Patent Strategy for Emerging Companies

Enterprise Works
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Outline

Business and Patent Portfolio Goals

Strategic Patent Portfolio Development

Competitive Patent Assessment

Data Analytics

Summary
Business and Patent Portfolio Goals

collaborative process in which your business-wide IP actions are mapped to your business strategy, in order to align your IP actions with the company’s strategic objectives.
Business and Patent Portfolio Goals Must Align

- How is my IP aligned to our products, revenue, and business organizations?
- How strong is our competitive position?
- Are there IP barriers to entry or our business expansion?
- Do we have appropriate performance measurements?
- How does our performance compare with competitors?
- Do we have freedom to operate as we expand our product offerings?
- Do we have an effective patent maintenance program and cost management process?
- Who might pay royalties to us for our patent rights?
- How can we screen incoming patent threats, reduce patent litigation risk and manage patent licensing inquiries?
A patent is a right granted by the government that allows a patent holder to exclude others from making, using, selling, offering to sell, or importing that which is claimed in the patent, for a limited period of time.

**Patents provide**

- potential leverage for obtaining cash
- technology
- desired collaborations through licensing.
- attract potential investors, collaborators, and acquiring companies.
- remove roadblocks set by third-party patents through cross-licensing.
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**Strategic Patent Portfolio Development**

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Summary
Strategic Patent Portfolio Development

Development Phase
- Identifies the key business goals of the company
- List the business, technology, and product goals for the company
- Identify key industry players (competitors, partners, customers)
- Identify technology directions
- Determine if patent portfolio be used
  - Offensively
  - Defensively
  - Marketing

Evaluation Phase
- Align the patent strategy with the business objectives
- Identify the intellectual assets
- Identify the anticipated life span intellectual asset
- Identify the market
- Identify products/product lines incorporating IP
- Identify patentable intellectual assets
- Risk analysis with attorney involving competitor studies

Procurement Phase
- Protect core technologies, processes, and business practices uncovered during the evaluation phase
- Crown-jewel patents, fence patents, design-around patents, and portfolio enhancing patents
- Draft invention disclosures
- Evaluate risks vs. reward of a prior art search
- Conduct further competitive analysis to study industry trends and technology directions and identify patent portfolio coverage

Deployment Phase
- Set aside time, money and resources to further enhance its patent portfolio
- May include licensing all or part of a patent portfolio to others in the industry
- May include asserting rights established by its patents, such as through litigation
- Review patent portfolio to identify those assets that company can sell for cash or use to spin out new business
- Study competitor products for infringement considerations
- Determine risks and benefits of various enforcement options (cease & desist; cross-license; etc.)
Development Phase: Patent Quality

- Scientific Quality
  - Peer Reviewed
  - Technological merit

- Legal Quality
  - Claims well drafted, thorough analysis of prior art and scientifically sound

- Strategic Quality
  - Patents are pursued or abandoned on business merits
Development Phase: Offensive Patent Development

Offensive Patenting is developed to impair a competitor's design freedom
- Disruptive Technology
- Used to leverage for Competitor's Technology Cross Licensing

Small portfolio of pioneering patents
- Market leadership & advantage
- Licensing
- Deal & merger leverage

Small to medium size companies
Reasonable cost
Market monitoring

If you require the Foundation Patent – create a surrounding patent technology and force the competitor to cross license
Development Phase: Defensive Patent Development

Defensive Patenting is developed to impair a competitor’s design freedom

- Design Freedom

Large portfolio of patents of various scope

- Protect products from copying
- Cause competitor design around

Reduce risk of patent infringement suit by competitors - mutually assured destruction

Cross licensing - market entry

Medium to large size companies

High cost
Procurement Phase Considerations: Patent Fence

Creating a Patent Fence to block in or around a strategic patent of interest

- Patents
- Trade Secrets
- Defensive Publications
Procurement Phase Considerations: Patent Timeline
Procurement Phase Considerations: Foreign Patent Filings – U.S. Patentees

Note: Respondents were not asked to rank Canada, Australia, Mexico or others

Source: WIPO Statistics Database, June 2010
Procurement Phase Considerations: Trend in Patent Applications

Source: WIPO Statistics Database, June 2010
Procurement Phase Considerations: Foreign Patent Filings - PCT

**East Asia has become the main PCT filer**

Until recently, the PCT system was mainly used by applicants from North America and Western Europe. In 2010, East Asia overtook them to become the subregion accounting for the most PCT filings (see figure 1). Indeed, since the economic recovery that followed the dot-com recession, the major East Asian filers – China, Japan and the Republic of Korea - experienced particularly rapid growth in applications. They continued to increase their filings even during and after the most recent economic downturn – unlike North America and Western Europe. From 2002 to 2010, the average annual growth rate of East Asia was 15.1%, compared to 1.1% for North America and 3.1% for Western Europe.

**Figure 1: PCT filing trends**

[Graph showing filing trends from 1990 to 2010 for Japan, China, Republic of Korea, East Asia, North America, and Western Europe.]

Source: WIPO Statistics Database
Procurement Phase Considerations: Foreign Filing Budget
Patent Strategy: Examples

**IP portfolio audit**

Idea: Ensure business alignment of a patent portfolio.

Process: Categorize the IP into 3 buckets: patents used currently in the business, patents that may support future direction, or patents of no business interest. A strengths assessment of those patents of "no business interest" can inform the decision to license/sell or abandon.

Example: Dow Chemical saved $40M in the early 1990s by abandoning patents that the company evaluated as having no business use or licensing value.

**Strategic foreign filings**

Idea: Establish priority date while delaying individual country translation and filing fees.

Process: File an international patent application under the Patent Cooperation Treaty (PCT). The applicant has up to 30 months to evaluate market and technology factors before investing more in IP protection.

Example: Instead of paying for translations and application fees in many countries when the patent application is first filed, you can delay foreign filing costs by using the PCT filing approach. If, during the 30 month delay, the original business reason for filing the patent application ceases to exist, then the application can be abandoned before significant translation and filing costs have been incurred. This can save in the range of $50,000 per patent. Similarly, if the preliminary patent search for the PCT application by the chosen authority (EPO, USPTO, etc.) finds relevant prior art, then the application can be abandoned without any more expense.
Defensive publications

Idea: Prevent competitive patents from issuing by creating prior art.

Process: Protect incremental improvements to already patented core technology by writing enabling descriptions and then disclosing these descriptions in the public domain, such as on IP.com's prior art database.

Example: While IBM's prolific patenting practice is well-known, fewer people recognize that IBM's IP strategy incorporates defensive publications, in the form of its Technical Disclosure Bulletin. These publications prevent competitors and customers from obtaining patents on-top-of IBM. This protection of Freedom to Operate is very valuable in allowing future design freedom for the R&D engineers.

Strategic portfolio development

Idea: Build IP portfolio strategically not ad hoc.

Process: Focus IP investments by filing on targeted R&D activities.

Example: This strategy prevents the opportunity cost of R&D staff inventing in areas that do not relate to the business strategy. A powerful innovative engine is created when the R&D staff is led by a business-aligned IP strategy. No IP investment is wasted on non-aligned patents.
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Strategic Patent Portfolio Development

**Competitive Patent Assessment**

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Summary
Competitive Intelligence in Patent Strategy

Look at known patents and research leaders
Analyze others use of those innovations
Assess activity trends and investment concentrations
Techniques to identify the core players, trends, and investment clusters within the technology landscape

**Patent-to-Product Mapping** correlate existing and pending patent rights with products in the market, in the pipeline, and on the drawing-board. Correlate current income (from product commercialization, licensing, etc.) with patent rights, as well as the costs of maintaining the patent and the remaining patent term.

**Whitespace Analysis** review of patents belonging to particular industry, sector, or technology space. Assists companies to determine technology growth and gap areas within a particular industry where further research and development can be done to gain competitive edge, as well as to carry out incremental innovation for new product development.

**Patent Landscaping** Provides a comprehensive view of where it stands amongst it's competitors. Spreadsheets and databases may hold the raw patent data, but it's often the analysis and extrapolation of this data that drives key decisions. Our studies help clients make research and development investment decisions, as well as identify patent assets and/or competitors which may present licensing, purchase, or takeover opportunities.

**Competitor Monitoring** The way your competitors acquire, protect, and promote their intellectual assets can inadvertently signal their next moves. Using multiple channels of communication (media attention, events, news releases, social networking, etc.), we follow how competitors manage their intellectual assets to get a sense of what they are preparing to do next, in terms of market penetration and research and development efforts.
Assessing Competitors and Infringement Risks
Competitor Trends in Geographic Patent Portfolio Development
Technology Development through Citation Analysis
Analyze which Competitors are Investing Most Heavily in the Technology of Interest
Monitoring Competitors – Case Study MEMS

- **Qualcomm** – Largest portfolio, strongest Patent Family Strategy
- **Texas Instruments** – Best coverage of prior art, most seminal patents
- **Samsung** – Has 2nd most seminal patent, weak portfolio
- **Invensense** – Good portfolio strength, focused on MEMS gyroscope technology which can be applied to image stabilization
- **ST Micro** – Very few issued patents in this area
- **Nokia** – Image stabilization, few patents
- **Foxconn/Hon Hai/Altus** – 2 recent MEMS zoomable camera patents
- Additional patents reside in research labs, small players and some large industry players
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### Databases

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<th>Free Patent Databases</th>
<th>Commercial Databases</th>
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<tr>
<td>EAST</td>
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<td>Google Patent</td>
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<td>PatentScope</td>
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#### Patent Analytics
- Innography
- Thomson Innovation
- Patent Insight Pro
- Vantage Point
- PatentCafe
# Patent Research to Inform your Strategy

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<th>PURPOSE</th>
<th>INSIGHTS</th>
<th>COSTS</th>
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<td><strong>NOVELTY ASSESSMENT</strong></td>
<td>Research conducted to determine blocking, anticipatory and/or obvious art in the public domain</td>
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<tr>
<td><strong>FREEDOM TO OPERATE</strong></td>
<td>Identify potential infringement risks.</td>
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<tr>
<td><strong>INVALIDITY / VALIDITY</strong></td>
<td>Attempt to invalidate or validate an issued patent reference with publicly available prior art before priority date</td>
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</tr>
<tr>
<td><strong>PATENT LANDSCAPE / COMPETITIVE INTELLIGENCE</strong></td>
<td>Assessment of specific competitors, technologies, inventors and other trend analysis</td>
<td></td>
</tr>
<tr>
<td><strong>COSTS</strong></td>
<td>$750 - $2000</td>
<td>$1500 - $5000</td>
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**INSIGHTS**

- Assist in drafting alternative or more focused claims. Tool to aid or alter R & D. Identify blocking art.
- Imperative for comprehensive due diligence. Enhance valuation and leverage in licensing negotiations
- An affirmative defensive tactic. Assist in weighing assertion risks. As a validity tool can strengthen your patent value
- Provides detailed information as to potential competitors product development strategy, aids in identifying potential licensing partners and may aid in valuation of your patent.
### IP research at various stages of the innovation cycle

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<td>Landscape Analysis</td>
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<td>Technology Landscapes</td>
<td>Patent Filing</td>
<td>Portfolio Mapping &amp; Analysis</td>
<td>In-licensing Need Identification</td>
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<td>State-of-the-art Search</td>
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<td>Patent / Technology Watch</td>
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<td>Invalidation Search</td>
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<td>Litigation Support</td>
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- **CONCEPTUALIZATION**
  - Novelty Search
  - Technology Landscapes
  - State-of-the-art Search
  - Patent / Technology Watch

- **PROTECTION**
  - Patent Drafting
  - Patent Filing

- **MANAGEMENT**
  - Landscape Analysis
  - Portfolio Mapping & Analysis
  - Overlap Analysis
  - Invalidation Search
  - Freedom-to-operate Study
  - Claims Mapping
  - Litigation Support

- **COMMERCIALIZATION**
  - Patent Valuation
  - In-licensing Need Identification
  - Out-licensing Opportunity Identification
  - Licensing Partner Analysis
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Informed Competitive Intelligence

Data Analytics

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Using the IP Value Hierarchy

Visionary
- Patent strategically - identify and exploit trends in one’s own industry to create new rules of the game
- Institute a performance measurement and reporting system

Integrated
- Align IP strategy with corporate strategy
- Manage IP / IA across multiple functions
- Conduct competitive assessment
- Codify and share IP knowledge
- Focus on strategic value extraction

Profit Center
- Obtain management buy-in
- Start a proactive licensing organization
- Consider IP donations and royalty audits
- Organize to extract value
- Develop advanced screening criteria

Cost Control
- Relate patent portfolio to business use
- Establish an IP committee
- Establish a screening process and criteria
- Set detailed guidelines for patent filing and renewal
- Regularly and systematically review the portfolio to prune

Defensive
- Take stock of what you own
- Obtain IP while ensuring design freedom
- Maintain your patents
- Respect the IP rights of others
- Be willing to enforce
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