

CELLOX

"Houses are blowing away in hurricanes and I have the product to literally change the landscape," lamented David Pace, owner of Cellox, LLC. "The third pig of the three pigs had good reason to build his house out of brick and mortar as opposed to his brother, who made their houses of sticks and straw." David owns a patented insulated concrete form (ICF) product for the home construction market. It is notably superior to his competitors' products, but it is difficult to persuade builders to change from stick construction to his concrete-based product.

"Practical pig knew he would face the wind of the Big Bad Wolf some day, so he wanted to build things right!" Then the Big Bad Wolves – hurricanes Katrina, Rita, and Wilma – assailed the Gulf Coast states and blew the stick homes down. David was right, but Cellox is headquartered in and manufacturing ICFs in Reedsburg, Wisconsin – over 1,000 miles away from the hurricane-stricken South. Cellox's current vision statement is: "Cellox is committed to ideals of Quality, Service, People, and the Utilization of technology dedicated to 'Making it Happen.'"

Cellox produces the highest quality product with top-of-the-line components in an industry with 40-plus competitors. David Pace believes his small company can dominate the market for insulated concrete forms (ICFs). However, as indicated in Exhibit 1,

EXHIBIT 1 Cellox Financial Information

<p style="text-align: center;">Cellox Inc. Income Statement (Numbers are in \$1,000s)</p>			
	Dec. 31, 2006	Dec. 31, 2005	Dec. 31, 2004
	\$	\$	\$
Sales	3,469.6	1,707.4	2,105.4
Cost of Goods Sold	2,167.1	961.7	1,140.5
Gross Margin	1,302.5	745.7	964.9
Production Expenses	485.0	239.5	412.0
Facility Expenses	156.0	239.9	497.0
Depreciation Expense	219.2	60.2	103.0
Operating Income	442.3	206.1	-47.0
Sales Expenses	318.5	110.3	180.4
Administration Expenses	354.5	137.6	153.7
Income Before Interest & Taxes	-230.7	-41.8	-381.0
Interest Expense	142.5	79.5	37.5
Income Before Tax	-373.1	-121.3	-418.6
Tax	-134.3	-43.3	-149.4
Net Income/Loss	-238.8	-78.0	-269.2

Cellox had a net income of negative \$238,000 in 2006 following similar losses in both 2005 and 2004. The balance sheets in Exhibit 2 reveal that Cellox currently has more than \$2 million in long-term debt on its balance.

When David purchased Cellox in 2003, the business was near bankruptcy, being plagued by poor leadership, weak customer service, and lax production controls, often manufacturing more units than they could sell in a given amount of time, thereby creating the need for warehousing. In spite of a critical cash flow issue, he increased sales by expanding the production and warehouse capacity.

In order for Cellox to survive, David must cultivate customer demand in two target customer populations – (1) construction contractors, especially home builders, and (2) individuals wanting to build a house. Reaching these two customer populations is critical. David needs a clear strategic plan for the future, including a vision statement and mission statement. Most of all Cellox needs customers.

EXHIBIT 2

Cellox Inc. Balance sheet (Numbers are in \$1,000s)			
	Dec. 31, 2006	Dec. 31, 2005	Dec.31, 2004
Assets	\$	\$	\$
Current Assets			
Cash and Equivalents	59.2	115.5	10.1
Accounts Receivable	434.8	184.4	178.2
Inventory	451.3	390.7	274.5
Other current Assets	29.3	30.9	24.3
Total Current Assets	974.6	721.5	487.1
Long-Term Assets			
Property, Plant & Equipment (net)	1,685.3	1,685.2	1,227.1
Total Assets	2,659.9	2,406.7	1,714.1
Liabilities			
Current Liabilities			
Accounts Payable	598.4	375.4	321.5
Short-Term Notes payable	12.5	133.2	138.9
Interest Payable	48.3	16.2	8.3
Other Current Liabilities	97.6	66.0	38.8
Total Current Liabilities	756.8	590.8	507.5
Long-Term Notes payable	2,024.0	1,698.0	1,010.7
Total Liabilities	2,780.8	2,288.8	1,518.2
Owner Equity			
Capital	132.0	132.0	132.0
Retained Earnings	-252.9	-14.1	63.9
Total Owners' Equity	-120.9	117.9	195.9
Total Liabilities & Owners' Equity	2,659.9	2,406.7	1,714.1

HISTORY

Founded in 1961 in Reedsburg, located 65 miles northwest of Madison, Wisconsin, Cellox manufactures three types of polystyrene¹ product, which comprise three divisions of the business as follows:

1. Protective packing material (PPM) used to ship products
2. Point – of – Purchase (PoP) products
3. Insulated concrete forms (ICFs)

David Pace, a 62 – year – old successful entrepreneur, took pride in identifying companies that were candidates for a turnaround – companies that could be purchased at a favorable price and made profitable. He had built Pace Industries, the largest manufacturer of extruded plastic sheeting, into a multimillion-dollar company known worldwide for its high – quality products, customer service, and innovative human resource programs. Leaving Pace Industries gave David the opportunity to apply his leadership and business skills in new venues. He was especially satisfied when he found Cellox for sale – a floundering company that needed to improve production, improve operations, improve employee compensation and benefits, increase corporate morale, reestablish the customer base, and regain the stake-holders' confidence.

David's professional management expertise was developed in plastic injection molding² and plastic sheet extrusion.³ He had worked in various plastic mediums ranging from polystyrene to resins. Although Cellox appeared to be in operational disarray, David saw past this to the significant possibilities it had for the marketplace – building homes that could withstand hurricane and tornado – force winds.

Cellox possessed a committed and hard – working staff dedicated to seeing the company succeed. It also had products that, with the right production and marketing strategy, could increase profit margins, dominate market share, and drive industry standards. David believed his experience would be just what the company needed and envisioned a successful turnaround within two years. In December 2003, David purchased Cellox.

Divisions

Exhibit 3, Shows the relative size of the various divisions of Cellox.

EXHIBIT 3 Cellox Percent of Revenues by Division from 2004 – 2006

Division	FY 2006	FY 2005	FY 2004
Point – of – Purchase (PoP)	0.308	0.339	0.373
Protective Packing Material (PPM)	0.360	0.361	0.406
Insulated Concrete Forms (ICFs)	0.230	0.283	0.216
Total =	0.898	0.983	0.995

Protective Packing Material (PPM)

Protective packing material used in shipping fragile electronic components is comprised of standard polystyrene forms such as the three – sides corner pieces that surround a product in its carton, along with other rectangular forms of various thicknesses used in packing for protected shipping. Hundreds of companies with the same manufacturing capability produce PPM. Margins are extremely low and any pricing advantage is usually found through ancillary charges related to shipping and handling. Customer service, especially rapid-order turnaround and on-time or early delivery, is critically important in securing consistent customer orders. Cellox's primary customer

base is located within a 300 – mile radius of Reedsburg, which includes such metropolitan areas as Green Bay, Duluth, Minneapolis, St. Paul, Chicago, and Milwaukee.

The packing material production division is the least critical component of Cellox. However, it uses the idle capacity of equipment and employees to consistently help defray overhead costs. With this philosophy, pricing can cover only marginal costs with a suitable profit margin versus trying to cover full costs plus generate a normally adequate profit margin. Cellox's ability to quote a potentially lower price also helps generate additional sales volume. At the same time, management carefully monitors this division and the price of petroleum so that they do not underquote, thereby losing money – a big challenge with fluctuating petroleum costs, which significantly impact manufacturing costs in this industry.

Point – of – Purchase (PoP)

The point – of – purchase (PoP) division consists of special – order and standard in – stock three – dimensional polystyrene forms, in which Cellox has distinguished its products through custom finishing. These items are typically used in promotion and advertising. Examples include a three – foot Jolly Green Giant figure; various – sized Pillsbury Dough Boys; basketballs, and golf balls with various logos and designs; custom decorated surfboards; coolers and bait buckets; and simulated fireplaces and tree used as backdrops in photo shoots. Cellox usually makes the product and the costumer retains rights the mold. Sometimes Cellox is asked to design and develop a mold for production or use a standard mold they already own. Depending on its size and complexity, a mold costs between \$25,000 to over \$40,000 to create. Cellox makes minor modifications to existing tools, if required, or contracts with a tool – and – die company to manufacture molds.

The total cost of the mold, or a portion of it if Cellox retains partial ownership, is incorporated into the costumer's order. Consequently, costumers are encouraged to request a significant volume of product to justify the up – front mold development cost.

For its 20 years of existence, the PoP division has been the primary revenue – producer for Cellox. The company is especially proud of the custom – finishing work they do, as many pieces are hand-painted and must meet a high standard of quality. The company is innovative in its creative development of coatings, providing a finished product look that appears to be "real" until its light weight gives its actual composition away. These three – dimensional figures are popular and attract costumers when used effectively in marketing display at retail outlets. They are light and easy to handle and ship. Their one drawback – they are not especially durable. Polystyrene cracks, chips, and breaks easily if mishandled, driving a segment of the costumer market to the more traditional and less costly form of two – dimensional advertising.

In 2001, the PoP division began suffering a decrease in units sold. A decline in costumer service, along with rising raw material prices, caused several large costumers to seek other suppliers or stop using polystyrene forms in their promotion and advertising. Cellox staff became discouraged and idle production capacity increased; it became harder for the company to cover its fixed costs. When David Pace purchased the company in December 2003, the company was on the brink of collapse. By late 2004, David Pace added sales staff to the PoP division to regain previous costumers and look for new costumers. By mid – 2005, PoP slowly started growing sales again with brighter prospects for the future.

Insulated Concrete Forms

The third Cellox division represents a relatively new product to the construction industry. The costs of wood, steel and other traditional construction materials have all increased in recent years. This has refocused customer attention on the insulated concrete form (ICF), and its popularity has been increasing. David Pace believes ICF has incredible potential for long-term market success. He patented the Cellox ICF product and named it CELBLOX.

It is an energy-efficient building material used in constructing exterior walls for residential and commercial buildings. A CELBLOX ICF is a form comprised of two identical panels of foam insulation called expanded polystyrene (EPS). Embedded in each foam panel are plastic studs⁴ called webs. The foam panels are linked with plastic ties⁵ that connect to the panel's webs. The CELBLOX products are preformed interlocking blocks that a builder sets in place like building blocks. The contractor then pours a slurry⁶ of concrete into the ICF blocks. ICF walls can be built by anyone with carpentry and concrete experience and specific training, which is provided through a Cellox factory seminar.

As the concrete sets, the ICFs actually stay in place, and the result is a durable, long-lasting wall with significant structural integrity and additional insulation and sound barrier benefits. Any of the typical exterior building materials (e.g., brick, stone, stucco, vinyl, etc.) can be attached outside, and drywall can be attached inside.

ICF Construction Costs

The cost of ICF walls is the same or slightly higher than that of typical frame construction. ICF homes increase construction costs 1 percent to 4 percent over traditional wood frame houses of the same design. A typical new U.S. home costs between \$60 to \$100 per square foot. Building the walls of ICFs adds \$1 to \$4 to his square-foot figure. Since ICF houses are more energy-efficient, however, the heating and cooling equipment installed can be far smaller than in a traditional wood-frame house. This can cut the cost of the final house by an estimated \$0.75 per square foot.

There are over 40 ICF manufacturers nationwide and just as many or more methods of manufacturing ICFs. CELBLOX can withstand winds of 180 miles per hour, making this form of construction especially desirable in hurricane-prone regions of the United States such as in the south and southeast. Currently, Cellox can produce 800 CELBLOX per day using two shifts, 5 days a week. Given that it takes around 1,000 blocks to make a relatively small three-bedroom home, their potential capacity, if working 24 hours per day, 7 days per week, is about 350 homes per year. With the right marketing, demand for the product could increase significantly. Even if there are over 40 manufacturers of ICFs, the CELBLOX product has enough distinguishing features and benefits that it could capture an ever-growing share of an emerging ICF market.

According to ICF industry reports, only about 4 percent of the construction market currently uses these materials. Consequently, within the residential construction industry, there is significant room for growth, especially in light of ICFs' energy efficiency, their ability to withstand extreme weather, and their resistance to wood-destroying insects. David Pace sees the future as long-term and large when he states, "A hundredfold increase in the next 10 years is possible, and we can do it!"

Contractors, however, generally resist ICFs because they prefer to work with materials they are familiar with, and they avoid new materials they do not know about or for which they have no technical support. Shipping costs can also add significantly to the overall cost. The shipping cost alone dictates that ICF producers have to consider a regional distribution system to remain competitive with wood and metal construction and to gain a competitive advantage over other ICF

manufacturers not locally based. Consequently, Cellox is forced to concentrate on its primary geographic market located within a 300 – miles radius unless it manufactures and distributes the product through other regional distribution networks.

David Pace is aggressively tackling all of these issues through product quality, a decentralized product distribution system, and construction crew franchising to install ICFs, and he is targeting storm-ravaged areas for marketing the improved method for rebuilding. David sees the greatest need for CELBLOX in places such as Florida and the Gulf Coast of the United States, which have suffered catastrophic damage from hurricanes in recent years. These areas also have significant problems with insects, mold, mildew, and high energy costs for air conditioning. As David attracts support from the insurance and mortgage industries, CELBLOX has all the ingredients for success by being in the right place at the right time with the right product.

Finding CELBLOX Customers

After purchasing Cellox, David initiated an aggressive campaign to encourage former PoP customers to work with Cellox again. However, finding construction industry contractors and educating people who intend to build their homes has been far more challenging than anticipated.

Construction workers prefer to work with the materials with which they are familiar, even if they cost more, use more labor, and are less energy efficient. Homeowners who are not that familiar with construction techniques generally assume that 2 X 4 framing (“stick-built”⁷) is the only way to build the exterior walls of a home. And contractors are used to working primarily with wood or steel 2 X 4s, because construction mistakes are relatively easy and inexpensive to correct. With concrete, however, once it has hardened, it is difficult to change. (See <http://www.icfhomes.com>, <http://www.toolbase.org/Technology-Inventory/walls/Insulating-Concrete-forms> and <http://www.forms.org>.)

There is no easy way to communicate directly with people “thinking” about building a home. Those who happen to discover and desire the ICF technology are often actually discouraged by local contractors who are unfamiliar with and untrained in using the ICF construction technique. They then direct the homeowner to the more traditional construction process, so for David, it is almost like starting at “square one.”

Increasing Production to Meet Future Sales

David Pace has prepared Cellox to meet the anticipated CELBLOX production demand. He has installed molding machines capable of producing different quantities of the CELBLOX product. For example, it takes about 150 to 180 seconds for one operator to insert the vinyl plastic studs and a total of around 240 seconds to complete the molding process for six ICF blocks, which equals 90 panels (or 45 blocks an hour).

New molding machines can produce 8 panels – a 33 percent increase in panels per cycle – every 120 – 135 seconds, and they take only 20 – 90 seconds to load. This new machinery almost doubles the parts-per-hour production. Consequently, capacity can stay ahead of demand as each new machine can produce 120 blocks per hour, or enough for one house approximately every 8 hours.

Marketing is critical to sell CELBLOX. To date, market research at Cellox tends to be any information the sales force happens to glean from the field. Product literature consists of brochures and one-sheet user guides that have been developed over the last several years. Cellox has a Web

site and attends an occasional convention or show for contractors and/or homeowners. CELBLOX sales to contractors are considered a key success factor and the future lifeblood of Cellox.

Customer service is also critical for sales. Employees consistently tout the new outstanding customer service, which is displayed in various ways: a quick return call on a telephone query; being nice to people visiting the home office; assisting a contractor through a difficult construction site dilemma; and so forth. ICF users sometimes need more communication and someone to “walk them through” a technical construction challenge. A botched job on the construction site can mean a tarnished image for both the contractor and CELBLOX, regardless of who was at fault. Providing technical expertise is critical.

David passionately wants to make CELBLOX available to churches “at cost,” enabling them to build stronger and higher-quality buildings. Not only will they be able to reap the benefits of lower energy operating costs, but he believes this will make them better stewards of their resources in the process.

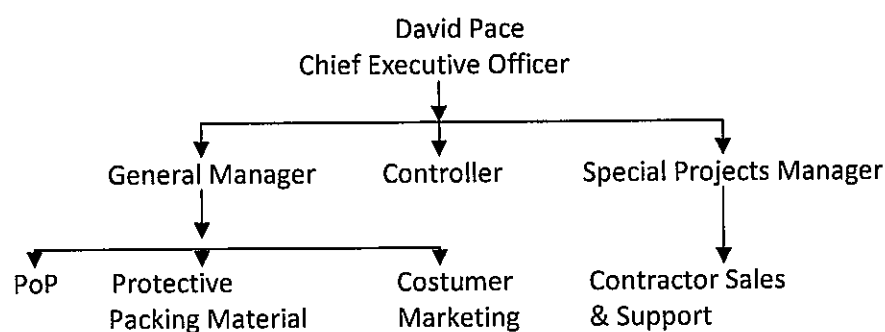
Human Resources

Along with his many company leadership responsibilities, David is actively involved with marketing and sales. He is a firm believer in the numerous superior qualities and benefits of CELBLOX. While he has many ideas on how to get the product to the customers, he does not have the time to do the job alone.

When David bought the company, he reduced the employee population from 40 to 14 (a large portion of the cuts were salaried employees) and reduced wages across the board for those who remained due to a critical cash flow shortage.

Some Cellox managers believe PoP does not have high growth potential, but does have a good profit margin. CELBLOX, on the other hand, has high growth potential, but competition keeps the margin far lower than for PoP. In late 2005, David hired an MBA

EXHIBIT 4 Organization Chart for Cellox



Graduate with a specialization in marketing to help develop the marketing and sales initiatives. Uncomfortable with cold calling potential customers, that individual submitted his resignation nine months later. David is looking for qualified candidates to fill some critical positions in the company.

Summary

As David enters his fourth years leading Cellox, he knows the company's survival and financial success is dependent on CELBLOX. Despite David's positive attitude and entrepreneurial success, however, Cellox cannot continue operating at a loss. Creditors may soon come calling if profitability is not restored soon. Cellox needs to develop a clear strategic plan for the future.

Endnotes

1. **Styrene**, a petroleum by-product, is the primary raw material from which polystyrene is made. A naturally occurring substance, styrene is present in many foods and beverages, including wheat, beef, strawberries, peanuts, and coffee beans. Polystyrene foam products are 95% air and only 5% polystyrene. The most recognizable forms of polystyrene packaging are expanded and extruded foams (sometimes incorrectly called Styrofoam R, a Dow Chemical Co. trademarked form of polystyrene foam insulation). Foamed polystyrene is used to make cups, bowls, plates, trays, clamshell containers, meat trays, and egg cartons, as well as protective packaging for shipping electronics and other fragile items.
2. **Injection molding involves** taking plastic in the form of pellets or granules and heating it until a melt is obtained. The melt is then forced into a split-die chamber/mold where it is allowed to cool into the desired shape. The mold is opened and the part is ejected, at which time the cycle is repeated.
3. **Plastic sheet extrusion** is the process of converting plastic pellets or powder into cut sheets or rolls of plastic. This sheet can be further processed into parts via thermo-forming. The sheet extrusion process can yield sheet products with thicknesses ranging from less than 0.010 in. (film) up to and exceeding 2.0 inch, with widths as great as 30 ft.
4. These are equivalent to furring strips, which are used to form a level surface to which a surface product (drywall, brick, stucco, etc.) can be attached.
5. Two plastic hinged pieces that "lock" in place when opened to form a specific width between the panels.
6. A **slurry** is a suspension formed when a quantity of powder is mixed into a liquid in which the solid is only slightly soluble (or not soluble). Slurries usually contain large amounts of solid and are more viscous and generally of higher density than the liquid from which they are formed. Concrete (specifically, Portland cement concrete) is created using a concrete mix of Portland cement, gravel, and sand. The material is applied or poured as a freshly mixed slurry and worked mechanically to compact the interior and force some of the thinner cement slurry to the surface to produce a smoother, denser surface free from honeycombing.
7. A home that is "**stick-built**" is constructed on the building site, piece by.
8. Manufactured and modular homes are not classified as stick-built because they are made mostly in the factory and transported to the site. A custom home and a homemade according to stock building plans may both be stick-built, provided that they are constructed on the land where they will remain.