

A threefold approach in <u>enhancing</u> your business interests

Phase	Focus	Benefit	Timing / ~Cost*	
Facilitated Workshops via Leverage and Grow Costs are Typical				
Expand solution space for specific focus area & documentation for future action	Ideation	Explore Opportunities	3- 4 weeks prep ,1.5 day workshop/\$2-8k	
	Invention	Explore creative solution options & document priority disclosures	3- 4 weeks prep ,2.5 day workshop/\$16k	
	Harvest	Document what has been done for search	1- 2 weeks prep,1-2 day workshop / \$2-7k	
	Breakthrough Problem Solving	Solve non traditional engineering problems	1-3 weeks prep,1-2 day workshop / \$2-12k	
	Wargaming	Firm up existing portfolio to intruders	1-4 weeks prep, 1-2 day workshop, \$5-15k	
Expert Patent Searches via recommended associate provider MSON-IP				
Help identify opportunities for solution/owner ship, vetting of IP potential	Patent Landscape	Help identify opportunities for solution/ownership	1- 4 weeks / TBD by scope of landscape request	
	Preliminary Novelty	vetting of IP potential	2-5 days / \$240-600/case	
	Full patentability/ Infringement	firm up ownership	TBD / in conjunction with legal counsel	
Patent Solutions via recommended associate provider Nyemaster Goode				
Carve out marketplace space for your business offering	Provisional filing	Protect early stage work	TBD	
	Application/ Prosecution	Protect market position	TBD	
	Portfolio Expansion	Expand market or hedge	TBD	

^{*} these are typical event estimates for timing and cost in USD

Possible Scenarios for Levels of IP engagement (pricing is typical for example)*

Scenario I

Minimal IP support for well defined program/solution space

Phase 1 - Harvest workshop as team completes major deliverable or redeploying, 1 day 3k

Phase 2 - Initial novelty search to vet solutions to merit further investment 2k ~6 cases

\$ 5k

Scenario II

New Project (new product or benefit to market)

Phase 1 - patent landscape to uncover existing solutions and white space 6k

Phase 2 - Invention workshop to provide multi novel solutions 16k

Phase 3 - Initial novelty search to vet solutions to merit further investment ~6 cases 2k

\$ 25k

Scenario III

Existing Patent Protected product

Phase 1 - Legal review with opinion on existing IP position	TBD
i hadd i Logai forion with opinion on existing ii position	

Phase 2 - Wargaming to provide blockage for workarounds, 2 day session 15k

Phase 3 - Initial novelty search to vet solutions to merit further investment ~6 cases 2k \$ 17k+

Scenario IV

Existing Project, currently with non optimal solutions

Phase 3 - Initial novelty search to vet solutions to merit further investment ~2-3 cases 1k

\$ 13k

12k

^{*} scenarios are example with ballpark costs, scope of situation will determine actual costs



Patent Landscapes

PLs (patent landscapes) provide for a valuable starting point when trying to frame a solution area to solve a problem or map a potential market space. PLs are commonly used in conjunction with technical publication literature searches to understand how others have attacked a problem. PL's can give insights to business opportunities beyond the technical papers. Solution spaces can be defined, expanded and reshaped. Sometimes a solution can be found in an unrelated industry. I.e. the control of a industrial compounding mixer may coincide with the solution for processing nano materials. Overlaying existing solutions on a patent landscape can generate a broader view opening up avenues for novel solutions.

Further, a PL can provide a view of the market potential of a technology solution. Showing who are the other participants and giving a rough timeline of entry and ongoing market interest. By knowing participants, inferences can be made to open up additional solution spaces. Some participants may be non competing and willing to discuss, licensing or reveal relevant technologies. Potentially, the solution area is in an existing product and can be observed. The existing solution might have been serving another purpose/benefit.

'White space' identification can also be of part PL. 'White space' highlights adjacent areas to explore for patent ownership if a particular solution space is already crowded.

Several broad patent landscapes have already been performed and are being continually updated in technologies areas that are rapidly growing. Below is a partial listing.

- 1. Global Patent & Product Study on Internet Connected Vehicles
- 2. Oral Delivery of Peptides/Proteins
- 3. UV-LED
- 4. Anti-Aging of Skin

Typical time frame

1- 4 weeks (for an initial landscape in a highly specific area)

Typical cost

To be determined by scope of landscape being created

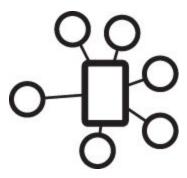
Typical deliverable

Report with linked database for defining landscape and 'white space' opportunities

Client Responsibility

Initial guidance for scope 'fencing', indexing taxonomy and resource availability Review of progress & Participation in report output review





Ideation workshops Opportunity Exploration

A session using various ideation tools to generate concepts for benefit delivery aimed at your envisioned consumer space and adjacent spaces.

- Help your team identify and explore product/benefit domains
- Explore what impacts your users/consumers
- Use future assumptions to loosen forward thinking
- Ideate to meet projected user needs
- Group alignment of ideas/concepts to domains and roadmap paths

Typical time frame

1- 4 weeks including preparation, 1-1.5 day workshop, report generation, review

Typical cost

\$2-8k USD, depending on scope and group size

Typical deliverable

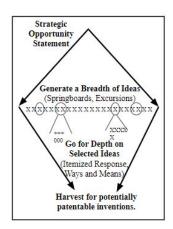
Documentation of all ideas collected and alignment into Roadmaps, Recommendations for deploying Invention Workshops on specific target areas

Client Responsibility

Initial guidance for scope and resource availability including adjacent subject matter experts Selection of right mix of participants for workshop

Participation in report output review





A tool intended to produce a batch of invention disclosures in a specific target area as well as producing "Sweet Spots" to help solidify and protect **your** consumer space ownership.

• "Sweet Spots" occur where benefit migration paths and technology roadmaps intersect.

Invention Workshop ar utilized when technology gaps are identified in technology roadmaps and Organic and In-Organic Inventions are needed;

- In-Organic inventions are forward looking inventions that require out-of-the-box synthesis.
- Organic inventions are typically born out of typical project work in existing areas.

Getting a project team exploring solutions once they have articulated their problem can be subject to internal bias towards ideas they have experienced directly or analogously. Biases can be overcome and often get to fresh thinking of those familiar with problem through new stimuli and exploration of areas tangent to a problem. Experienced facilitation techniques along with varying direct and adjacent subject matter experts can quickly open up novel solutions. Never thought of before or negatives (i.e.contradictions) can be can be overcome systematically during the workshop infusing basic TRIZ principles.

Typical time frame

1- 4 weeks including preparation, 2.5 day workshop, report generation, review

Typical cost

\$16k USD

Typical deliverable

Documentation of all concepts and batch of disclosures describing harvested 'inventions'.

Client Responsibility

Initial guidance for scope and resource availability including adjacent subject matter experts Selection of right mix of participants for workshop Participation in report output review





Harvest workshops

Harvest workshops can typically be a 1-2 day event to help students and faculty to articulate their work in an invention disclosure format. As problems are solved many times, there are unique solutions that are not thought of as inventive but nonetheless important from an IP ownership perspective. This is something a sponsor or project team may lose in the process of a project execution. A solution may not seem novel, but by recording and allowing search and legal review, meaningful patent claims can be formulated. Similarly infringement risks can be highlighted and addressed well ahead of critical junctures. Market positioning may be enhanced even if the solution is merely an improvement over something that is already well known.

Typical time frame

1- 2 weeks including preparation, 1-2 day workshop, invention disclosure generation

Typical cost

\$2-7 k USD, depending on scope and group size

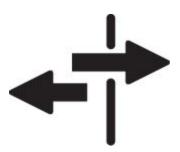
Typical deliverable

Invention disclosure formatted solutions for filing / searching for infringement.

Client Responsibility

Initial guidance for scope 'fencing' and resource availability Participation in workshop Participation in report output review





Breakthrough problem solutions

Many problems simply require an optimization of engineering principals. The problem is within grasp and the solution process well understood and even modeled. However, at times solutions are needed where current engineering knowledge comes short and is sub optimal. This can be especially true in the case of a contradiction. A good output is realized at the same time a negative output must be contended with that produces a net sub optimal performance or condition. I.e. Combustion of wood produces heat but also pollutants and can be inefficient and lead to local deforestation. Pellet heaters feed fuel as needed and can make use of lumbering by-products or annual renewable sources such as dried corn or compressed grass. By applying basic TRIZ rules to contradictions, solutions can go from suboptimal to market leading breakthroughs. Leading a project team through an afternoon or 1 to 2 day session can overcome "inventors blocks'.

Typical time frame

1- 4 weeks including preparation, 1-2 day workshop, report generation

Typical cost

\$2-12k USD depending on scope and group size

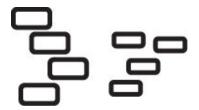
Typical deliverable

Documentation of all concepts and notes of session with recommendations and summary

Client Responsibility

Initial guidance for scope 'fencing' and resource availability Participation in workshop Participation in report output review





Patent Wargaming

This technique is used in a situation where the solution is implemented and patent protection needs to be enhanced by exploring adjacencies around the existing solution. This 1-2 day workshop leads a team of internal experts to explore what potential competitors may try to work around a patent. When coupled with a patent landscape the team can game what technology paths may evolve in the future to obsolete a current solution by following market and technology trends. Should be proceeded with legal opinion on current patent situation. Suggest

Typical time frame

1- 3 weeks including preparation, 1-2 day workshop, report generation

Typical cost

\$5-15k USD, depending on scope and prep complexity (legal opinion is additional)

Typical deliverable

Report highlighting design around paths and recommendations where and how to firm up portfolio

Client Responsibility

Initial guidance and patent for scope 'fencing' and resource availability'
Participation in workshop
Participation in report output review with counsel





Preliminary novelty search

The product of an invention workshop is a batch of invention disclosures that is reviewed by the team and prioritized for search. By conducting a preliminary (minimal search hours or records) top concepts can be quickly evaluated for patent potential or possible infringement concern. Once a search comes back quickly (typically less than a week) then a determination can be made to expand, enhance or abandon a specific concept and determine the next direction.

Typical time frame

1- 2 weeks including report generation

Typical cost

TBD - an Indian based firm with an US office

Typical deliverable

Report describing search results

Client Responsibility

Initial guidance for scope 'fencing' and results of a inventions workshop Participation in report output review and determination of direction





In depth novelty with potential infringement searches*

This activity requires a well defined potential patented concept that needs to be vetted before a complete patent is drafted. The purpose of this work is to evaluate the patentability in terms of claims language that can be pursued. As prosecution will uncover related art a preemptive search can help ensure good chance of success with examination. The search can also evaluate potential infringement risks as well to protect sponsor in market execution.

Typical time frame

TBD, simpler cases, 2- 5 weeks, mostly this is for legal analysis and opinion to be completed. Full product infringement & highly complex matters can be considerably longer and more costly.

Typical cost

TBD

Typical deliverable

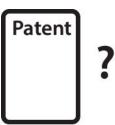
Legal Opinion on patentability and optionally with sample claims and infringement assessment

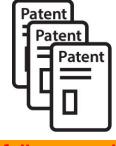
Client Responsibility

Initial guidance for scope 'fencing' and results of a inventions workshop Participation in report output review and determination of direction

^{*}Indepth patent searches with opinion require search MSON IP & opinion NyeMaster Goode







Applications & Prosecution

Portfolio expansion & continuations

A means to file quickly once an acceptable concept has been identified as needing immediate protection especially in a crowded patent space or when sharing inventive information with an outside entity as required for effective business communication. The entity being a supplier or potential customer.

A way to protect a space without full filing costs gaining a year to expand a business case.

Specification elaboration can be a planned activity via "Wargaming" during pre-filing review with mindset to enhance breadth of disclosure for blocking workarounds or expanding on adjacent benefits to protect.

The Patent examiner will have questions and/or need clarifications. Often this is left to counsel but can be considerably enhanced if engagement by a technical expert to review examiner cited art or explaining state of the art practices.

Multiple claim sets can be generated from a given application specification as a reaction to an examiner position or competitive product launch.

If planned in advance, continuations may be available. If not planned then building a better picket fence may require guidance for Wargaming workshops.

Leverage and Grow can provide the liaison role for inventors who often are not available to review patents or fully consignment and/or comfortable with the patent process. Gaps may be existent in the description that is required for a robust specification. An experienced inventor liaison can help fill these gaps between an inventor and counsel to gather and provide needed inputs.

At Leverage and Grow, we have a longstanding successful working relationship with counsel at Nyemaster-Goode that we can put to work to enhance portfolio development.

These engagements can be face to face or via phone/web. Call us to discuss your needs.