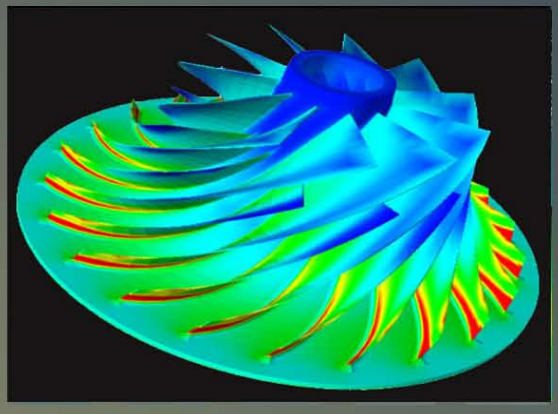
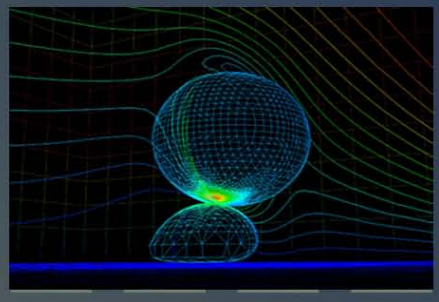
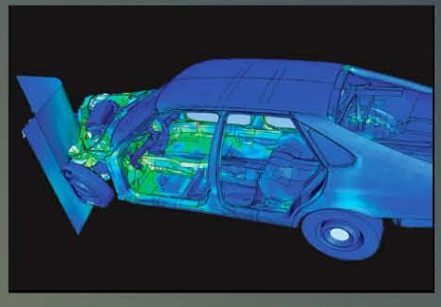
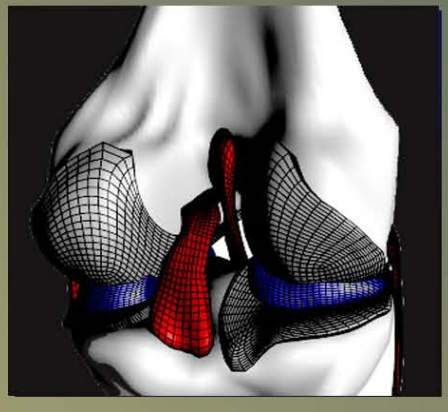
FEA
FEASIBLE
SOLUTIONS

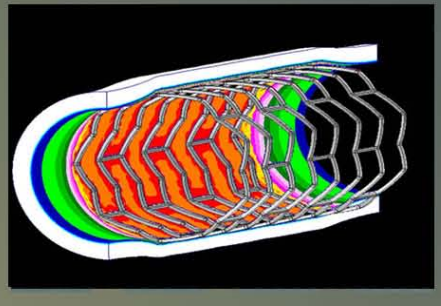
2011
BUSINESS PLAN











SERGE SIDOROV,PH.D.
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1. Executive Summary

"It is impossible to imagine modern engineering R&D without finite element analysis (FEA), and the market for FEA Consulting Firms is rapidly growing."

Dennis Schevtchenko, Ph.D.
Lead Engineer
Corporate Technology, Siemens
Potential FEAsible Solutions Customer

Vision: To be the leading provider of finite element analysis services to companies on the cutting-edge of technology. Our competitive advantage will be our talented FEA specialists, our strategic alliances with FEA software developers, and the proprietary instruments we will develop that will allow us to deliver better solutions more efficiently and at a lower cost than our competitors.

FEAsible Solutions is a service provider specializing in Finite Element Analysis (FEA).FEA enables engineers to accurately predict a physical systems' behavior and estimate the physical parameters of those systems prior to prototype development through computer-based simulation. It significantly enhances the quality of product designs while simultaneously reducing development time and cost. As such, it is an integral part in the design and manufacturing of products in a wide array of technology-based industries, including automotive, energy (renewable, nuclear, oil & gas), and medical device manufacturing.

Proper use of the finite element method requires vast expertise and very specialized knowledge. Some companies hire FEA specialists and create FEA teams within their R&D departments, while other firms outsource FEA. FEAsible Solutions has chosen FEA as its core competency and will employ specialist with deep expertise, utilize state-of-the-art tools, and will develop proprietary tools and practices to address a broad spectrum of technological problems. FEAsible Solutions' focus and commitment will enable it to become a valuable partner with its clients delivering both capacity during peak periods and a capability that is not economically viable for an internal FEA team.

FEAsible Solutions will be started as a limited liability company (LLC), in Orange County, California. As an LLC we will be able use equity as a means of attracting and incentivizing the industry's best talent. After securing the first three ustomers, FEAsible Solutions will have a dedicated office with five full-time associates.

FEAsible Solutions services will include, but not be limited to product design analysis, experimental design, failure mode and effects analysis and other related services.

As more companies turn to outsourcing to cut operating expenses, and convert fixed cost to variable, the market for FEA consultancies continues to grow. The majority of existing FEA consulting companies are small and undifferentiated, sharing similar value propositions. Most of these companies lack coherent and systematic strategy.

FEAsible Solutions' strategy will be built around the following principles (please see section 5 for more details):

- Attracting and retaining best talent
- Strategic alliances with FEA software manufacturers
- Developing, marketing and utilizing proprietary tools and practices
- Superior results and client experience to generate repeat business
- Unassailable credentials and credibility through demonstrated and published thought-leadership in the field
- Deep industry knowledge in target markets
- Focus on three industry sectors

Although FEAsible Solutions requires a low capital investment, the company will continuously invest in R&D to create barriers to entry by developing proprietary instruments and establishing thought leadership through publishing in industry journals and speaking at select conferences. We will put high emphasis on attracting and retaining the best talent in the industry, and invest the time and resources to each client engagement to consistently meet and exceed our customers' expectations.

Our management team features three devoted and highly engaged MBA students from the Paul Merage School of Business at University of California, Irvine, who believe in the strong potential of this business enterprise and are dedicated to bringing it to fruition. Lead by Serge Sidorov, Ph.D, an FEA expert himself, our team aims to bring a highly valuable service to a market where there is high demand.

FEAsible Solutions' blueprint for growth will span four stages of maturity which will positively impact (1) the rate of revenue growth, (2) pricing power, (3) associated margins, (4) account penetration, (5) switching costs of clients, (6) barriers to entry for competitors, and (7) opportunity to expand service offering and target geographies and industries.

FEAsible Solutions will evolve in four distinct stages:

- **Stage 0: Market Entry** – three months from now

At this stage FEAsible Solutions' offering will be similar to that of the clients' in-house operations and the competing consultancy firms. Low consultancy rates will allow for market entry.

- **Stage 1: Credentialization** – one year from now

At this stage FEAsible Solutions differentiates from the competition based on its unassailable credentials, published papers, podium presentations at technology conferences and employees' expertise.

- **Stage 2: Reputation** – two years from now

At this stage FEAsible Solutions will provide its clients with services that consistently exceed their expectations both in terms of the quality and speed of the analysis delivered, and customer experience. FEAsible Solutions will reduce delivery cost by employing FEA analysts in a low cost country to take advantage of the lower wages in that labor market. Additionally, at this stage, FEAsible Solutions will carry out R&D internally to develop proprietary instruments that will improve our overall offering in the market.

- **Stage 3: Capability** – three years from now

  At this stage FEAsible Solutions' highly capable team members will further develop the proprietary tools and practices that will enable the company to deliver results beyond what a client can do on their own, regardless of the effort they put into the task.

For a more detailed description of the four phases please see Sections 5 and 7. The following chart illustrates FEAsible Solutions' projected revenue and gross margin for the four growth phases:

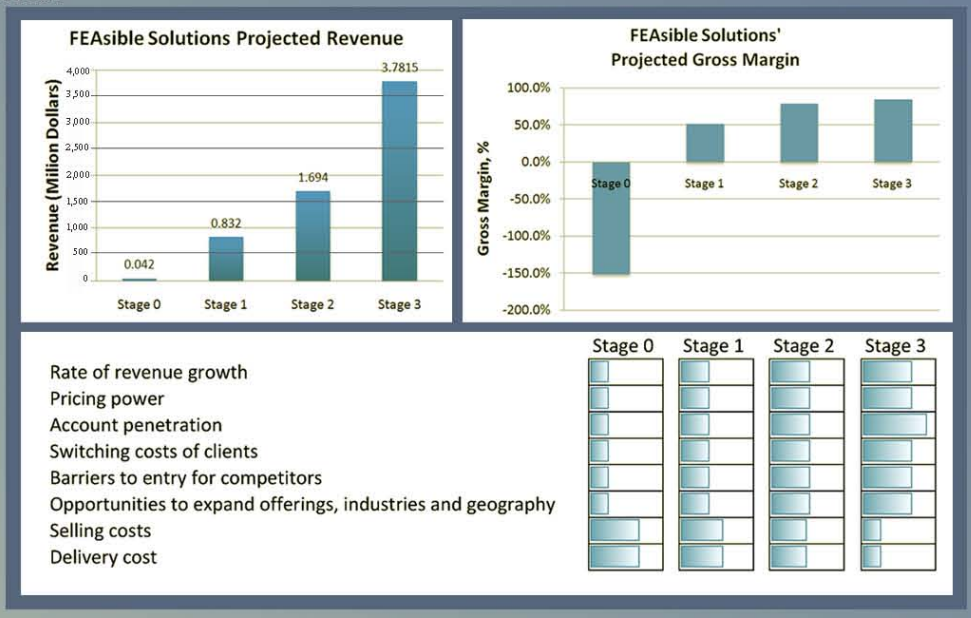

Figure 1.1. FEAsible Solutions' projected revenue and gross margin for the next three years.

The financial plan proposed by FEAsible Solutions is based on conservative estimates and assumptions. The net initial investment required is $120,000. This is the seed investment we are seeking. $70,000 will be used to cover operating expenses incurred in Phase 1, including computer hardware, occupancy and salary expenses. In addition we will need $50,000 of working capital.

2. Company Summary

FEAsible Solutions is a start-up venture having the following features:

- It will start as a LLC
- FEAsible Solutions start-up costs will be low due to the self funding nature of the business model

2.1 Company Location

FEAsible Solutions will be started as a home-office venture, located in Orange County, California. Required start-up equipment will include the owner's existing desktop computer. After securing the first three customers, FEAsible Solutions will require five full-time employees and thus will move to a new location with additional work space.

2.2 Company Background

It is impossible to imagine modern R&D without finite element analysis (FEA). FEA is an integral part in the design and manufacturing of products in a wide array of technology-based industries, including automotive, nuclear, and medical device manufacturing. Finite element analysis is a computer simulation technique that allows engineers to accurately predict the physical systems' behavior and estimate the physical parameters of the system.

Proper use of the finite element method requires vast expertise and very specialized knowledge. Some companies hire FEA specialists and create FEA teams within their R&D departments, while other firms outsource FEA work to consulting companies. FEAsible Solutions is a consulting firm with dedicated specialists experienced in utilizing state-of-the-art FEA tools to address a broad spectrum of modern technological problems.

3. Services

FEAsible Solutions offers FEA services to engineering and technology firms, assisting clients throughout the product development cycle. Whether it is on-site, remotely, or a combination of both, FEAsible Solutions is flexible in its business offerings, working with clients in a manner that best fits their needs.

FEAsible Solutions services include:

- Product design
- Design analysis
  - Stress analysis
  - Dynamic and seismic analysis
  - Contact/impact analysis
  - Drop/shock analysis
  - Buckling analysis
  - Vibration and frequency response
  - Thermal and coupled thermal/structural analysis
  - Analyses involving material nonlinearities, and large displacements
- Failure mode and effects analysis
- Design of experiments
- Written reports (in the form of text documents, spreadsheets, and presentation slides) specific to project attributes and customer needs.
- Coaching our customers' employees to underst and/utilize the results of the work performed

Overtime, FEAsible Solutions will develop a series of proprietary experience based practices specific to our clients' needs. Our clients will experience higher efficiency and overall higher quality through our use of these proprietary tools. Integrating these tools and practices into our services gives FEAsible Solutions a competitive edge and is a part of the company's philosophy (see subsequent section "Strategy" for a more detailed explanation of the concept).

4. Market Analysis Summary

As a consultancy, FEAsible Solutions serves as an outsourcing destination for engineering and technology companies.

4.1 Outsourcing: Advantages and Industry Trends

Today's business world continues to trend toward outsourcing non-core competencies to third parties. In his book, Dealing with Darwin [1], renowned technology consultant, Geoffrey Moore discusses the dichotomy of core and contextual activities, and recommends that companies focus on their core competencies while outsourcing contextual ones. Among most commonly cited reasons for outsourcing include [2]:

- lower costs due to economies of scale and/or lower labor rates
- variable capacity and ability to meet surges of demand
- the ability to focus on core competencies by ridding yourself of peripheral ones
- lack of in-house resources
- increased efficiency
- access to specific IT skills
- increased flexibility to meet changing business and commercial conditions
- tighter control of budget through predictable costs
- lower ongoing investment in internal infrastructure
- access to innovative minds
- access to highly specialized talent

A survey conducted by market researchers shows a rapid increase in the percentage of companies initiating outsourcing of product development activities including R&D, engineering, product design [3]. The survey results clearly indicate an increasing trend in firms' appreciation of outsourcing their business processes (Figure 4.1).

Expense Management Solutions (EMS), a global advisory firm recognized as a "Top Outsourcing Advisor", even goes as far as to claim that the outsourcing practice is becoming a norm and is no longer simply a trend [4].

A market survey conducted by the FEAsible Solutions' management team shows that many technology companies outsource design analysis projects to FEA consultancies. This enables these firms to focus on their core competencies, and not depend on fluctuations of demand for FEA work, converting fixed costs associated with FEA analysis into a convenient and more controllable variable cost.

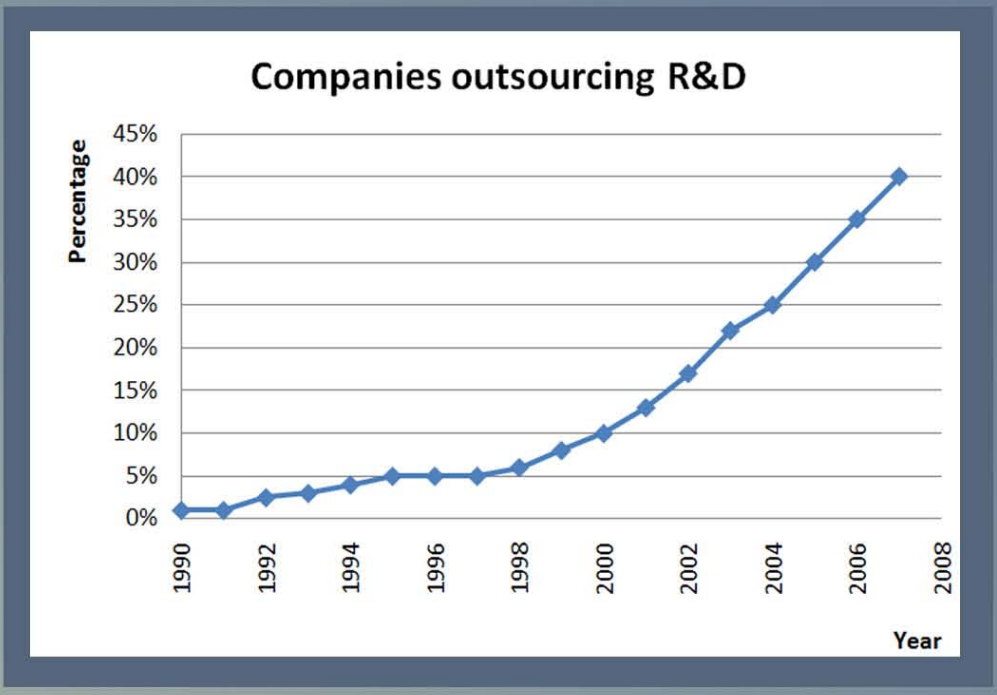

Figure 4.1. Percentage of companies initiating outsourcing of product development activities

4.2 FEA Consultants

Although there exist many FEA consulting companies in the market, there are no industry giants, and the competitors are largely undifferentiated, all of them sharing similar value propositions. The main players include SimuTech Group, CAE Associates and Ozen Engineering. These companies are small, but growing, employing as many as 75 FEA experts serving customers from various industry sectors. Most of these companies lack coherent and systematic strategies, and their marketing efforts rely on personal connections and customer referrals.

Conversely, larger engineering and technology consulting firms employ FEA experts and/or FEA teams as part of their umbrella consulting services. One such company is Altair. Altair specializes in multiple computer aided engineering (CAE) systems, and is not solely dedicated to FEA consulting, which may dilute their appeal when compared to a specialized FEA consulting firm, whose main focus is to deliver high quality analysis in a single dedicated field. Due to their scale they are forced to try to be all things to all people. Our strategy is to be the Leading Provider of Finite Element Analysis.

This leaves an untapped market segment that may be reached with a well-developed strategy and a highly targeted marketing plan.

4.3 Market Segments

FEAsible Solutions' management team conducted a survey of potential customers to gauge interest in our offering. The survey revealed that the main criterion engineering companies use when selecting an FEA consultancy is industry specific engineering expertise. At FEAsible Solutions, our FEA specialists have experience working in a variety of technology-based industries, including automotive, energy (renewable, nuclear, oil & gas) and medical device manufacturing. Thus, in order to achieve quality and project reliability, FEAsible Solutions intends to adopt a highly focused market strategy targeting only these three industry sectors.

FEAsible Solution's market niche is poised for growth, and demand for FEA consultancy is projected to increase at a rapid pace. For example, the medical devices industry has steadily been growing at an annual compound rate of 9% since 2006 [5, 6]. The energy industry is growing at a rate of 3% annually to satisfy the world's requirements for energy [7]. This industry is going through rapid changes in the ways they generate power. This ensures a high demand for FEAsible Solutions' services. FEAsible Solutions will strategically tap into the growth of these industry sub-sectors to make a solid footprint in the FEA consultancy market.

5. Strategy and Implementation Summary

5.1 Vision

FEAsible solutions' goal is to be the leading provider of finite element analysis services to companies on the cutting-edge of technology. Our competitive advantage will be our talented FEA specialists, our strategic alliances with FEA software developers, and the proprietary instruments we will develop that will allow us to deliver better solutions more efficiently and at a lower cost than our competitors.

5.2 Business Development Stages

FEAsible Solutions will evolve in four distinct stages:

- **Stage 0: Market Entry** – three months from now

At this stage FEAsible Solutions' offering will be similar to that of the clients' in-house operations and the competing consultancy firms. Low consultancy rates will allow for market entry. FEAsible Solutions will have five FEA specialists who will be recruited based on talent, experience and dedication to the company's long-term strategic goals. These five employees will be offered equity in the company to incentivize their hard work and commitment.

- **Stage 1: Credentialization** – one year from now

At this stage FEAsible Solutions differentiates from the competition based on its unassailable credentials, published papers, podium presentations at technology conferences and employees' expertise.

- **Stage 2: Reputation: cost, quality, cycle-time, customer experience** – two years from now

At this stage FEAsible Solutions will provide its clients with services that consistently exceed their expectations both in terms of the quality and speed of the analysis delivered, and customer experience. FEAsible Solutions will reduce delivery cost by employing FEA analysts in Russia to take advantage of the lower wages in that labor market. The choice of this low-cost country is determined by our CEO's close ties with Russian academic and engineering communities.

Additionally, at this stage, FEAsible Solutions will carry out R&D internally to develop proprietary instruments that will improve our overall offering in the market. As we will become more profitable in this stage of maturity, FEAsible solutions will begin to reinvest 5% of its annual revenues in internal R&D. This expense will remain low on a per client basis due to amortization of associated cost over a large number of projects.

- **Stage 3: Capability** – three years from now

At this stage FEAsible Solutions' highly capable team members will further develop the proprietary tools and practices that will enable the company to deliver results beyond what a client can do on their own, regardless of the effort they put into the task. FEAsible Solutions will hire five more employees internationally at this time.

5.3 Attracting and Retaining Best Talent

FEAsible Solutions strives to continuously increase and maintain the superiority of its team of specialists. We will identify new FEA specialists using our CEO's extensive network and industry relationships and invite them to join our company by including them in our vision and offering them the opportunity to share in the upside through equity participation.

5.4 Networking

Our current engineers have presented research papers at various FEA specific engineering conferences across the country including ANSYS Conference, LS-DYNA Conference, and World Congress of Computational Mechanics, making them well established in the FEA community. Our engineers' networking efforts will serve as the basis for our entrance into the market as a new consulting firm, and will provide a continuous stream of contacts and potential clientele.

5.5 Strategic Alliance with FEA Software Manufacturers

To further develop our brand equity, we intend to initiate an FEA software distribution program. FEAsible Solutions will offer a broad range of services including consulting, licensing and product support. ANSYS, Inc., Dassault Systèmes Simulia Corp., and other FEA software manufacturers will welcome additional publicity, as well as an opportunity to sell more copies of their software. An alliance with FEA software firms will provide many benefits for FEAsible Solutions, including:

- The alliance will be an important PR-tool, providing FEAsible Solutions with additional credibility to distinguish our company from other FEA consulting firms
- Sales of software licenses will be an additional source of revenue

Through the alliance with FEAsible Solutions, FEA software firms will receive an additional source of input on required features. In addition, FEAsible Solutions will provide beta testing for new releases and development of proprietary add-on tools for their products.

Having worked at ANSYS, Inc. for over three years our CEO has maintained a number of contacts among the staff of the FEA software giant. Our CEO's network will serve as the catalyst in the negotiations of this strategic alliance.

5.6 Traditional Marketing

Face-to-face meetings with decision makers will lead to pilot projects where FEAsible Solutions will demonstrate its specialists' capabilities and secure follow-up work. Every engagement will be an opportunity to build reputation that serves as the best form of marketing. We will always strive to cultivate optimal customer relationships and will be easily accessible to our clients. Our sales force will constantly bring in new clientele using various types of marketing strategies including database and email marketing, and advertisement in academic journals such as ANSYS Solutions and Finite Elements in Analysis and Design. Further , FEAsible Solutions will sponsor and attend national FEA conferences, allowing us to place our advertisements in conference booklets as well as set up informational booths giving us the opportunity to speak directly with potential customers.

Moreover, FEAsible Solutions will attract new customers using a multifaceted strategy highlighting the superior qualifications of our experienced engineers. Given our engineers' extensive experience working with industry leaders in FEA software manufacturing including ANSYS and Simulia, FEAsible Solutions has a unique understanding of simulation techniques. This gives us a competitive advantage over engineers who have simply worked with the software alone and do not have a strong understanding of the underlying principles of FEA. Further, our experts have logged thousands of hours creating FEA solutions for such industry leaders as Western Digital, Siemens, LG Electronics and many others, as well as academic institutions such as University of Pittsburgh, Department of Mechanical Engineering and Material Science.

5.7 Focus on Threes Industry Sectors

Our market survey show that the most common complaint engineering companies have about FEA consulting firms is the consultants' lack of expertise in their engineering field. As one of our respondents stated, "The greatest value of an outside consultant is the real world, practical industry knowledge that the analysts can offer my firm." Another respondent commented, "Simply having modeling expertise is just not enough anymore." In order to avoid these pitfalls and differentiate the company from competitors, as stated, FEAsible Solutions will be focusing on three major areas:

1. Medical devices and similar high precision electro-mechanical hardware
2. Automotive industry
3. Energy industry, including renewable, nuclear, oil & gas

5.8 Sharing of Proprietary Best Practices

At FEAsible Solutions, not only will we solve our customer's problems, but exceed their expectations at every opportunity. While working in concert with our clients' engineers, we will identify problems that they didn't even know they had, and solve those problems at speeds that they could never imagine. How will we do this? In addition to our specialists' vast experience in the field, FEAsible Solutions will develop a set of best practices, or "toolkits," for each industry that we service. These remarkably useful and invaluable toolkits will consist of unique business processes built to maximize quality and efficiency for our clients. These toolkits will include:

- FEA input decks and models
- Pre-developed subroutines and macros
- Templates
- Configurable project and test plans
- Checklists

Moreover, we will continuously upgrade our toolkits as industries and FEA method evolves. When a company contracts with us, it will get the expertise of an individual engineer and the proprietary intellectual property to improve the quality, reduce the cost and decrease the cycle-time to conduct the analysis.

5.9 Superior Customer Service

The largest proportion of new business obtained within the FEA industry is through customer referrals. Hence, FEAsible Solutions' priority is customer satisfaction.

Our survey revealed that one of the most common customer complaints about FEA consultancies is that they report the results of their analyses only in the form of PowerPoint slides, without properly documenting their findings. Thus, FEAsible Solutions will provide its customers with comprehensive reports in the form of PowerPoint slides and text documents. FEAsible Solutions will stand by their customers all the way, explaining results of the analyses to the customers' engineers, and training the customers' engineers to interpret and present these results to their management. FEAsible Solutions prides itself in going the extra mile, working closely with the clients throughout the product development process.

By working closely alongside our clients, we can efficiently close the loops between our clients' needs and our designs, analyses and test activities. At FEAsible Solutions we understand that our success is our customers' success, and thus our goal is not simply to deliver the product to the end user, but to ensure that our work generates value for our customers' business. This strategy will enable us to avoid the shortcomings typical to many other consultancies, concerned only with completing the projects. It will also strengthen our relationships with our clients, leading to a greater likelihood of customer retention and referral.

6. Management Summary

Our management team features three devoted and highly engaged MBA students from the Paul Merage School of Business at University of California, Irvine, who believe in the strong potential of this business enterprise and are dedicated to bringing it to fruition.

Lead by Serge Sidorov, Ph.D, an FEA expert himself, our team aims to bring a highly valuable service to a market where there is high demand. Serge Sidorov, our CEO/COO, has worked with FEA for over ten years and possesses vast experience and thorough knowledge in this field. While pursuing a Ph.D. in computational biomechanics at the University of Pittsburgh, he worked for ANSYS, the leading FEA software manufacturer. Serge's Ph.D. dissertation focused on the use of FEA to model the evolution and subsequent rupture of fusiform aneurysms. Later he worked with FEA teams at Western Digital and Siemens. Serge conceived the idea of starting FEAsible Solutions several years ago, and joined the Paul Merage School of Business in order to study entrepreneurship.

Our CMO, Nick Sawyer is currently enrolled in the UC Irvine combined MD/MBA program at the Merage School of Business and the UC Irvine School of Medicine. Nick graduated Cum Laude from University of California, Davis, with a Bachelors of Science in Neurobiology, Physiology & Behavior. His interest in entrepreneurship was a primary driver behind his decision to pursue an MBA in addition to his medical doctorate. Having a science background, he was seeking a technology based business venture at the Merage School of Business, and when approached by Serge to help with the FEAsible Solutions start-up he was fascinated by FEA modeling technology, saw the true value of the project and was eager to sign on.

Our CFO, Madhukar Patel, M.S., holds a Bachelors of Science in Bioengineering from the University of California, San Diego and a Master's degree in Biomedical Engineering from Brown University. Throughout his graduate education and research, he focused on bioinstrumentation and design, and gained an appreciation of the wide-ranging potential of FEA modeling. He is currently enrolled in the UC Irvine combined MD/MBA program at the Merage School of Business and the UC Irvine School of Medicine.

7. Financial Plan

The following sections present FEAsible Solutions' income forecast for the next three years.

7.1 Business Development Stages

We plan to develop FEAsible Solutions business in several stages:

- **Stage 0: Market Entry** – three months from now

At this stage, FEAsible Solutions will complete three pilot projects requiring 350 person-hours each. According to our market survey of 50 R&D firms currently utilizing FEA, the average rate of an FEA consultancy service is $100 per hour. At Stage 0 we will be charging the clients an introductory rate of $50 per hour in order to facilitate market penetration. This puts the revenue for Stage 0 at $52,500 ($17,500 per project). FEAsible Solutions will pay associates $25 per hour. This is comparable to a wage of a post doctorate scholar. During this stage associates will perform the work at the customers' site or at home. At this stage the company will have five employees on payroll, three of which will be hired on a contractual basis.

The net investment required at this stage is $120,000. This is the seed investment we are seeking. $70,000 will be used to cover operating expenses incurred in Phase 1, including computer hardware, occupancy and salary expenses. In addition we will need $50,000 of working capital.

- **Stage 1: Credentialization** – one year from now

At this stage, FEAsible Solutions will start charging the clients $100 per hour, which is the average rate of an FEA consultancy service. This is strategically justified, as at this point, FEAsible Solutions will be at parity with the competition. The company will have five full-time employees working for the company. The increase in revenue will enable us to increase the employees' hourly wage to $50 per hour. Expenses at this phase include occupancy expense of $2,000 per month, as well as workstation expenses of $500 per employee.

The net income for stage one is $317,075.

- **Stage 2: Reputation: cost, quality, cycle-time, customer experience** – two years from now

At this stage part of the work will be performed in Russia to take advantage of the lower wages available in that labor market. FEAsible Solutions will contract with five Russian associates at an hourly wage of $25. The choice of the low-cost country is determined by our CEO's close ties with the Russian academic and engineering communities. FEAsible Solutions will enter into an agreement with FEA software manufacturers. As a result, software licensing fees will be zero. FEAsible Solutions will become an FEA software reseller and thus will earn an estimated additional $30,000 through this strategic alliance.

The net income for stage two is $1,114,600.

- **Stage 3: Capability** – three years from now

At Stage 3 FEAsible Solutions will contract with five more international employees. All Russian employees will be paid $35 per hour. During Stage 3 we intend to become a world-class leading provider of FEA consulting services. We have best practices that provide for high efficiency; large part of the work is carried out in low cost countries; our brand name is well recognized in the engineering technology community; our clients are very loyal due to the switching costs, and their past experience with us.

The net income for stage three is $2,753,706.

7.2 Strategic Alliance with ANSYS, Inc., and Other FEA Software Manufacturers

Entering in a strategic alliance with FEA software manufacturers will benefit both FEAsible Solutions and the software companies [see section 6]. This will have immediate benefits in terms of license cost savings, and license re-selling revenues.

7.3 Projected Financial Performance

The following table illustrates assumptions used in projecting the financial performance of FEAsible Solutions over the next three years.

Table 7.1. Projected financial performance of FEAsible Solutions over the next three years: assumptions

	Stage 0	Stage 1	Stage 2	Stage 3
Service charge per hour	$ 50	$ 100	$ 100	$ 150
Local Fulltime employees	5	5	5	5
International fulltime employees	0	0	5	10
Hourly wage per local employee	$ 25	$ 50	$ 50	$ 75
Hourly wage per international employee	$ -	$ -	$ 25	$ 35
Total billable hours per employee*	168	1,664	1,664	1,664
Total billable hours	840	8,320	8,320	8,320
Monthly office rent expense	$ -	$ 2,000	$ 5,000	$ 10,000
Workstation expense per employee	$ -	$ 500	$ 500	$ 500
Salary expense	$ (21,000)	$ (416,000)	$ (624,000)	$(1,206,400)
Fixed costs	$ -	$ (2,500)	$ (2,500)	$ (4,500)
Annual rent expense	$ -	$ (24,000)	$ (60,000)	$ (120,000)
Software license expense**	$ (90,000)	$ (90,000)	$ -	$ -
Computing cluster cost	$ -	$ -	$ -	$ (2,000)
Software licenses sold per year	$ -	$ -	$ 20	$ 25
Revenue from software licensing	$ -	$ -	$ 30,000	$ 37,500
Reinvestment into R&D	$ -	$ (41,600)	$ (84,700)	$ (189,075)
SG&A and other expenses	$ (5,550)	$ (28,705)	$ (38,560)	$ (75,999)
* In Stage 0, FEAsible Solutions will complete three projects requiring 350 man-hours each				
In Stages 1,2,3 assume each associate works 8 hours per week 260 day per year				
Labor Utilization	0.8			
** Software license cost per employee	$18,000			

Figure 7.1 illustrates FEAsible Solutions' projected revenue and gross margin for the next three years.

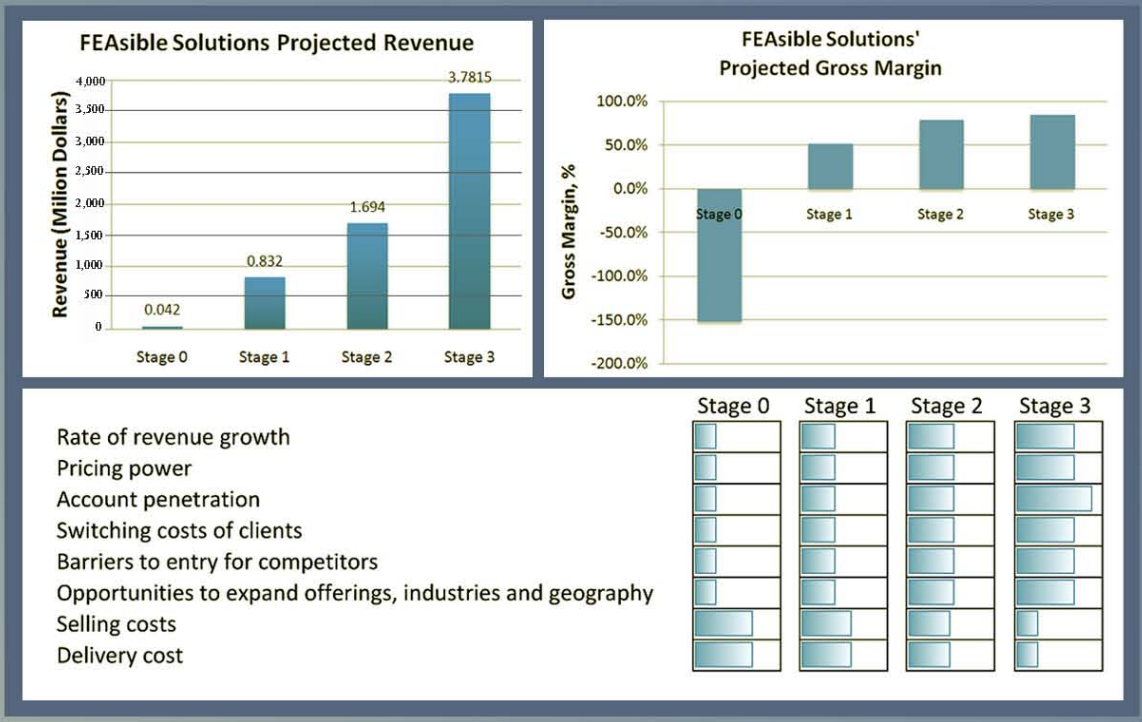

Figure 1.1. FEAsible Solutions' projected earnings before interest and taxes for the next three years.

7.4 Pro-Forma Income Statement and Earnings Forecast

The following table contains FEAsible Solutions' projected pro-forma income statement for the company's four growth phases.

Table 7.2. FEAsible Solutions' projected pro-forma income statement for the company's four growth stages

FEAsible Solutions Pro-forma Income Statement				
	Stage 0 - 2012	Stage 1 - 2013	Stage 2 - 2014	Stage 3 - 2015
Revenue	$ 42,000	$ 832,000	$ 1,694,000	$ 3,781,500
Cost of Goods Sold	$ (111,000)	$ (508,500)	$ (626,500)	$(1,212,900)
Gross Profit	$ (69,000)	$ 323,500	$ 1,067,500	$ 2,568,600
Gross Margin	-164%	39%	63%	68%
Overhead Expenses				
Occupancy Expense	$ -	$ (24,000)	$ (60,000)	$ (120,000)
Administrative Expense	$ (5,550)	$ (28,705)	$ (38,560)	$ (75,999)
Net Profit	$ (74,550)	$ 270,795	$ 968,940	$ 2,372,601
Net Margin	-178%	33%	57%	63%
Capital Expense	$ -	$ (41,600)	$ (84,700)	$ (189,075)
Net Income (loss)	$ (74,550)	$ 229,195	$ 884,240	$ 2,183,526

7.5 Return on Investment

FEAsible Solutions projected return on investment is tabulated below:

Table 7.2. FEAsible Solutions' projected return on investment for the company's four growth stages.

Stage 0	Stage 1	Stage 2	Stage 3
-	1.91	7.37	18.20

8. Exit Strategy

At FEAsible Solutions, our business strategy is directed towards long-term growth and sustainability. As we expand our business and increase market penetration, we will offer our clients the ability to outsource their FEA operations to us, in full. At this time, we have no intention of passing our managerial duties to other entities, but rather we are excited about the opportunity to carry our company through the four stages of growth and strive to become the number one FEA consultancy firm in the industry.

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