



Tech Launch Arizona

Tod McCauley, Ph.D., Senior Licensing Manager,
College of Agriculture and Life Sciences

About Tech Launch Arizona

Creating an Ecosystem of Invention and Commercialization

- Vision
By 2020, the University of Arizona through Tech Launch Arizona will become a recognized national resource for its role in commercializing UA-created knowledge, thereby bringing the university's inventions to the public for economic and social benefit.
- Mission
TLA will build upon the synergies among the faculty, administration, students and alumni of the University of Arizona, its tech parks, and the technology and business community to significantly enhance the impact of UA research, intellectual property (IP) and technological innovation.

What Makes TLA Unique?

- **TLA is a key component of the University of Arizona strategic plan.**
 - The VP directing TLA reports directly to the president
- **TLA is deeply engaged in the Tucson business community and with alumni.**
 - Commercialization ecosystem
- **TLA has developed a nearly seamless process that leverages internal and external resources.**
 - The office works broadly across the University, with contributions from the library and six college deans to domain experts and commercialization partners
- **TLA further integrates the UA tech parks with the University.**
 - The Tech Parks serve as a two-way bridge between academic and business worlds, for technology going out, as well for business connecting in.

Tech Launch Arizona: Organization

Technology Transfer

- IP protection
- Licensing
- Business intelligence
- Startup formation and management

Business Development

- Asset Development
- Developing new ventures
- Leveraging the Commercialization Network

Tech Parks Arizona

- UA Tech Park and UA Tech Park at The Bridges
- 45 companies, 6,500 employees
- Arizona Center for Innovation (AzCI), a startup and business development services incubator

The Commercialization Network

A 1400-member network of experienced individuals that contribute to conversations around emerging UA discoveries

Domain Experts

- Deep domain expertise in a particular technology domain
- Contribute by helping to evaluate the technical merit and market applicability of an idea
- 20 Commercialization partners
- 4 Mentors-in-residence

Business Leaders

- Individuals that have founded companies and/or held high level roles in companies
- Contribute by helping to identify necessary steps for successful market penetration
- May become a member of a resulting startup

Innovative Approaches

- ✓ Tech Launch Arizona has **embedded technology managers** in six colleges + 2 Assistant Directors focused on Life Science and Physical Science areas
- ✓ Re-engineered **new venture development process**
- ✓ Enhanced **Business Intelligence** capabilities
- ✓ **Asset Demonstration Program** to move projects to commercialization
- ✓ National Science Foundation Innovation Corps (**NSF I-Corps**) site



Role of Licensing Managers

- Manage intellectual property at the University
- Commercialize inventions stemming from university research
- Work with inventors to determine the commercial viability of the innovation
- Facilitate relationships between inventors and commercial partners to develop the innovation for public use/commercialization



About Tech Launch Arizona

University of Arizona CALs Technology Commercialization

Creating a culture of tech commercialization service

Leverage subject matter domain expertise in AZ/SW US, and throughout our alumni base

Better understand how UA technology aligns with market drivers, so the technology will be pulled into the marketplace



Bayh-Dole Act & University Technology Transfer

- Enables universities receiving federal grant funding to retain title to inventions
- Formed the basis for modern technology transfer from universities to the private sector
- Allows universities to license patents **exclusively**
- In 2011 alone, nearly 600 new products were introduced to the marketplace...over 600 start-up companies were created.
- And, while prior to Bayh-Dole, no drugs were developed from federally sponsored research, since enactment over 150 new drugs and vaccines have been created

Why Participate At All?

This activity generates benefits for the researcher, University and society, expands public-private relationships, and furthers the University's mission.

- Attract research opportunities
- Student educational experiences
- Benefit society
- Personal fulfillment / recognition
- Financial reward
- Job opportunities for graduates
- Positive impact on economic development for the community, the state, and the general public



Creating Social and Economic Impact

RESOURCES



Students
Faculty
Researchers

- Educational Expertise
- Inventions
- Business Ideas

Network/Community
Alumni
Business Leaders
Domain Experts

- Leadership
- Domain Expertise
- Venture Capital

Funding Sources
Corporations
Government

- Research Funding
- Adoption of Early-stage Technologies
- Sponsored Research

TECH LAUNCH ARIZONA

Technology Transfer
Business Development
Tech Parks

RESULTS

Patents & Licenses

Products & Services that Improve Quality of Life

Student Career Readiness & Entrepreneurship

Startups & New Jobs

Community Engagement with the UA

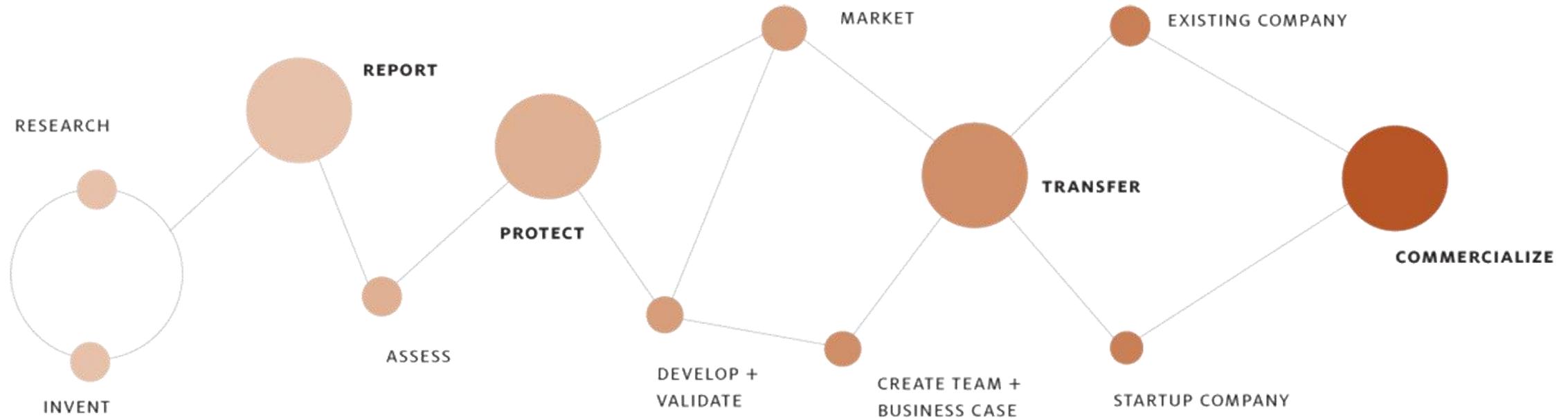
Productive, Long-term Research Partnerships

Super Land-grant University

Social and Economic **IMPACT**



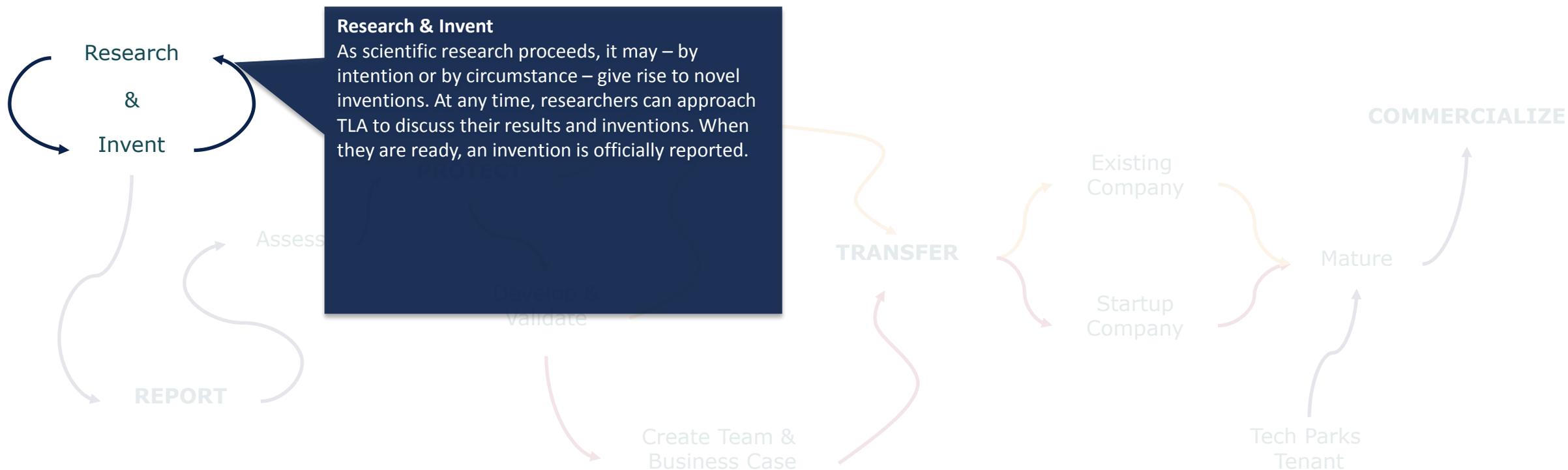
Process: From the Lab to the Marketplace



FROM RESEARCH

TO IMPACT

Technology Commercialization Pathways



From RESEARCH

to IMPACT

Technology Commercialization Pathways



From RESEARCH

to IMPACT

Inventors

- TLA 101 for Inventors
- Intellectual Property Policy
- Disclose an Invention
- Commercialization Overview
- Asset Development Program
- NSF I-Corps
- Industry-Sponsored Research
- Startup Process
- Tech Parks Arizona
- Student Inventors

Connect & Explore

- Workshops & Seminars

Home > UA Inventors > Disclose an Invention

Disclose an Invention

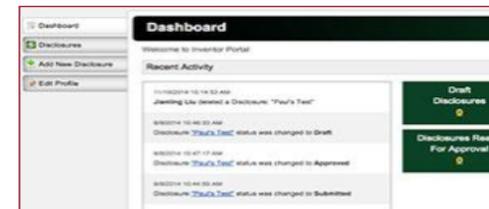
The information below will help UA employees complete the invention disclosure form available in MS Word format or online through **Tech Launch Arizona's Inventor Portal**.

If you need additional help or information, email Doug Hockstad, Director of Technology Transfer: douglash@tla.arizona.edu

Overview

The UA Invention Disclosure form is used to report an invention or technology made by faculty members, fellows and staff members (including students on appointment as University employees), by anyone using University facilities, or by anyone collaborating with any of the above individuals ("Contributors").

This form is designed to help Tech Transfer begin to understand your research and begin our interactions with inventors/contributors. Inventions in this context, include new



Click to visit the **Inventor Portal** (Requires NetID)



Title of the Invention

Use a brief title, omitting any confidential information, acronyms, and trademarks (title should be generic).

Brief Summary

Write a general description of the invention, concisely describing what you consider to be the essence of the invention and capturing the essential core concepts and results, including advantages and features of the invention. Also:

1. Please attach a detailed description of the invention, advantages/improvements over existing methods/devices/materials, and possible modifications;
2. Please attach any related manuscripts, publications, presentations, posters, etc.; and
3. Please do not include any ITAR restricted/controlled information.

Voice of the Inventor

In your own words, provide a concise description of the technology and how you think it could be used. Keep it brief — just one or two sentences will do.

Invention Support

The University is required to report all inventions made with Federal funding to the relevant agency, so it is imperative that you provide details on all federally funded inventions, in particular, the agency and the grant number.

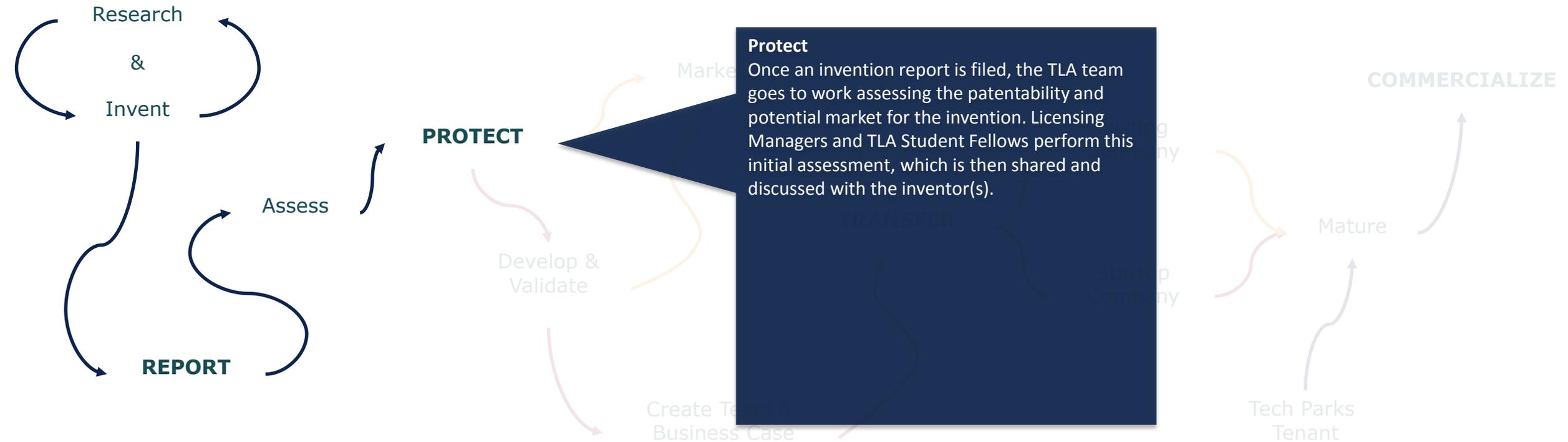
Please list all other potentially relevant grants, funds, collaborations, or materials received from third parties such that we can do the appropriate reporting to the sponsoring groups and determine if there are any pending license rights to the invention.

Publication Dates

Provide accurate dates and comments to enhance the understanding of critical events and/or make a note that you wish to discuss these issues with us. We are interested in any potential public disclosure (papers, posters, abstracts, talks, etc. - including those that are planned) of the invention, to help us and our lawyers evaluate any potential patent protection issues.

Contributors

Technology Commercialization Pathways



From RESEARCH to IMPACT

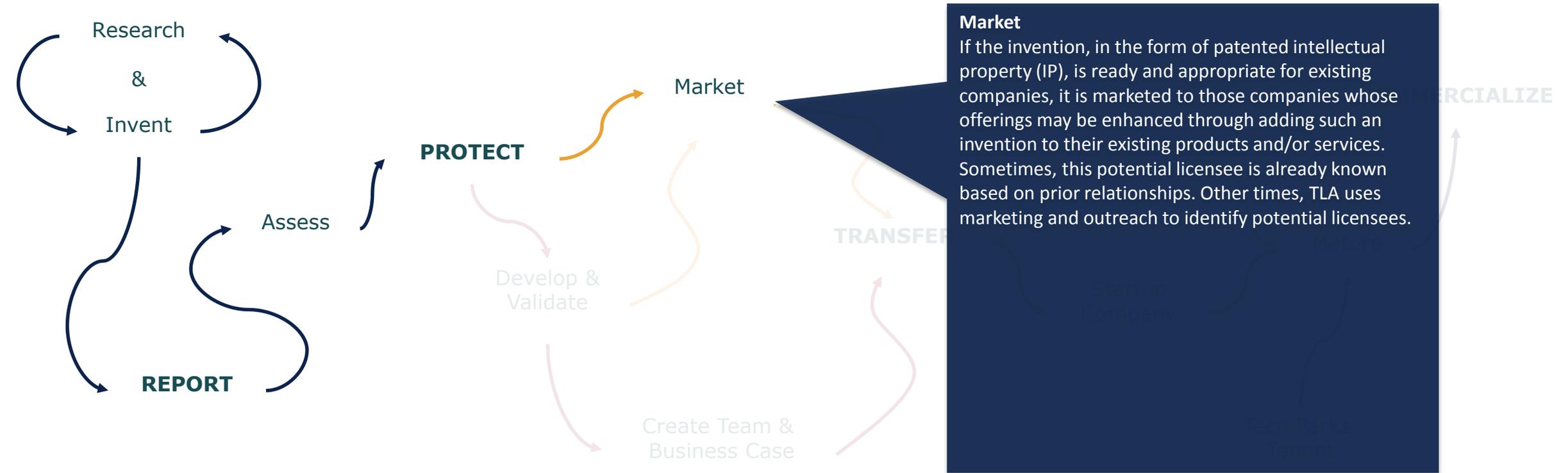
Forms of Intellectual Property

- **Patents**
 - Provides the right to exclude others for practicing an invention for 20 yrs
 - Must be filed before public disclosure of an invention
- **Copyrights**
 - Original works of authorship
 - Public disclosure does not matter
- **Trademarks**
 - Distinguishing mark that identifies the source of a product
- **Trade Secrets**
 - Secret that provides an advantage

Examples of Intellectual Property

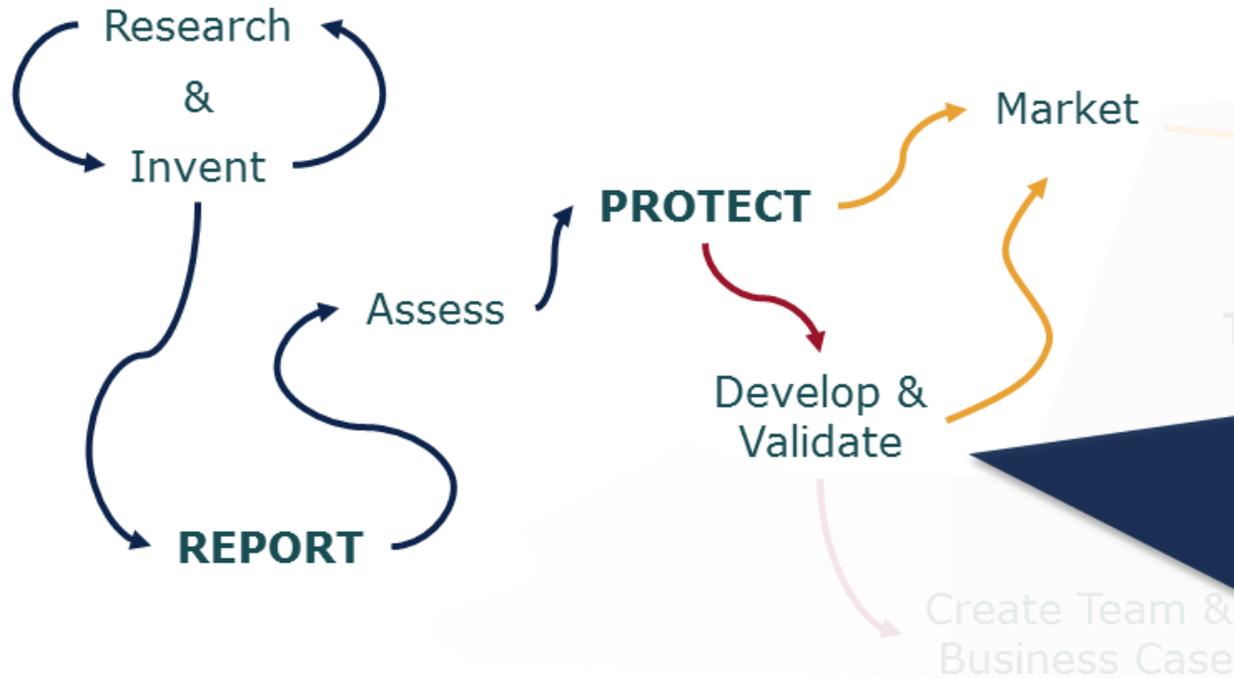
- Plant technologies
Cultivar, clones, breeding lines, hybrids
- Veterinary
Genetics, infectious disease, vaccines, animal husbandry, farm animals, food manufacturing
- Microbes
New species with utility
- Research Tools
Reagents; assays; testing models (animal models, pathogens); manufacturing methods
- Devices
Analytical instruments, agricultural devices
- Information technology
Software, data analysis processes

Technology Commercialization Pathways



From RESEARCH to IMPACT

Technology Commercialization Pathways



Develop & Validate

If an invention is not ready for the market, additional work may be required. Additional market research may be completed, and the invention may be validated through *Proof of Concept* projects, *Commercial Feasibility Studies* and other technology maturation activities.

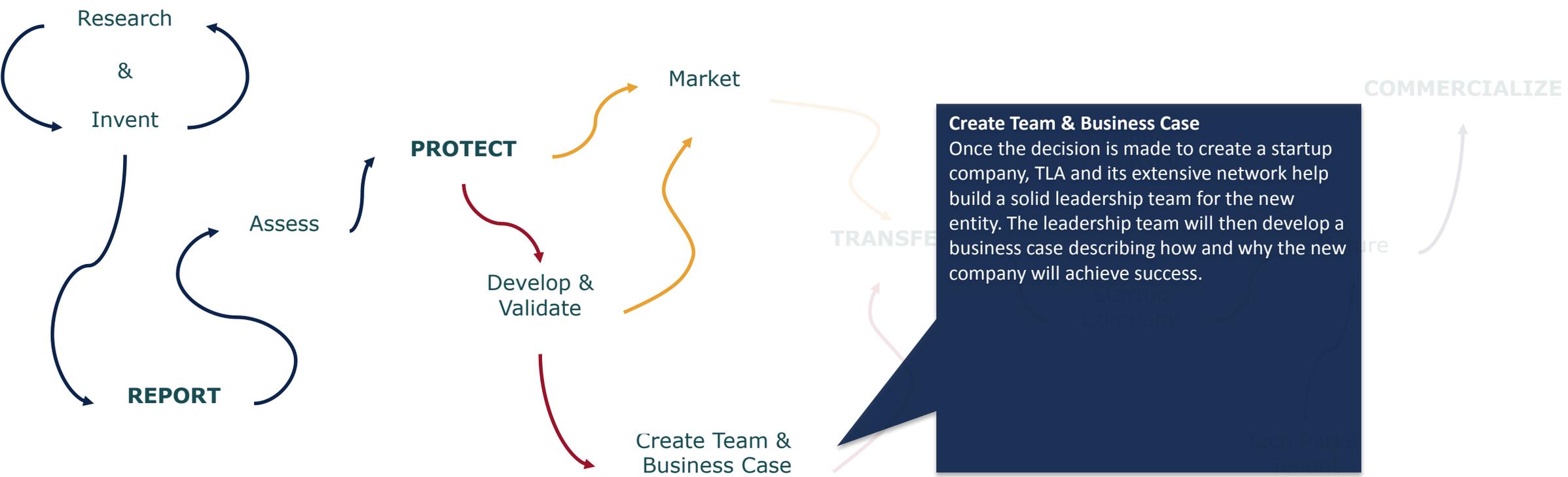
If this process determines that the product's best path is a license to an existing company, potential licensees are identified and the IP is actively marketed.

Alternately, if the process determines that the invention represents a solid foundation for a startup company, TLA works with the inventor(s) to build a leadership team and a business case.

From RESEARCH

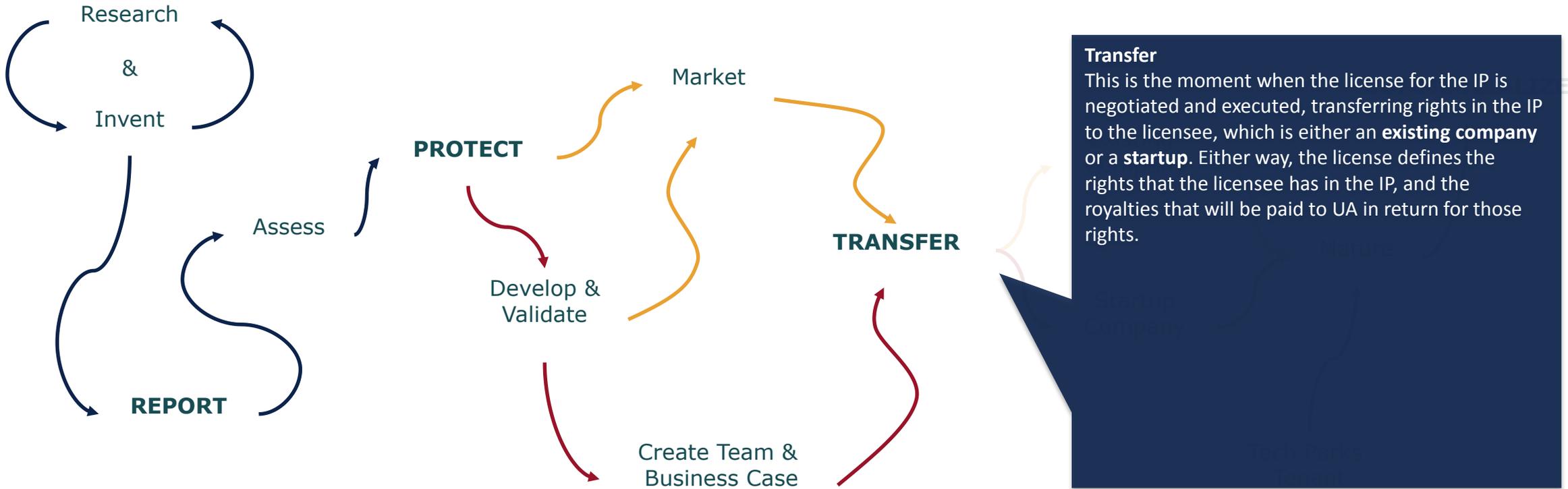
to IMPACT

Technology Commercialization Pathways



From RESEARCH to IMPACT

Technology Commercialization Pathways



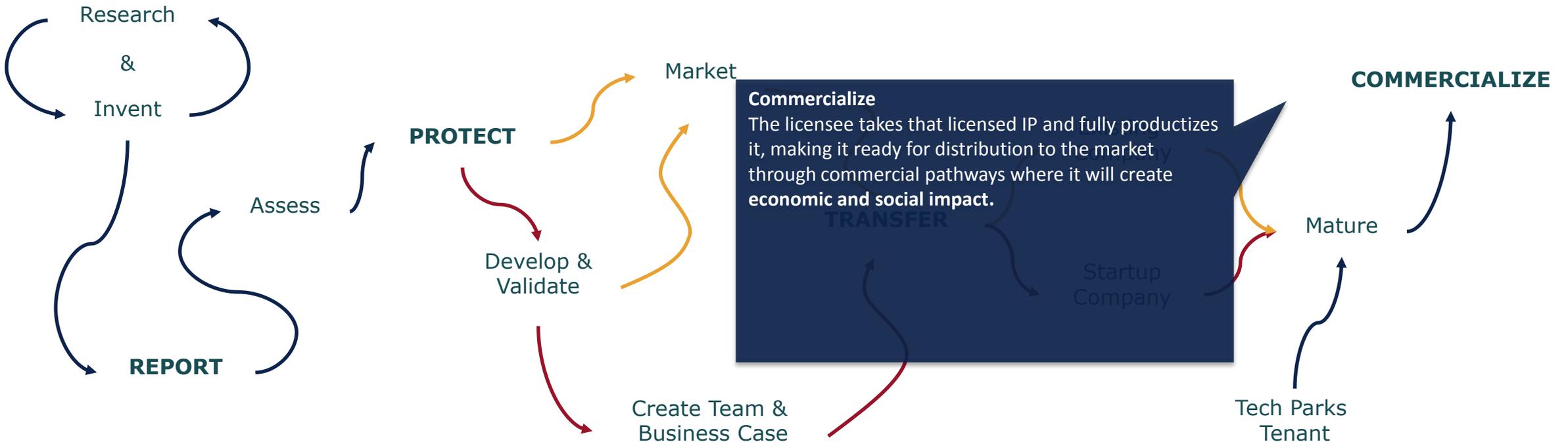
From RESEARCH to IMPACT



Components of a License Agreement

- License fee
- Financial support for continuing research
- Designation of exclusive or non-exclusive rights
- Geographic territory
- Field of use limitations
- Schedule of royalty payments
- Minimum royalties or other due diligence clauses
- Reimbursement for patenting costs
- Publication policies
- Time period
- Confidentiality
- Use of UA's name

Technology Commercialization Pathways



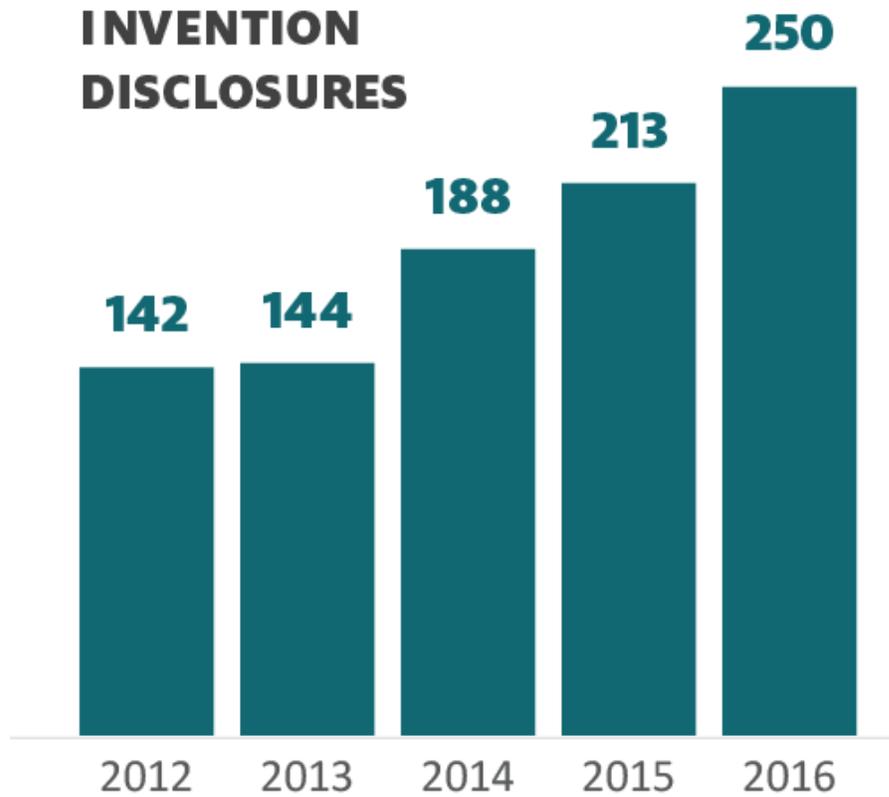
From RESEARCH to IMPACT

ABOR-Owned IP Revenue Distribution

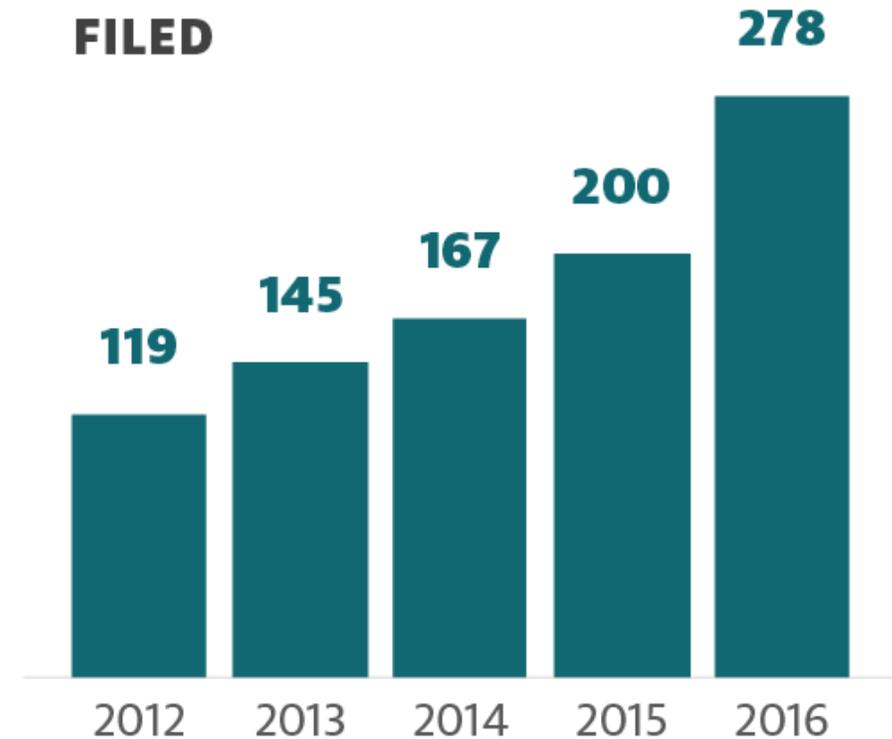
Net Income	Distributed to	Percentage
\$0-100,000	Contributor	50
	Contributor Discretionary Account	30
	Fund for Promotion of Research	20
\$100,001-500,000	Contributor	40
	Contributor Discretionary Account	25
	Fund for Promotion of Research	25
	Department account	5
	Dean's account	5
Above \$500,000	Contributor	30
	Contributor Discretionary Account	15
	Fund for Promotion of Research	30
	Department account	15
	Dean's account	10

Metrics & Progress

INVENTION DISCLOSURES



US PATENTS FILED

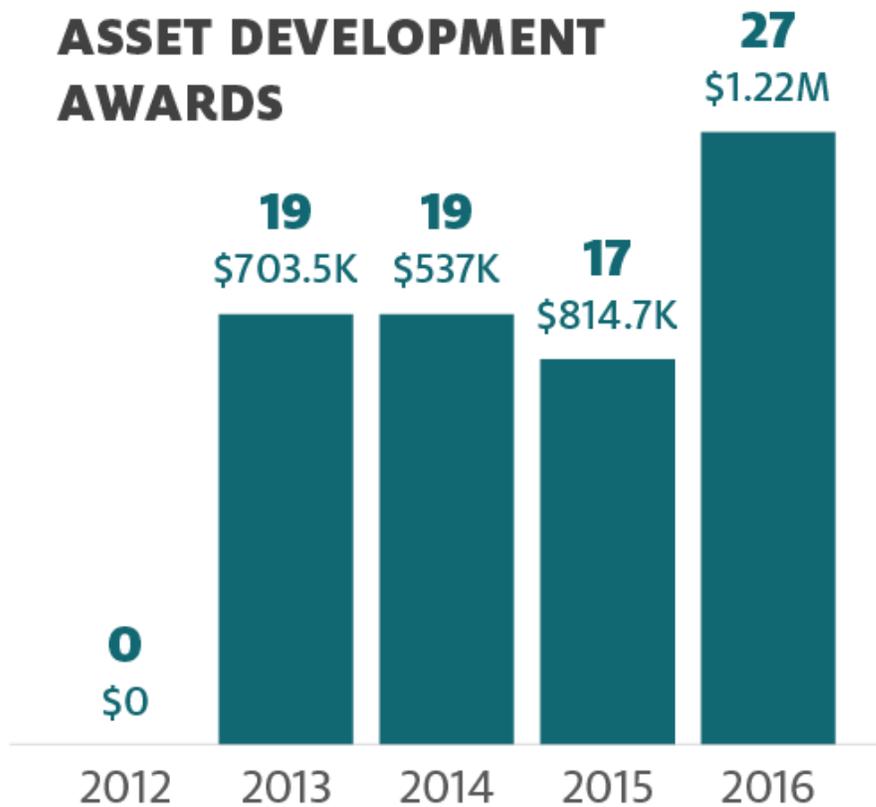


FY 2016 Tech Commercialization

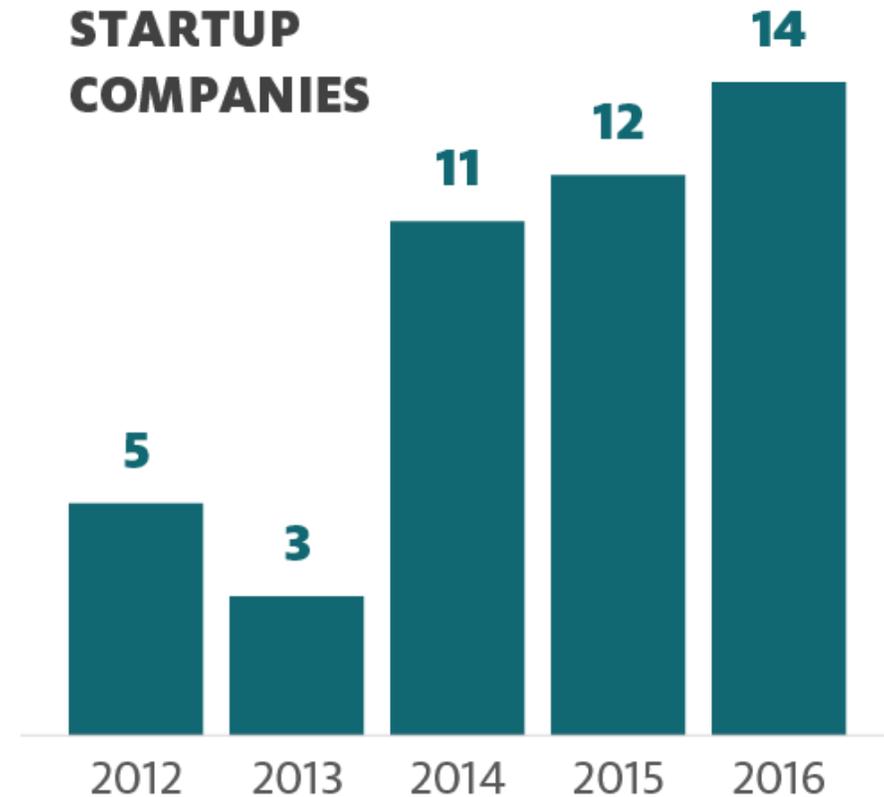
Metric	FY09-13 Avg	FY16
Invention Disclosures	138	250
Total Licenses	37	95
New Patent Apps	81	278
Startups	6	14
%of AzCI companies with UA IP or people	36	52

Metrics & Progress

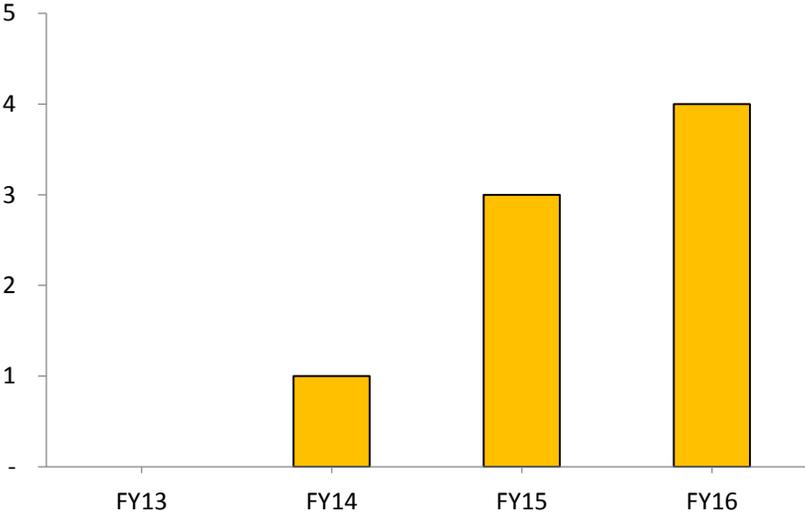
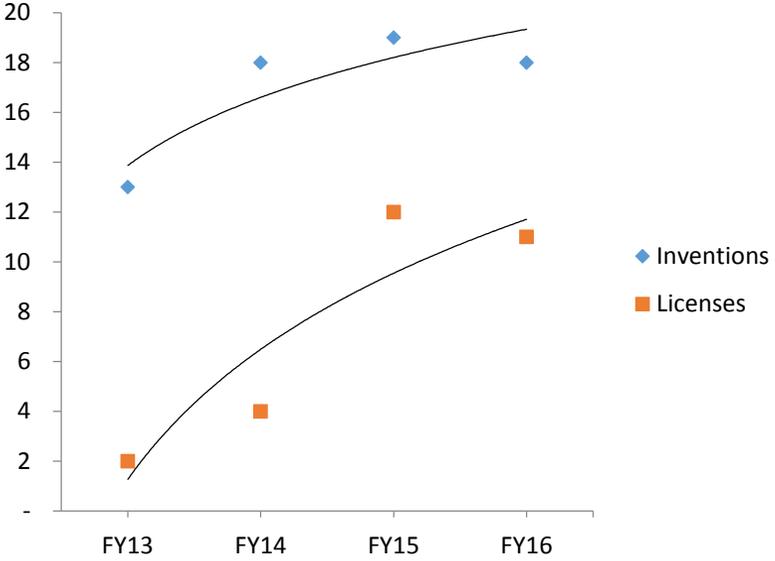
ASSET DEVELOPMENT AWARDS



STARTUP COMPANIES



CALS Disclosures/Licenses and Startups



UA Startups



Caltrode



KKC Engineering



MetOx
Electrochemicals

HedgeSmart



Filmstacker



Questions?

Website: <http://techtransfer.arizona.edu/>

Fast Forward Newsletter: www.eepurl.com/yxTj9

Tod McCauley, PhD
Senior Licensing Manager, CALS
TodM@tla.arizona.edu
(520) 626-7916