



**Patent Strategies for Maximizing ROI**

**Managing Intellectual Property for Maximum Returns**

**Incremental Advantage Symposium**

**San Francisco, California**

**July 30, 2007**

**Daniel P. McCurdy**

**CEO - ThinkFire**

*This Document Contains Confidential and Proprietary Information of ThinkFire Services USA, Ltd.  
For ThinkFire Services USA, Ltd. internal use only. No Reproduction or Distribution Without Express  
Written Permission of ThinkFire Services USA, Ltd.*

**THINKFIRE**  
FUELING INNOVATION WORLDWIDE

---

## Several criteria are critical in developing value creation options

### — *Value Creation Hypotheses Generation Framework* —

#### IP Strengths

- Quantitative and qualitative portfolio strengths
- Technology strengths

#### Business Environment

- Key trends
- Key needs and preferences of other companies
- Key issues

#### IP Owner Relationships

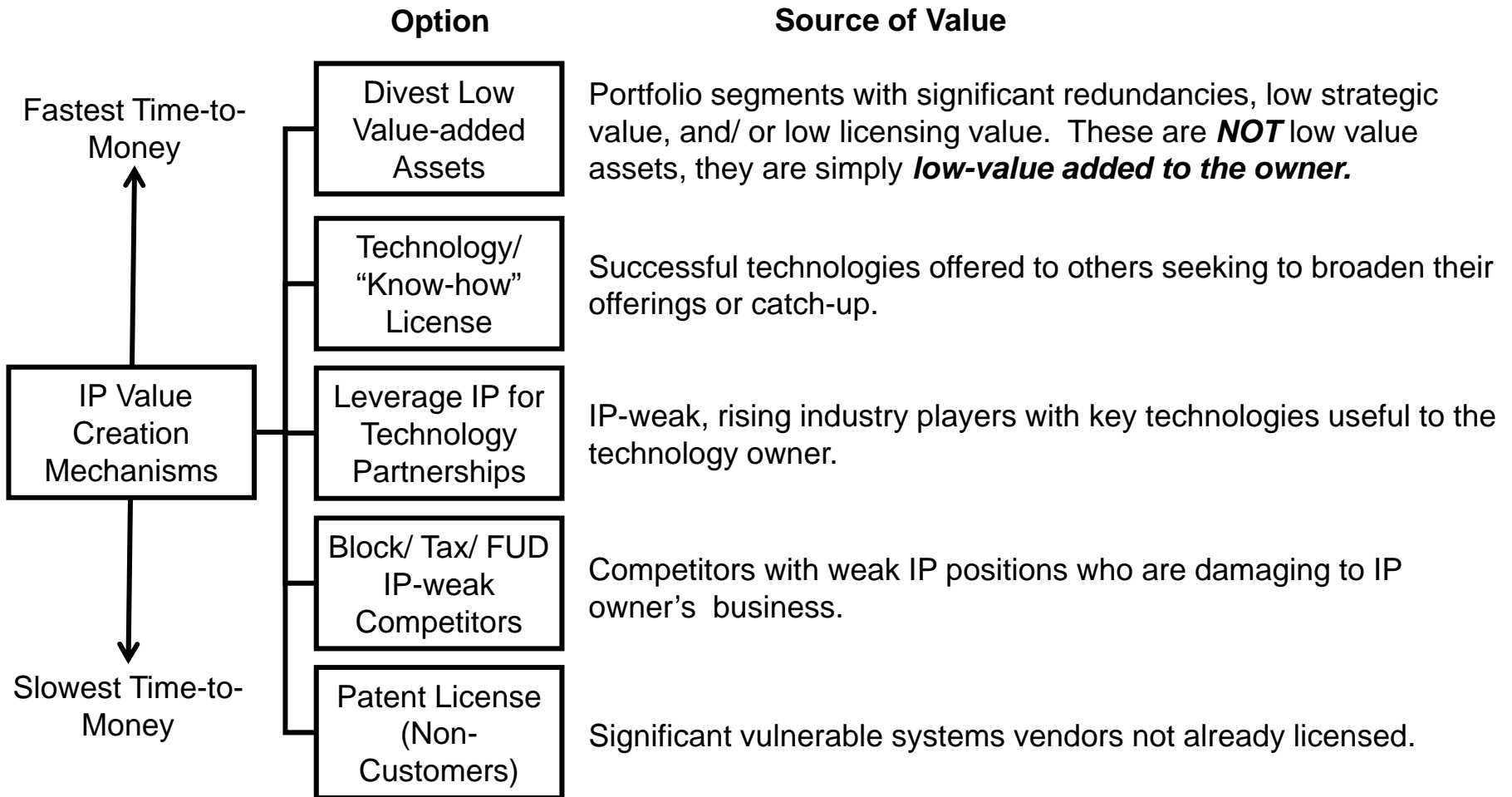
- Key customers
- Key target customers
- Key licensees/ cross-licensees
- Key partners/ suppliers

#### IP Owner Business Considerations

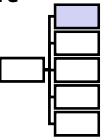
- Key business objectives
- IP Owner's competitive environment
- IP Owner's strategy
  - Corporate
  - Technology
  - Business Unit
  - Product

# A Holistic View of IP

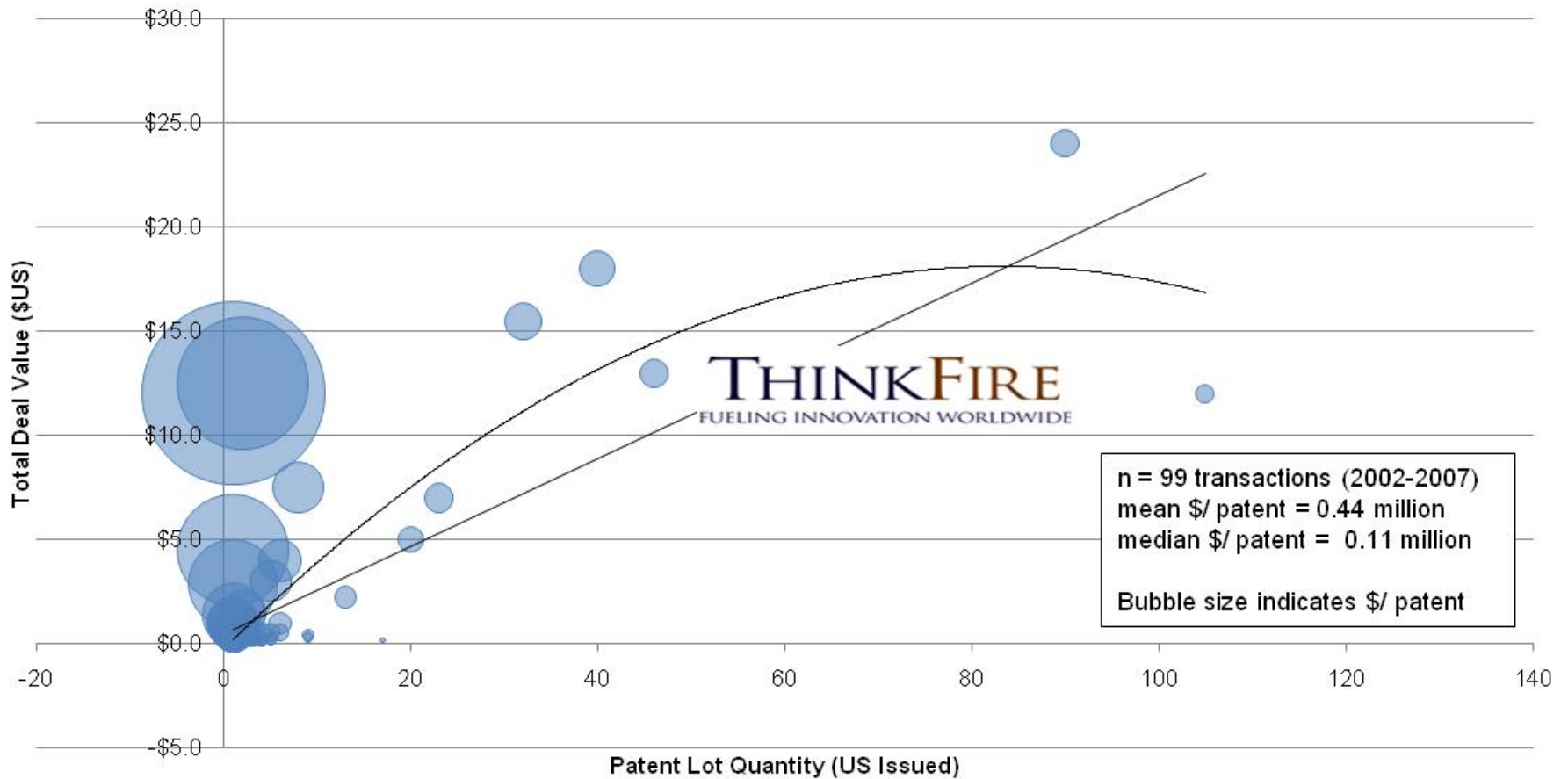
## — Value Creation Mechanisms —



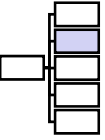
Historical brokerage data shows that substantial value can be created through patent divestitures, sometimes even from divestiture of small sets of patents



— *Historical Patent Divestitures* —



# Improving Speed and Increasing Value Through Alignment of Business Interests



## — *Technology/ “Know-how” Licensing Supply & Demand* —

### Supply

**Current Differentiating Assets**

- Businesses
- Products
- Technologies

**Discontinued Assets**

- Businesses
- Products
- Technologies

**Non-Differentiating Assets**

- Could include infrastructure assets such as processes and methodologies

**Past-Generation Assets**

- N-1 (and earlier) generations of differentiated technologies and/ or products



### Demand

**Competitors and Emerging Competitors**

- Existing players seeking better technology
- Emerging players seeking to expand offerings

**Remaining Market Stakeholders**

- New entrants seeking entry
- IP players seeking to enable accelerated participation for customers

**Commodity Players and Outsourcers**

- Technologies may be core to their businesses despite being non-differentiating to technology owner

**Emerging Market Participants**

- Companies entering a market without a strong technology legacy or R&D capability

**First tier technologies offer an extremely compelling proposition to licensees and command both significant short and long term rewards for the licensor**

**— Technology/ “Know-how” Licensing Traction —**

<b>First Tier (High Priority)</b>		
<b>Market:</b>	<b>TF Client:</b>	<b>Licensing Candidates:</b>
<ul style="list-style-type: none"> <li>• Product is being sold now</li> <li>• Sizeable (\$100's M in annual revenue now)</li> <li>• Growing quickly (CAGR of 15%+)</li> </ul>	<ul style="list-style-type: none"> <li>• Already manufacturing the product, and clients' employees are available to transfer the technology</li> <li>• Can transfer the technology with minimal disruption to client staff</li> <li>• Currently selling the product in which the technology is used</li> </ul>	<ul style="list-style-type: none"> <li>• There are several with the technical ability to absorb the technology quickly and begin producing product in 6-12 months</li> <li>• Already make key components of the technology product to be transferred</li> <li>• Make products similar to the technology to be transferred for which this technology would result in an advantage such as lower product cost, improved yield, smaller footprint, increased reliability, etc., and client can help licensee refine the financial benefits of the advantages based on client's own experience</li> </ul>

---

## Second tier technology offers a compelling opportunity, albeit typically without a large short term upside

### — *Technology/ “Know-how” Licensing Traction* —

<b>Second Tier</b>		
<b>Market:</b>	<b>TF Client:</b>	<b>Licensing Candidates:</b>
<ul style="list-style-type: none"><li>• Product with this technology will reach the market in the next 6-18 months</li><li>• This technical approach is viewed by the client and others as the best potential implementation when the product is sold</li><li>• Revenue will initially be sizeable (\$100's M annual revenue)</li><li>• CAGR forecast to grow at least by 10%+</li></ul>	<ul style="list-style-type: none"><li>• Has produced several prototypes of the product and has at least 2-3 people available to transfer the technology or work on limited product refinement for a specific licensee</li><li>• Technology transfer would take key people away from development activity, but that is acceptable to the client for the right royalty</li><li>• Not yet selling the product but knows this is the technical direction of the industry and that there are not acceptable alternatives yet available or being publicly discussed</li></ul>	<ul style="list-style-type: none"><li>• There are several with the technical ability to absorb the technology. High volume manufacturing questions may exist because client is not currently in high volume production of a product that utilizes the technology</li></ul>

---

## Third tier technology is a long term play with significant risk and low immediate upside

### — *Technology/ “Know-how” Licensing Traction* —

Third Tier (Does potential royalty offset the negatives?)		
Market:	TF Client:	Licensing Candidates:
<ul style="list-style-type: none"><li>Emerging so, at best, is still relatively small and not expected to reach annual revenue of more than \$100M for at least 1-3 years<ul style="list-style-type: none"><li>CAGR is forecast to be respectable (5-10% estimate)</li></ul></li></ul>	<ul style="list-style-type: none"><li>Has produced few, if any, prototypes of the technology, and it's not in a working product at this time</li><li>May have to produce further prototypes to prove technology concept fits the potential licensee's industry/usage</li><li>Technology may be older and, if so, many of the inventors may no longer be available to assist with a transfer</li></ul>	<ul style="list-style-type: none"><li>there are one or more candidates who need to develop the technology to some extent before they can determine if it meets their product needs</li><li>If it looks like a good future fit and market potential for this licensee is large, client might be interested in doing funded development to prove the concept</li></ul>

---

## Fourth Tier technologies are immature and riskiest and not recommended for licensing

### — *Technology/ “Know-how” Licensing Traction* —

Fourth Tier (Do not Pursue)		
Market:	TF Client:	Licensing Candidates:
<ul style="list-style-type: none"><li>• Three to five years away from occurring, if ever</li><li>• Would take major investment to create demand for the technology/product earlier than three to five years</li><li>• Size and growth of market unknown</li></ul>	<ul style="list-style-type: none"><li>• Technology is interesting to the researchers but the developers have not yet put it in a future product plan</li><li>• By the time the market arrives, may not be the only or one of the best ways to achieve its objective</li></ul>	<ul style="list-style-type: none"><li>• Not as clear who they would be – probably a long list, as the product use could be a wide number of opportunities which would need to be defined over time</li></ul>

---

## A Product Taxonomy (as Opposed to Technology Taxonomy) Supports IP Management

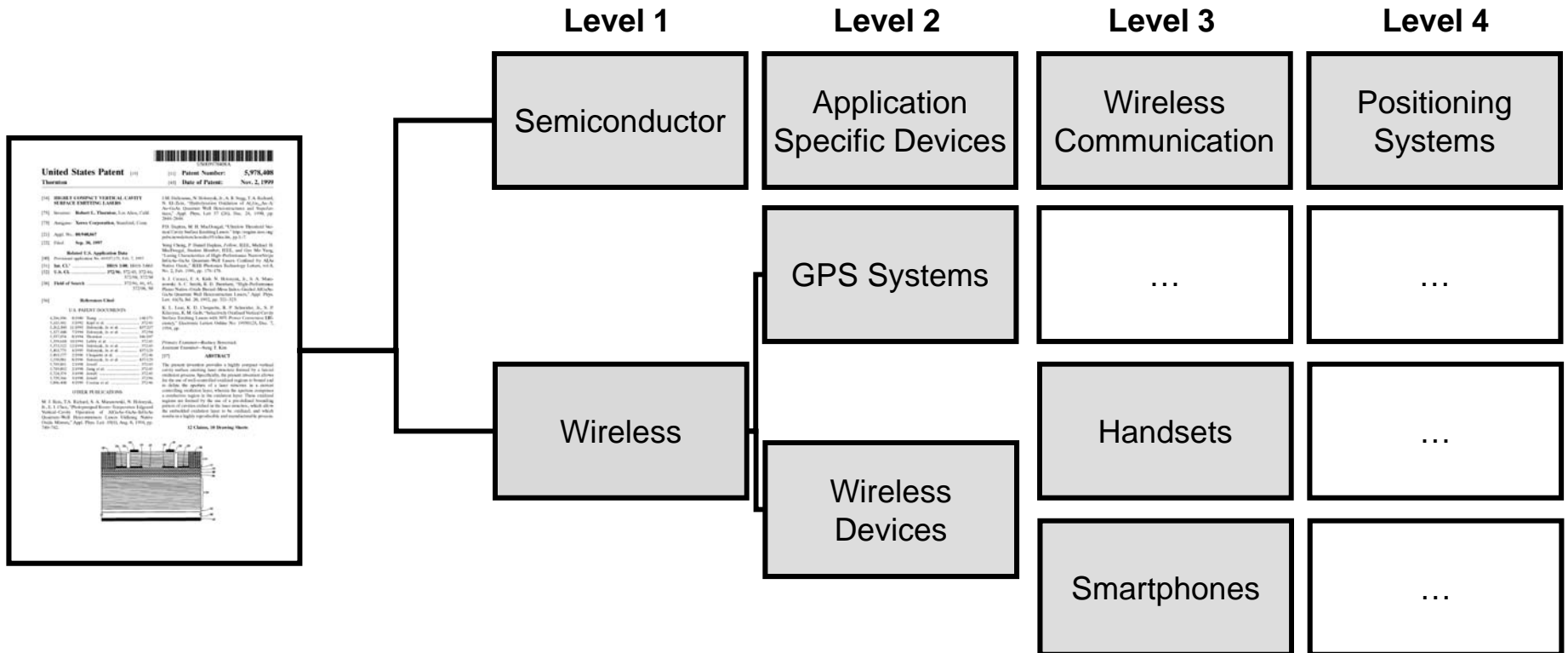
### — *Product Taxonomy* —

- USPTO and IPC are both **deficient** in providing a viable classification system for licensing patents
- We **categorize** patents in accordance with ThinkFire's product taxonomy
- ThinkFire's Product Taxonomy consists of a four-layer hierarchy **based upon product categories**
  - Enables practical use for **strategic** and **tactical decision making**
    - **Assertion** and **counter-assertion development**
    - **Portfolio management**
    - ... and more
- ThinkFire's taxonomy includes more than **450 product categories** in the fields of computing hardware and software, communication, telecom services, consumer electronics, and components and **tailored for specific companies**

# Patent portfolios should be reviewed by individual patents, mapping them to one or more relevant taxonomy segments based upon their patent claims

## — Taxonomy Mapping Concept —

**Illustrative**



---

**Patent portfolios should be reviewed by individual patents, mapping them to one or more relevant taxonomy segments based upon their patent claims**

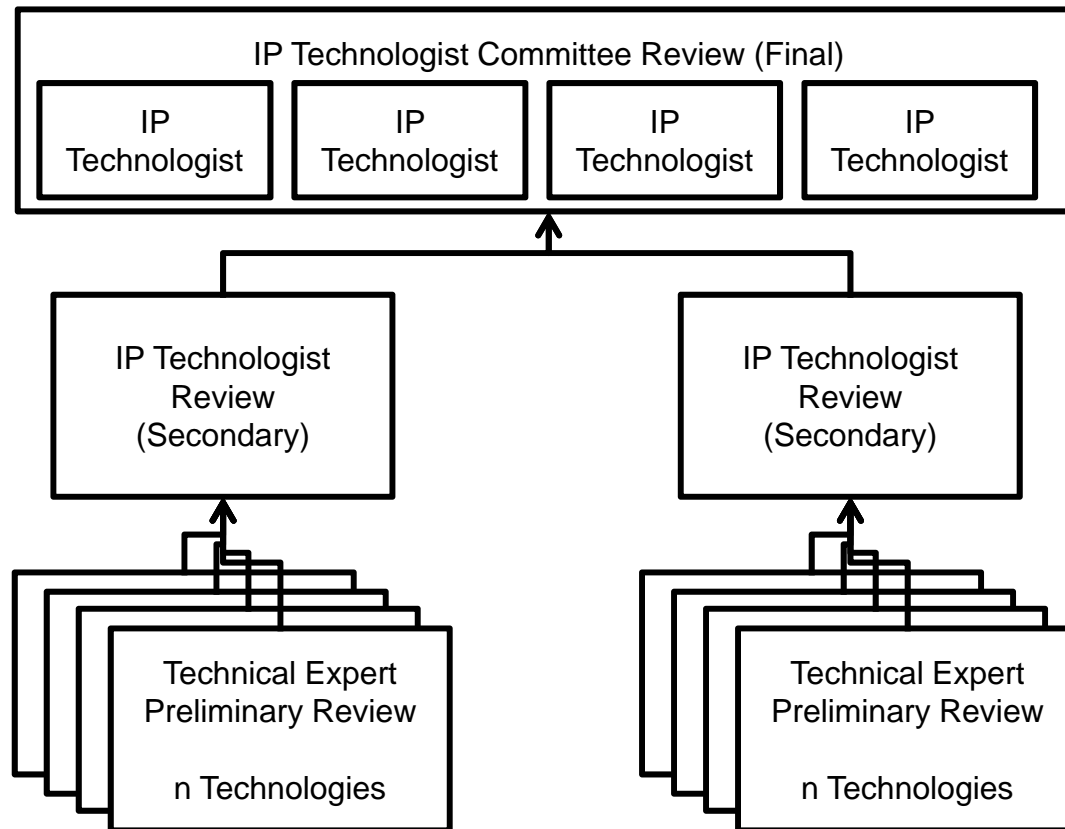
**— *Portfolio Segmentation Approach* —**

- Individual patents are placed in multiple categories, if appropriate
- Each patent is mapped to lowest possible level in taxonomy hierarchy
- If a patent is generic and applicable to all subcategories, it is generally mapped to highest appropriate level

---

**A multi-tiered iterative approach to patent evaluation is recommended, in which technical experts feed results to individual IP technologists and finally to a committee of IP technologists**

**— *Patent Evaluation Methodology* —**



---

## Criteria critical to licensing should be used when evaluating patents

### — *Patent Evaluation Criteria* —

	Criteria	Description
Viability Factors	Detectability	Ability to detect infringement in products
	Vulnerability	Vulnerability to prior art challenges
	Claim Structure	Breadth and strength of claims
	Availability of Alternate Means	Availability of practical alternatives
Significance Factors	Standards Impact	Impact upon industry standards
	Technical Maturity	Impact on current vs. past or future products
	Commercialization	Significance of the invention

---

The objective is to analyze the portfolio, to generate appropriate value creation options, and to develop a methodology and results for IP owner's ongoing use

— Overall Process —



- Evaluate the portfolio to identify areas of **qualitative** strength
- Segment the portfolio to identify areas of **quantitative** strength

- Develop **value creation options**
  - Licensing
  - Competitive leverage
  - Business leverage
  - Divestiture
  - Other
- Options should be aligned with IP owner's
  - Portfolio **strengths**
  - Business **objectives**
  - Business **strategy**
  - Business **constraints**

- Develop databases and methodology to IP owner for **ongoing use**
  - Segmentation database
  - Segmentation methodology
  - Rating database
  - Rating methodology



**Patent Strategies for Maximizing ROI**

**Managing Intellectual Property for Maximum Returns**

**Incremental Advantage Symposium**

**San Francisco, California**

**July 30, 2007**

**Daniel P. McCurdy**

**CEO – ThinkFire**

**[dmccurdy@thinkfire.com](mailto:dmccurdy@thinkfire.com)**

**908-991-9001**

*This Document Contains Confidential and Proprietary Information of ThinkFire Services USA, Ltd.  
For ThinkFire Services USA, Ltd. internal use only. No Reproduction or Distribution Without Express  
Written Permission of ThinkFire Services USA, Ltd.*

**THINKFIRE**  
FUELING INNOVATION WORLDWIDE