to collect on the financial reward for the licensed product.

**Q:** How long does the technology transfer process take?

**A:** The process of protecting the technology, finding the right licensing partner, or creating a startup business based on the technology will take months—or even years—to complete. The amount of time will depend on the development stage of the technology, the market for the technology, competing technologies, the amount of work needed to bring the concept to market-ready status, and the resources and willingness of the team and partners involved.

**Q:** How can I help in this process?

**A:** Inventors play a vital role in the technology transfer process. In addition to bringing the ideas on which the entire enterprise is based, inventors have ongoing roles in moving innovations to public venues.

- Call the IP Office at (575) 646-2791 when you believe you have created or discovered something unique with potential research or commercial value.
- On the IDF, include companies and contacts you believe might be interested in your invention or who may have already contacted you about your invention. Studies have shown that over 70% of all licenses are executed with commercial entities known by the inventor, so your contacts can be extremely useful.
- Respond to the IP Office and outside patent counsel (i.e., lawyers contracted by NMSU to assist in IP matters) requests. While some aspects of the patent and licensing process may require significant participation on your part, we will strive to make efficient use of your valuable time.
- Keep the IP Office informed of upcoming publications or interactions with companies related to your IP.

**Q:** Will I be able to share materials, research tools, or IP with others to further their research?

**A:** Yes. However, 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. It also may be necessary to have a Confidentiality Agreement completed to protect your research results or IP. Contact an IP Office representative at http://arrowheadcenter.nmsu.edu or (575) 646-2791 to assist you in completing outgoing MTAs or Confidentiality Agreements. But, please, do not disclose your potential invention until a patent application has been filed.

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

**A:** Sponsored research agreements should specify the IP rights of the sponsor. NMSU generally retains ownership of patent rights and other IP resulting from sponsored research. However, the sponsor may have rights to obtain a license to the defined and expected outcomes of the research. Sponsored research often allows the sponsor a limited time to negotiate a license for any patent or IP rights developed as the result of the research. Even so, the sponsor generally will not have contractual rights to discoveries that are clearly outside of the scope of the research. It is therefore important to define the scope of work within a research agreement.

Sponsored research projects are handled by NMSU’s Office of Grants and Contracts (OGC). OGC representatives work closely with the IP Office on IP issues in sponsored research agreements. If you have questions about sponsored research, please contact OGC at http://ogc.research.nmsu.edu/ or call (575) 646-1590.

**Q:** What about consulting?

**A:** When researchers enter into consulting agreements, they are deemed to be acting outside of the scope of their employment. Accordingly, consulting arrangements are not negotiated by NMSU or formally reviewed by the IP Office. Researchers who enter into consulting agreements should familiarize themselves with policies relevant to consulting activities. The researcher is expected to ensure that the terms of the consulting arrangement are consistent with NMSU policies, including those related to employment responsibilities, IP ownership, and use of IP. The IP Office is available to provide informal advice on how your consulting agreement relates to your NMSU IP.

The policy on consulting and conflict of interest can be found at: http://manual.nmsu.edu/current-nmsu-policies.

A discussion regarding conflict of interest in sponsored projects can be found at: http://coi.research.nmsu.edu/.

**Q:** Should I disclose research tools?

**A:** Yes, if your new tools would benefit other researchers and you are interested in providing them to those researchers and other third parties. Typically, research tools are materials such as antibodies, vectors, plasmids, cell lines, mice, and other materials used as “tools” in the research process. Most research tools do not necessarily need to be protected by patents to be licensed to commercial third parties and/or generate revenue for your laboratory. If you have research tools that you believe to be valuable or that you wish to provide to others (including research collaborators), the IP Office will work with you to develop the appropriate protection, licensing, and distribution strategy.

**Q:** Should I list visiting scientists or scientists at other institutions on my IDF?

**A:** All contributors to the ideas leading to a discovery should be mentioned in your disclosure, even if they are not NMSU employees. The IP Office, along with legal counsel, will determine the rights of such persons and institutions. It is prudent to discuss with the IP Office all working relationships (preferably before they begin) to understand the implications for any subsequent inventions.
After an Invention Disclosure Form (IDF) is filed, IP Office staff and partners evaluate the disclosure to review the novelty of the invention, protectability and marketability of potential products or services, relationship to existing IP, size and growth potential of the relevant market, amount of time and money required for further development, pre-existing rights associated with the IP, and potential competition from other products/technologies.
This evaluation process, which may lead to broadening or refinement of the invention, will guide our strategy on whether to focus on licensing to an existing company or creating a new business startup, and will determine the best course of action for protecting your invention. The IP Office will work with you throughout the evaluation phase, aiding you in the preparation of your IP for presentations, while also working on ensuring the protection of your IP.

In the protection process, the IP Office is your guide to obtaining protection that leads to the marketability of your invention. Whether it be a patent, copyright, trademark, trade secret, know-how, or contractual use restriction (e.g., for databases and materials), IP Office representatives will assist you. This can take a long time, so we’ll be in frequent contact; the relationship between the inventor and the IP Office is important in ensuring the protection and potential licensing of the IP.

In certain cases, such as trademarks recognized under common law, commercially viable technologies can be brought to market without further legal protection. The IP Office can determine the best options for your invention and will work with you throughout the process.

FREQUENTLY ASKED QUESTIONS
Ownership of Intellectual Property

Q: Who owns what I create?
A: Ownership depends upon the university employment status of the creators of the invention and their use of NMSU resources and/or facilities. Considerations include:

- The source of the funds or resources used to produce the invention
- The employment status of the creators at the time the IP was made
- The terms of any agreement related to the creation of the IP

As a general rule, NMSU owns inventions made by its employees while they are acting within the scope of their employment or using NSMU resources. When in doubt, it is best to contact the IP Office for advice.

Q: What is NMSU’s policy on ownership of inventions?

Q: Who owns rights to inventions made while I am consulting?
A: The ownership of inventions made while consulting for an outside company depends on the terms of your consulting contract. It is important to clearly define the scope of work within consulting contracts to minimize any issues with ownership of inventions created from NSMU research. If you have questions, the IP Office is available for informal advice.
Q: Who owns rights to discoveries made while on sabbatical?

A: Generally, if you are on a sabbatical paid by NMSU, the university still retains rights to any discoveries connected to your scope of employment. Talk with your department before your sabbatical to ensure that ownership considerations are documented.

Q: Can a student contribute to an invention?

A: Yes. Many students at NMSU work on inventions in a wide variety of circumstances. NMSU promotes student entrepreneurship, and students can be named as inventors under IP Policy. Typically, a student will own his or her rights to an invention unless the invention was created in a capacity as an NMSU employee or when the student’s use of NMSU resources was more than incidental.

**EVALUATION [ASSESSMENT OF AN INVENTION DISCLOSURE]**

Q: How much say does an inventor have in determining commercialization strategies for their research?

A: The IP Office will work with you to develop the appropriate commercialization strategy for your invention. Some technologies lend themselves to non-exclusive licenses (i.e., licenses to multiple third parties), while others will only reach the commercial marketplace (and therefore the public) if they are licensed on an exclusive basis. We will try to accommodate inventors’ commercialization wishes. However, the final decision will be determined by our assessment of which strategy will produce the most benefits for the general public, consistent with governmental or institutional policies and other obligations.

Q: How do we decide whether to commercialize with a traditional or an “open source” license for software?

A: The IP Office supports NMSU software developers who choose to offer their programs to others through open source mechanisms. In these situations, NMSU retains the right to distribute the program freely, open sourcing must be consistent with obligations to sponsors, and each developer’s department or unit must support the decision. Developers should seek authorization from an appropriate department chair or dean and consult the IP Office.
Q: Is an invention ever assigned to an inventor?

A: If the IP Office decides not to pursue patent protection and/or chooses not to actively market the invention, NMSU may transfer ownership to the inventor(s). Reassignment of inventions funded from U.S. government sources requires the government’s prior approval. Among the key factors in deciding to reassign are whether additional university resources or private resources could best improve marketability. You can find further information on this topic in the NMSU Policy Manual at http://manual.nmsu.edu/current-nmsu-policies.

PATENTS AND OTHER LEGAL PROTECTION

Q: What is a patent?

A: In the U.S., a patent gives the holder the right to exclude others from making, using, selling, offering to sell, and importing the patented invention. A patent does not necessarily provide the holder any right to practice a technology since it may fall under a broader patent owned by others. Instead, it provides the right to exclude others from practicing the invention. Patent claims are the legal definition of an inventor’s protectable invention.

Q: What type of subject matter can be patented?

A: 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 methods of performing business). Please contact the IP Office if you have an invention that you think may be patentable.
Q: Can someone patent a naturally occurring substance?

A: Generally, no. Natural substances that have never before been isolated and known may be patentable in some instances, but only in their isolated form. A variation of a naturally occurring substance may be patentable if an inventor is able to demonstrate substantial non-obvious modifications that offer advantages of using the variant. Genes found in nature cannot be patented (Association for Molecular Pathology v. Myriad Genetics, 569 U.S. 12-398 [2013]).

Q: What is the United States Patent and Trademark Office (PTO)?

A: The PTO is a federal agency organized under the Department of Commerce that administers patents on behalf of the government. The PTO employs patent examiners skilled in all technical fields to appraise patent applications. The PTO also issues federal trademark registrations.

Q: What is the definition of an inventor on a patent and who determines this?

A: Under U.S. law, an inventor is a person who takes part in conceiving the ideas in the patent claims of a patent application. Thus, inventorship of a patent application may change as the patent claims are changed during processing of the application. An employer or person who only furnishes money to build or practice an invention is not an inventor. Inventorship is a legal issue and may require an intricate legal determination by the patent attorney prosecuting the application.

Q: Who is responsible for patenting?

A: NMSU 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 worldwide patent offices. IP Office staff and partners help with the selection and oversight of the outside patent counsel. It is critical that the inventor remains engaged and interacts with the IP Office throughout the process.

Q: What is the patenting process?

A: Patent applications are generally drafted by a patent attorney or a patent agent (i.e., a non-attorney with science or engineering education and who is licensed to practice by the PTO). The patent attorney will typically ask you to review an application before it is filed and will ask you 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 acknowledges the inventor’s duty to assign the patent to NMSU.

In about one year or longer, depending on the technology, the patent attorney will receive written notice from the PTO as to whether the application and its claims have been accepted in the form as filed. More often than not, when the PTO rejects an application, it does so because either certain formalities need to be cleared up or the claims are not patentable due to “prior art” (i.e., anything that others in the field have made or publicly disclosed in the past). The letter sent by the PTO 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 PTO’s position is incorrect. This procedure is referred to as patent prosecution. Often it will take two PTO Official Actions and two responses by the patent attorney—and sometimes more—before the application is resolved. The resolution can take the form of a PTO notice that the application is allowable; in other words, the PTO agrees to issue a patent.

During this process, input from the inventor(s) is often 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 PTO holds patent applications confidential until published by the PTO, 18 months after initial filing. The entire process will typically take up to three to five years.

Q: What is the difference between a provisional patent application and a regular (or “utility”) patent application?
A: In certain circumstances, U.S. provisional patent applications can provide a tool for preserving patent rights while temporarily reducing costs. This occurs because the application is not examined during the year in which it is pending and claims are not required.

A regular U.S. application and related foreign applications must be filed within one year of the provisional form to receive its early filing date. 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 may need your assistance when a provisional application is filed.

Q: Is there such a thing as an international patent?

A: Although an international patent does not exist, an international agreement known as the Patent Cooperation Treaty (PCT) provides a streamlined filing procedure for most industrialized 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. First, it delays the need to file costly foreign applications until the 30-month date, often after an applicant has the opportunity to further develop, evaluate, and market the invention for licensing or startup activities. Second, 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 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.

Q: What’s different about foreign patent protection?

A: Foreign patent protection is subject to the laws of individual countries, although in a general sense, the process works much the same as it does in the U.S. It is important to note that in foreign countries an inventor will lose any patent rights if he or she publicly discloses the invention prior to filing the patent application.

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

A: Currently, the average U.S. utility patent application is pending for about two years, 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 filing of the application that resulted in the patent, assuming that PTO-mandated maintenance fees are paid.

Q: Why does NMSU protect some IP through patenting?

A: Patent protection is often a requirement of a potential commercialization partner (e.g., licensee) because it can protect the commercial partner’s often sizable investment to bring the technology to market. Due to the expense and the length of time required to obtain a patent, patent applications are not possible for all NMSU IP. We carefully review the commercial potential of an invention before investing in the patent process. However, because the need for commencing a patent filing usually precedes finding a licensee, we look for creative and cost-effective ways to seek early protections for as many promising inventions as possible.

Q: Who decides what gets protected?

A: The IP Office and the inventor(s) consider relevant factors in making recommendations about filing patent applications. Based on a recommendation from Arrowhead Center, the Intellectual Property Advisory Committee ultimately makes the final decision as to whether to file a patent application or seek another form of protection.

Q: What does it cost to file for and obtain a patent?

A: Filing a regular U.S. patent application typically costs between $10,000 and $20,000. To obtain an issued patent may require an additional $10,000 to $15,000 for patent prosecution. Filing and obtaining issued patents in other countries may cost $20,000 or more per country. Also, once a patent is issued in the U.S. or in foreign countries, certain maintenance fees are required to keep the patent alive.

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

A: If you created the invention under a sponsored research or consulting agreement with a company, the IP Office will need to review that contract to determine ownership and other rights associated with the contract and to determine the appropriate next steps. Should the technology be jointly owned with another academic institution, the IP Office will usually enter into an inter-institutional agreement that provides for 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 revenue. If the technology is jointly owned with a company, the IP Office will work with the company to determine the appropriate patenting and licensing strategy.
**Q:** Will NMSU initiate or continue patenting activity without an identified licensee?

**A:** Often, NMSU accepts the risk of filing a patent application before a licensee has been identified. After rights have been licensed, the licensee generally pays the patenting expenses. At times we must discontinue further patent prosecution after a reasonable period (often a year or two) of attempting to identify a licensee, or if it is determined that we cannot obtain reasonable claims from the PTO.

**Q:** What is a derivative work?

**A:** A derivative work is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications, which, as a whole, represent an original work of authorship, is a derivative work. The owner of a copyright generally has the exclusive right to create derivative works.

**Q:** What is a copyright and how is it useful?

**A:** Copyright is a form of protection provided by the laws of the U.S. to the authors of “original works of authorship.” This includes literary, dramatic, musical, artistic, computer software, and certain other intellectual works. This protection is available to both published and unpublished works.

The Copyright Act generally gives the owner of copyright the exclusive right to conduct and authorize various acts, including reproduction, public performance, and making derivative works. Copyright protection is automatically secured when a work is fixed into a tangible medium such as a book, software code, or video. In some instances, NMSU registers copyrights, but generally not until a commercial product is ready for manufacture.

**Q:** How do I represent an NMSU copyright notice?

**A:** Although copyrightable works do not require a copyright notice, we recommend that you use one. For works owned by NMSU, use the following template: [Year of first publication] © The Regents of the New Mexico State University. (e.g., 2013 © The Regents of the New Mexico State University).

**Q:** How can I learn more about NMSU copyright policies?

**A:** We recommend that you begin by reviewing material on NMSU’s copyright website at http://aces.nmsu.edu/pubs/guidelines/copyright-permissions.html. If you have additional questions about a potentially copyrightable invention, please contact the IP Office. If you have questions about other copyright policies, please contact NMSU’s Office of the General Counsel.

**Q:** What is a trademark or service mark?

**A:** A trademark includes any word, name, symbol, device, or combination thereof that is used in commerce to identify and distinguish the goods of one manufacturer or seller from those manufactured or sold by others, and to indicate the source of the goods. In short, a trademark is a brand name.

A service mark is any word, name, symbol, device, or combination thereof that is used, or intended to be used, in commerce to identify and distinguish the services of one provider from those of others, and to indicate the source of the services.

**Q:** What is trademark registration?

**A:** Trademark registration is a procedure in which the U.S. PTO 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 them. Trademarks generally become protected as soon as they are adopted by an organization and used in commerce, even before registration. 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.
The move to establish a new company or work with an existing business is a joint decision made by the IP Office and the inventors. The IP Office uses a variety of sources and strategies to identify potential licensees and commercialize inventions. Sometimes existing relationships of the inventors, other researchers, and IP Office staff are useful in commercializing an invention. We also conduct market research, examine complementary technologies and agreements, utilize our website to promote inventions, leverage conferences and industry events, and make direct contact with potential partners. Your active involvement can dramatically improve the chances of matching an invention to an outside company.

A notable resource is Arrowhead Center’s Launch, a proof of concept and commercialization accelerator that speeds the transfer of technologies from NMSU to commercial venues. Launch provides intensive mentoring, access to networks, and seed funding for promising technologies.

The process of commercialization may begin with a license agreement that protects NMSU’s rights to ownership and enables a third party to bring the invention to the public. A license agreement is used to describe licensee rights and responsibilities related to the use and exploitation of NMSU IP. During the commercialization process most licensees continue to develop an invention to enhance the technology, reduce risk, prove reliability, satisfy market requirements for adoption by customers, and extend their exclusivity in a particular market niche.
Commercialization may also be undertaken through the launch of a startup company: a new venture based on the invention/technology. Inventors can assume a number of roles in startups: some may choose to be closely or directly involved (e.g., as a Chief Technology Officer or frequent consultant); others may choose to be less engaged, leaving the venture to partners. However, inventor involvement is generally vital at the early stages of the startup – only the inventor knows the technology or invention well enough to move it forward effectively.

The IP Office provides resources and services for all stages and types of commercialization and licensing. Our team stays in close contact with NMSU’s legal counsel, ensuring that legal protection of the invention continues to move forward and remains relevant and functional. IP Office staff and students explore markets for the invention and products that may emerge from it, using research and industry connections to identify the most creative and productive venues possible. The IP Office can help identify and position commercial partners for technology-based startups, bringing to the table people willing and able to move the invention forward through startup activities. Finally, the IP Office can connect inventors with a range of entrepreneurship and commercialization training and development resources, enabling those who are interested in participating directly in commercialization activities to do so.

**FREQUENTLY ASKED QUESTIONS**

**Q:** What is a startup company and why might we choose to create one?

**A:** A startup company is a new business entity formed to commercialize one or more related inventions. Forming a startup company is an alternative to licensing the IP to an established business. A few key factors when considering a startup company are:

- Development risk: established companies may be unwilling to take the risk often associated with early-stage technologies
- Development costs versus investment return: whether investors are likely to ensure their needed rates of return
- Potential for multiple products or services from the same technology: few companies survive on one product alone
- Sufficiently large competitive advantage and target market: whether the invention provides significant advantages over similar technologies and a sufficient number of customers might be interested
- Potential revenue sufficient to sustain and grow a company
THE IP OFFICE CAN HELP EVALUATE THESE AND OTHER FACTORS.

Q: What startup assistance and resources are available to inventors?

A: IP Office staff and partners serve as coaches, advisors, mentors, resource locators, and project planners to help fill the gap between initial technology development and startup formation. Their activities may include locating prospective management talent, developing a funding strategy, making introductions to possible investors, helping develop business models and plans, and engaging experts to work on key startup issues. IP Office staff and partners can also draw upon an extensive network of experience, resources, and potential funding options to assist you.

Q: What role does an inventor usually play in a company?

A: NMSU inventors can serve as technology consultants, advisors, or in other technical developmental capacities. Inventors rarely choose to leave their university positions and join day-to-day operations of the startup. In many cases, the inventor’s role is suggested by the startup’s investors and management team.

Q: How much of my time and effort will a startup venture take?

A: Starting a company requires a considerable amount of time and effort. Until the startup team is identified and engaged, you will need to champion the formation effort. After the team is in place, your participation is required for investor discussions, certain responsibilities in or with the company (e.g., concerns about technical development of products), and NMSU processes, such as conflict of interest reviews.

Q: Can NMSU accept equity in a company?

A: NMSU can accept equity as part of the financial terms of a technology license. Equity may be substituted for other cash considerations that are often difficult for startups to procure. This is also a way for NMSU to share some of the risk associated with startups. A decision to take equity must make sense for both NMSU and the company. You will be involved in all activities regarding such decisions.
**Q:** Will NMSU pay for incorporating a startup company?

**A:** No. As a separate legal entity, the startup must pay for its own legal matters, including all business incorporation and licensing expenses.

**Q:** What legal assistance is needed in creating a startup?

**A:** In addition to corporate counsel, the startup may have its own IP counsel to assist with corporate patent strategy, especially if the company will be involved in a patent-rich area. The startup’s counsel must be separate from NMSU counsel, though it is advisable and recommended that the corporate IP Counsel and NMSU counsel coordinate activities. It is also suggested for inventors to have agreements regarding their roles with the startup reviewed by their own counsel to ensure that all personal ramifications—including taxation and liabilities—are clearly understood.

**MARKETING TO FIND A LICENSEE**

**Q:** How long does it take to find a potential licensee?

**A:** The time to locate a potential licensee varies depending on the attractiveness of the invention, its stage of development, competing technologies, and the size and intensity of the market. Most university inventions tend to be in the early stages of the development cycle and thus require substantial commercialization investment, sometimes making it difficult to attract a licensee.

**Q:** How can I assist in marketing my invention?

**A:** Your active involvement can dramatically improve the chances of matching an invention with 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, you are the best person to describe the details of the invention and its technical advantages. The most successful results are obtained when the inventor and the licensing professional work together as a team to market and sell the technology.

**Q:** Can there be more than one licensee?

**A:** Yes, an invention can be licensed to multiple licensees, either non-exclusively or exclusively or semi-exclusively to several companies, each for a unique field-of-use (application) or geographical area.

**LICENSES AND OTHER AGREEMENTS**

**Q:** What is a license?

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

**Q:** How is a company chosen to be a licensee?

**A:** A licensee is chosen based on their ability to commercialize the technology for the benefit of the general public and their own shareholders. Sometimes an established company with experience in similar technologies and markets is the best choice. In other cases, the focus and intensity of a startup company is a better option. The IP Office team will help determine the best possible licensing situation for each invention.

**Q:** What can I expect to gain if my IP is licensed?

**A:** Per NMSU policy, a share of any financial return from a license is provided to the inventor(s). For more information, visit http://arrowheadcenter.nmsu.edu/intellectual-property/.
Most inventors enjoy the satisfaction of knowing their inventions are being leveraged for the benefit of the general public. New and enhanced relationships with businesses are another outcome that can augment teaching, research, and consulting. In some cases, additional sponsored research may result from the license.

**Q:** What is the relationship between an inventor and a licensee, and how much of my time will it require?

**A:** 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 the company and your continuing role at NMSU. Your participation with a startup is governed by NMSU conflict of interest policies and the approval of your supervisor.

**Q:** What other types of agreements and considerations apply to technology commercialization?

**A:** There are a number of possible scenarios for technology commercialization, each with associated agreements or contracts.

- Non-Disclosure Agreements (NDAs) are often used to protect the confidentiality of an invention during evaluation by potential licensees. The IP Office enters into NDAs for NMSU proprietary information shared with someone outside of NMSU. NDAs also protect proprietary information of third parties that NMSU researchers need to review to conduct research or evaluate research opportunities.

- Material Transfer Agreements (MTAs), used for incoming and outgoing materials at NMSU, are administered by the IP Office (outgoing materials related to IP) or OGC (materials related to sponsored research). These agreements describe the terms under which NMSU researchers and outside researchers may share materials, typically for research or evaluation purposes. IP rights can be endangered if materials are used without a proper MTA.

- Inter-Institutional Agreements describe the terms under which two or more institutions (generally two universities) will collaborate to assess, protect, market, license, and share in the revenue received from licensing jointly-owned IP.

- Option Agreements, or Option Clauses within research agreements, describe the conditions under which NMSU preserves the opportunity for a third party to negotiate a license for IP. Option clauses are often provided to corporate research sponsors in a Sponsored Research Agreement. Option Agreements are entered into with third parties wishing to evaluate the technology prior to entering into a full license agreement.

**TECHNOLOGY COMMERCIALIZATION**

**Q:** What activities occur during technology commercialization?

**A:** 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. Strategies and documentation for training, installation, and marketing are often created during this phase. Benchmarking tests are often required to demonstrate the product/service advantages and to position the product in the market.

**Q:** What is my role in technology commercialization?

**A:** Your role can vary depending on your interest and desired involvement, the interest of the licensee in utilizing your services for various assignments, and any contractual obligations related to the license or any personal agreements.

**Q:** What revenue is generated for NMSU if technology commercialization is successful? If unsuccessful?

**A:** Most licenses have licensing fees that can be very modest or can reach hundreds of thousands of dollars. Royalties on the eventual sales of the licensed products can generate revenue, although this can take years to occur. Equity, if included in a license, can yield returns, but only if a successful equity liquidation event (e.g., public equity offering or a sale of the company) occurs. Most licenses do not yield substantial revenue.

A recent study of licenses at U.S. universities demonstrated that only 1% of all licenses yield over $1,000,000. However, the rewards of an invention reaching the market are often more significant than the financial considerations alone.

**Q:** What will happen to my invention if the startup company or licensee is unsuccessful in commercializing the technology? Can the invention be licensed to another entity?

**A:** Licenses typically include performance milestones that, if unmet, can result in termination of the license. This termination allows for subsequent licensing to another business.
CONFLICT of INTEREST

NAVIGATING CONFLICT OF INTEREST

Q: How does NMSU define a conflict of interest?

A: A conflict of interest can occur when a NMSU employee, through a relationship with an outside organization, is in a position to: 1) influence NMSU’s business, research, or other areas that may lead to direct or indirect financial gain; 2) adversely impact or influence one’s research or teaching responsibilities; or 3) provide improper advantage to others, to the disadvantage of NMSU.

Q: What kinds of issues concern conflict of interest reviewers?

A: Examples include the appropriate and objective use of research, the treatment and roles of students, supervision of individuals working at both NMSU and a licensee company, and conflict of commitment (i.e., your ability to meet your NMSU obligations).

Q: What are examples of a conflict of commitment?

A: A conflict of commitment may exist if duties, assignments, or responsibilities associated with a technology license or outside business arrangement have a negative impact on your ability to meet commitments associated with your NMSU employment or exceed the amount of time available to you for these activities. The best approach is to fully disclose your situation to your supervisor and discuss the implications for your job responsibilities.

REVENUE DISTRIBUTIONS

Q: How is license revenue distributed?

A: The IP Office is responsible for managing the expenses and revenue associated with technology agreements. Per NMSU’s IP Policy, revenue from license fees, royalties and equity—minus any unreimbursed patenting and file expenses—are shared with inventors.

Q: What are the tax implications of any revenue I receive from NMSU?

A: License revenue is typically taxed as Form 1099 income. You should consult a tax advisor for specific advice.

Q: What happens to my share of licensing revenue if I waive rights to it?

A: Revenue waived by inventors is distributed to the associated school/college and department/unit. To avoid potential tax liability, revenue waived by you to your department/unit must not be under your control.
Commonly Asked Questions
OFFICE OF INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER AT NMSU

Q: What is Arrowhead Center?

A: Arrowhead Center was created by NMSU as an engine for sustainable economic development, ultimately improving the quality of life for all New Mexicans. Arrowhead Center works with partners on and off-campus to ensure the resources and discoveries of the university benefit the broadest populations possible. In regard to IP, Arrowhead Center houses the IP Office and is responsible for IP management and commercialization on campus.

Q: How is technology transferred through Arrowhead Center?

A: Technology is transferred through Arrowhead Center’s IP Office. The IP Office works with the NMSU community to manage, protect, and commercialize inventions developed at the university. The IP Office is responsible for administering NMSU’s IP Policy and for managing NMSU’s IP through activities such as legal protection and compliance with federal guidelines. We also provide support for NMSU community members with questions or concerns that arise around research contracts and relationships with external organizations.

Q: What is technology commercialization?

A: Technology commercialization is the transfer of knowledge and discoveries to the public. It can occur through publications, educated students entering the workforce, exchanges at conferences, and relationships with industry, among other things. For the purposes of this guide, technology transfer refers to the formal licensing of technology to third parties under the guidance of professionals employed by universities, research foundations, and businesses.

Q: How is technology transferred?

A: Technology is typically transferred through a license agreement in which NMSU grants its rights in the defined technology to a third party for a period of years, often limited to a particular field of use and/or region of the world. The licensee (the third party 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 to NMSU. These payments are shared with the inventors and are also distributed to the schools/colleges, departments/units, and central administration to provide support for further research, education, and participation in the technology transfer process.
COMMONLY ASKED QUESTIONS

Q: What is Arrowhead Center’s Launch?

A: Launch is a proof of concept and commercialization center accelerator for promising technologies developed at NMSU. Launch is based on a simple concept that yields great results: by exploring a technology’s commercial potential early in development, and providing funding and resources for that work, we stand a much better chance of moving a viable product to market. You can find more information on Launch at: http://arrowheadcenter.nmsu.edu/launch/.

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

A: The reasons are unique to each researcher and may include:

- Making a positive impact on society
- Feeling a sense of personal fulfillment
- Achieving recognition and financial rewards
- Generating additional lab/departamental funding
- Meeting the obligations of a research contract
- Attracting research sponsors
- Creating educational opportunities for students
- Linking students to future job opportunities

Q: What is the Bayh-Dole Act?

A: The U.S. 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 revenue 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 U.S.

RESEARCH CONSIDERATIONS

Q: How do I work with the IP Office?

A: We encourage you to contact the IP Office during your early research activities to be aware of the options that will best leverage the commercial potential of your research. IP Office staff is trained to assist you with questions related to marketability, funding sources, commercial partners, patenting and other protection methods, new business startup considerations, NMSU policies and procedures, and much more.

Q: What is an Invention Disclosure Form (IDF)?

A: An IDF is a written description of your invention or development that is provided to the IP Office. The IDF lists all collaborating sources of support and includes all of the information necessary to begin pursuing protection, marketing, and commercialization activities.

This document will be treated as “NMSU Confidential.” Based on the IDF, the IP Office may generate a non-confidential description of your invention to assist in marketing the technology. Once potential partners have been identified and confidentiality agreements have been signed, more detailed exchanges of information can be made.

Q: Why should I submit an IDF?

A: When you disclose your invention to the IP Office, it starts a process that could lead to the patenting and commercialization of your technology. This may involve beginning the legal protection process and working to identify outside development partners. If government funds were used for your research, you are required to file a prompt disclosure, which will be reported to the sponsoring agency. Similar requirements may exist for other sponsored projects.

Q: How do I know if my discovery is an invention?

A: You are encouraged to submit an IDF for all developments that you feel may solve a significant problem and/or have significant value. If you are in doubt, contact the IP Office to discuss the invention and strategies for commercialization.

Q: When should I complete an IDF?

A: You should complete an IDF whenever you feel you have discovered something unique with possible commercial value. This should be done well before presenting the discovery through publications, poster sessions, conferences, press releases, or other communications. Once publicly disclosed (i.e., published or presented in some form), an invention may have restricted or minimal potential for patent protection. Differences exist between the U.S. and other countries on the impact of early publication on a potential patent. Be sure to inform the IP Office of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal, Master’s thesis, dissertation, publication, or other public presentation including the invention.
Q: How do I submit an IDF?

A: You can download a disclosure form and simple instructions from:
http://arrowheadcenter.nmsu.edu/intellectual-property
IDFs are assigned to an IP Office licensing specialist. If you have any questions, call the IP Office at (575) 646-2791 or contact us at http://arrowheadcenter.nmsu.edu.

Q: How does NMSU assess IDFs?

A: Staff members at the IP Office examine each IDF to review the novelty of the invention, protectability and marketability of potential products or services, relationship to related IP, size and growth potential of the relevant market, amount of time and money required for further development, pre-existing rights associated with the IP, and potential competition from other products/technologies. This assessment may also include consideration of whether the IP can be the basis for a new business startup.

Q: How does the IP Office market my inventions?

A: IP Office staff members and employees use many sources and strategies to identify potential licensees and market inventions. Sometimes existing relationships of the inventors, the IP Office staff, and other researchers are useful in marketing an invention. Market research can assist in identifying prospective licensees. We also examine other complementary technologies and agreements to assist our efforts. We use our website to post inventions, leverage conferences and industry events, and make direct contact with potential partners. Faculty publications and presentations are often excellent marketing tools, as well.

Q: How are most licensees found?

A: Studies have shown that 70% of licensees were already known to the inventors. Thus, research and consulting relationships are often a valuable source for licensees. Licensees are also identified through existing relationships of the IP Office staff. Our licensees often license more than one technology from NMSU. We attempt to broaden these relationships through contacts obtained from website posting inquiries, market research, and industry events.

Q: Who decides whether to form a startup company?

A: The choice to establish a new company for commercializing IP is a joint decision made by the IP Office and the inventors. If a new business startup is chosen as the preferred commercialization path, IP Office business development specialists will assist you in planning and executing the process. These staff members act as business formation consultants, providing hands-on assistance and access to NMSU-based and outside resources.

Q: What is a license agreement?

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