



We Give a Hoot !

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IMPROVING THE “POTENTIAL FOR SUCCESS” (PFS) OF INVENTIONS, NOVEL NEW PRODUCTS & PROCESSES

You can greatly improve the Potential for Success (PFS) of novel new products and processes by carefully evaluating their current potential, identifying areas with the greatest opportunity for improvement, searching existing knowledge bases for potential improvements, selecting and implementing the best improvements for your situation.

The PFS of a new product depends upon answers to questions grouped into the ten zones below. A few sample questions are listed.

1. Product Issues

Advantages your idea has over other similar products? Safety and environmental issues?

2. Marketing Risks (Formulation Stage)

Strength of the industry targeted by the product? General acceptance of the product?

3. Technology Risks

Is the product unique? Will it function properly? Patent granted? Obsolescence?

4. People Risks

All the skills needed are present? Sufficient time/manpower available for the project?

5. Initial Funding Capabilities

Sufficient funds (internal or external) available to move product to prototype stage?



6. Licensing Risks

Several companies qualified as licensing targets? Do they have a good history of working with individuals, institutions or companies of your nature?

7. Facility Startup Issues

A production facility exists? Does it currently use similar raw materials and processes?

8. Marketing Risks (Production Stage)

New product tie in with your existing products and distribution channels?

9. Financial Resources

Can you or identified potential licensees meet the financial needs of manufacturing and marketing the product in production quantities?

10. Exit Potential

If you try to produce the product yourself and fail, will the idea still have licensing potential?

NOTE— If you plan to license the product or process, you still need to perform areas #7 to 10 to understand the view (risk) from the licensee's perspective.

How do we do it?

Run the List of Questions

The attached spreadsheet contains an extensive list of questions for each of the ten zones. New products are evaluated from 1 to 5 on each question. Unknown (you do not know the answer), In Process (you are currently working on this question) and N/A (question not applicable to this product) checkboxes are also provided.

The number of questions left unanswered and “In Process” is an indicator of the current level of uncertainty surrounding the product. This level of uncertainty combined with the number of questions on which the product scored less than perfect, is a direct measure of its PFS.

What is a Good Score?

The total score is not important. The number of questions unanswered or “In Process” (total uncertainty) and the number of questions with less than perfect ratings determine the PFS.

Number of ? With Less than Perfect Answers	Number of ? Checked Uncertain Or In Process	PFS Potential For Success
Few	Few	High
Few	Several	Medium Plus
Few	Many	Low Plus
Several	Few	Medium Plus
Several	Several	Medium
Several	Many	Low Plus
Many	Few	Low Plus
Many	Several	Low Plus
Many	Many	Low

Intellectual Property Search

If no major market barriers have been identified, the next step is to determine uniqueness. Intellectual Property rights must be secured and maintained to license the product. Even to manufacture the product yourself, you must be certain not to infringe upon the rights of others.

A thorough search of patent data, trade magazines and the market place frequently indicates the concept is not unique and therefore has no licensing potential. Once this determination has been made, you can elect to alter the design, pursue manufacturing the product yourself or discontinue the project. Significant savings can result from “pulling the plug” at this time vs. carrying the project through the much more expensive stages of new product introduction and then learning the product is not unique.

On the plus side, we often encounter additional ideas, insights and potential applications of your product during the Intellectual Property search.

Identify Areas for Improvement

The questions in the spreadsheet are used to identify shortcomings and remaining unknowns surrounding your project. We identify those with the highest probability of potential improvement. We also suggest methods and opportunities (classes, seminars, books) to improve your own skills (reduce People Risks).

Search Existing Knowledge Bases

We apply information research tools; hundreds of databases, the internet, our experience and thousands of contacts around the world to identify potential product improvements and try to find answers to the remaining unknowns. Frequently, we are able identify previously unknown product benefits as well as entirely new markets.

Select & Incorporate Improvements

This step is entirely under your control. You select and implement ideas from those presented.

Reducing the Level of Objections

Implementing the improvements increases your product's PFS by reducing the level of objections raised by others. End users and potential licensees critically examine your product and the processes by which it is made. Objections will be raised! Our process attempts to identify and eliminate or reduce the significance of these objections while simultaneously reducing the number of unknowns.

Suppose we were able to anticipate a potential licensee's concern about a major safety issue and we were able to use existing knowledge to remove the problem from your product before they ever saw it. Now when you show them your product they might object to the color. This lower level objection (color vs. safety) is a much easier issue for you to deal with.

When Should This Process be Initiated?

We suggest **not** proceeding beyond the File Disclosure Document step on our "Invention Development Process, The Beginning" chart (on the following page) before evaluating your product. It will need occasional re-evaluation from that point forward

What if My Product Rates Poorly?

After applying these techniques, your idea in its new improved state may still not reach a medium plus score. You might not even be able to break even making them in your garage. At first you may be discouraged, but it is much better to find out now, than after investing hundreds of hours and thousands of dollars in addition to those already invested.

Personal Improvement Ideas

Your experience in the specific industry, amount of time you can devote to the project, previous new product launch experience and your general marketing and technical expertise have great bearing on the invention's PFS. If you have no skills and no time and no money, even the world's best idea is going nowhere.

Taking a marketing class, attending local seminars on patenting and invention development, attending area Vo-Tech classes on the manufacturing processes used to make your product, learning a CAD program, regularly using the internet, reading industry trade journals, attending local technology events, carefully evaluating your financial position and determining the amount of risk you are willing to bear, can greatly increase your invention's Potential For Success.

The Internet is Essential

If you are not regularly using the internet, start immediately! You **MUST** be able to use this tool in order to stay current in your field, communicate with colleagues and groups assisting you, stay abreast of patents, find prototype parts, investigate potential regulations and standards governing your product, identify potential licensees and market your finished product. If you are not regularly using the internet, your invention has a huge strike against it.

The Process is Ongoing

Your invention will need re-evaluated after major modifications. Modifications can create other problems or opportunities. Normally ongoing evaluations are performed by the inventor and we provide assistance when needed.

After your product makes it to production, you should evaluate it at least quarterly to make sure you are on top of all the issues and your product remains optimized for the market (even if you license it). You also need to maintain your self improvement programs.

Review of Steps Used in Our Process

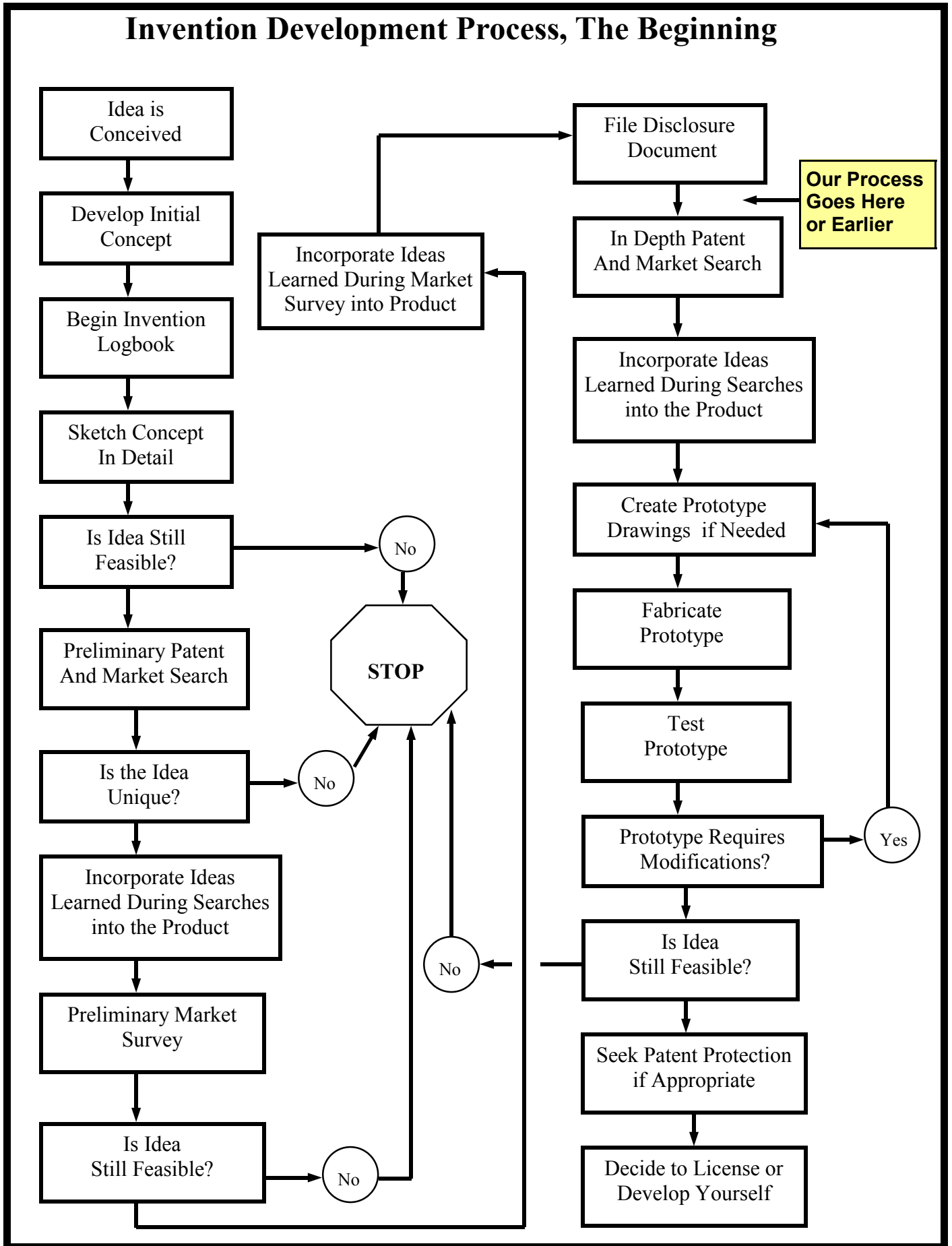
1. Evaluate current potential
2. Identify areas with the greatest opportunity
3. Search existing knowledge bases
4. Select improvements
5. Implement improvements
6. Re-evaluate after major modifications

References

Invention process chart. (IAS) Inventors Assistance Service, Stillwater OK
<http://techweb.ceat.okstate.edu/ias/checklist.htm>
 We used this chart in preparing our "Invention Process, The Beginning" chart.

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Invention Development Process, The Beginning



Invention Evaluation Questions

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14 July 2000 version

	Yes	No	Unknown	In Process	N/A
	1 to 5				
Product Issues					
1Product has no safety problems	1	2	3	4	5
2Product has no environmental issues	1	2	3	4	5
3Product has no regulatory issues	1	2	3	4	5
4All relevant standards have been identified	1	2	3	4	5
5The product is green (environmentally friendly)	1	2	3	4	5
6Costs less to produce than competition	1	2	3	4	5
7Has numerous advantages over the competition	1	2	3	4	5
8No timing risks (must be avail by certain date)	1	2	3	4	5
9No packaging problems	1	2	3	4	5
10No freight issues (cost, size, etc.)	1	2	3	4	5
11Low prototype costs	1	2	3	4	5
12The project is small in scope	1	2	3	4	5
13It consumes products furnished by you (razor blades)	1	2	3	4	5
14The product is at an advanced stage of development	1	2	3	4	5
15Product has not been at current stage for a long time	1	2	3	4	5
16Product will be the best solution available	1	2	3	4	5
17Patents & market place have been reviewed for ideas	1	2	3	4	5
18Easy to demonstrate / obvious how to use it	1	2	3	4	5
19No training required to use or install product	1	2	3	4	5
20Can be controlled, monitored or both via the internet	1	2	3	4	5
21Composed of off-the-shelf parts	1	2	3	4	5
22Will require minimal tooling costs	1	2	3	4	5

Marketing Risks (Formulation Stage)

1	Low level of competition	1	2	3	4	5
2	Strong confidence in market forecast	1	2	3	4	5
3	Not a seasonal product (boat)	1	2	3	4	5
4	Not a perishable product (fresh fruit)	1	2	3	4	5
5	Market will be large	1	2	3	4	5
6	Many potential users	1	2	3	4	5
7	Many potential applications	1	2	3	4	5
8	Anticipate long product life (obsolescence)	1	2	3	4	5
9	Lends itself to E-commerce	1	2	3	4	5
10	No geographic issues (only used in Florida)	1	2	3	4	5
11	No weather issues (requires good weather for use)	1	2	3	4	5
12	Does not require high consumer use to drive costs down	1	2	3	4	5
13	The targeted industry is strong and expanding	1	2	3	4	5
14	Good alignment with several Popcorn Trends (WEIGHT)	1	2	3	4	5
15	Appropriate URLs have been secured	1	2	3	4	5
16	Individuals have had success in this product field	1	2	3	4	5
17	Product can be on the shelf (limited) in a few months	1	2	3	4	5
18	We have special skills/resources required, others do not	1	2	3	4	5
19	End user feedback has been obtained	1	2	3	4	5
20	Product is a low ticket item	1	2	3	4	5
21	End users are clannish and easy to reach	1	2	3	4	5
22	High level of general acceptance of the product	1	2	3	4	5
23	Can be customized for each individual	1	2	3	4	5

Technology Risks

1 Minimal uncertainty of technological success	1 2 3 4 5
2 No intellectual property problems with existing patents	1 2 3 4 5
3 Future intellectual property rights are protected by filing disclosure documents, not publishing or presenting or disclosing data prior to consideration to patent timelines in both the US and other countries	1 2 3 4 5
4 Patent protection has been secured	1 2 3 4 5
5 Low development costs	1 2 3 4 5
6 Technology forecast done (anticipate tech. obsolescence)	1 2 3 4 5

People Risks

1 Management Experience	1 2 3 4 5
2 New product launch experience	1 2 3 4 5
3 Experience in this market	1 2 3 4 5
4 Appropriate level of risk tolerance	1 2 3 4 5
5 Amount of time available to devote to project	1 2 3 4 5
6 Have the technical skills needed	1 2 3 4 5
7 Are in the mainstream and not isolated	1 2 3 4 5
8 Marketing experience and education	1 2 3 4 5
9 Individuals recently in a marketing, craft, etc. class/ seminar	1 2 3 4 5
10 Strong dedication and tenacity of product champion	1 2 3 4 5
11 Product champion to stay with product all the way	1 2 3 4 5
12 Is more than 1 person involved (involved spouse counts)	1 2 3 4 5
13 Champion spends minimum of 2 hours a week on internet	1 2 3 4 5
14 You are receiving help from a invention organization (IAS, OTCC, OIC, etc)	1 2 3 4 5
15 All external experts/consultants anticipated have been identified & contacted	1 2 3 4 5

Initial Funding Capabilities

- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Have sufficient funds for initial investigation | 1 | 2 | 3 | 4 | 5 |
| 2 | Have sufficient funds for initial development | 1 | 2 | 3 | 4 | 5 |
| 3 | Have sufficient funds for working prototype | 1 | 2 | 3 | 4 | 5 |

Licensing Risks

- | | | | | | | |
|----|---|---|---|---|---|---|
| 1 | Strong IP protection | 1 | 2 | 3 | 4 | 5 |
| 2 | High overall net present value of project | 1 | 2 | 3 | 4 | 5 |
| 3 | Large number of qualified licensing target companies | 1 | 2 | 3 | 4 | 5 |
| 4 | Large number of potential licensing industries | 1 | 2 | 3 | 4 | 5 |
| 5 | Is a technology which could be licensed to several | 1 | 2 | 3 | 4 | 5 |
| 6 | Targeted companies often form license agreements | 1 | 2 | 3 | 4 | 5 |
| 7 | Minimal physical distance to targeted companies | 1 | 2 | 3 | 4 | 5 |
| 8 | No language barriers to targeted companies (WEIGHT) | 1 | 2 | 3 | 4 | 5 |
| 9 | Targeted companies are small | 1 | 2 | 3 | 4 | 5 |
| 10 | Manufacturing processes have high entry cost barrier | 1 | 2 | 3 | 4 | 5 |
| 11 | Have access to licensing help | 1 | 2 | 3 | 4 | 5 |
| 12 | Facility risks of targets (see below) | 1 | 2 | 3 | 4 | 5 |
| 13 | Marketing risks (production stage) or targets (see below) | 1 | 2 | 3 | 4 | 5 |
| 14 | Financial risks of targets (see below) | 1 | 2 | 3 | 4 | 5 |
| 15 | You have a one page Quick View Document that fully describes your product, its application, potential sales and current status of intellectual property issues. | 1 | 2 | 3 | 4 | 5 |
| 16 | You have identified a licensing professional who works in this industry and deals with firms, institutions or individuals depending on your situation | 1 | 2 | 3 | 4 | 5 |
| 17 | You have visited with the licensing professional | 1 | 2 | 3 | 4 | 5 |

Facility Startup Issues

	1	2	3	4	5	
1	Have an existing facility	1	2	3	4	5
2	Currently use same raw materials	1	2	3	4	5
3	Currently use same processes	1	2	3	4	5
4	No manufacturing environmental issues	1	2	3	4	5
5	Minimal additional capital costs required	1	2	3	4	5
6	Current facility is very efficient	1	2	3	4	5
7	Low inventory costs (stuff and place)	1	2	3	4	5

Marketing Risks (Production Stage)

	1	2	3	4	5	
1	Ties in well with your existing products	1	2	3	4	5
2	You already have a presence in the market (WEIGHT)	1	2	3	4	5
3	Cross sales potential (help sell other products)	1	2	3	4	5
4	You have an e-commerce presence	1	2	3	4	5
5	Aligns with your current distribution channels	1	2	3	4	5
6	High target margins vs. competition	1	2	3	4	5

Financial Resources

	1	2	3	4	5	
1	Not currently in financial problems	1	2	3	4	5
2	Have access to loans or credit lines in range needed	1	2	3	4	5
3	Access to venture capital if needed	1	2	3	4	5

Note Any Items Specific to This Project

	1	2	3	4	5	
1		1	2	3	4	5
2		1	2	3	4	5
3		1	2	3	4	5
4		1	2	3	4	5

Licensing Potential (Exit Strategy)

1 Overall status items in licensing section above	1	2	3	4	5
2 Possibility of sale to a broker	1	2	3	4	5
3 No timing problems (not too late for idea by then?)	1	2	3	4	5

**Reference: Clicking by Faith Popcorn and
Lys Marigold.
Harper Collins Publishers. 1996.**

Popcorn Trends for Reference

- 1 Cocooning (protect from outside world)
- 2 Fantasy Adventure (roads untaken)
- 3 Small Indulgences (affordable luxuries)
- 4 Egonomics (individuality)
- 5 The Vigilante Consumer (consumer protest)
- 6 Being Alive (health, longevity)
- 7 99 Lives (multiple roles in our lives)
- 8 Cashing Out (simpler living)
- 9 Down-Aging (baby boomers pursue products of their youth)
- 10 Save Our Society (ethics, compassion)
- 11 Wildering (outdoors pioneer spirit)
- 12 Clanning (grouping of individuals w/ similar interests)
- 13 Pleasure Revenge (beef, cigars, etc.)
- 14 Icon Toppling (Pillars of society are questioned)
- 15 Female Think (marketing consciousness of females)
- 16 Anchoring (reach back to our spiritual roots)
- 17 Mancipation (men want to look nice and work less)

This is a copyrighted working document for our evaluation process.

You are welcome to use this document in evaluating your product, but it is not very user friendly and is frequently updated. It was included to provide a better understanding of the process. You are certainly welcome to try it yourself.

It is NOT for distribution

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Polson Enterprises Research Services, webmasters "How to Learn About an Industry or a Specific Company" and dozens of other information based web sites. We also provide extensive invention and new product development services including new product evaluations, marketing, legal, patent and technical research services. We can help you verify the uniqueness of your new product and maximize its Potential For Success (PFS) in the marketplace.

Links to all web sites mentioned in this flyer can be found at www.virtualpet.com

Our Researcher and His Tools

Gary Polson, has extensive research experience at a fortune 500 firm. He has masters degrees in both Mechanical Engineering and Physical Education from Oklahoma State University, holds two patents, is a licensed professional engineer and a Certified Strength and Conditioning Specialist. He is strongly involved in the boat building industry and webmasters the industry's premier web site, RBBI (Recreational Boat Building Industry Home Page).

Major U.S. and international corporations, local companies and state technology development agencies regularly call upon him for assistance with their new product development, market research and technical research needs. He has assisted new product development efforts in the following industries:

Boating Industry
Boat Building
Marine Drives
Propellers
Propeller Guards
Fish finders
Construction Equipment
ATV's
Motorcycles
Snowmobiles
Personal Watercraft
Aviation Industry
Engines

Medical Devices
Digital Photography Industry
Augmented Reality Products
Sensors
Corrosion
Hydraulic Systems
RC Airplanes
Novelties
Virtual Pets
Beverage Industry
Restaurant Industry
ERP Applications
Internet Tools

Pet Products
Equine Products
Rodeo Accessories
Wildlife Management
Law Enforcement Devices
Correctional (Prison) Equipment
Water Rescue Devices
Tornado Shelters
Highway Construction
Products for the Disabled
Sports Equipment
Toy Industry
Funeral Industry

Besides our own extensive research library and many online research tools and databases, we have local access to 2 major university libraries (Oklahoma State University and the University of Oklahoma), one large metropolitan library (Tulsa City County Library), a federal depository (Oklahoma State University), a Patent Library (Oklahoma State Patent and Trademark Library), a medical library (Oklahoma State Veterinary Medicine Library) one of the largest law libraries in the southwest (University of Oklahoma Law Library) and several other local special collections.

Pricing and Billing

Normally, job completion time is estimated and the job is quoted at \$100/hour plus expenses. We accept purchase orders and credit cards. Payment is to be made in U.S. funds. We can arrange payment methods for companies outside the USA.

Expenses are usually less than 12% of the bill. Typical expenses are: database access fees, mileage, telephone and fax charges, copying expenses, postage, overnight freight charges, office supplies and travel expenses.

Satisfaction is guaranteed. If you are not pleased, you pay only the expenses.

Our experience and tools can help you make your new product successful!

Contact us with your needs today!