First Look Venture Assessment

A First Look Venture Assessment answers the question:

> "Is the market impact of this technology broad enough and deep enough to justify founding a new company to develop it"

If the answer to this question is "Yes" then a First Look Venture Assessment will provide the basis for the first business plan of the new venture.

A First Look Venture Assessment starts with a First Look Technology Assessment. However, a First Look Venture Assessment goes to the next level and is a feasibility analysis of whether a new venture should and can be sustained by this technology. It is the final step before a commitment is made by an entrepreneur or a small entrepreneurial team to form a company and start to expend significant resources on the new venture. If the result of the analysis is that a new venture can be sustained by the technology, then the First Look Venture Assessment is the starting point on which the company's first business plan will be built.

A First Look Venture Assessment therefore needs to examine:

- the business model of the company;
- the link between the technology benefits and its economic impact
- the financial model for the company;
- the financeability of the company;
- the financial and management resources that the company will need;
- the exit mechanism by which management and investors will achieve liquidity;

The First Look Venture Assessment also looks for fatal flaws that might sink the new venture at an early stage. It needs to answer such questions as:

- Is there a big enough and fast enough growing market demand for the products and services that this technology translates into to sustain a company?
- Can I get to market while the opportunity still exists?
- How high a price will the market tolerate and still make the product a success?
- What will the profitability of the product be at that pricing?
- How will you distribute the product or service?

- What will it cost to get from here to there?
- How will these funds be raised?
- Who will be prepared to invest the amount that's necessary, and in what stages?
- Can management and investors achieve liquidity?
- What happens if the first product idea fails?
- What else could Murphy do to screw up this delicate young entity?
- What can we do to improve the venture's prospects?

Relationship with the Inventor

Hopefully you will find that the inventor has strong views on how the technology should be commercialized. You should certainly determine the inventor's views and give them serious consideration. However, your job is to come up with the best way forward for that technology, not to twist yourself and the facts into a pretzel to force fit reality to the inventors' views. You don't want to create a life style company that makes a comfortable living for the inventor (or their spouse and family!) but can never be sold to realize value for the university and investors.

Step 1 – What is the Company's business model going to be (Team Assignment)

How will the company get paid, and what share of the total revenues will accrue to the company? Remember, the more you out-source and assign to others, the less of the revenue you'll capture.

Step 2 – Develop a plan for the steps needed to launch the Company's products

This is a status assessment – where am I now and where do I need to be:

- At what stage is the technology now?
- How close is it to being a saleable, first generation product?
- What will it cost to get the technology into the market (Team Assignment)

You will need to develop a working cost estimate of the development effort that will be needed to turn the technology into a product and to receive any regulatory approvals that will be needed before the product can be turned into a product

(mainly for healthcare, food or cosmetic products subject to the FDA or telecommunications products subject to the FCC).

At this stage, you should estimate the number of Full Time Equivalents (FTE's) needed to carry out the work as well as the number of FTE's required to operate the company and build up the costs using fairly coarse assumptions about salaries. As a reasonable assumption, increase the costs by 40% to allow for fringe benefits, travel, telecommunications, etc. Separately estimate capital costs.

In the biotech space, salaries will start at around $35,000 for administrative assistants and probably top out at around $250,000 for the CEO. Estimate rent at $40/ square foot and 150 square feet per person. If you are looking at a drug, assume toxicology will cost $500,000 and that clinical trials will cost $15,000 per patient, and that you will need to have 20 patients for Phase 1, 100 for Phase II and 1,000 for Phase III. For a diagnostic, use $5,000 per patient and 300 patients.

Costs in the IT space are generally lower, and obviously, market validation will generally be through beta testing with potential customers rather than through a regulatory agency, though in some cases, you may need to get involved with a standards setting body.

Are there obvious value added points (which will also be "go/no;go" points) in the development pathway that provide financing milestones, where you can raise more money at a higher valuation so that dilution to existing shareholders is minimized? Getting to later stages will open up additional sources of financing – venture capitalist will fund later stage clinical trials for a drug, but not pre-clinical toxicology.

Step 3 – Develop the sales forecast for the company

First develop your market estimate. This analysis should be broken down into two separate analyses:

- the number of units you expect to sell; and
- the price that you will sell each unit for.

Your projected pricing should not be static. Prices change. In some markets – computer hardware, telecommunications – prices fall rapidly over time, whereas in others such as medical devices, prices decline modestly over time, while in yet

others – drugs, consumer products – prices generally rise over time, while products that are based on commodities and do not add substantial value to those commodities, will fluctuate in line with the price of the underlying commodity.

Step 4 – Develop the company's costs of goods sold.

Next develop the cost side of the operating statement.

First, look at the cost of goods sold. Identify the components or raw materials that go into your products and their costs. At this stage, focus on the major components only. Are these mature components or are they novel products whose cost can be expected to fall sharply as volume rises with the success of your product (or the success of other products)? If they don't currently exist, look for an analogous product at a similar stage of its development. Of course, these costs will consist of fixed and variable components and so will tend to fall as total sales volume increases.

Next look at the labor costs of producing your product. What is the volume production capacity of the minimum staffing level? Until you reach that limit and have to start expanding production capacity, labor costs will be a fixed cost and labor cost per unit will fall as sales and production volumes increase.

What capital equipment will be needed? What is the production capacity of the initial minimum capital investment? Capital cost impacts production cost through depreciation and, depreciation, like labor cost, is a fixed cost until the volume of sales exceeds the production capacity of the initial production line and capacity has to be expanded.

Step 5 – Develop the company's operating costs.

There are three components to operating costs:

- General Management and Administration (GMA or G&A)
- Sales and Marketing (S&M)
- Research and Development (R&D)

In the early stages of the company's development, these costs should be developed on an "identifiable body count" basis by identifying specific functions that the company will need. Eventually, you should transition to using established percentages from the particular industry in which you are operating –

for example, pharmaceutical companies spend around 14% of sales on R&D, 22% of sales on G&A, etc.

In the early, “identifiable body count” stage, operating costs will be fixed and will drop per unit as sales volume increases. When you transition to using industry percentages, then operating costs are by definition variable.

When the initial product is completed and launched, R&D costs may drop sharply and transition to a product support level of expenditure and sales support. In industries where product lifecycles are short -- say software and medical devices – the company may need to maintain a high level of R&D expenditures as it immediately starts to develop improved versions of the initial product – v2.0 and so forth.

Step 6 – Carry out a breakeven analysis.

The most important point in a new company’s development is when it reaches breakeven – the point when each unit of sales brings in more than the fully loaded cost of producing and selling it and operating the company. At this point, a company will stop consuming (i.e., raising) capital to fund its on-going operations, and shareholder equity will start to rise. The company’s financial problems may not be over – cash flow may still be negative and its need for working capital to fund operations may rise, sometimes rapidly if sales ramp up particularly sharply, but these are nice problems to have and can be met through borrowing if operations are profitable. At this point, the company will no longer be a “development stage company” in accounting parlance, but will start to become a normal operating company.

A company achieves breakeven when its gross margin – the difference between sales revenue and cost of goods sold – exceeds the operating costs – G&A, S&M, and R&D – of the company.

Three factors will make this happen:

1. Fixed production costs are spread over a greater volume of production; and
2. Variable production costs decrease because the cost of new components decrease as their volume of production increases; and
3. Other operating costs (G&A, S&M, R&D) increase more slowly than sales.

Step 6 – How will you finance the funding gap that the previous analysis has shown.

Try to avoid dilution of the founders equity by raising as much non-dliutively as possible through grants.

How will the company's capitalization table change as you go through these fund-raising steps?

Step 7 – Identify the management team needs of the company

What skill sets will the company need, both initially and as it gets closer to market? What skill sets do the founders already bring to the table, and how many different skill sets will have to be added? Is the size of the prize sufficient to be able to provide the incentives necessary to induce the needed additional people to join the entity? If you are going to need someone who has previously been CEO of a biotechnology company that successfully navigated their way through the FDA process and whose NDA was approved, or someone who has successfully founded a software company and sold it to Microsoft, then the equity deal they are going to expect, and the salary you will have to offer are going to be much higher than if you just need a good medicinal chemist or software engineer.

The entire First Look process should only take around 40 hours. It is not designed to be a full business plan – that's the next step. But it needs to look at all the same issues in less detail, looking for fatal flaws.

Format of the Report

To facilitate comparisons between opportunities, it is necessary to have a common format with common information about each company. Each section needs to answer as many specific questions about the commercial viability of the company and its ability to achieve specific goals.

Executive Summary
Not to exceed two pages of the 30. Must grab the attention in the first paragraph and make the reader want to read the entire report. It should be a crisp, dynamic and logical flow of ideas emphasizing the opportunity and needs of the company.

Technology Description (May be same as in First Look Technology Assessment)

- Describe the important technical attributes of the invention in language a non-expert understands.

Potential Benefits (May be same as in First Look Technology Assessment)

- Describe the benefits of the technology, not just the features, and the problems that the technology can solve.
- How big an advantage does the technology give over current approaches and solutions?

Potential Commercial Markets (A lot comes from the First Look Technology Assessment)

- What products/processes could result from the technology?
- What is the potential market size and demand as a function of time?
- What is the addressable market – how much of the market does the technology address?
- What will be the first segments of the market that the new venture will target?
- What are the key technology benefits being sought by the buyers in the target markets?
- Who feels the pain of needing your solution and why?
- What is the health and future of the industries that constitute the market for the technology?
- What are the regulatory issues/problems, if any?

What Will the Company Look Like? (New)

- Will this be a fully integrated company or a virtual company?
- How disruptive is the technology – will it create a new industry/alter the basis for competition/create a new niche within an established industry?
- Will it be high growth/IPO-able or acquirable or lifestyle?

What is the Business Model for the Company (New)

- Who will pay for the Company's products or services?
- What is the revenue model for the Company?
- How much will they pay – how deep is the unmet need?

Development Plan for the Technology (Builds on First Look Technology Assessment)

- What is the development stage of the technology -- a prototype, paper idea, or a bench model?

- What is the development pathway to turn the technology into a marketable product AND achieve validation?
- What regulatory steps must be taken and how long will they take?

Intellectual Property Status of the Technology (First question is the same as in First Look Technology Assessment)

- What needs to be done to support the patent filings?
- Are there blocking/enabling patents that will need to be licensed? Are they likely to be available for license– i.e, is there Freedom-to-operate?

Competing Technologies and Competitors (May be same as in First Look Technology Assessment)

- What other technologies are currently being used to solve the problem addressed by the subject technology?
- Who uses similar technologies?
- Does the subject technology have a demonstrable and sustainable advantage over competitive technologies in the marketplace?
- Who are some of the competing companies and do they dominate the marketplace?
- Will the market be receptive or reluctant to adopt your product and why?
- Are there entrenched interests that will want to block you?

Projected Financial Statements of the Company (New)

- Develop operating statements, balance sheets and cash flow statements for the first five years of the company
- Carry out a breakeven analysis
- Does the company achieve breakeven within the five year timeframe?

Financing Plan for the Company (New)

- What are the capital needs of the Company to reach breakeven?
- How will the Company meet these needs?
- Why do you think this opportunity is likely to be attractive to the planned sources of capital?
- How will the Cap Table of the company evolve as you raise this capital?

Management Resources (New)

- What management resources are going to be needed to attract early financing?
- Have they been identified?

- What management resources are going to be needed to achieve breakeven?
- Is this opportunity likely to be able to attract the necessary management resources? Why?

Exit (New)

- When and how will the Company achieve liquidity?
- What multiple will the investors make on their investment?

Worst Case Scenario Analysis (New)

- What are the two or three scenarios/issues that would keep you up at night worrying if you were CEO?
- What can you do about them?
- What happens if the Company's revenues develop half as fast as you project?
- What happens if the stock market crashes while you are raising your Series A?

Recommendations (New)

- State a go/no go decision.
- The acid test – How much of your life savings would you invest in the opportunity

Translate your research into a Venture Potential Rating

Factor	Weight	Score (1-5)	Weighted Score	Comments
Early Market Opportunity	10%			
Technology Development	10%			
Competitors/Patents	15%			
Capital Needs	10%			
Time to Breakeven	5%			
Financability	15%			
Long Term Profitability	5%			
Ability to Attract Management	10%			
Exit	20%			
Total	100%			

A score of "1" is least attractive, a "5" is most positive. Specific comments on the factors follow:

Early Market Opportunity
The availability of an attractive market that can be initially targeted is a very important factor in the evaluation of the opportunity

Technology Development
A clear development path with relatively achievable goals is the critical factor

Competitors/Patents
Freedom to operate is the most important issue, followed by breadth of claims that will be allowed.

Capital Needs
The greater the capital needs, the greater the difficulty of starting the venture and the higher the quality of management that will be needed.

Time to Breakeven
Should be less than 5 years for a strong score (apart from drug development).

Financeability
The sector you're targeting should be one where new companies are financed regularly to receive a high score.

Long Term Profitability
The higher the long term profitability, the higher the score will be.

Ability to Attract Management
The more senior the management you will need, the more difficult it will be to attract them

Exit
There should be a well defined achievable exit for a high score.