

# Quantifying Patent Value

An Analytical Approach for  
Competitive Intelligence  
Practitioners

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# Discussion Topics

- **What we WILL discuss**
  - Approaches for estimating *relative* value indicators
  - Assumptions driving risk analysis of a patent portfolio (defined as a combination of rights to exclude)
- **What we WILL NOT discuss**
  - Valuation approaches designed to yield a defined currency value
  - Advanced financial modeling

# What is a Valuable Patent Portfolio?

- **Protects profitable business activities**
  - Protects product or service differentiation that commands a price premium
  - Protects cost advantage not available from other resources
  - Is (or will be) associated with attractively stable and/or growing demand in territories covered by the patents
- **Blocks another's access to similarly profitable business activities**
  - Portfolio leverage or threat of leverage is required to extract surplus value

# How are Patent Portfolios Typically Valued?

- **Financial Methods – Best for accounting, litigation events**
  - Cost Approach
  - Market Approach
  - Income Approach
- **Statistical Approaches – Best for transaction, project modeling**
  - Real Options
  - Decision Trees
- **Comparative Approaches – Best for early warning, management briefing**
  - Scorecards
  - Ratings
  - Analytics Reports

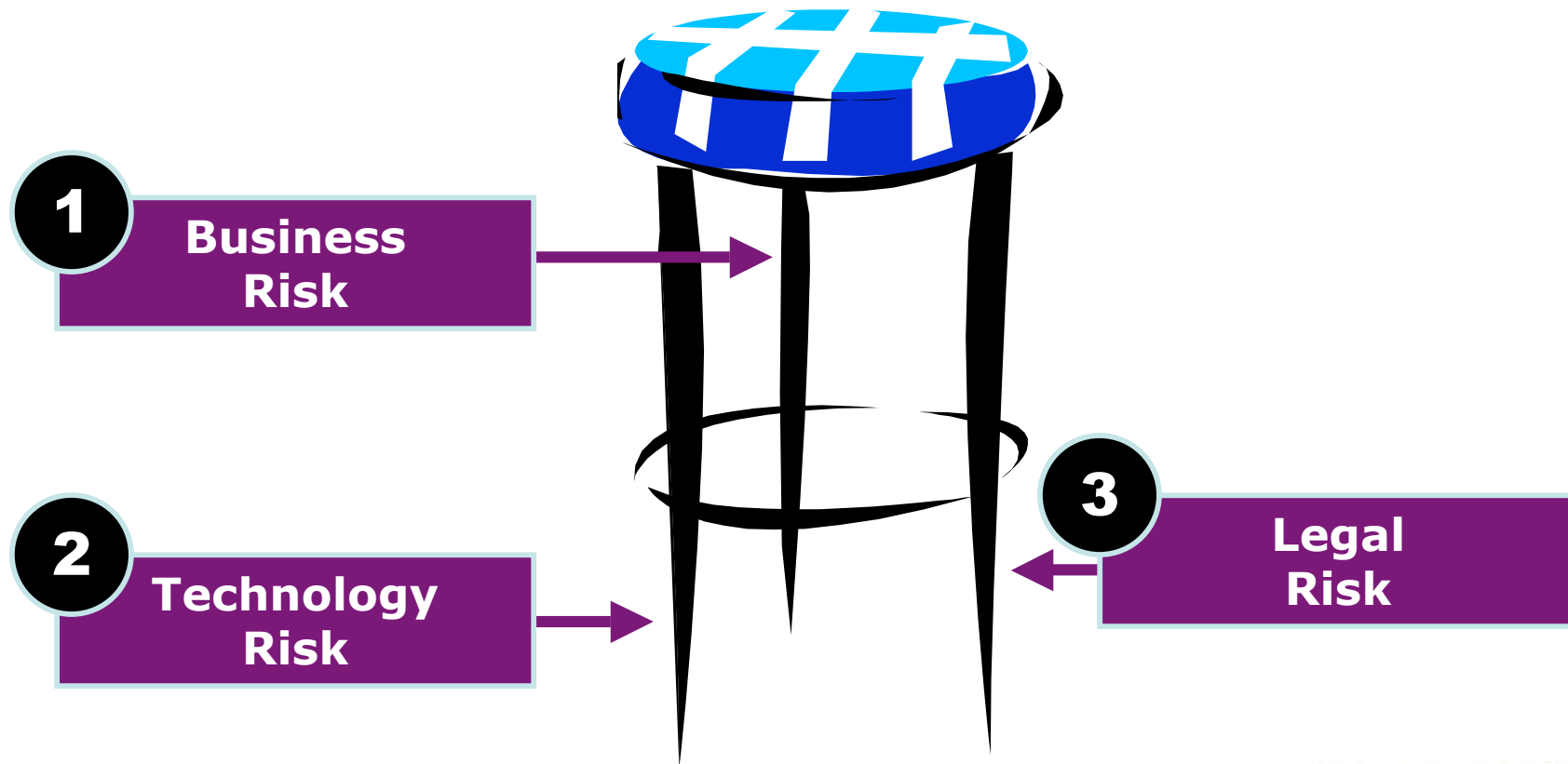
# The Dirty Secret of Patent Portfolio Valuation

- **There is no single value ever!**
- **Not all patent portfolios are valuable, but every patent portfolio is risky**
- **All depends on**
  - Risk associated with combining portfolio with other assets
  - Risks to portfolio integrity
  - Risks to each party of deal failure

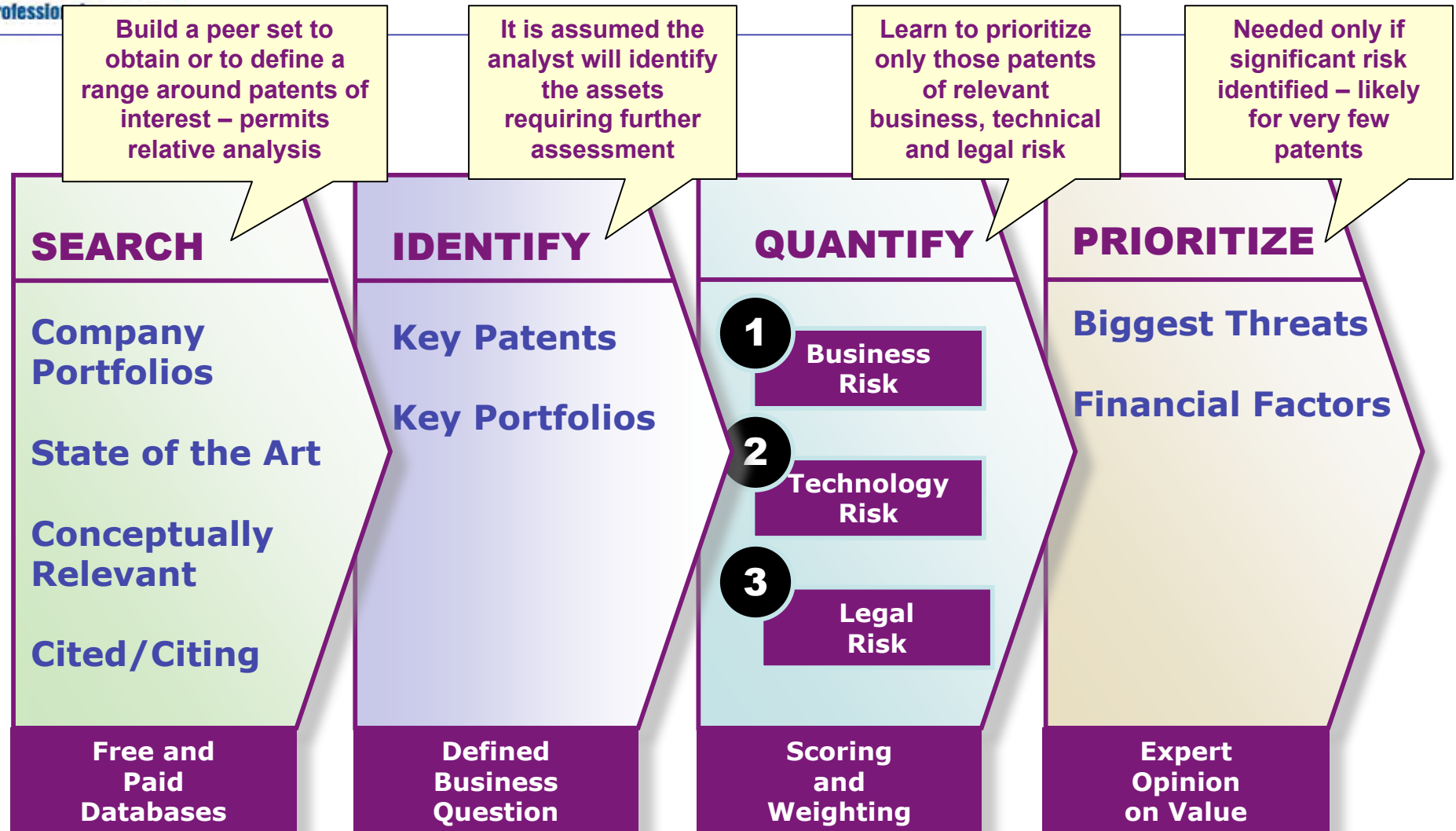
# So How Can a CI Practitioner Value Patent Portfolios?

*First, quantify the key risks vs. peer patents*

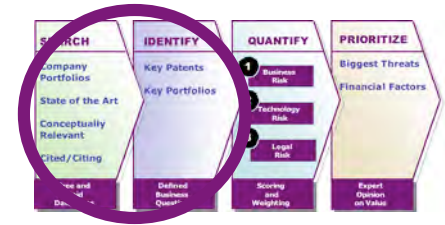
“How threatening are these patents?” and  
“Which patents should I be MOST concerned with?”



# How to Estimate Patent Portfolio Risk?



# Search for and Identify Relevant Patents



- **Initial patent search strategy**
  - Normally driven by company or technology assessment
  - Ideally a set of peer patents (in same company or technology area portfolio) are identified
  - Better to measure relative risk across multiple patents
  - Easier to assess key indicators
- **If starting with a few target patents in mind**
  - Consider patents in similar technology classes
  - Can also use Latent Semantic Analysis to find conceptually similar documents
  - In any case, data should be downloaded for subsequent analysis

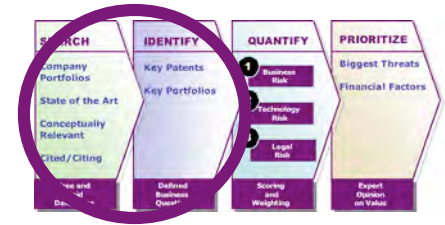
# Search for and Identify Relevant Claims



- **Knowing how to read claims is key**
- **Can be daunting, until you know how to map**

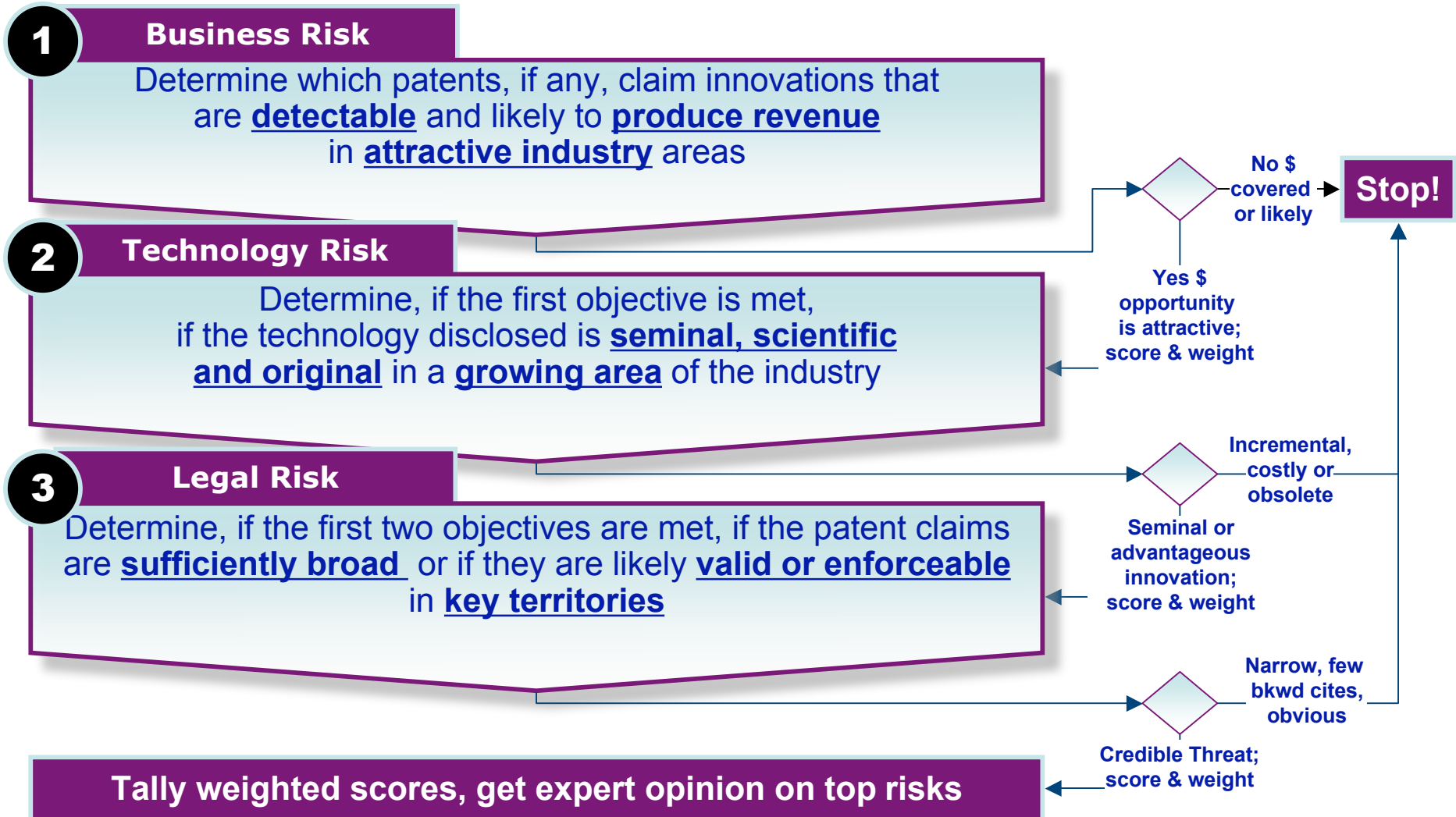
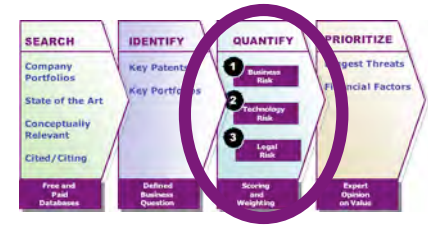
*A vacuum wound therapy device for providing a negative pressure at a wound bed, the vacuum wound therapy device comprising: a vacuum bandage configured to fluidly communicate with the wound bed, a vacuum source fluidly coupled to the vacuum bandage to provide negative pressure for presentation at the wound bed, and a controller controlling the time rate of change of negative pressure presented at the wound bed to be less than a predetermined maximum allowable rate.*

# Search for and Identify Relevant Claims

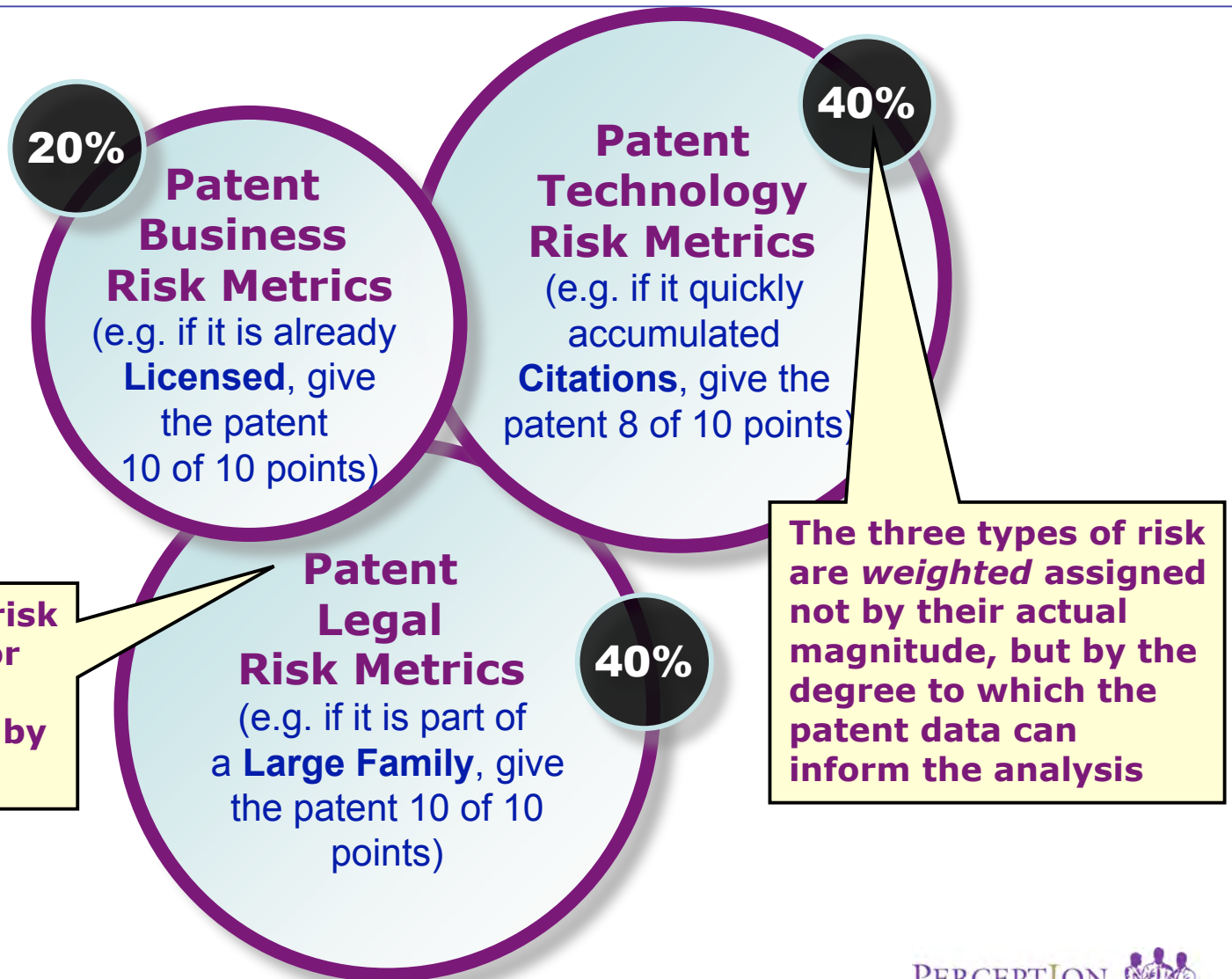
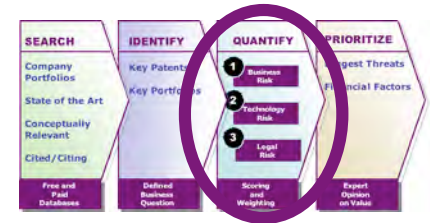


- **Want clarity? Map it!**
  - *A vacuum wound therapy device for providing a negative pressure at a wound bed, the vacuum wound therapy device comprising:*
    - **a vacuum bandage**
      - *configured to fluidly communicate*
        - » with the wound bed,
    - **a vacuum source**
      - *fluidly coupled to the vacuum bandage*
        - » to provide negative pressure
        - » for presentation at the wound bed,
    - **and a controller**
      - *controlling the time rate of change of negative pressure*
        - » presented at the wound bed
        - » to be less than
        - » a predetermined maximum allowable rate.

# Quantify Patent Portfolio Risk



# Scoring and Weighting

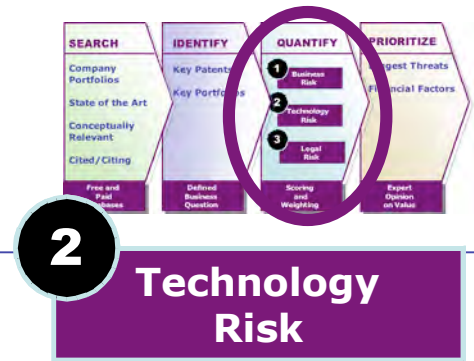


# Sample Risks from Patent Indicators



- **Can the patent produce revenue?**
  - Has been previously licensed
  - Patent or family member has survived opposition
- **Is the patent detectable?**
  - Brief and succinct claims
  - Comprised of observable components
- **Is the patent in an attractive industry area?**
  - Presence of large and small firm patents
  - Recent and/or rapid increase of unique firms in patent landscape
- **Is the problem solved of significant magnitude?**
  - Cost advantages
  - Significant novelty in high margin use area

# Sample Risks from Patent Indicators



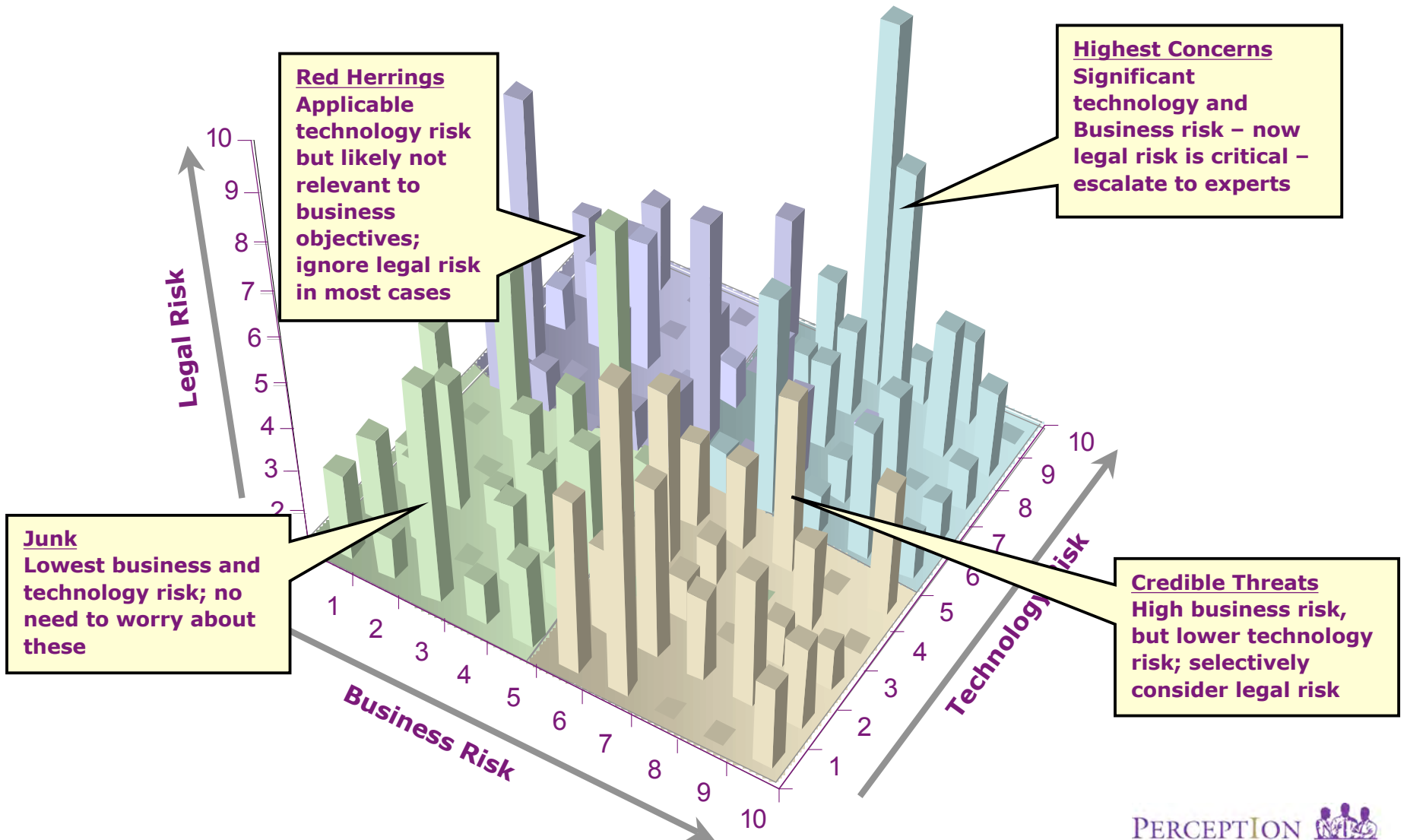
- **Is the technology seminal/influential?**
  - Intensity of forward citation accrual
  - Current vs. historical focus of inventor and inventor teams
- **Does the technology have a strong scientific basis?**
  - Citations to applied scientific literature
  - Inventive technology class
- **Is the technology original?**
  - Technology basis
  - Technologies inspired
- **Is the technology obsolete?**
  - Rate of patent activity in relevant class
  - Position on class technology S-curve

# Sample Risks from Patent Indicators

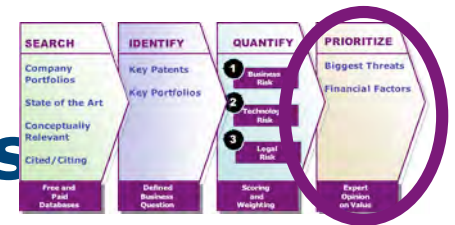


- **Is the patent sufficiently broad?**
  - Scope of teachings in specification
  - Limitations in claims
- **Is the patent likely valid?**
  - Well referenced by assignee
  - Examiner used all expected, relevant fields of search
- **Is the patent enforceable?**
  - Claims as issued match provisional
  - Family members sufficiently maintained
- **Is the patent protected in key territories?**
  - Family size including continuations, divisionals
  - Filings in key geographic markets of customers, manufacturers

# Prioritizing Risks – Where to Focus



# Calling in the Artillery: Sniper Rifles, Not Shotguns



- **Risk assessment process enables other experts to enter later**
  - Weeds out patent “noise” that could needlessly divert precious valuation resources
  - Permits credentialed functional leaders to “parachute in” on their schedule
  - Economizes periodic screening
- **Valuation becomes a team sport**
  - CI practitioner is part of the foundation
  - Deep financial, technical legal experts remain the “tip of the sword”

IP Analytics > Discovery > Value Realization



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# Thank You!

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