

Guidebook of IP/Technology Transfer

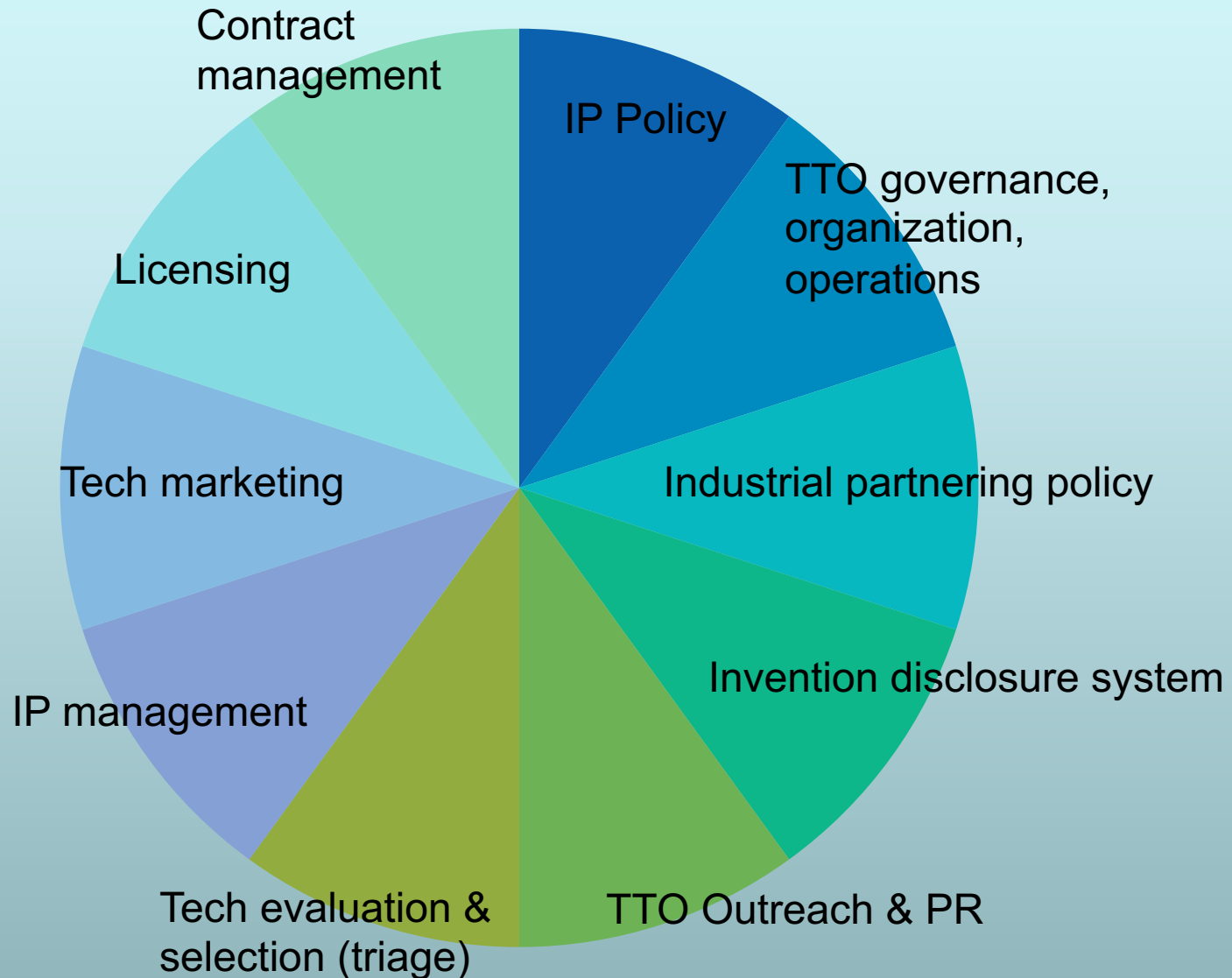
Track 1

Entry-level Tech Transfer Professional

Topic 1.5.1

**Why Tech Triage is Important;
General Assessment:
Know the Elements**

Technology Transfer system



Technology Transfer System



Tech Evaluation & Triage

Steps of the Technology Management and Pre-commercialization Process

1. Rapport & Discussions with (potential) inventors
2. Receipt of Disclosures
3. Administrative Assessment (correct? intact?)
4. Preliminary technology assessment
5. Preliminary IP assessment
6. Selection
7. Inventor conference, prep for IP filing and tech marketing
8. Technology Marketing
9. Initial contacts with interested parties
10. Serious license discussions

Technology triage

What is it?

..... and

Why is it the most important step in the process of IP/technology commercialization?

What is technology triage?

- A process of selecting those inventions that have at least a reasonable chance to be commercialized (i.e., licensed)
- From those that don't
- Viable (even if high-risk) vs non-viable

Why is triage essential?

Managing IP/technology commercialization takes a lot of professional time and money

Investing time & money on a technology which has little or no chance of signing a licensee (let alone a financial return) is a **WASTE**

Without triage, the TTO will suffer gradual implosion and ultimate failure

Trying to market and license a technology that has NO potential for commercialization.....

..... is demoralizing for the

Tech Manager & TTO

Triage and the Typical Rule

- 50%** of all inventions will never be licensed,
regardless of how much effort is put into
technology marketing
- 25%** of all inventions will be licensed eventually,
with proactive technology marketing
- 25%** of all inventions have some potential to be
licensed **IF** you proactively marketing
AND with a little luck, and good timing

Triage

Is the thoughtful analysis and evaluation of all inventions to sort them into these three categories of “licensability”:

extremely low (or zero) potential (50%)

Medium-to-high potential (50%)

High potential (the 25%)

Medium-to-low (25%)

The essence of Technology Triage

- Select only those inventions where you are convinced that you can convince a potential commercial partner that investing in the invention is a reasonable risk, given the potential value of the technology.
- Do not select inventions that you will be embarrassed to later find a “fatal” flaw in the technology, IP, or business case (that you should have known about)
- Only invest your time and money on inventions that have a chance of being licensed

The Goal of Public Sector Research Institution Technology Transfer

- A signed contract (i.e., license) in which a financially, technically, and business-competent partner is obligated to invest time and money on YOUR technology.
- This is the best you can hope for.
- Beyond that, commercial success of the technology is out of your hands and dependent on market and other forces out of your control.

The Cornell Example

Over a span of twenty years:

- 3000 inventions submitted to TTO
 - 1500 filed as patents (~ 50%)
 - 750 licensed (~25%)
 - 650 generate revenue (~20%)



50% of all Cornell's patent expense reimbursed by licensees

Compare: 95% of US patents produce NO revenue!

Assessing technical and market attributes: performing invention triage

- What is it? How exactly does it work?
- What are its inventive features? How do they compare with current solutions?
- What problems does it solve? Is the problem important? What is the economic basis of that importance?
- Is the inventive solution economically feasible?

Assessing technical and market attributes: performing triage

- What are its superior attributes?
Faster? More accurate? Cheaper? New capabilities, more durable? Etc., etc,...
- How do these attributes translate into economic benefits? Quantify benefits whenever possible
- What is the stage of development (where in the R&D continuum?)

Characterizing technical viability/market relevance

- Understand the economics of the problem solved
- What are its market applications?
- What are the market characteristics?
 - Size
 - # of companies
 - Typical profit margins
 - What is the innovation landscape? Are there any dominant companies?
- Are there significant regulatory hurdles?
- How does it compare with current alternatives
 - Different is usually not sufficient... you need superiority
- Quantify performance superiority, if possible

Always be alert for “show-stoppers”

It is a “blessing in disguise” to discover that an invention is one of the 50% unlicensable,
before investment of much time,
money
(and embarrassment)

Characterizing technical viability and market relevance

- Is the technology:
 - a paradigm shift (truly disruptive)?
 - a significant improvement?
 - a minor improvement?
 - no better than the alternatives?

Characterizing technical viability and market relevance

- Can the invention be commercialized as a
“stand-alone.....or are other components
needed?
(will licensing be complicated?)
- Is the surrounding technology space in a
declining, advancing, or stagnate stage?

Secondary Factors in triage

- Inventor's status:

Faculty? Student? Retiring? New Hire?

Their funding track record, industrial exposure, commitment to the technology transfer process and level of cooperative-ness

- Co-owners? (this adds complexity)
- Ongoing research funding, surrounding the invention
- Any “strings” attached or other complications?
- Industrial sponsors of research/researcher?
- Part of expected stream of prior/future inventions

Assessing the Property Control Position (PCP)

Intellectual Property

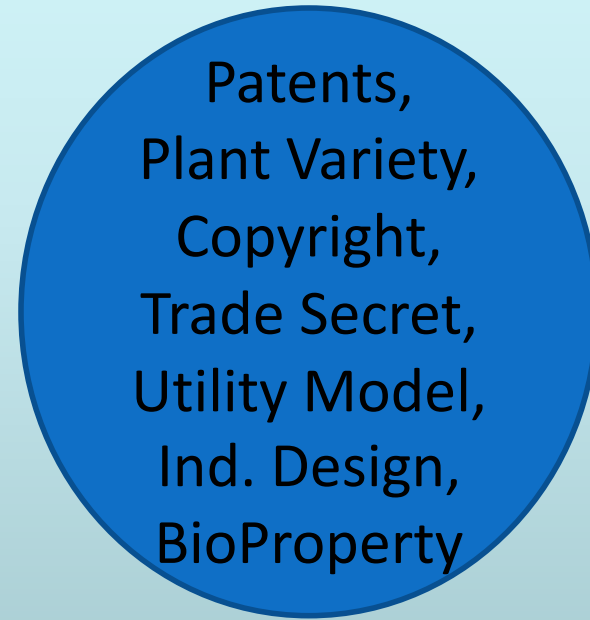
- Is it patentable? Patent filed? Issued?
 - Scope of claims?
 - Enforceability?
- Is the “patent field” crowded?
- Is “Freedom to Operate” an issue?
- Geographical extent of patent coverage
- Life of patent
- Other IP? Trademark, Copyright, Trade Secret(?)
 - UPOV (plants)

Assessing the Property Control Position (PCP)

Tangible (personal) property

- Bailment law (MTAs) (transfer of possession not title)
- Organisms, (individual and/or populations), tissues, cell cultures, DNA, etc
- Reproducibility
- Non-biological
- Feasibility of implementing bailment control through R&D or commercialization?
- Bailments effectively implemented to date?

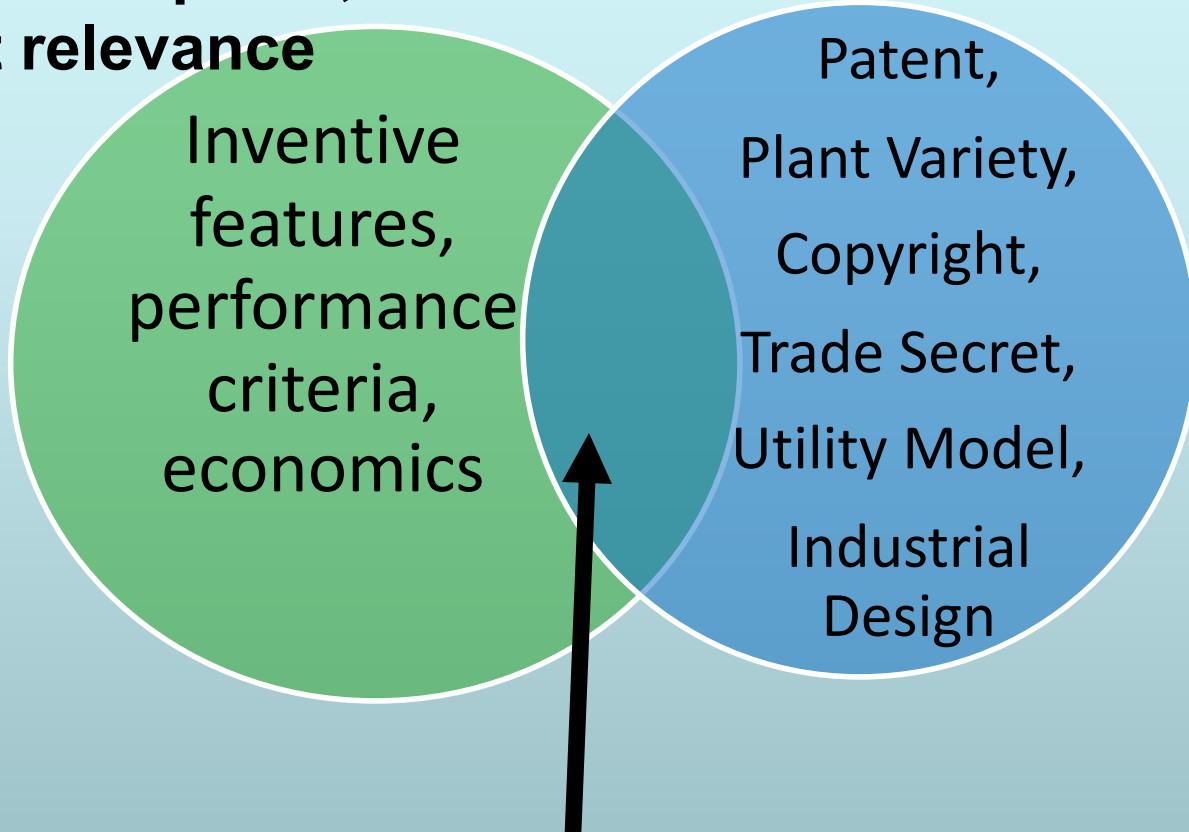
Technical aspects &
market relevance



Potential Property Control
Position

**Technical aspects,
market relevance**

Potential Property Position



**Invest in these: inventions with market potential and
meaningful property control**

Track 1

Entry-level Tech Transfer Professional

Topic 1.5.1

**Why Tech Triage is Important;
General Assessment:
Know the Elements**

Thank you