

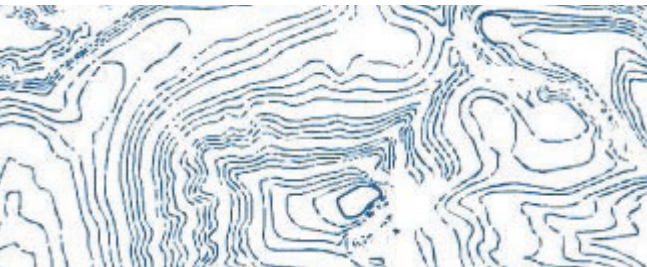


Alaska Center
—ICE—

INNOVATOR'S HANDBOOK

Table of Contents

- Introduction 2
- Defining Technology Transfer3
- Your Role in Commercialization.....4
- Intellectual Property Basics5
- Innovation Disclosures Explained6
- Innovation Evaluation7
- What Happens After a Disclosure8
- Marketing and Licensing Your Idea9
- The Alternative Start-Up Route10
- Licensing and Equity Sharing11



At the Center for Innovation, Commercialization, and Entrepreneurship (Center ICE), we are on a mission to move research products out of the university so they can be adopted into the real world. This handbook describes some of the nuts and bolts of that process. We're also working to grow the culture of innovation and entrepreneurialism at UAF. We do this through a suite of programs, services, and funding. To learn more, go to our [website](#) or email us at centerice@alaska.edu.

I co-founded Center ICE in 2018 to build momentum toward becoming a more innovative university. In partnership with people like you, we envision Alaska as a major hub for developing world changing innovations.

Alaska Center ICE is for everyone – faculty, grad students, staff and undergrads. Developing an innovative solution should be fun and exciting. At Center ICE, you'll find a staff that truly enjoys this kind of work.

Please join us in building the future that we want to live in.



Mark Billingsley, JD, Director of Alaska Center ICE and the Office of Intellectual Property and Commercialization

What is “technology transfer”?

Technology transfer allows for the transfer of knowledge and discoveries to the public. The role of the technology transfer office is to assist innovators and inventors through the process of transference and commercialization. It is a process requiring multiple skill sets related to science, law, and business, all of which tech transfer offices are poised to provide. Alaska Center ICE can provide university innovators with the resources, know-how, and in many cases legal or financial help to develop their ideas. This is often done through licensing. Technology may be transferred out of the university by licensing to existing third-party companies, licensing to start-ups that come out of the university, or via direct sales from the university in accordance with university policy. In essence, Center ICE exists to facilitate and support the commercialization and impact of university innovations through our services.

At UAF and UAS, technology transfer is housed at Alaska Center ICE

This is the single-stop spot for innovators to get legal, financial, and strategic advice for the commercialization of their ideas. This office is composed of legal, business, and research professionals with a background in technology transfer. Working as a team, the Alaska Center ICE staff provide the expertise needed to guide a given idea to the point in which it could be spun out into a start-up, licensed or sold, or further developed if it is not yet ready for transfer.

The result of a successful tech transfer is typically intellectual property protection because ...

UAF typically transfers the intellectual property rights of its inventions to third parties via licensing agreements. These licenses may be exclusive or non-exclusive - meaning, to one or more customers - but these details will be outlined later on in more detail. The licensee may be an established company or, alternatively, a start-up. After a successful transfer, payments are then distributed between the inventor and the university - which means innovators can get direct financial compensation as the result of the successful licensing of their innovation.

At Alaska Center ICE we can:

- **Evaluate** the intellectual property and commercial potential of your idea
- **Recommend and support** innovators with recommendations on industry problems and unforeseen research funding opportunities
- **Protect** intellectual property in the form of patents, copyrights, trademarks, and trade secrets
- **Market and find** potential 3rd party licensees on behalf of the inventors
- **Negotiate** licensing agreements on behalf of the inventors
- **Incubate** entrepreneurial staff with possible funding, mentorship, and industry connections



Role of the innovator in technology transfer

In the university context, an innovator is any faculty member, staff member, researcher, graduate student, or undergraduate who discloses an invention and/or other protectable material. Their role is, foremost, to conduct research and disclose their innovation to the technology transfer team, especially in compliance with federal funding requirements. That is not all, however. After invention and disclosure (which are defined later in this handbook), an innovator's role may expand to one or more of the following:

- [Disclose inventions](#) to the technology transfer team prior to publishing
- Work with the technology transfer team on developing potential licensees, developing sales materials, and discussing commercialization strategies
- Respond to questions from internal Alaska Center ICE team members as well as potential licensees
- Conduct additional market research and [customer discovery](#) to identify potential target customers for your invention
- Learn about and use Alaska Center ICE resources for research and entrepreneurial funding

How long does the tech transfer process take?

The technology transfer process can 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 for the technology to be market ready, and the resources and willingness of all parties involved.

The university innovation lifecycle



What is intellectual property?

Intellectual property (IP) may be broadly defined as “creations of the mind.” It is the property right to an idea, an improvement, a creative work, know-how, or a business’ brand. Think of it as an asset – just like a home, car, or bank account. And, like a car, home, cash, etc., different intellectual property has different characteristics. For our purposes, IP may be broadly grouped into four categories: patents, copyrights, trade secrets, and trademarks.

Patents

A patent gives an inventor the exclusive rights to exclude others from making, using, selling, offering to sell, or importing their invention. An invention can include a useful system, apparatus, method, or article of manufacture. For more information about patents, please refer to our extended FAQ Handbook.

Copyrights

The United States government grants a copyright to authors or creators of original works of authorship such as poems, movies, video games, videos, plays, paintings, sheet music, recorded dances, novels, software code, sculptures, photographs, choreography and architectural designs. An individual’s work is under copyright protection the moment it is created and fixed in a tangible form. For works published after 1977, the copyright lasts for the life of the author plus 70 years. However, if the work is a work for hire or is published anonymously or under a pseudonym, the copyright lasts between 95 and 120 years, depending on the date the work is published.

Trade secrets

Any confidential business information that provides an enterprise a competitive edge may be considered a trade secret. For example, the formula for Coca-Cola is a trade secret. The subject matter of trade secrets is usually defined in broad terms and can include sales methods, distribution methods, consumer profiles, advertising strategies, lists of suppliers and clients, and manufacturing processes. The unauthorized use of such information by persons other than the holder is an unfair practice and a violation of the trade secret.

Trademarks

A trademark is a given word, design, symbol, or uniquely identifiable combination of those things that identifies or differentiates a good or service. The value and essence of a trademark is that it provides a way of recognizing and distinguishing one good/service from another. From the United States Patent and Trademark Office website, a trademark:

- Identifies the source of your goods or services
- Provides legal protection for your brand
- Helps you guard against counterfeiting and fraud



The first step to commercialization is disclosure

The first step for an innovation to begin the process of commercialization is to submit an [Innovation Disclosure Form \(IDF\)](#). This serves as a starting point for our technology commercialization team to begin the process of analyzing your innovation. Once submitted, the team will begin the process of intellectual property and commercial analysis, followed by possibly marketing and licensing your idea.

When you should disclose an invention and why it's crucial to disclose early

You should complete an IDF whenever you feel you have discovered something unique that has possible commercial value. This should be done well before publishing any results, whether through journal publications, poster sessions, conferences, press releases, or other communication. When submitting the IDF, be sure to include any previous or upcoming public disclosures.

Protecting intellectual property operates on a timeline within a series of legal rules that determine protectability. If an idea satisfies the various requirements for intellectual property, it is crucial to protect the idea before it becomes publicly available. Publishing before protecting puts the intellectual property at risk because of the legal ramifications that accompany publishing information about the idea. For example, if published, a one-year grace period begins after which an idea is no longer patentable and is usable by any individual. This can be countered by disclosing your innovation and allowing Alaska Center ICE to take the proper steps to protect your idea.

How to disclose an idea

Among the many methods of contacting the Alaska Center ICE office there are two ways to disclose an innovation:

- Fill out an innovation [disclosure form](#) via our website (most complete way to disclose)
- Schedule a [meeting](#) with the technology assessment team to explain your idea (less writing, easier to accomplish)

As always, if you have any questions please contact our office.



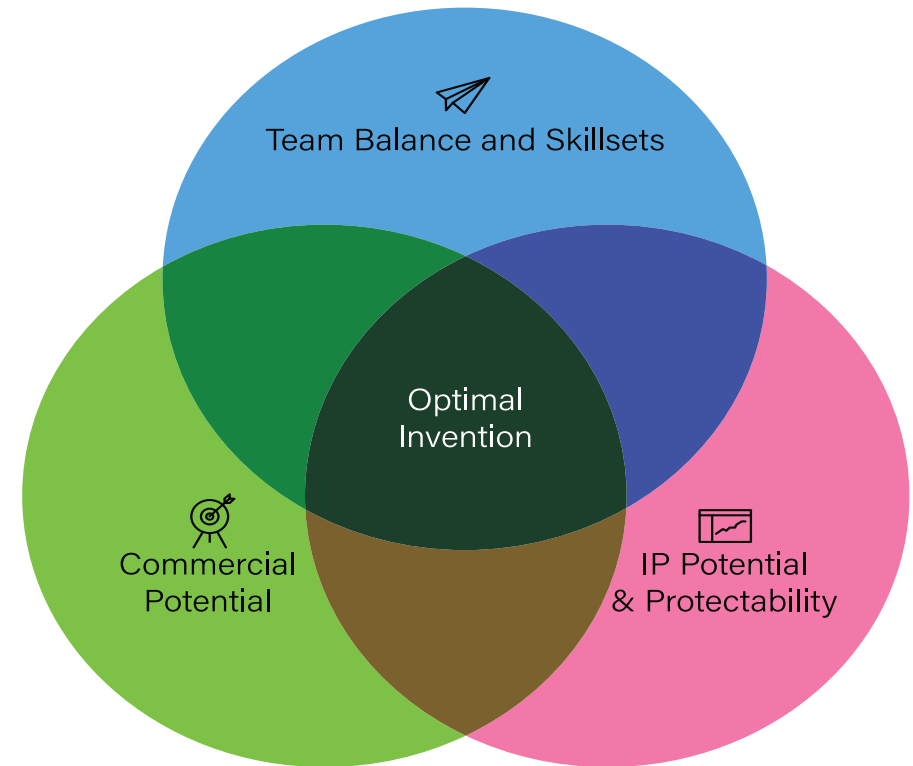
How Alaska Center ICE evaluates your idea

The evaluation of intellectual property and its commercialization potential is one part art and one part science. However, there are principles and combinations of different factors that result in a strong and protectable idea.

Generally speaking, the analysis of an idea is the combination of intellectual property protectability, market potential, and the technology readiness level. Alaska Center ICE analyzes these subcomponents before communicating their general recommendations to the innovation team.

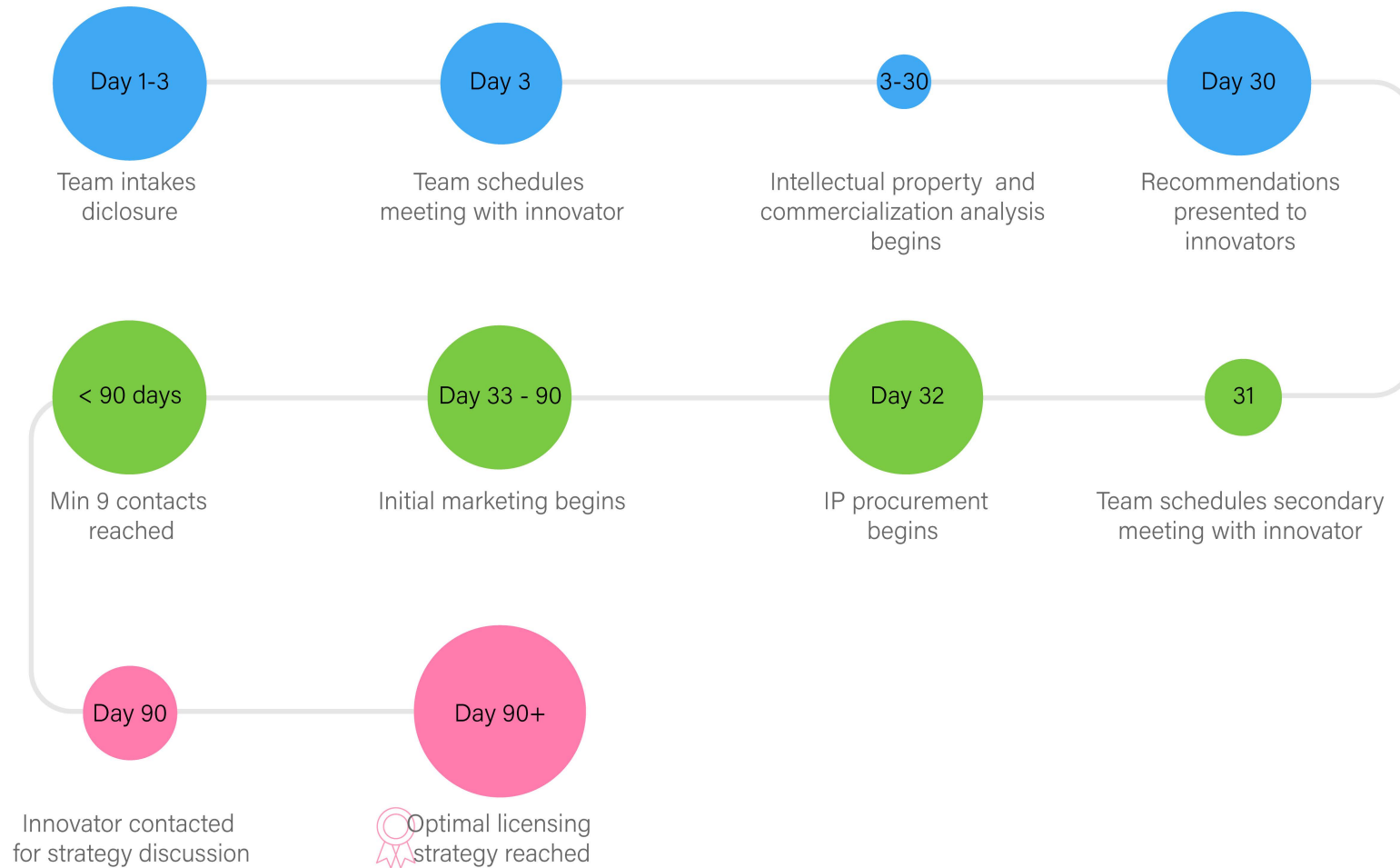
After analysis, the Alaska Center ICE team **will provide recommendations on how to achieve all of the relevant following objectives:**

- Protect available intellectual property via the proper channel
- Identify future avenues for research and identify potential funding sources
- Begin start-up process via one or more of the available resources within the university (more info on this process is included later in this handbook)
- Market your idea and attempt to license the idea to an interested party
- Iterate upon the idea to achieve future intellectual property protection



Did you know that Google was actually founded in a university technology transfer office back in 1996 by two PhD students out of Stanford. It was originally called PageRank!





How Alaska Center ICE will market your idea

Generally the end goal of innovation commercialization is to license an idea to an existing company or start-up. Licensing is defined as providing the rights to use an idea given some set of negotiated terms between the licensor and licensee. This end state is how university faculty, staff, and students ultimately financially benefit from their ideas.

To do so, licensees must first be identified and developed. This oftentimes takes time, market research, and industry outreach. To do so, Alaska Center ICE uses many sources and strategies to identify potential licensees and market innovations. This process, however, depends on the innovation itself. The strategy that is optimal for a particular innovation often depends largely on the innovation itself and the market for which the innovation is created.

Studies have shown that 70% of licensees were known to the innovators. In other words, it is likely that relationships with potential licensees already exist and we can manage and grow those relationships through contacts from the innovators. We can also obtain contacts from personal networking, website inquiries, market research, industry events, and the cultivation of existing licensing relationships.

The licensing process explained

Once a licensee is identified, Alaska Center ICE will implement its **licensing process**. Steps involved include:

1. Execute a non-disclosure agreement with interested parties ensuring that confidentiality is maintained
2. Schedule an initial meeting with the potential licensee to identify their business needs
3. Align technology with business needs and understand licensing needs while conducting due diligence on company solvency and business model
4. Innovators may meet with company scientific staff to outline the technical details of their innovation
5. Present a "term sheet" that outlines terms of a license agreement
6. Conduct negotiation rounds as needed to reach a viable license agreement
7. Finalize license agreement, sign documents, and execute license



Dr. Umanzor successfully licensed her Mariculture Site Assessment Toolkit to Aquaculture start-ups.

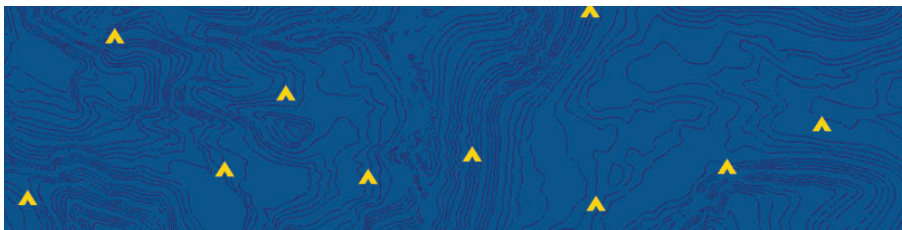


What is a university start-up and should I go that route?

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

- Development risk (established professors may be unwilling to take the career risk of building a new venture)
- Ability to commercialize multiple products or services from the same technology
- Sufficiently large competitive advantage and target market
- Potential revenues sufficient to sustain and grow a company

Center ICE can advise innovators in their decision to create a start-up company for commercializing IP. If a new business start-up is chosen as the preferred commercialization path, we will assist you and the other founders in planning and executing the process.



What are the start-up resources at UAF?

The University of Alaska Fairbanks has a number of start-up resources available to innovators and entrepreneurs. Generally speaking, professionals in these programs can guide you through the process of innovation and connect you with

the resources you need to commercialize your innovation.

1. [Alaska Center ICE](#): UAF's hub for all technology transfer resources including grant funding, education, technology commercialization advising, intellectual property protection, market research, and guidance for their innovations.
2. [Innovation Accelerator](#): UAF program that guides innovators and entrepreneurs through the ideation stage, funding acquisition, and early commercialization. Best way for entrepreneurs to learn the start-up process, get commercialization guidance, and identify funding and other opportunities.
3. [Students2Startups](#): A summer internship program where students are paired with an Alaska start-up company. Together they develop an entrepreneurial project to support the start-up's growth while the student learns skills for innovation and entrepreneurialism.

Revenue sharing explained

UAF invests resources in their staff, faculty, and researchers to conduct research. That said, and as a partial incentive, the university aims to financially benefit researchers directly for their licensed innovation. The primary method of doing this is licensing, and in the case that an innovation is ultimately licensed, inventors can expect to share some of this revenue with the university. The immediate and logical question is how much money goes to the university and how much goes to the innovator? Luckily, UAF has among the most generous revenue sharing programs among all university tech transfer offices.

Policies and percentages

As defined in Board of Regents policy/regulation and/or the applicable collective bargaining agreement, the innovator is entitled to a portion of the net proceeds derived from the commercialization of their technology. In general, and subject to the terms of employment, the innovator is entitled to the first \$10,000 plus 50% thereafter of net proceeds derived from commercialization of the innovation.

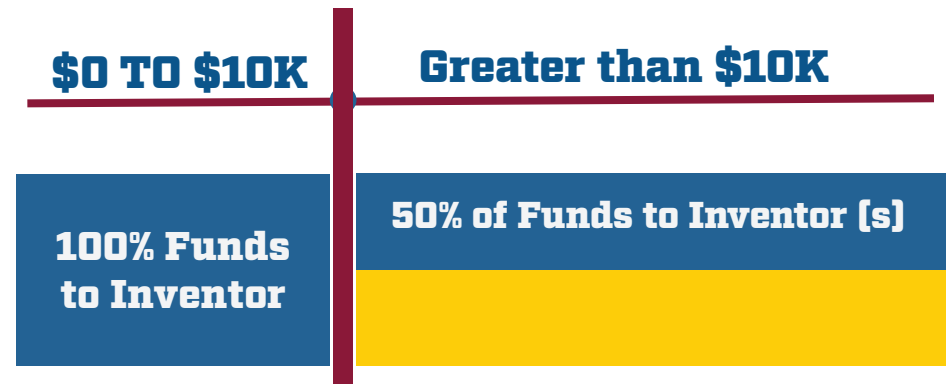
Revenue distribution basics

With the policy established, what happens next? If an invention is taken all the way through a tech transfer and commercialized, how will the inventor actually benefit and in what order? Though varied, there are a number of methods for the innovator to actually receive money for their innovations.

Some typical examples of licensing structures are:

- Payment made as development milestones are achieved
- Software license per use royalty (like Adobe)
- Equity stake in a company (typical of start-ups)
- Annual royalties

Alaska Center ICE can take part in negotiating terms of a license and will work with the innovator to find optimal terms that mutually benefit all parties.



64° 51' 22" N 147° 19' 10" W





Alaska Center

ICE

The University of Alaska Fairbanks is an affirmative action/equal opportunity employer and educational institution. UAF does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status. The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment. Contact information, applicable laws, and complaint procedures are included on UA's statement of nondiscrimination available at www.alaska.edu/nondiscrimination/.