

LET'S GET STARTED!



A HANDBOOK FOR
UNIVERSITY OF ARIZONA STARTUPS



THE UNIVERSITY OF ARIZONA
TECH LAUNCH
ARIZONA

LET'S GET STARTED!

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Section 1: Welcome to Tech Launch Arizona

Introduction

The University of Arizona, with its core values including “Innovative and Entrepreneurial,” recognizes and supports technology transfer, intellectual property (IP) development activities, and entrepreneurship as integral components of its mission. Every day, UArizona faculty, researchers, graduate students, and other employees make discoveries and create solutions to address today’s great challenges. Collectively, those innovations make up a sweeping portfolio of intellectual property.

Tech Launch Arizona (TLA) is the office of the UArizona that coordinates and promotes commercialization of this portfolio. It's our responsibility to ensure those assets are, when feasible, protected and moved into the public, through startups and licensing agreements, where they can have the greatest impact. UArizona startups, in particular, are a potential driver of economic development for the region and the state.

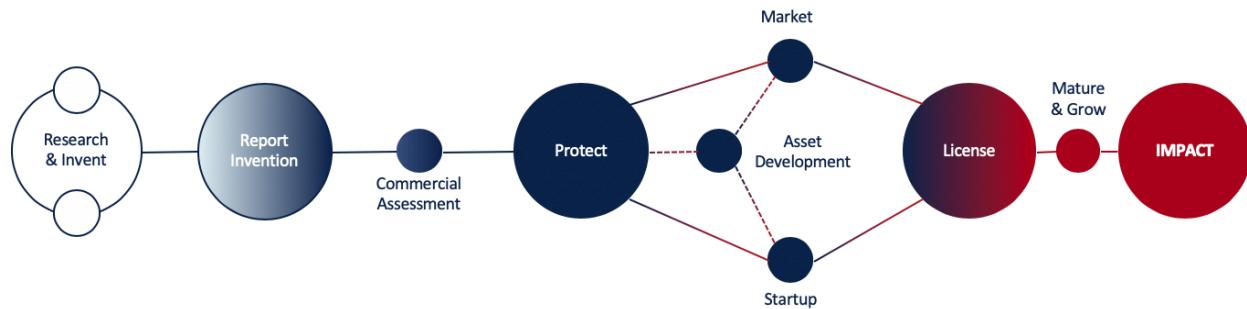
To support entrepreneurs in the creation of startups, TLA has a wide range of resources, including a team of Mentors-in-Residence with broad experience forming and managing startups, to guide you through the steps of creating a startup. We created this Startup Guide to serve as a high-level overview of key questions and challenges entrepreneurs face as they move through this process. While it won't answer all questions, it provides the basic information you need to understand and guide your interaction with TLA.

We look forward to working with you.

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The TLA Commercialization Process - Overview

TLA works closely with partners both on and off campus to move inventions from the lab to the market for social and economic impact. TLA develops commercialization strategies to leverage the opportunities unique to each invention.



Here's how the process works:

- **Research and Report:** Novel inventions typically result from work done on campus – through scientific research or other efforts to address specific challenges. TLA licensing managers work with inventors to file an invention disclosure, which enables TLA to conduct an early assessment of the patent landscape and commercial opportunity.
- **Protect:** Depending on the invention, TLA will take steps to protect the intellectual property (IP) using a network of external IP lawyers. TLA will recover those costs in the future when the IP is licensed.
- **Asset Development:** Additional efforts may be required to prepare the IP for license, such as prototype development, a feasibility study, a scalability test, regulatory assessment, and more. TLA may make asset development funding available for these efforts.
- **Market versus Startup:** In most cases the best commercialization pathway for the invention may be a license to an existing company, where that company already has complementary technologies, expertise and channels to bring the invention to market quickly and efficiently. While TLA works with inventors to identify potential licensees, in some cases the best pathway to impact may be through a startup. In these cases, TLA works with inventors to build a team, create a business case, and prepare the startup for license.
- **License and IMPACT:** To move the technology into the market, an existing company or startup licenses the IP rights and builds it into its product portfolio. Ultimately, the goal is to move research from the University to the market for social and economic impact, to improve lives and make a better world.

Section 2: Startup Considerations

What Defines a UArizona Startup?

A UArizona startup refers to a new company formed around a license to commercialize UArizona IP. Those startups best positioned for success will have an experienced team, a sound business case (go-to-market plan), appropriate governance (company structure, agreements and rules of operation), and will be in compliance with university Conflict of Interest policies. There are three general types of startups formed around university IP: growth, small venture, and social.

- A **growth** startup expects to scale quickly, with future revenues of \$100 million or more. These startups require a strong business lead with successful experience bringing similar technologies to market, an experienced industry advisor team, a compelling business case, early access to professional resources and capital, and the appropriate entity and team structure to launch and sustain growth.
- A **small venture** (sometimes called “lifestyle”) startup may be those startups that don’t expect to scale quickly, may not need external funding or, in some cases, may be required only to serve a specific purpose like fulfill a consulting contract. These ventures still require the same steps as a growth company although the team structure and business case may look different.
- A **social** startup may be a non-profit focused on social benefit. These ventures require a business partner with expertise in nonprofit organization and a board that can connect the venture directly to industry and the communities it serves.

These types of startups often overlap, and all are equally important to creating social and economic impact.

The Inventor’s Role in a Startup

Think of a startup as an airplane. It needs a successful team of technical and scientific experts who can transform all of the components into a vehicle that can safely and comfortably transport people across many miles. However, the airplane also needs an experienced pilot to successfully travel from point A to point B. Just as with an airplane, each role in a startup requires a different skillset that isn’t likely to be filled by the same person.

Successful startup teams include someone from the inventing team bringing the technical expertise to the venture, and a business leader bringing the entrepreneurial and management expertise to the startup. The business needs to be as innovative and disruptive as the technology itself, and it’s up to the business leader to move the company from point A to point B. This is particularly true for growth startups, where entrepreneurs often invest 12 or more hours per day, seven days a week, as they build and grow their companies. Therefore, it is absolutely critical for the startup to have a focused and committed team.

TLA works closely with each inventor to understand his or her interest in a startup company and ensure a good match between the inventor and the leadership team.

Generally speaking, there are four roles an inventor may take:

- **Role 1, Remain at UArizona and serve as Company Advisor:** This provides the inventor with an opportunity to continue work at the University and take a secondary role in the company, leaving the daily operations and leadership of the company to a more experienced CEO. This is recommended, especially in those cases where the company needs to raise capital and expects substantial growth. Investors will expect an experienced leadership team with a proven track record of success. It is often said capital is invested in the management team even more so than the technology.
- **Role 2, Remain at UArizona and serve as Company CEO Part-time:** This primarily occurs when the inventor is interested in licensing the IP into a small venture with the goal of supplementing inventor activity. Often these companies will not require outside capital, and the inventor may rely on a strong industry advisor team or other business partner rather than a CEO.
- **Role 3, Exit UArizona and serve as Company CEO/Other Full-time:** In some cases, the inventor may wish to exit the University and pursue commercialization of their invention full-time. In these cases, TLA works with inventors to determine the best structure and resources needed.
- **Role 4, Remain at UArizona and have no Company Role:** Not all members of the inventing team are required to participate in the startup, but at least one of the inventors or relevant researchers should be part of the commercialization effort. If no one from the inventing team is interested in pursuing a startup, licensing the technology to an existing company is the best path forward.

In all cases above, inventors may have the opportunity to financially benefit through both the license agreement and any arrangement with the startup company. TLA encourages the team to create fair and equitable positions for all parties involved. UArizona employees working in the startup company will need to consider potential conflicts of interest so they may be addressed and have a management plan in place where appropriate. TLA works with inventors and the COI Program to address possible COI issues throughout the licensing process.

Translating research into a saleable product, and then transforming that into a financially sustainable company, requires a very specific skillset. Inventors who are thinking about taking a role in the startup should consider their passion for the saleable product and its applications, tolerance for uncertainty and risk, willingness to work with new business partners, and most importantly the time and commitment required to build the startup company.

Section 3: The TLA Startup Process

The Venture Development process is broken into three phases: Intake, venture development, and getting to license. Each project is unique, and the process is not linear so activities will overlap each phase. The entire process could take as little as 30 days but may often take longer – up to a year or more – depending on the nature of the opportunity, and the readiness of the technology and the team. But in the end, the inventor drives the pace and forward motion of the project.



Phase 1: Intake

Bringing everyone together to explore the possibility of a startup and understand the interest of the inventors is a critical first step. An Intake meeting serves to initiate the process by gathering the inventors and TLA staff. Every startup opportunity is unique, and the group discusses the following topics during this meeting: the technology/science and the problem it solves; what makes this approach unique and who benefits; other team members or industry partners interested in supporting this startup; and the inventor's interest and questions around starting a company.

At or before the meeting, a TLA Mentor-in-Residence (MIR) is assigned to the project. The MIRs are TLA employees who champion the venture development process from Intake to License, and each has a track record of success in forming and leading technology companies. In most cases the Intake phase begins and ends with that initial meeting and the team immediately moves into the Venture Development phase. However, at any time the inventor may wish to no longer pursue a startup, or for a range of reasons the team or technology may be put on pause. In such cases, whenever the inventing team is ready to resume activity a new Intake meeting will likely occur.

Successful outcomes from the Intake meeting set the pace for the process and include: a clear alignment of interest with the inventing team in pursuing a startup; the formation of an initial startup project team which includes the MIR, licensing manager, at least one inventor, and ideally an external business advisor; and a timeline with regular meetings and a plan of action to reach license.

Typically, the MIR will lead the venture development efforts, and the licensing manager will negotiate the final license. Both play an important role in the early formation process.

Phase 2: Venture Development

The Venture Development phase consists of many simultaneous activities, some of which overlap the other phases. This includes team formation, business case development, funding strategy, capitalization table, governance and other activities specific to the startup, and may include asset development.

Team Formation

Once a startup is in mind, the MIR will work with the inventor(s) to identify startup team needs. A successful team, especially for growth startups, will include the inventor or someone from his/her team to help drive future product development, strong business leadership, an interim Board of Directors and/or Advisor Committee, and professional service providers (attorney, accountant, etc.). TLA maintains a large network of interested supporters and works with inventors to make appropriate introductions. If the inventors have already engaged industry or business leadership, TLA can bring those members into the process as well. It's not uncommon to have a virtual team of key players.

Business Case Development

It's important for the startup team to create the initial business case – plan to commercialize the IP – since they will be responsible for its execution and long-term success. The team will be asked to present an executive summary with general financials to help the licensing manager establish licensing terms that best serve the interests of both the startup company and the University. There are a few ways to develop a business case:

- **Mentoring:** Every startup is assigned a TLA MIR, who serves as the project champion until the license occurs, driving the formation of a successful startup. The MIR meets individually with the inventing team on a regular basis, focused on moving the project forward and staying on track. Throughout the process the MIR will host a series of strategic planning sessions, introducing the team to a range of industry advisors and experts. This serves to build out both the commercialization strategy and the startup team.
- **Customer discovery:** TLA offers a cohort-based program that connects inventors with an external team to do a deep dive on the market and identify early customer opportunities.
- **External opportunities:** Occasionally a designate from the startup team may be invited by TLA to participate in an external event to practice their presentation or participate in an external mentoring program. The TLA MIR can help the startup team determine which opportunities are best.

Funding Strategy

Often the startup team will require funding to move the startup forward. As part of the process the MIR leads the team through a timeline exercise, discussing the key milestones and costs required to bring both company and technology to success. This helps the team develop an appropriate funding strategy.

Funds may come from grants, personal funds, family and friends, angel investors, strategic partners, venture capital, and other more sophisticated financing. Teams are encouraged to meet with their MIR to develop a funding strategy that best aligns with the needs and timing of the startup. When turning to external funding, University startups will often initially consider SBIR/STTR grants and/or equity funding.

- **SBIR/STTR grants:** Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) grants are designed to help startup companies move early stage technology out of the University and towards commercial success. Companies are required to have appropriate governance, registrations, staffing, a commercialization plan, access to the IP, and a plan of work that may include both startup and University.
- **Equity funding:** Companies that expect significant growth, especially those in the life sciences areas, may require outside investment – capital in exchange for equity in the company. While this may reduce the percentage of ownership, the value of that ownership becomes greater as the overall company value is increased. Equity funding brings in needed capital, enables the company to take next steps in growth, and may bring additional expertise and connections from the investors. Since the license serves as a foundational asset of the company, an executed license will likely be required before an investor will commit. TLA can help the startup team determine best timing and introductions where appropriate, although in many cases the team's business leadership will already have a strategic plan with connections in place before the license.

There are many different opportunities to fund a startup company, and TLA will work with the startup team to identify the best strategies for that startup.

Capitalization Table

The capitalization table determines company ownership and should reflect not only the contribution of the invention, but the future contributions in developing the company and moving that invention to market. It's up to the startup team to determine how company ownership is distributed between the co-founders and future employees. The percentage of ownership will be diluted (reduced) over time as the company engages investment and issues new shares, but if done correctly, the overall value of the company will increase as will the value of ownership. An inventor's initial ownership in the company may reflect their contribution in research, but more importantly should reflect their role in moving the company forward. TLA can provide general guidance and help answer questions inventors may have about dilution, formulating the capitalization table and common practices.

Governance and Other Activities

Early in the process the startup team will need to engage a corporate attorney, someone who can help them determine what type of entity structure is appropriate for their needs, and to help them formulate a governance plan. The plan determines roles, responsibilities and processes that the startup company needs in order to move forward.

Depending on the nature of the technology and startup, additional efforts may be required, such as development of a regulatory pathway plan. The MIR will work with the startup team to identify these activities and incorporate them into an early plan of action.

Asset Development

Some additional effort may be required to prepare the IP for license, which may include prototype development, feasibility studies, scalability tests, regulatory assessments, deep market dives, etc. TLA asset development funds are available to advance the IP towards license, and the TLA team will work closely with the inventor to determine if asset development is required.

Phase 3: License

As Venture Development progresses, the licensing manager will work with the inventing team at the same time to address UArizona compliance requirements and negotiate the final license terms.

UArizona Compliance Considerations for a Startup

The University encourages faculty, staff and students to engage in appropriate relationships with private industry and the non-profit sector, including participating in the formation of startup companies. Work performed for a startup company is typically separate and outside of the scope of their institutional responsibilities to the University and may impact research conducted at the University.

Conflicts are inherent in licensing to a company in which UArizona employees have a financial interest. The Conflict of Interest (COI) process helps both the team and the University understand and manage those conflicts. The inventors and/or staff may also be required to submit a Conflict of Commitment (COC) outlining their distribution of time and effort between their full-time duties as a University Employee and their responsibilities resulting from the startup. Any further UArizona-based research involving licensed technology will have to comply with the policies and procedures of the University's various research compliance programs.

TLA can help the team navigate this process. To learn more:

- UArizona IP Policy: <http://policy.arizona.edu/research/intellectual-property-policy>
- ABOR Policy: <https://public.azregents.edu/Policy%20Manual/6-908-Intellectual%20Property%20Policy.pdf>
- COI Program: <http://rkw.arizona.edu/compliance/conflict-interest-program>

License

No UArizona intellectual property (IP) may be used outside of the University for commercial effort without appropriate license. The Arizona Board of Regents (ABOR) IP Policy establishes the basic rights and obligations relating to IP created by employees and others connected to the University, provides an explanation of some of the key aspects of the ABOR IP Policy, and also provides additional detail regarding IP creation, ownership, disposition, and transfer at the University.

- **License agreement:** This forms the basis of a mutually beneficial relationship and TLA is committed to negotiating fair terms for the University and the startup to enable success for the benefit of UArizona, the company and the inventing team. The agreement defines the rights the licensee has in the IP and the financial consideration for such rights, and these terms are agreed on between the licensing manager and the startup business leadership.
- **License terms:** Key elements include the scope of the license (exclusive vs. non-exclusive), clearly defined IP, field of use, financial consideration, reserved rights for the University to continue its research and educational mission, diligence to assure development of the technology and indemnification for UArizona. The University endeavors to balance upfront costs, royalties, equity, milestone payments, patent reimbursement, and sublicensing to create a fair and reasonable agreement for both parties.

TLA follows best practices amongst universities to promote a collaborative and efficient negotiation process. TLA strives to ensure that UArizona technologies are diligently developed and commercialized for public benefit, and diligence is a key discussion in the license negotiation.

What Happens Post-License

Like all university tech transfer offices, TLA is tasked to move UArizona research to market. In the case of a startup, this is accomplished through supporting and guiding the formation of a team and early business model and licensing the IP to the startup company. When the license is finalized, the TLA team steps out of the activity, leaving next stages of growth to the startup team. Ideally the startup will have enlisted support from community partners who they have connected with throughout the Venture Development phase.

Ongoing Support

Following the execution of the license agreement, a wrap-up meeting will be held to help the newly formed company identify next steps and ensure a smooth transition to external activities. Continued TLA support may sometimes be necessary to help the startup move toward its next milestone, including address matters of IP, license issues, pitch deck development, or to otherwise advise when the company is unable to secure resources needed to move forward successfully.

The TLA Network

TLA hosts a significant network of resources designed to support its commercialization activities, like early IP assessment, venture development support, and startup leadership. The startup team is introduced to these resources throughout the Venture Development phase, and many form partnerships that carry the startup forward post license. These resources include:

- **Commercialization Network:** TLA has a network of approximately 1600 people, mostly UArizona alumni, keen to support commercialization efforts. They are available for specific questions or to facilitate an industry connection and may be located anywhere.
- **Community Collaborators:** Southern Arizona has a network of professional service providers and community resources focused on helping startups move beyond the University. Services may include facilities, programmatic and mentoring support, regulatory direction, team development, investment, and more.
- **Commercialization Partners (CP):** This is a small team of less than 30 partners. All are under confidentiality and provide in-depth support for TLA's commercialization efforts at all stages, often serving as advisors on startup projects. A subset of this team are *CEOs-in-Residence* – an elite group of business executives solely focused on finding their next startup opportunity.
- **UArizona Startups:** TLA has a community of strong UArizona startups. Connecting with peers provides a unique opportunity to share resources, experiences and advice. Often members of those startup teams will return to TLA to provide their expertise and advise for newly forming startup projects.

Connect with Us

If you are interested in pursuing a startup, learning about any of the programs or policies outlined in this document, or joining the TLA network, please contact us. We look forward to working with you.

Tech Launch Arizona, (520) 621-5000, <https://techlaunch.arizona.edu/tla/contact-us>

The TLA Startup Checklist

The startup process is not linear, and multiple tasks are often managed simultaneously – each influencing the outcome of another. The time to move through this process and obtain a license is largely dependent on the inventor's availability, the type of startup, complexity of the technology and industry, and the startup team. This sheet offers a general check list of things to consider while moving through this process.

First Things First

- Connect with a TLA licensing manager to assess the invention, take steps to protect it, and express interest in pursuing a startup
- Meet with TLA for an Intake meeting to assess the startup opportunity
- Work with TLA to establish a timeline and execution plan with regular meetings

Team Formation

- Create an organizational chart for the startup and discuss roles, responsibilities and ownership
- Determine inventor role in the startup
- Engage business leadership
- Form a startup Advisory Committee and/or Board of Directors
- Engage community collaborators for ongoing support post-license

Business Case

- Review the TLA Commercialization Assessment Report for market direction
- Participate in TLA's customer discovery program
- Participate in strategy sessions to identify and formulate plans for business, funding, etc.
- Complete asset development work if appropriate and plan next steps for development
- Develop an IP plan including international patent strategy and budgets if necessary
- Create an executive summary with financials

Governance

- Meet with TLA to create a checklist of company formation steps
- Engage an attorney to establish appropriate company structure, governance, and documentation
- Create a capitalization table to document ownership
- Establish monthly stakeholder communication plans

Compliance and License

- Work with TLA to complete the Conflict of Interest process
- Address Conflict of Commitment and any other compliance requirements
- Request a check-in with TLA on any SBIR/STTR requirements if appropriate
- Meet with TLA at time of license to finalize next steps and community connections

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