

# **Guidebook of IP/Technology Transfer**

# **Track 1**

## **Entry-level Tech Transfer Professional**

### **Topic 1.6.2**

**Using the Ten-point Technology Scoring Template  
as a Development Guide**

# The Ten-Point Tech Scoring Template (TPTST)

- Based on the concept that the viability for commercialization success of a technology is based on a variety of different factors
- Based on decades of IP management/tech transfer experience with hundreds of different technologies
- It provides a useful framework for breaking down and considering the different aspects of an invention that contribute to commercialization success
- A useful tool for pointing out the areas that need attention and improvement if commercialization success is to be achieved
- Very useful for teamwork approach to IP management and tech commercialization

# The Ten-Point Tech Scoring Template (TPTST)

- Comprised of ten (10) distinct categories
- Each of the ten categories plays a particular part in the overall success (or lack) in commercialization of a technology
- A technology is rated, in each category, according to the 1 (lowest) to 5 (highest) scale
- Each category score provides a guide to the TTP
- A low category score focusses the attention of the TTP to determine:
  - can the low score be improved/increased?
  - if so, how?

# The Ten-Point Tech Scoring Template (TPTST)

- A low category score focusses the attention of the TTP to determine:
  - can the low score be improved/increased?
  - if so, how?
- If a low category score cannot be improved, the TTP must:
  - determine if it is a “fatal” flaw, and the technology should be abandoned
  - or
  - if this low-score weakness can be “designed around, or compensated by other high-score aspects

# **Technology Scoring Template**

## **Ten Categories**

**each Category is scored:**

**1-5 (50 max)**

# **The Scoring Template: the 10 categories**

- 1. Description of Invention and Inventiveness***
- 2. Potential Value of Intellectual Property***
- 3. Market Relevance***
- 4. Market Size & Characteristics***
- 5. Value Proposition/Potential for Reasonable Business Model***
- 6. Potential for Significant Economic Value***
- 7. Stage of Development/Technology Readiness***
- 8. Scale-up Feasibility***
- 9. Support, Funding and Resources***
- 10. Existing or Potential for Private-sector Partnerships***

# The Scoring Template:

## Score each Category: 1-5

1= Very Unfavorable

2= Unfavorable

3= Neutral

4= Favorable

5= Very Favorable



# The TPST: 10 categories as development guide

## ***1. Description of Invention and Inventiveness***

Does the Invention Disclosure thoroughly and clearly describe the invention; what it is and how it works? Are the inventive features clearly delineated and explained? Do the inventive features appear to be technically meaningful/significant? **(not simply a distinction without a difference)** Are the superior performance features described clearly? Does it work? As hoped?

- A low score indicates that the invention is not clearly defined or understood – this can be remedied by detailed discussion with inventor  
or
- The inventiveness of the invention is low – this is a more serious problem that needs attention. The TTP must find some aspects of the uniqueness that have potential for advantages or superiority over the prior art

# The TPST: 10 categories as development guide

## 2. *Potential Value of Intellectual Property*

Is it patentable *vis a vis* the prior art? Is there an issued or pending patent on the invention?

Do the claims effectively cover the invention? Will the claims be reasonably enforceable?

In which countries do potential or existing patent claims exist and are these relevant to the market for the invention? Are other types of IP possible or existing (trademark, copyright, Plant Breeders' Right, Trade Secret)? Is there potential or existing "bioproperty" that may have value in commercialization of the technology?

- A low score may indicate a serious problem (lack of patentability) and/or indicate the importance of other IP
- A low score may or may not be remedied by taking certain IP-related action steps (e.g., patent filing, patent claim improvement, trade secret prep)
- Effective scoring of this category requires a thorough evaluation of the IP situation

# The TPST: 10 categories as development guide

## 3. *Market Relevance*

Does the invention solve a problem that is economically meaningful? Is the problem widespread and significant or localized and trivial? Is there a definable market for the problem solved? How does the technology compare to existing solutions to the problem?

- Low scores may simply indicate that not enough is known about the potential applications of the invention  
or
- A low score may reflect a lack of potential “market pull” for the invention. If so, this is a serious problem. The TTP should look for alternative applications.
- The TTP should contact people in and knowledgeable about the industry to confirm or counter the low score

# The TPST: 10 categories as development guide

## 4. *Market Size & Characteristics*

Is there one or more identifiable markets for the problem solved? How large are these markets?

Are the markets characterized by few/large firms or many/medium-small firms? Will these markets sufficiently value the problem solved? Does governmental regulation have a significant impact on the market for new products/services?

- A low score may simply indicate that not enough is known about the market applications; more research and info gathering can solve that.  
or
- A low score may indicate a market that is too small, or too difficult for the investment required; this is a serious problem that may not be fixable. Other factors should be considered including philanthropic/humanitarian, reputation of the inventor and/or institution

# The TPST: 10 categories as development guide

## 5. *Value Proposition/Potential for Reasonable Business*

**Model** Can at least one “value proposition” (Quantitative Benefit – Quantifiable Cost

= Value) be described and substantiated for the invention, in at least one market application?

Is the value proposition feasible? Can at least one reasonable business model be elucidated in conjunction with the selected value proposition? Is the business model suitable for: 1) disruptive/paradigm shift; 2) revolutionary; 3) incremental (large or small) innovation?

- A low score here is a problem. It may or may not be possible to improve it. More, better information may improve the score. However, more/better information may confirm that the Value Proposition will not support commercialization
- A low score may also reflect the fact that the right Business Model has not yet been identified – and there not be one. But, further exploration of possible Business Models may improve the score significantly

# The TPST: 10 categories as development guide

## ***6. Potential for Significant Economic Value***

Does the combination of value proposition, market size, business model, and market characteristic establish the basis for significant economic value? Will the realization of that value require very large, large, moderate, or small investment and will the potential return on that investment be sufficient to justify the investment required?

- Revenue should never be the primary factor in IP/tech transfer; however, the potential for return can have an impact on the investment in IP and staff time
- Significant economic value is a product of market relevance economics, value proposition, market size and characteristics
- As a result, there is little the TTP can do to affect this value; it is an inherent characteristic of the invention

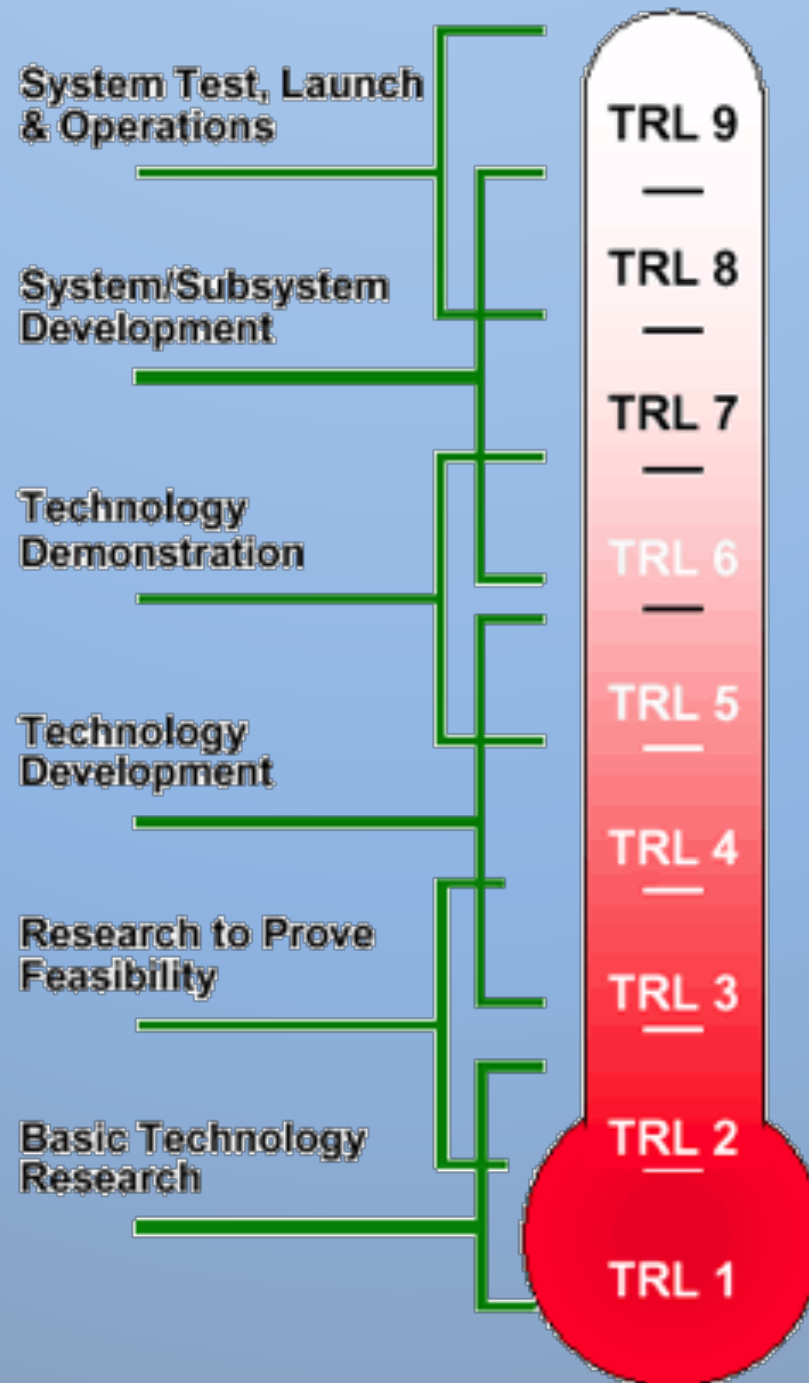


# The TPST: 10 categories as development guide

## ***7. Stage of Development/Technology Readiness***

What is the current stage of technical development of the invention (idea, “test-tube proof”, bench-test validation, extensive testing, pilot scale, beta-test in application, etc)? What level of risk (that the technology will not work as expected/hoped) is the technology currently at? Will the steps to lowered technical risk be relatively easy or difficult (in terms of time and money)? Will the cost required to de-risk the technology be overcompensated by the potential return on investment (see previous category)?

- The astute TTP will understand the development stage of an invention in his/her portfolio; and, have a vision for what’s needed for technology advancement
- The TTP should be constantly aware of opportunities to facilitate the further development of the development
- The TTP and TTO have an important role to play in enabling technology development





# TECHNOLOGY READINESS LEVEL (TRL)

RESEARCH DEVELOPMENT DEPLOYMENT	9	ACTUAL SYSTEM PROVEN IN OPERATIONAL ENVIRONMENT
	8	SYSTEM COMPLETE AND QUALIFIED
	7	SYSTEM PROTOTYPE DEMONSTRATION IN OPERATIONAL ENVIRONMENT
	6	TECHNOLOGY DEMONSTRATED IN RELEVANT ENVIRONMENT
	5	TECHNOLOGY VALIDATED IN RELEVANT ENVIRONMENT
	4	TECHNOLOGY VALIDATED IN LAB
	3	EXPERIMENTAL PROOF OF CONCEPT
	2	TECHNOLOGY CONCEPT FORMULATED
	1	BASIC PRINCIPLES OBSERVED

# The TPST: 10 categories as development guide

## 8. *Scale-up Feasibility*

Can the technology be cost-effectively scaled-up to a level of profitable manufacture or service delivery?

- The TTP can play a role as product development specialist by asking key questions about the invention. Initially, these questions are for the inventor/inventor team, and then others
- The TTP should consider contacting knowledgeable people in the applicable industries, to learn more about scale-up issues.
- The TTP can play an important role in addressing scale-up questions conceptually as a precursor to discussions with potential licensees and as part of pre-negotiation valuation.

# The TPST: 10 categories as development guide

## ***9. Support, Funding and Resources***

Are there resources readily available to further develop the invention (money, staff, facilities)?

Is development funding readily available? Are there additional resources available that might play a role in development of the technology from its current stage to commercialization?

- The TTP can play a business development role in assisting the inventor in finding and securing funding for further development and validation of the technology
- The TTO should act as a clearinghouse of information regarding support, funding, and other types of resources useful for developing technologies
- The TTP should be aware of relevant resources that are available

# The TPST: 10 categories as development guide

## ***10. Existing or Potential for Private-sector Partnerships***

Do relationships with private sector partners exist? Are these partnerships closely linked to commercialization activity?

- Finding and securing private sector partners is one of the TTP's most important roles
- The TTP should strategize on finding and securing “commercialization allies”. Commercialization allies are entities that will not be a licensee, but are motivated to see the technology be successful
- Finding licensees is the TTP's primary objective

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