

# LET'S GET STARTED!

2017

A Guide to the World of  
University of Arizona Startups  
for UA Academics & Entrepreneurs



THE UNIVERSITY OF ARIZONA

**TECH LAUNCH  
ARIZONA**

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## Section 1: Welcome to the University of Arizona

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### Introduction to Tech Launch Arizona (TLA)

At the University of Arizona (UA), we recognize and support technology transfer and intellectual property (IP) development activities as an integral component of our mission. We have an established intellectual property policy for managing inventions generated by University investigators (also referred to as inventors). The University formed TLA to consolidate and increase the effectiveness of the UA's efforts to move knowledge and inventions from campus to the marketplace where they can create powerful economic and social impact. We connect the UA research enterprise with the business community to enhance the influence of UA research, intellectual property, technological innovation, and assets of Tech Parks Arizona. Under the leadership of Vice President David Allen, we have become an essential part of the University's *Never Settle* strategic plan and reports directly to the UA President.

### The Purpose of this Startup Guide

This guide is designed to provide general information to investigators, students and community members who are interested in the commercialization of UA inventions through the formation of a startup company. At the end of each section, you'll find a list of helpful links to related websites.

**Are you a UA inventor?** UA inventors are investigators or other UA employees who generate new inventions during the course of employment with the UA; the Arizona Board of Regents (ABOR) owns these new inventions. In this guide, investigators and inventors may be used interchangeably, and ABOR-owned inventions may also be referred to as UA IP (intellectual property). Students working on inventions in collaboration with an investigator or as part of a funded research effort would be considered UA inventors.

**Are you a UA student inventor?** If you develop an invention in your capacity as a student rather than as an employee, AND do not make significant use of University resources, you are probably working on IP not owned by ABOR. TLA can connect you with resources both on campus and in the community focused on serving students. We welcome students to contact us at TLA if they have any questions about IP ownership.

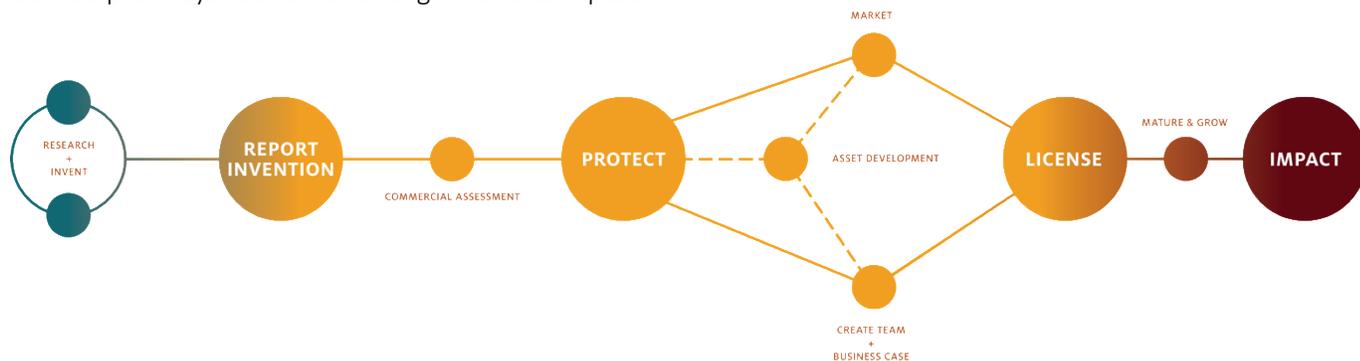
**UA IP is intellectual property, for example patents and copyrights, owned by ABOR on behalf of UA. In this guide, we may use "UA IP" and "ABOR IP" (occasionally just "IP") interchangeably.**

**Community members** are invited to engage with us in any number of ways. We're always looking for talented individuals to help assess new technologies and support startup efforts, and community partners to provide the infrastructure needed to support those startup companies when they spin-out of the UA.

Our primary focus at TLA is the commercialization of UA IP and supporting UA Investigators and inventors. Local entrepreneurs who don't fall into one of these categories but who are working on a STEM-related startup and need support may be eligible to engage with the Arizona Center for Innovation, the tech business incubator housed at the UA Tech Parks that serves both UA and non-UA startups. Other community resources include Startup Tucson, the Arizona Small Business Development Center and Innovate UA.

## The TLA Commercialization Process

Drawing on our team members' experience, market knowledge, and extensive Commercialization Network, we work closely with UA inventors and industry partners to speed the flow of intellectual property from the research laboratory to the marketplace. We work with you to develop commercialization strategies to leverage the opportunities unique to each invention. We facilitate the entire commercialization continuum, bringing ideas from their beginnings in scientific research through defined pathways to the world for growth and impact.



Here's how the process works:

- **Research & Invent:** As scientific research proceeds, it may – by intention or by circumstance – give rise to novel inventions. We invite inventors to come to us at any time to discuss their results and inventions.
- **Disclose:** Working with a TLA licensing manager, the inventor files an invention disclosure that formally reports the invention and kicks off the process of evaluating the existing patent landscape and market value of the invention.
- **Commercial Assessment:** Once an invention report is filed, our TLA team assesses the invention's patentability and potential market/s. Our licensing managers then work with inventors to review the assessment and determine the best commercialization path forward.
- **Protect:** When the novelty and originality of the invention is determined, we bring the inventor together with our network of patent lawyers to protect the invention, usually through filing an initial enabled provisional patent application. We (TLA) covers the expenses of this process.
- **Market:** 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 help bring the invention to market quickly and efficiently. Often the potential licensee is already known to the inventors based on prior collaborative efforts. While we'll reach out to those contacts, our team also conducts a comprehensive marketing effort to identify additional potential licensees.
- **Form Team and Business Case:** At any point during the commercialization process, it may become evident that the best commercial pathway is through creating a new company to bring the technology to market; that's what we call a startup. In most cases this stems from interest expressed by someone on the inventing team. When that interest comes to light, the licensing manager engages TLA's Business Development group to identify the commercial potential and form a startup team.

- **Asset Development:** In some cases, inventions need additional work to prepare them for license. This may include prototype development, validation or scalability tests, a license assessment or a commercial feasibility study. Our Asset Development program provides grant funding to move these kinds of projects forward, typically providing awards in the range of \$5K-\$40K. The licensing manager will work with the inventing team to develop an appropriate work plan, timeline and budget that will go to TLA leadership for approval. We also offer a National Science Foundation I-Corps program, which provides up to \$3K for customer discovery, which is often used in tandem with asset development funding for a potential startup assessment.
- **License:** To move the technology into the market, an existing company or startup must license the IP rights. The license agreement defines the rights that the licensee has in the IP, and the royalties that will be paid to the UA and inventing team in return for those rights. The licensing manager leads this process and negotiates directly with the company on behalf of the UA.
- **Mature, Grow and IMPACT:** It's up to the licensee company to drive commercialization and growth of the invention. If the company is a startup, Tech Parks Arizona and other TLA community partners can provide additional resources to help. At this point, the licensee fully productizes the IP, making it ready for distribution to the market through commercial pathways where it will create economic and social impact.

#### **Helpful Links**

ABOR IP Policy: <http://policy.arizona.edu/research/intellectual-property-policy>

Distribution of license royalties: <http://policy.arizona.edu/exhibit-abor-owned-ip-revenue-distribution>

Student inventor resources: <http://innovateua.arizona.edu/>

Network and community partners: <https://techlaunch.arizona.edu/network/tla-101-network>

The Arizona Center for Innovation: <https://techparks.arizona.edu/azci>

Startup Tucson: <http://startuptucson.org/>

Arizona Small Business Development Center: <http://www.azsbdc.net/>

Inventor questions: <https://techlaunch.arizona.edu/inventors/intellectual-property-policy-faq>

Disclosure information: <https://techlaunch.arizona.edu/inventors/disclose-invention>

Asset Development program: <https://techlaunch.arizona.edu/inventors/asset-development>

Contact TLA: <https://techlaunch.arizona.edu/tla/contact-us>

## Section 2: Startup Considerations

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### What is a Startup?

There are many definitions for “startup.” When we use the term at the UA, a **UA Startup** refers to a newly formed company with a license to commercialize UA IP. Those startups best positioned for success will have the following in place at the time of the license: appropriate leadership, a reasonable business case, and access to the right resources needed to move the company forward. At TLA, it’s our job to prepare both the team and the IP for license.

When you hear discussions about startups formed around UA IP, you generally hear about three types: **growth, lifestyle, and social.**

A **growth** startup expects to scale quickly, with future revenues of \$50M 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 legal and other professional resources, and the appropriate entity structure to support the capital, as well as a team structure to launch and sustain growth.

A **lifestyle** startup is often formed to supplement an inventor’s current research or work, or simply to provide additional (modest) income. For example, the inventor may wish to license IP into a startup company to fulfill a consulting service, or to provide material or components to other researchers in a related field. As these startups are not expected to reach the high revenues of growth startups, the capital and team structure needs are less critical than other types of startups and therefore the process to license IP to this type of startup may be accelerated.

A **social** startup may be a non-profit or benefits-corporation, designed to make the world a better place, not to capture market share or wealth. These ventures require support from the inventing team, but also 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 impact for the UA and the region. Successful companies continuously monitor the demands of their industries and customers and adjust accordingly; thus, a company may change its direction at any time.

### The Inventor’s Role in a Startup

Transforming an invention into a saleable product and engaging customers requires a unique mindset. The process isn’t clean, and it’s rarely linear. The business case needs to be as innovative and disruptive as the technology itself and unfortunately there aren’t any easy shortcuts. This is particularly true for growth startups, where entrepreneurs often invest 12 or more hours a day, seven days a week, as they build and grow their companies.

This time commitment often presents a challenge for the UA inventor, particularly for growth startups. In most cases the inventor will remain at the UA to continue his or her research while taking a secondary or advising role in the company, leaving the startup development efforts to team members. While an inventor could step into the role of leading a startup, professional CEO are generally much better suited

for the job and should be engaged in this effort. That said, we work 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 primary roles an inventor may take:

- **Role 1 (Remain at UA): Company Co-Founder, 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. Remember! Investors look for an experienced leadership team with a proven track record in bringing new technologies to market.
- **Role 2 (Remain at UA): Company Co-Founder, CEO (part-time)**  
This primarily occurs for those opportunities that are non-scalable or have a limited market. We also refer to these as lifestyle business opportunities, which are focused on serving the needs of the founders.
- **Role 3 (Exit UA): Company Co-Founder, Business Role (full-time)**  
In some cases, the inventor may wish to exit the University and pursue commercialization of their invention full-time. In this case, TLA works with the inventor to determine the best structure and resources needed.
- **Role 4 (Remain at UA): No Role**  
Not all members of the inventing team may want to participate in a startup. If no one from the inventing team is interested in pursuing a startup, licensing the technology to an existing company may be the best path.

In all cases above, inventors may have the opportunity to financially benefit through both the license agreement and any arrangement with the startup company. We work to create fair and equitable positions for all parties involved and look to the startup company team to do the same. For any of these roles, in particular Roles 1 and 2, inventors may find there is potential for a conflict of interest with their UA role. We work with inventors and the UA COI Program to address possible COI issues throughout the licensing process.

Transforming an idea into a saleable product, and then transforming that into a financially sustainable company, requires very different skillsets from initial research. As an inventor, you should consider the time commitment, your passion for the sellable product, your tolerance for uncertainty and risk, your ability to keep an open mind about commercialization direction, and your willingness to work with new business partners.

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 and ground crew to successfully travel from point A to point B. Just as with a startup, each of these roles requires a different skillset that isn't likely be filled by the same person.

## UA Startup Success

It may be helpful to talk with other inventors who have been involved in the startup process, and we can make those introductions where appropriate. Over 100 companies have been founded on UA IP, and we expect to see about 12-15 startup companies form around new UA IP each year.

## Compliance Considerations

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. Faculty, staff, and students should recognize, however, that work performed for a startup company is typically separate and outside of the scope of their institutional responsibilities to the University. Work performed for a startup company may impact research conducted at the University.

- **Conflict of Interest (COI):**

Conflict of interest (COI), whether perceived or actual, is often inherent in the licensing process where a UA startup is involved. UA inventors should become familiar with the COI implications of their licensing plan as early as possible in the process. For questions related to financial conflicts of interest between a researcher's interest in a startup company and his or her research at the University, please contact UA's COI Program at: <http://rgw.arizona.edu/compliance/conflict-interest-program>. (520) 626-7879 or [coi@email.arizona.edu](mailto:coi@email.arizona.edu).

- **Human Subjects**

Any UA research involving human subjects and licensed technology is subject to enhanced COI review by UA's Institutional Review Board and by the Institutional Review Committee. Any inventor contemplating human subject research at or with the UA that involves licensed technology should reach out to the COI Program ([coi@email.arizona.edu](mailto:coi@email.arizona.edu)) and the Human Subjects Protection Program ([VPR-IRB@email.arizona.edu](mailto:VPR-IRB@email.arizona.edu)) for further guidance.

- **Other Research Compliance Considerations**

Any further UA-based research involving licensed technology will have to comply with the policies and procedures of UA's various research compliance programs, which include:

- the Human Subjects Protection Program
- the Institutional Animal Care and Use Committee Program
- the Export Control Program
- the Research Laboratory and Safety Services Program
- the Conflict of Interest Program.

Information on each of these programs can be found on UA's Research Gateway at: <http://rgw.arizona.edu/compliance/home>.

### **Helpful Links**

TLA startups: <https://techlaunch.arizona.edu/tla/ua-startups>

Contact us: <https://techlaunch.arizona.edu/tla/contact-us>

## Section 3: Building a Startup

### Forming Your Team

Every successful startup company begins with a strong team appropriate for the type of startup. This is the Profile of a Startup canvas and may help facilitate discussions around team formation.

The diagram illustrates the 'Profile of a Startup' canvas, divided into two main horizontal sections. The upper section is dark blue and contains several white boxes for identifying team members and resources. On the left, there are two stacked boxes: 'Inventor(s):' and 'Co-Founders:'. To the right of these is a large box labeled 'Advisors, Board of Directors:'. Below this, a central box labeled 'TEAM' is flanked by five boxes: 'CEO/Business:', 'CTO/Technical:', 'CSO/Sales:', 'CFO/Finance:', and 'COO&Other:'. Below the 'TEAM' section is a box labeled 'PROFESSIONAL SERVICES' with three sub-boxes: 'Legal:', 'Regulatory:', and 'Other:'. The lower section is light orange and features a horizontal timeline. On the left, a box contains the text 'Draft timeline' and 'Technology development, funding, partners, etc.' with an arrow pointing right. To the right of the timeline, the text 'Additional Technologies?:' is followed by three circular icons labeled '2<sup>nd</sup>', '3<sup>rd</sup>', and '4<sup>th</sup>'.

The upper dark blue section describes the team, and white boxes provide a quick way to identify available and needed team resources. The lighter section below includes a timeline as it relates to technology development, future products, investment strategy, and additional resources needed from a team perspective to help move the company forward.

- **Inventors and Co-founders:** A successful growth company will have co-founders from both the inventing team and experienced business leadership. Generally speaking, the inventors play a key role in IP creation, and the other co-founders play a key role in company formation and development.
- **Advisors and Board Members:** Each startup company needs an advisor team, and may also require a board of directors depending on the type of startup and requirements for entity formation. The advisor team is an informal team of seasoned entrepreneurs, industry and domain experts, strategic partners and possibly future customers. They are mostly volunteers who provide support at the direction of the founders, filling in team gaps and providing additional expertise and support during the company's early stages. Although this is an informal role, it provides founders with an early opportunity to work with advisors and build relationships. It also helps new founders build experience working with an external team, which will help later when working with a board of directors. By comparison, the board of directors has a formal responsibility to the company; they represent shareholder interest and provide oversight for the CEO and executive team.
- **Other Executives and Professionals:** The Profile of a Startup template provides a starting point to also discuss other roles and professional service needs: legal, regulatory, and so on. Many of these positions may be filled with interim support, contract-based service providers, or industry partners. We maintain a large network of interested supporters, and works with inventors to make appropriate

introductions. If the inventor/s have already engaged industry or business leadership, we can engage those members in the process as well. It's not uncommon to have a virtual team of key players.

- **Founders and Ownership:** Ultimately, it's up to the startup team to determine the company structure and ownership, and to create the capitalization table showing how company ownership is distributed between the founders and future employees. Even though the early research and licensing processes represent significant work, they are really just the beginning; once the license is done, the hard task of building, launching, and growing is just beginning. Therefore, the startup team should be compensated appropriately for their efforts. 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 should reflect their role in moving the company forward. Generally, many University startup companies will see ownership of 10-20% per co-founder, including both business leadership and inventors engaged in company growth. We can provide general guidance and help answer questions inventors may have about dilution, formulating your capitalization table and common practices.

### Engaging TLA Support

When an inventor expresses interest in pursuing a startup, the licensing manager will enlist support from the business development team to lead the startup team formation, business case development, and preparation for license. Based on the nature and needs of the startup, the business development team will create an action plan and engage the necessary resources, which may include:

- **Mentors-in-Residence (MIRs):** These are part-time TLA Business Development employees, each with a track-record of success in forming and leading technology companies. They advise UA startups and serve as TLA's lead coach and advisor for the team throughout the process.
- **Commercialization Partners:** We have a small team of about 20 executives, entrepreneurs and investors who work closely with our TLA Business Development team. They assess early technologies, participate in the commercial assessment reports, and advise startups. Some are also looking for their next startup opportunity and are available to step in as an interim CEO or business partner.
- **Commercialization Network:** We have built a network of approximately 1400 people with deep industry and domain expertise, mostly UA alumni, who are keen to support the UA's commercialization efforts. Our Business Development team has a dedicated commercialization network manager who works to manage and grow the network, looks for appropriate connections and maintains active network communications.
- **Community Collaborators:** In addition to the Commercialization Network, we work closely with collaborators and organizations that serve the regional entrepreneurial ecosystem and who assist UA startups post-license.

## Creating the Business Case

A good business plan articulates the vision, mission and strategy for the company, and may include many of the elements outlined below.

Element	Description
Product and solution	In overview form, outlines the technology/science, application, and problems it addresses.
Customer validation	Customer interactions, discussions and interviews that validate the solution. May also include discussion with network members. <i>We highly recommend the NSF I-Corps site program offered through TLA. <a href="#">Learn more about NSF I-Corps.</a></i>
Market definition and size	Outlines the initial and practical opportunity in number of customers, relevant revenue/unit sales. Based on TLA commercialization assessment and inventor expertise.
Competitive landscape	Identifies the most relevant competitors and the competitive advantage of this solution. Based on TLA commercialization assessment work and inventor expertise.
Business model, sales plan	Lays out how product should be sold - channels, pricing - and if this can be financially sustainable. Based on TLA commercialization assessment work inventor expertise and startup team efforts.
Team	Identifies the management team, roles, relevant backgrounds, organizational chart, and immediate needs. Based on TLA startup efforts.
Product development	Provides a timeline and activities required to transform research into product, addressing prototyping, testing, packaging, regulatory, IP planning and related plans, all developed by the inventor and startup team.
Operations and timeline	Lists requirements to launch the company, such as facilities, equipment and staff. Also provides a timeline with key milestones. Based on plans developed by startup team.
Financials and funding strategy	Offers a 3 to 5+ year revenue projection with financial statements, including sources and uses of funds needed along with a capitalization table. Timespans and strategies may vary greatly, especially for long-term pharmaceutical products. Based on plans developed by startup team.
Corporate entity and governance	Lays out corporate entity and governance plans, regulatory strategies and other elements as appropriate. Based on company legal counsel.
Executive summary	Summarize business plan elements in a 1-page executive brief. Created by the startup team.
Other supporting materials	<ul style="list-style-type: none"> <li>• Pitch deck: short presentation that reflects the executive summary and investment or other needs.</li> <li>• Paragraph for TLA: Two to four sentences about the company, its product, and the problem it addresses. Created by the startup team.</li> <li>• Binder archive of research, interviews and notes.</li> </ul>

### **Customer Validation: the NSF I-Corps Opportunity**

The National Science Foundation Innovation Corps (NSF I-Corps) is an initiative to prepare scientists and engineers to expand their focus beyond the laboratory and increase the impact of basic research. The University was designated an NSF I-Corps site in January 2016. This allows TLA to fund about 30 teams per year who are interested in commercializing their inventions and engaging potential customers. Each team consists of an Academic Lead, Entrepreneurial Lead, and Mentor. The program is designed to help the team make a go versus no-go decision based on customer interviews. Awards are up to \$3,000 per team, and teams that successfully complete the program are better positioned to apply for follow-on NSF funding opportunities, such as SBIR/STTR grants or the NSF I-Corps National program.

NSF I-Corps funds will be designated for such teams working on UA-connected technologies, including:

- Inventions arising out of the work of UA investigators
- Technologies being developed by companies connected to the UA through the [Arizona Center for Innovation](#)
- UA student-developed STEM technologies that demonstrate potential for economic and social impact
- Other community STEM-related startup companies that may directly benefit from a UA connection

Key benefits to NSF I-Corps teams include engagement in the NSF I-Corps curriculum and access to the National Innovation Network, a national pipeline of collaborators, mentors and partners. The NSF Lean Launch curriculum provides entrepreneurial education and coaching to help teams maximize their opportunities for success. NSF I-Corps is focused on identifying IP with the greatest potential for social and economic impact and moving it towards commercialization, which is directly in line with the mission of TLA.

#### ***Helpful Links***

*The Commercialization Network:* <https://techlaunch.arizona.edu/network/tla-101-network>

*The NSF I-Corps program at TLA:* <http://techlaunch.arizona.edu/nsf-i-corps-about>

*Contact us:* <https://techlaunch.arizona.edu/tla/contact-us>

## Section 4: Licensing and Conflict of Interest

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### The License

From the start, we work closely with the inventing team to define the type of startup and expectations, and we focus on preparing both the team and the IP for the license. All startup companies must address corporate governance and compliance with the University's conflict of interest policies to license UA IP, but the companies with the greatest success will also have a strong team and business case in place at the time of license.

- **Team:** This includes business leadership (CEO or president) with relevant experience to carry the company forward and secure the necessary resources, along with appropriate technology leadership (usually filled by the inventors) and advisors.
- **Business case:** This is an executive summary or a general go-to-market plan that outlines the commercialization, product development, customer acquisition and financial strategies.
- **Corporate governance:** Startups must have an established entity, legal support, and a capitalization table that shows owners and grantees and their respective percentages and vesting schedules.
- **UA Conflict of Interest:** The University encourages the licensing of intellectual property to startups or other companies in which University employees are involved. However, such arrangements raise the potential for conflicts of interest (COI) and may impact an inventor's research at the University. Thus, a COI review and management procedure is built into the licensing process, in coordination with the University's COI Program.

### About Conflict of Interest

In accordance with Arizona Board of Regents Policy 3-901.B, the University must identify, on a case-by-case basis, individual and institutional conflicts of interest and conflicts of commitment that may arise as a result of a proposed license or transfer of technology to an entity in which a University employee maintains a substantial interest.

The COI review and management procedure begins with filling out a "Conflict of Interest Worksheet," which requires disclosure of: a description of the licensed technology; the identity of individuals who will work for or have an interest in the company; the company's structure and activities; whether and how students will be involved; and how and to what extent the company expects to interact with the University.

Inventors meet with a licensing manager and a staff member of the COI Program to discuss the Conflict of Interest Worksheet. The COI Program staff also walks the inventor through the policy framework that has been implemented at the University to address conflicts of interest. These policies are designed to comply with applicable state law and federal regulations. You can find links to related policies under "Helpful Links" below. Please review these policies to learn about the obligations of University investigators, and feel free to reach out to TLA or the COI Program with any questions.

After becoming a licensee of University-owned IP, inventors have a continuing duty to disclose information about their research via the COI Program's online disclosure process. If a financial conflict of interest arises, the COI Program will work with the inventor to eliminate, manage or mitigate the conflict.

Examples of conflicts of interest include:

- The company subcontracts, sponsors, or supports research at the University.
- The company owns or licenses the product or technology being evaluated in research at the University.
- The University research could affect or appear to affect the value of the company itself or the inventor's remuneration from the company (e.g. royalty income).
- The University research could directly benefit the company.

COI Program staff are available to facilitate disclosure and management of outside interests. If you have any questions please contact them at [coi@email.arizona.edu](mailto:coi@email.arizona.edu) or 520-626-7879.

### **Post-license Support**

Our goal is to prepare both the team and the technology for a license, and we work with inventors to find experienced business co-founders who can help navigate the complexities of a startup. We then work with that business team to help them build an initial go-to-market strategy and identify appropriate resources and community partnerships. Once licensed, it is the startup leadership's responsibility to take the next steps needed to round out the team, refine the business, engage resources, set the direction, and make it happen!

We offer additional support, including team development, investment or exit preparation, general brainstorming or access to additional resources. Often we provide these in conjunction with a community partner or resource that the startup team has already engaged.

The Arizona Center for Innovation (AzCI) is a technology business incubator located at the University of Arizona Tech Park. AzCI offers training and support through its Mentored Launch program, individual mentoring, executive services, office space, wet and dry lab facilities, shared lab equipment and an on-site lab manager. For information on how AzCI might help your startup, visit [www.azinnovation.com](http://www.azinnovation.com) or contact [info@azinnovation.com](mailto:info@azinnovation.com).

## Section 6: Funding The Startup

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### Investment

Successful startup companies will establish a funding strategy appropriate to their needs, and we can help you navigate this process. Funds may come from grants, personal funds, family and friends, angel investors, strategic partners, venture capital, and other more sophisticated financing for later-stage companies. Building an appropriate funding strategy is critical for success.

- **University Grants – Asset Development and National Science Foundation I-Corps**

TLA offers an Asset Development program to provide small grants, typically \$5K - \$40K, designed to help prepare a UA invention prior to license. Asset development funds may be used for prototype development, validation of features or functionality, tests for scalability, assessment for licensee, or a commercial feasibility study to better understand the needs of a key market or complex regulatory requirement. This funding is only available to advance UA technology before a license is executed.

The University of Arizona holds a National Science Foundation I-Corps (NSF I-Corps) Site Designation, which provides startup candidate teams additional grant awards of about \$2500. This program provides the inventor with an opportunity to engage a mentor and entrepreneurial lead, and explore customer and market opportunities. Successful teams will have the opportunity to advance and apply for other NSF funding programs.

- **SBIR/STTR Grants**

Federal grant programs like the Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) programs bring added credibility to the startup team, funding to move the company forward and increase value, and access to additional opportunities that may not otherwise be available. The goal of these programs is to commercialize IP. TLA startup teams may pursue SBIR/STTR grant opportunities prior to a license, with the intent to license the IP when the grant is awarded to the startup company. Granting agencies may require evidence of reasonable access to the IP as part of the application process.

- **Personal Funds, Friends and Family**

The largest funding source for startups comes from personal funds, followed by family and friends. TLA can help the team navigate this process; it's critical to manage this carefully and with appropriate agreements to avoid any downstream funding challenges.

- **Angel, Venture Capital Investment**

Startup companies – not just in Arizona but everywhere – face challenges in raising early stage capital. Southern Arizona has an angel network, along with a growing entrepreneurial ecosystem, but little venture capital (VC) funding readily available. Angel and VC funding changes the ownership structure of the company; these funds are provided in exchange for equity – unlike the grants noted above. Investors look at a range of variables when making their decision to invest. In general, variables having the most weight include: ability and experience of the team in bringing products to market successfully; the size of the opportunity; customer validation and market partnerships; and the product. Not surprisingly, team is weighted the heaviest – creating a compelling reason to engage a strong business co-founder early.

- **Strategic Partners, Crowdfunding, Other**

Many startup companies will engage with early customers or strategic partners to fund operations. Crowdfunding may help demonstrate early market interest, but may not be appropriate for all cases. Other sources of funding may also be available depending on the nature of the startup. TLA can help the startup team navigate these options as they fold into the startup company's overall funding strategy.

#### **A note on valuation and capitalization tables**

Part of the discussion with building out the funding strategy will be to understand the valuation of the startup, and the company structure and ownership. We can provide general guidance and advice and introductions to professional services where appropriate. Our goal is to see these UA IP startup companies succeed and be financially sustainable; building the right funding strategy is essential to that success.

#### **Helpful Links**

Understanding Conflict of Interest: <http://rqw.arizona.edu/compliance/conflict-interest-program>

Online UA job board: <https://career.arizona.edu/jobs/wildcat-joblink>

The Arizona Center for Innovation: <https://techparks.arizona.edu/azci>

Asset Development program: <https://techlaunch.arizona.edu/inventors/asset-development>

The NSF I-Corps program at TLA: <http://techlaunch.arizona.edu/nsf-i-corps-about>

Tech Launch Arizona: <https://techlaunch.arizona.edu/>

#### **Connect with Tech Launch Arizona**

Thank you for taking the time to review this startup guide. If you are interested in learning more about TLA, or if you're searching for detailed information on programs listed in this guide, please visit:

Tech Launch Arizona

220 West 6<sup>th</sup> Street, 4<sup>th</sup> Floor

Tucson, AZ 85721

(520) 621-5000

<https://techlaunch.arizona.edu/inventors/startup-process>

We look forward to working with you.

## Startup Checklist

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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 type of startup, complexity of the technology and industry, and on the availability of the inventing team. This sheet offers a general check list of things to consider as you move through this process.

### Team Formation

- Determine interest in building a startup and possible role(s) for inventing team
- Engage TLA mentor in residence (MIR) to serve as an internal startup champion or liaison
- Define team needs and engage network members and industry connections; look for both technical and business expertise as well as relevant experience
- Identify and establish plan to engage business leadership
- Create a team organizational chart and discuss roles and ownership
- Establish advisory group (and board of directors if required) to provide support consistency
- Engage community collaborators for ongoing support post-license

### Business Case

- Review the TLA Commercialization Assessment Report for market direction
- Apply for the NSF I-Corps program to advance customer discovery and business model canvas work
- Participate in strategy sessions to identify and form plans as needed: regulatory, customer, product development, funding, and resource engagement
- Translate strategy session notes into an executive summary, business plan outline, and other supporting materials
- Complete asset development work if appropriate and plan next steps for development

### Governance and Execution

- Meet with TLA mentor-in-residence (MIR) to create a checklist of company formation steps
- Engage attorney to establish appropriate company structure and documentation
- Create a capitalization table to document ownership
- Work with MIR to develop a timeline and action plan to stay on track
- Establish monthly stakeholder communication plans
- Request an exit meeting with TLA at the time of license to finalize any next steps and engage community collaborators

### UA Conflict Resolution

- Outline general plan for commercialization and inventor role(s) in the company
- Meet with COI Program staff to discuss COI worksheet and relevant COI policies
- Work on the COI forms to identify potential conflicts and establish an appropriate management plan for success
- Request a check-in with TLA on any SBIR/STTR requirements if appropriate