

## What is a SWOT

A SWOT is basically a strategic analysis of some scenario in which a decision is needed. The acronym **SWOT stands for Strengths, Weaknesses, Opportunities and Threats**. What we want to do is develop a listing of all the factors in a situation that fit in the Strengths category, the Weaknesses category, the Opportunities category and finally the Threats category.

Read the following excerpt and place all of the factors you can find in the proper category.

## Example: Executive Summary

This business plan has been developed to present NovOculi, Inc. to prospective investors and to assist in raising equity capital needed to begin production and to continue research and development of its patented products.

### **The Company**

NovOculi, Inc. is a start-up company that has designed and plans to develop and market ophthalmological surgical tools and techniques. During the past two years, NovOculi's principals have had extensive experience with refractive correction techniques (both laser and non-laser based). Building on this experience, the principals have developed and begun testing a unique method of incisionless refractive correction dubbed NICS (Non-Invasive Corneal Sculpting).

Current refractive techniques, including LASIK, PRK, and Intacs, all require destruction of at least a portion of the protective epithelial layer overlying the cornea of the eye and are accompanied by complications resulting from this loss of protection. The principals have developed a method involving iontophoresis, an ionic dye and a wavelength-specific laser to accomplish effective refraction without the troublesome destruction of epithelium.

Using NICS, NovOculi plans to take advantage of the opportunities for market development and penetration in the field of laser refraction in which demand is nearly doubling each year.

Based on the detailed financial projections prepared by the company's management, it is estimated that equity investment is required to begin the company's operations successfully. Funds will be used to produce, test and market NICS, as well as provide initial working capital for the first two years.

### **Market Potential**

A massive potential market base exists for the laser refractive surgery industry. It is estimated that approximately 54% of the U.S. population (~162 million) has refractive errors, approximately 90% of which are eligible for correction using current techniques or those on the near horizon (Federal Air Surgeon's Medical Bulletin). In contrast, only 900,000 Americans have had LASIK (the most popular laser correction technique) as of two years ago. This represents only 0.6% of the total current market, leaving the other 99.4% untapped. ("Bye-Bye Glasses," [EyeCare Business Online](#)). Furthermore, the demand for laser refractive surgery is approximately doubling annually ("Bye-Bye Glasses," [EyeCare Business Online](#)).

The company has contacted nine of the leading ophthalmological medical institutions in the U.S. Seven of the nine have expressed interest in participating in collaborative research and, given encouraging research results, performing NICS commercially once it is available. Institutions expressing interest include: John Hopkins, Harvard, Stanford, Oregon Health Sciences, Duke University, and the University of California at San Francisco.

NovOculi's principals have also conducted a preliminary market survey at a local grocery market in the Durham, NC area. Fifty consumers with refractive errors were randomly selected outside of a local grocery market and asked the questions in the survey. A copy of the survey and a summary of its findings may be found in the Market Survey topic.

### **Technology**

The principals have developed and patented a revolutionary technique, NICS, and two novel devices which are used to accomplish incisionless refractive correction. The patented technique involves driving an ionic dye from its patented polymeric vehicle into the cornea of the patient using the patented iontophoretic device (a device that creates a charge which then repels or attracts other charges). Once the ionic dye has been effectively driven into the cornea and away from sensitive structures, a laser tuned to the wavelength of the dye is then used to target the dyed cornea and alter its shape, much as is done with current laser refraction protocols. After the procedure is completed, the iontophoretic device is reapplied, this time with opposite polarity, and the dye is drawn from the cornea due to the attraction of opposite charges. Through the use of the patented device and technique, the ophthalmologist performing the procedure will be able to avoid the most troublesome and complication-ridden aspect of current laser refraction surgery: the corneal incision. Over 90% of all complications of current laser refraction surgery are related to difficulties associated with the incision and the subsequent healing process, virtually all of which could be avoided with NovOculi's technology.

### **Strategy**

The key element in NovOculi's strategy is to market its technology to both those performing the procedure as well as to those on which the procedure will be performed. Once research data and publicity have been generated, the sales force will step in to encourage the initial investment in the laser and equipment required for the procedure, creating a "demand push." After this investment has been made, a "demand pull" will be generated for the components required for institutions to perform the procedure through marketing directly to patients.

The sales team will begin with six seasoned sales personnel and swell to forty-four members by Year 5. The sales team will work closely with laser manufacturers in order to promote the technology to patients and surgeons.

Ophthalmologist training for the NICS procedure will be available at six sites throughout the U.S.: San Francisco, Boston, Atlanta, Philadelphia, Kansas City, and Durham, NC. Each site will have in-depth training sessions led by a prominent ophthalmic surgeon.

Those performing the procedure will be able to charge a premium for providing patients with access to this superior technology. NovOculi will extract approximately half of the nearly \$1,000 premium through licensing fees associated with its patented procedure and sales of the individual components.

## **Regulatory Issues**

As with its predecessor, LASIK, the company's product will not need to wait for FDA approval prior to widespread use. LASIK had been performed on almost 900,000 patients without approval by the FDA as of two years ago (Current Trends in Refractive Eye Surgery, 128th Annual Meeting of APHA).

This was made possible due to the fact that the "FDA does not approve procedures, only the equipment used in them" ("Eye centers set their sights on LASIK surgery growth," Houston Business Journal, July 16) and the components of the procedure have already been approved by the FDA for medical use. NovOculi will not need to obtain approval to market their patented technique and devices due to the fact that the FDA has approved similar devices for medical use in the following arenas: 1) The 440 nm laser has been approved for dermatologic uses. 2) Iontophoretic devices has been approved for drug delivery on the epidermis. 3) Polymeric contact lenses have been approved and are commonly used as an external aid for refractive correction, and 4) The targeting dye, tartrazine, is the most ubiquitous food coloring additive on the market to date.

## **Major Milestones**

The following are key milestones for the startup period:

- Completion of strategic business plan nine months before starting date.
- Research grants applied for by seven months before starting date.
- All patents, domestic and foreign, applied for by six months before starting date.
- Start-up capital raised by starting date.
- All other first-year milestones are currently on schedule in accordance to the business plan.

## **Competitive Advantage**

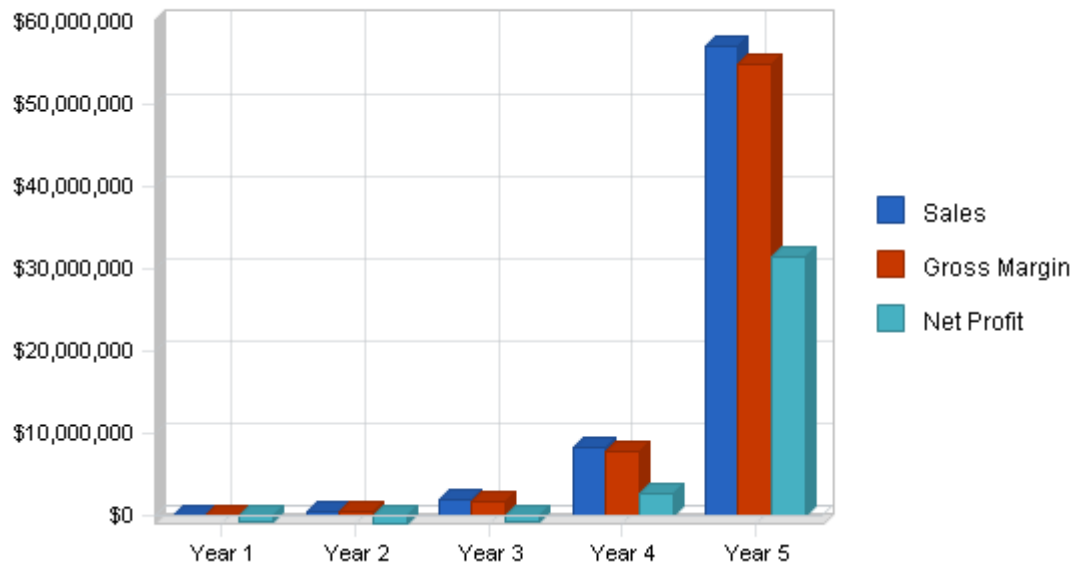
NovOculi is uniquely positioned to take advantage of this market opportunity due to its protected, proprietary positions. Three patents have been filed in the U.S.: one for protecting the reversible iontophoretic device, the second protecting the technique involved in NICS, and the third protecting the unique vehicle for the ionic dye.

The principals, to date, have spent ample time on development and research of the current products which will satisfy the market demand for a safer, less complicated laser refraction correction technique.

## **Financial Summary**

Based on detailed financial projections, if the company receives its funding, it will operate profitably by Year 4 with a hefty net profit. The following chart summarizes the projected financial information.

## Highlights



| Strengths  | Weaknesses   |
|--|--|
| <ul style="list-style-type: none"> <li>● <b>Patented technology:</b> We have patents on Non-Invasive Corneal Sculpting (NICS) and two novel devices.</li> <li>● <b>FDA approval:</b> No need to wait for FDA approval.</li> <li>● <b>Principal expertise:</b> Our principals have extensive experience with refractive correction techniques.</li> </ul>   | <ul style="list-style-type: none"> <li>● <b>Lack of funding:</b> We require equity investments in order to fund the first two years of operations.</li> <li>● <b>Lack of strategic relationships:</b> We don't have relationships with the close-knit group of medical device distributors.</li> <li>● <b>High costs:</b> The refractive laser required for NICS procedures is expensive and difficult to obtain.</li> </ul> |
| Opportunities  | Threats  |
| <ul style="list-style-type: none"> <li>● <b>Untapped market:</b> Only 0.6% of the available market has had laser refractive surgery.</li> <li>● <b>Fast growth:</b> The demand for laser refractive surgery has been doubling each year.</li> <li>● <b>R&amp;D:</b> Several potential partners, including Stanford University, have expressed strong interest in conducting research with us.</li> </ul> | <ul style="list-style-type: none"> <li>● <b>Competition:</b> External visual aids (contacts and eyeglasses), LASIK, and non-surgical procedures are strong competitors in the market.</li> <li>● <b>Price erosion:</b> The premium we can charge is based on the price of existing surgery options.</li> </ul>   |