

WPI Venture Forum

Worcester Polytechnic Institute
Alumni Association
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WPI VENTURE FORUM CALENDAR OF EVENTS

October 20, 1998 – You Built It - Will They Buy It?

November 17, 1998 – Getting Your (Management)
House In Order

All meetings in Kinnicutt Hall, Salisbury Labs
(our usual location).

For a recorded announcement of the next
program or to receive future mailings, call
(508) 831-5821.

Directions to WPI Campus, Salisbury Labs, Room 115

From the East—Take Massachusetts Turnpike (I-90)
to Exit 11A (I-495). Proceed north to I-290, then west
into Worcester. Take Exit 18, turn right at end of ramp,
then take an immediate right before the next traffic
light. At the next light, proceed straight through,
bearing right onto Salisbury Street. At the WPI sign,
turn left onto Boynton Street. Parking will be on your
right, behind Gordon Library. Salisbury Labs is up the
hill across from the Library.

From the North—Take I-495 south to I-290. Follow
directions as from the east.

From the South and West—Take Massachusetts
Turnpike (I-90) to Exit 10 (Auburn). Proceed east on
I-290 into Worcester. Take Exit 17, turn left at end of
ramp, follow Route 9 west through Lincoln Square,
straight onto Highland Street. Turn right onto Boynton
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Venture

VENTURE FORUM NEWS

Promoting and serving technology-based entrepreneurial activity
www.wpiventureforum.org

Volume 8 No. 2
October 1998

You Built It – Will They Buy It?

A look at the upcoming meeting

Tuesday, October 20, 1998
WPI Campus, Salisbury Labs
Registration: 6:00pm
Meeting Begins: 6:30pm
Admission Fee: \$5.00 members
\$10.00 non-members

How many great concepts fail to materialize into successful companies? Often, technical entrepreneurs get caught up in the excitement of their ventures and in the features and functions of their products or services. But they miss the critical linkage to sales and customers. Are there common themes when promising ideas have disappointing results?

It is not enough to have an innovation. You may have done a brilliant analysis or have unique technology, but without individuals ready to pay for your creation, there is no viable company. What are the important considerations as you translate your visions to reality?

Our speaker, Mr. James Biaschke, clearly is qualified to offer some important insights and practical tactics for the topic: You Built It - Will

They Buy It? The Venture Forum is delighted to have Jim join us on October 20 and share his views based on his impressive career.

The Speaker

James Biaschke is the CEO and Managing Partner for Archer Consulting, Inc. and is responsible for Archer's Learning Systems and Consulting units. The Learning Systems programs provide companies with skills development seminars and reinforcement workshops to master effective Relationship Management as the central theme of their business development initiatives. Archer's consulting practice offers relationship assessments, ratings and strategies.

Jim has a successful track record in P&L management, market and business development, 3rd party marketing programs and incentives and both direct and indirect sales management. His 15 year background in information-technology marketing, sales and partnering, builds upon a 9 year technical foundation of engineering and product development roles in aerospace companies.

Business Development

Prior to joining Archer, Jim was Senior Vice President of Sales and Marketing at Intellution, the technology leader in PC-based automation software, where he was responsible for worldwide business development, market strategy, product management, channels and strategic relationships.

Jim began his career in the high-tech industry as a project engineer, pioneering CAD techniques for the design of communications satellites. He holds a Bachelor of Science in Aerospace Engineering from the University of Southern California.



James Biaschke

Jim is a member of the National Association of Corporate Directors and is also an emerging-growth company investor, director and advisor.

Please join us for this informative evening. Our goal is to present practical, thoughtful ideas that will help you think beyond your ideas to the customers necessary for a successful company. Remember! You Built It - Will They Buy It? ►

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October
Meeting Sponsors—
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VENTURE

The mission of the WPI Venture Forum is to promote and serve technology-based entrepreneurial activity and economic growth in the region by increasing the business and financial knowledge of the participants through sharing experiences with entrepreneurs as well as area business, financial and educational leaders.

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Letter From The Chair

The Spirit of Entrepreneurship

by Brian Dingman, Chair

I thought I would take this opportunity to discuss economic issues which affect our members. The first is an initiative in its early stages designed to sustain economic growth in our region. The I-495 initiative is an attempt to bring together business leaders and municipal representatives to balance business growth in the I-495 region with the concerns of the towns affected by the growth. State senator David Magnani, Framingham, was deeply involved in the beginnings of the initiative.

Many business people feel that much of the long-term technology business growth in the state of Massachusetts will take place along the I-495 corridor. Those businesses are a core group of the WPI Venture Forum. Thus, the I-495 initiative is an issue of concern to the Venture Forum. Although the initiative was begun only earlier this year, the issues being addressed will greatly affect business opportunity and growth within the membership area of the Venture Forum.

From my limited knowledge of the initiative, I understand that the Massachusetts Technology Collaborative (MTC) has agreed to facilitate the creation of the initiative. For those of you unaware of the MTC, it is an initiative of the Massachusetts Technology Park Corporation, which itself is an independent public economic development organization of the Commonwealth of Massachusetts. MTC is located in Westborough, and is directed by a 23-member board of directors appointed by the governor and representing senior officials from public and private colleges and universities, technology companies, and state government. Mr. Joseph Alviani serves as president of MTC. MTC was established by the state to foster a more favorable environment for the formation and expansion of technology-intensive enterprises in Massachusetts.

My current understanding of the I-495 initiative is that the group facilitated by MTC is in joint discussions with a similar group led by state representative Barbara Gardner and that the two expect to join together, if they have not already done so. It is apparent that our members have a vested interest in the initiative and I encourage all of you to participate in or at least follow and monitor its progress.

The second issue is the stock market! It seems as though everyone is in the market with their savings or their retirement account or equivalent. The recent goings on have provided endless speculation and anxious moments.

As I write this column in early September, the market is in decline with great swings in both directions almost daily. Prognosticators abound these days and it seems to me, based on their collective accuracy, that they are all retired weathermen.

In any case, the market swings are clearly related to the economic troubles in Japan (and Asia more generally), as well as other regions. It is fascinating that the obviously strong US economy does not seem to be able to bolster the market and market owners' confidence. This establishes without doubt that the US economy is truly international. Readers thus must be aware of, concerned with and able to react advantageously to, both the most local of issues (the I-495 Initiative) and the global economy.

Luckily, our members possess a vast entrepreneurial spirit which is not easily squelched. If I have learned anything from my long association with the Venture Forum and its members, it is that true entrepreneurs and successful technology business people will at the very least deal successfully with issues such as this and will in all likelihood pull opportunity out of the maw of disaster by creating business opportunities where others see only problems.

Good luck!



Brian Dingman is a partner in the Westborough intellectual property law firm Niels, Lemack and Dingman. Brian can be reached at (508) 898-1818, or by email at NLDlaw@aol.com. VF



Watch What You Say

By Peter McDermott, Banner & Witcoff

Maybe the pendulum had swung too far in favor of plaintiffs in patent law suits. Both the U.S. Court of Appeals for the Federal Circuit which hears appeals in all patent cases (the "Federal Circuit") and even the Supreme Court have recently stressed the importance of predictability in patent claim construction. The courts seem to be focusing on the need of business managers to understand what their competitor's patent claims mean — how much territory (technology territory, that is) they really cover.

This is important. Sometimes a competitor's threatened lawsuit accusing you of patent infringement is more troublesome than it should be, because of uncertainty about the scope of claim coverage the court would allow for the patent.

Hold To Their Word

Well, the Federal Circuit is giving some comfort to accused infringers by holding patentees to their words. Statements made to the Examiner in the U.S. Patent Office during examination of a patent application have long been looked to by the courts to aid in interpreting claims in the patent which later issued from that application. But now the Federal Circuit is holding patentees to their words whether those words were said at home or abroad. In the global economy, a company often files its U.S. patent application and then files corresponding foreign applications in one or more other countries. European patent applications, Japanese applications and most others undergo an examination process roughly equivalent to the process in the United States. The foreign Patent Office issues an official action saying why they think you should not get your patent, and you or your patent attorney write back saying why they are wrong and why you should get the patent.

In a decision last year, the Federal Circuit made clear that statements made in prosecuting foreign applications will sometimes work to narrow the interpretation of claims in the corresponding U.S. patent. We'll get back to the Federal Circuit's decision in *Tanabe Seiyaku Co. v. U.S. International Trade Commission* in a minute.

Doctrine Of Equivalents

Any business manager who has wrestled with a question of possible patent infringement knows that there is first the question of literal infringe-

ment and then - oh yes - then there is the question of infringement under the doctrine of equivalents. The doctrine of equivalents allows infringement to be found where the literal language of a patent claim does not describe the accused product or process so long as the accused product or process has only "insubstantial differences" from the patent claim. Determining whether the differences are insubstantial is not easy for the court. The court looks to so called intrinsic evidence in determining the permissible scope of the claim — the claim language, of course, and the specification of the patent, as well as the prosecution history, that is, the communications back and forth between the Examiner in the U.S. Patent Office and the patentee's attorney. And the courts may also look to extrinsic evidence. This would include the testimony of experts as to what a certain word or phrase used in the claim means to someone in that indus-

try. If there was any doubt, it now is clear that permissible extrinsic evidence can also include statements made by the patentee (or more likely the foreign patent attorney) in the prosecution of corresponding foreign patent applications and also statements and instructions given to the foreign attorney by the patentee.

Small World

In the Federal Circuit's *Tanabe* decision mentioned above, the court relied on statements made to the European Patent Office, the Finnish Patent Office and the Israeli Patent Office by a Japanese company to narrow the interpretation of claims in the Japanese company's corresponding U.S. patent. It's a small world after all! There was no literal infringement — the claims covered a chemical process calling for any of five different combinations of bases and solvents in a reaction called N-alkylation. The accused ►

Continued on page 11

Need a head for this article

by Jerrold M. Shapiro, PhD, Principal, Laser Surgery Solutions

The June 9th meeting of the WPI Venture Forum covered a topic that is very important to an entrepreneur – Business Plans. As in the past, the Forum announced their business plan contest winner at the June meeting. A big congratulations and \$10,000 prize goes to Personal Electronic Devices, Inc., for their well written and presented business plan. Prior to the award, three speakers covered the key topics of Writing a Business Plan, Presenting a Business Plan and Using a Business Plan.

Brian Dingman, Chairman of the Forum, introduced Pam Sager, the organizer of the Business Plan Contest. The three topics were covered respectively by Dan Roach of Coppers & Lybrand, Marcia Priestley, President of Priestley Communications, Inc. and Pamela Raikunen, partner in Raikunen and Weeks.

The Presentations

Dan Roach began his presentation with a quote from President Dwight D. Eisenhower, “Plans are nothing. Planning is everything.” Dan asked, “Why write a business plan?” “To raise capital, as an internal planning document, and to establish a budget.” Before getting started, research the market, analyze the customer, define the business model and know your reader. Organize your business plan by designing the table of contents, writing an executive summary and creating an outline. The three most important parts of the business plan are the executive summary, the management team description and the market analysis. In describing the nuts and bolts of the business plan, Dan recommended a two to five page executive summary and a twenty to thirty page body with appendices as needed. The biggest mistakes usually include one or more of the following: no marketing research or strategy, inadequate competitive analysis, believing that a product alone is a company, lack of a vision or mission for the company, an inadequate or lengthy financial and executive summary, a plan that is too long and detailed; or a story that simply isn’t compelling.

Communicating

Marcia Priestly noted that in communicating your business plan, you have to realize that the business plan is more than an idea. Three areas must be anticipated or prepared — the two minute elevator speech, the oral versus the written business plan and a web page as a resource. The two minute elevator speech is a short description of your company that should demonstrate your passion for and belief in your company. It should present your unique selling factor.

The written business plan has a lot of detail and may be wordy. Besides the key components covered by Dan, you could include marketing communications, public relations and press releases. Demonstrate that you know the relevant trade magazines and how the internet can be used for your advantage. Marcia suggested using



Tom Blackador of Personal Electronic Devices accepts his \$10,000 award.

existing proven plans as starting points, including those in software packages and templates, keeping in mind that the executive summary is very important as is the advisory board. The plan should look professional, so get professional help to edit and review your plan. The oral presentation of the business plan is more personal and less wordy. She suggested that you ask around so you know your audience; know what you want to achieve, such as another meeting or funding. Get to the point quickly by working with an agenda. This will help you stay enthusiastic and keep the message simple. Marcia summarized with “persevere, stay enthusiastic, don’t give up, go with your gut.”

The “Dusty” Plan

Pamela Raikunen made her point effectively — she came to the podium, announced that she had forgotten something and literally blew off an old dusty business plan. She spoke about using your plan for three tasks, to create strategy and tactics, follow through on tactics, and measure or evaluate tactics and results.

She used her own company’s story to illustrate these points. In the first year she had one client who consumed all her time; she had fun, pleased the client and was an instant success. In the second year, while waiting for the phone to ring, the company ran out of money. A review of

their business plan showed that they didn't have tactical methods to implement their strategy or the people and time to follow up on their strategy. Pamela gave examples on how to keep track of the short term plan while also focusing on the long. Look at what went well and modify the business plan accordingly. Remember that your clients are your best reference.

The Winners

After a networking break, Pam Sager reconvened the Forum for the Business Plan Contest winner announcement. She thanked the sponsors and volunteers, especially Mirick O'Connell, a service law firm; Coopers and Lybrand, and the Massachusetts Technology Development Corp. Jeff Donaldson of Mirick O'Connell, the moderator, "ripped open" the envelope to announce the contest winner, Personal Electronic Devices.

Sam Jaffe, Director of Marketing for Personal Electronic Devices as well as a runner and physical fitness enthusiast, presented the business plan along with Tom Blackador, the company's founder and former engineering manager at Bolt, Beranek and Newman. Personal Electronic Devices' product is an accelerometer sensor worn on the ankle (or someday, built into a running shoe itself) which communicates wirelessly with a wristwatch sized computer processor. The "wristwatch" provides vital signs and human performance data to the wearer. The company was founded by bootstrapping and raising its seed capital with family and friends. The company now has two patents pending and the interest of a major excursive equipment manufacturer and a running shoe manufacturer.

The Strategy

Personal Electronic Devices' business strategy is to develop proprietary fitness and health sensing products, manufacture them under contract, and market them under leading brand names and under their own brand. Sam did market research by interviewing runners and by having runners at the Boston Marathon use their product. The questions that walkers and runners will be able to accurately answer include: How fast am I going? How far did I go? How many calories did I burn? How fit am I? Is my fitness improving? The company sees important physical therapy and medical monitoring benefits to their technology as well.

Personal Electronic Devices is trying to raise \$2M in capital for the following uses: marketing and sales, engineering, market research to support product development, intellectual property protection, R&D on intelligent sensing system and information links, and for more space. The financials project \$40M in revenue by 2002.

Review Panel Comments

Dan Roach: The plan is well written and shows that the writers did their homework on marketing. He thought that the company needed more than \$2M to defend against competition and build a brand. He estimated it will take four to five million dollars to build a sales organization, get into stores and build brand recognition. The company's valuation is related to risk reduction, where the risks are from the product, team and market.

Bob Creeden: The idea is neat. He agrees with their fund raising strategy, i.e. that they should stay away from venture capital for this round of financing if possible. The company will need 2-3 million dollars just to establish a brand, build the channel and support it. Therefore, they may need to raise 2.5 to 5 million now. The key phrase is, "build a brand name." Bob didn't understand

the retail market. He offered a suggestion for plans that include a ROI (return on investment); any number put in the plan gives the potential investor the opportunity to automatically disqualify your company – leave these numbers for face-to-face conversations. Regarding exit strategy, Bob recommends putting in a reality check for going public versus who will buy the company. When Bob reads a business plan, he tries to visualize the product being used; this plan made it possible. The authors put a lot of material in the appendix.

Mark Parish: This was a well written plan that captured the excitement of the product and described the team well. He suggested the use of more pro-active language, that the plan be shortened from its fifty pages, and that the appendix be moved into a separate document. Take the non-key employee résumés out of the plan and replace them with job descriptions. While its good to show patents and licenses, also show the extent of product coverage you'll get from the patent. Mark feels the company should concentrate on letting the OEM's do the marketing.

Congratulations to PED! **VF**

BUSINESS BASICS

Venture Forum HELP Desk

by Norman Brust

The Venture Forum Help Desk offers entrepreneurs an opportunity to request advice or offer suggestions on how to deal with difficult business problems. Please e-mail new requests or suggested solutions to ntbrust@ultranet.com.

New Requests

• **Employee Attitude** We are a nonprofit organization with approximately 300 volunteer members. We have an Executive Director and a part time secretary whose salaries are paid by member donations. Our problem is the secretary. She is a long-standing member of the organization – a member of the old guard. Despite being paid, there are times when she refuses to carry out specific tasks saying that they are not her responsibility. Often unpaid volunteers, who know full well what the situation is, then have to perform these tasks. Needless to say, this causes significant friction and many members just refuse to deal with her. In most ways she is a valuable member but this one trait is starting to overshadow her many good attributes. Any suggestions on how we can gracefully bring her around?

C. G., Milton MA

• **Getting Started** I'm a mechanical engineer working for a state-of-the-art computer engineering company. As a new homeowner I've designed and built working prototypes of a new modular shelving system for closets, workshops, storage rooms, etc. Everyone I've shown it to loves it. I think that there is probably a good market for this system but don't know how to pursue it. Is there a low cost way to determine the viability of developing and marketing a product like this?

J. K., Stow MA **VF**

Manufacturing Our Future – Building the Local Economy

by John Healy, CEO, Manufacturing Assistance Center

The Central Massachusetts Regional Economy has traditionally been dependent on manufacturing. Given that every manufacturing job supports another three jobs in the community, economic disruptions have resulted, especially in the City of Worcester, as the total number of manufacturing jobs has declined in past years.

Our manufacturing economy of today now faces a set of direct National and International competitive challenges unlike those ever faced before. To maintain competitiveness many manufacturers today must adopt new practices and technology every three to five years in order to improve their productivity and value-added per employee. This transition is especially acute in the Small Manufacturing Enterprises (firms with less than 500 employees) who make up 99% of the total manufacturers in Central Massachusetts. Such Small Manufacturing Enterprises often lack the resources to maintain their competitiveness and have limited access for assistance in maintaining their business in a changing economy.

Industry Clusters

In January 1997, Congressman James McGovern met with various business leaders relative to dealing with the economic issues facing the area. Congressman McGovern believed that only through such collaboration could we find ways to help our key industries in maximizing their competitive advantages as well as reducing barriers to their growth. This resulted in the "Manufacturing Our Future Summit." The Summit was based on Dr. Michael Porter's strategy of Industry Cluster Development:

"To promote the Manufacturing Community in Central Massachusetts by developing Industry Clusters through fostering communication between manufacturers, government, non-profit agencies, educational institutions, and private consultants."

Over 400 people attended the initial Summit which was held last September at Worcester Polytechnic Institute under the direction of Paul Kennedy, President of Kennedy Die Castings, Inc. In addition to the Congressman and Dr. Michael

Porter, speakers at this program included a host of local and industry leaders and such notables as Edward Kennedy, US Senator; Alexis Herman, US Secretary of Labor; Paul Cellucci, Governor of Massachusetts; as well as Edward Parrish, President of WPI.

The success of this event can be measured in tangible outcomes starting with the establishment of the Manufacturing Assistance Center in January 1998. The objective of the Manufacturing Assistance Center (MAC) is "to work to improve the productivity, competitiveness and growth of the Central Massachusetts manufacturing base." The MAC following Dr. Porter's strategies has provided for the development of Basic Industry Clusters as follows:

Industry Cluster

Metalworking — Environmental, Health and Safety Issues

Printing & Publishing — Skills Development, School-to-Work

Technology — Technology Transfer from National Labs

Plastics — Metal Injection Molding Technology

Experience has shown that identifying and nurturing key industry clusters in a given geographic area is a powerful tool for improving the competitiveness of the businesses within the regional economy.

For Cluster Based Economic Development to succeed, in firms with the respective cluster must cooperate to identify problems and generate solutions. In addition, Government Academia, and Regional/Local Organizations in economic development, must become full partners with the cluster and work toward defined common goals.

Manufacturing & Training

The second initiative that came out of last year's Summit was the development of the Manufacturing Academy and its Basic Skills Training Program. This is an intensive four week program designed to help manufacturers assess, prepare and qualify individuals for jobs in the manufacturing sector. Courses presented in the program include Basic Shop; Math; Manufacturing Documentation; Show Drawing; Problem Solving; and Measurement &



Left to right: Jack Healy, CEO MAC, US Congressman Jim McGovern and Paul Kennedy, President, Kennedy Die Castings, Inc.

Quality. This is a hands-on program that can be customized for individual manufacturers. In terms of human outcomes, the Manufacturing Academy creates an improved and stable employment environment with real word education and training programs.

The MAC has also implemented a School-to-Work Program with several area schools that include a variety of assignments to train students in real world Computer Aided Design (CAD) projects and applications. The MAC has received a grant from the State of Massachusetts' Corporation for Business, Work and Learning, to develop a more extensive school-to-work training program.

The MAC will increase its training offerings through the Distance Learning Programs that will be offered in conjunction with Quinsigamond Community College; this new program will be introduced at this year's Summit.

Summit 1998

Technology has penetrated the factory floor at both Large and Small Manufacturing Enterprises. In response, this year's Manufacturing Our Future Summit has been expanded to run concurrent with the AM98-Automated Manufacturing Exposition at the Worcester Centrum Centre. This will be the Largest Industrial Show ever to be held in Central Massachusetts and will present the Latest in Automation Technology to area manufacturers. Professor Porter points out that Automation has a future, as our economy is growing at three

percent per year while our population is growing at only one percent. Worcester Polytechnic Institute's School of Continuing Education will also participate at AM98 and the Summit, offering a series of Technical Workshops relating to automation.

The Summit itself will be broken into Three Segments.

- **Workforce Education** Presentation topics will include: National Job Skill Standards in Central Massachusetts; Technical Training Distance Learning Program, through the Community College system; redesigned Worcester Vocational School Program; developing a system for consolidating and learning public, private and foundation interests concerning workforce development.

- **Cluster Development** Events will include: Presentation on the status of our area Cluster Development by Professor Porter; Demonstrations of the Cluster Activities including the Central Massachusetts Medical Device Cluster. This program will conclude with an address by Senator Kennedy, relative to connecting the Industry Clusters with World Class Industry Support through WPI Worldwide Business Centers.

- **Infrastructure** Demonstration programs relative to supporting and expanding the economic opportunity of our region. When completed, these programs will stimulate the region to be more competitive on an economic basis. Each of the Central Massachusetts areas will present infrastructure initiatives that will help each of them to become a vital part of the Regional Economy. The Governor of Massachusetts, Mr. Paul Cellucci, will be the Keynote Speaker relative to the State's Commitment to the Cluster Strategy.

In summary, the "Manufacturing Our Future" approach to Economic Development taps into a higher level of Innovation, and aligns the market knowledge and expertise of the Manufacturing Community with the talents and resources of government, education, and regional organizations. The ultimate success of this Economic Development requires a new level of collaboration between all of the region's stakeholders; the Manufacturing Our Future Summit is the forum to demonstrate this collaboration.

Anyone wishing to attend this year's Manufacturing Our Future Summit at the Worcester Centrum Centre, October 6,7, and 8, can do so by calling (508) 831-7020 to request specific program information. **VF**

Ten Steps To Improve Your Sales Compensation Plan

by Brad Brown, Principal, Reward Strategies

- **Are you getting the most out of every sales compensation dollar?**
- **Is your sales compensation plan aligned with your sales strategy?**
- **Is your plan driving the behaviors necessary to achieve sales?**

If you can't answer "Yes" to these questions, your sales compensation plan needs a tune-up or even a complete overhaul. Follow these ten steps to get your compensation plan in gear.

1. Make Sure You've Identified The Problem - Research consistently shows that what's most rewarding is the work itself and having a good relationship with the boss. Develop close and supportive relationships with each member in your sales staff. Learn what makes them tick and provide them with the support and encouragement that they need. Remember that sales incentive plans do not create talent, improve performance, lead to better trained staff, nor are they a substitute for leadership. Effective sales compensation plans focus behaviors toward better results.

2. Involve Your Sales Staff And Any Other Decision Makers Whose Support You Need - Communicate your objectives clearly and ask for input. Gain the support of your sales staff by including them in the development process. They know their jobs better than anyone and that knowledge is critical to improving the sales compensation program. They'll be keenly interested in participating because their compensation is at stake. And you need their support for the plan to be successful.

3. Determine What You Want To Pay For - Identify your business goals, behaviors and results. For example: Your Business Goal is to increase margins and new accounts. Behaviors are to sell high margin products to current and new accounts. The Result is at least 30% margin on current and new accounts. Make sure the sales results are tied to the behaviors which are in turn tied to the business goals.

4. Define The Salespersons' Roles In The Sales Process - Interview them and write job descriptions. This will establish differences where they exist among positions, based on the complexity of the position or differences in role.

5. Benchmark Competitive Levels Of Compensation - Match your sales jobs to those in published surveys. Published surveys are the most reliable source of data because of sample size, scope and accuracy of data. If you can get verifiable data from your competitors, use it. Gather the following data for each of your positions: average base salary, targeted incentive compensation, total compensation and base salary/incentive "mix".

6. Determine The Right Salary/Incentive Mix For Your Positions - The mix (base salary % vs. incentive %) of your sales staff's total compensation should be appropriate for the level of independence and persuasion they exercise. The more responsibility and resources they need to get the sale, the greater the "incentive" portion of their total compensation.

7. Design The Incentive Component - Keep it simple! Don't try and incent everything with money. It will create too much complexity and confusion. If you can't explain it and the salesperson doesn't understand it, it won't work. Incent only that which flows to the bottom line.

Determine the two or three most important results you want to pay for. Decide on a payout. It can be a bonus, a commission or both. For example: "The salesperson will receive x% of the margin on each sale for all margins in excess of y%. In addition they will receive a bonus of \$z for every new account in excess of their quota."

Ensure that the behaviors you're incenting are consistent with the business plan. Look for any potential unintended behaviors which may result. Adjust the plan to eliminate or mitigate these behaviors.

Determine the minimal level of "acceptable results". This becomes your threshold; the point at which payout of incentive compensation

begins. Assign any limits (including a cap on payouts, if any) and the timing of payouts. Ensure adequate feedback and reporting mechanisms are in place to measure results.

8. Communicate The Proposed Plan To Your Staff - Show the "framework" or formula to the sales staff and ask them for feedback. Don't use any numbers. This will keep them focused on what the plan is meant to achieve and they won't be distracted by its imagined impact on their compensation.

9. Test The Plan Before You Use It. - Use the input you received from your staff to modify the plan where it makes sense. Plug in the numbers using historical data and projected targets. Select the numbers which provide (1) externally competitive compensation at targeted levels of achievement and (2) an affordable share of "cost of sales".

10. Track The Plan Over A Period Of Time - Determine whether it's incenting the behaviors and driving the sales objectives you originally intended. If it's not, modify it and continue to evaluate it's impact.

The development of a sound sales compensation plan coupled with supportive, coaching relationships will produce rewarding experiences for everyone!

Bradford Brown is the Principal of Reward Strategies, a management consulting firm located in Sudbury, Massachusetts. Brad develops reward programs for growing companies including sales incentives and variable pay programs. Brad can be reached at 978-443-4621. VF

Positioning: Target Marketing for High-Tech Products

by Shari L. S. Worthington, President, Cirrus Technology

Because of the proliferation of new technologies and new products, users are bombarded with choices and have a difficult time differentiating and selecting the best of many alternatives. Meanwhile, many small companies fighting for recognition in this sea of possibilities can't understand why their innovative products aren't selling well.

The solution to both group's problems is positioning: creating a desired image for a company and its products within a chosen user segment. The positioning process further helps high-tech manufacturers deal with such problems as limited product life cycles, limited lead times before competitors respond with equal or greater improvements, as well as the desire to control new technologies introduced during a short time period or to a particular target market. (figure 1)

Traditional Methods Fall Short

Traditional market segmentation is the division of a large market with diverse needs and wants into specific segments or submarkets. Each segment consists of potential buyers with similar needs and wants. It is from these segments that you must select the target markets to which you will sell your products.

According to classical marketing theory, the segmentation process creates specific groups that:

- Each have relatively distinctive behaviors
- Can be described by measurable and understandable dimensions
- Have appropriately sized market potential
- Have an accessible means of communicating with them

Consider the example of consumer-goods market segmentation. That process identifies target markets by either classifying the universe into demographic categories, or by conducting psychological or sociological research. If either method uncovers an adequately sized potential market, a company can further discern that particular group's purchasing habits, needs, and wants, and tailor its product accordingly.

This approach, though, is inappropriate for many high-technology manufacturers (1). These segmentation procedures are designed for markets where manufacturers can easily identify and

gather extensive quantitative data on the appropriate industry or on the broad customer group interested in its product or service. Additionally, the uses for consumer products, such as household appliances, are generally inherent in their design or have already gained market acceptance.

Particularly Difficult Environment

High technology companies face a particularly difficult marketing environment for several reasons. First, competition and technology move too fast to allow marketeers to gather extensive quantitative data. They often don't know, or can't identify, many of a product's applications. They must often prioritize the market they choose to address because many products have market potential across several industry categories. In the process, they must deal with different buying cycles.

Second, many high-tech buyers are reluctant to take the personal risk of bringing new technology into their company due to the rapid pace of technological advances and the incapacitating FUD factor (Fear, Uncertainty, and Doubt). This problem is only exacerbated by the plethora of engineering-driven companies that appeal to customers' needs and wants based solely on product specs.

In reality, many high-tech companies don't even go as far as using traditional techniques. Often they see a small, unfilled niche within a market, create a product to fill it, and hope a sizable market will appear to support their efforts.

A good example comes from the data acquisition market where more than 150 vendors currently sell PC-compatible devices alone. How can buyers differentiate all these products? Complicating the situation is the fact that such devices are suited for a wide variety of R&D and manufacturing applications, ranging from medical research to chemical batch processing to electronic assembly. Put simply, the battle for recognition and share of mind can't be won on engineering talents alone.

Positioning

This battle leads to the concept of market positioning. The concept is simple — to be successful, a company must differentiate itself and its products from all others, thus obtaining a

unique position in the marketplace (2). After all, if manufacturers can't differentiate their products from their competitors', how can they expect the same of customers — who are much less familiar with the products and the market?

When positioning is left to buyers, they carry out the process in a haphazard manner. For instance, to effectively evaluate products that are sold on specifications alone, end users must perform a painfully detailed competitive analysis that, in many cases, reveals no significant differences. This dilemma is magnified when manufacturers make no efforts to sell to specific markets or inform buyers of their strengths. Indeed, when buyers make a purchase, they're interested in buying much more than product specs. They also buy into the company selling the product, including its service, quality, and future technological innovations.

Implementation

The actual implementation of market positioning isn't as straightforward as segmentation. To achieve the desired positioning, manufacturers must honestly evaluate many factors (1), most importantly:

- What is our company's business?
- What do we do better than anyone else?

A company can differentiate its products from its competitors' based on such factors as technology, target audience, target application, price, quality, or distribution channels. For instance, do we offer the broadest line of products that meet the requirements of many industries? Can we take advantage of economies of scale and offer the lowest price? Do we have the lowest defect rates and most accurate specs of all our competitors and thus offer the highest quality?

Product positioning alone won't make a product successful, though. Marketeers must also be sensitive to how the market receives and subsequently positions their company as well as the product. If the company isn't totally honest during its internal evaluation, the marketplace will let it know. Based on market feedback, a company must be flexible enough to react to those opinions it wants to enhance or modify.

For instance, it's not hard to find vertical-market electronics companies that are con- ►

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You Built It – Will They Buy It?

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Case Presentation

Michael K. Collison, President
Isis Associates
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Our case presentation for October's meeting will be of great interest to all that are considering starting a company in a quickly expanding technical market. There are a number of people that have the combination of experience, knowledge and proven track record to develop a product to fulfill a market need. However, it takes a true entrepreneur to fulfill a dream of starting a business, growing a company and enjoying its success. Isis Associates, our case presentation, is an early-stage Massachusetts-based corporation specializing in software language development tools for the Digital Signal Processor (DSP) marketplace.

Mission

Isis Associates' mission is to increase programmer productivity and eliminate the very basic and cumbersome assembly-programming language by providing state-of-the-art compilers to the DSP industry. As the DSP marketplace continues to grow at a rate of 30% a year and as applications become more sophisticated, the demand for sophisticated programmer's development tools increases. Additionally, newer markets in multimedia, graphics and imaging areas intensify the demands placed on the DSP's performance. As we all know from the programs we use each day on our computers, applications in these areas are continuously becoming larger and more complex and therefore the need for high-level languages is also becoming more important. It is no longer sufficient for a software developer or code writer to develop an entire application in the basic com-

puter language. With real world issues for software applications such as time-to-market and computer code maintenance, high-level languages such as C become more attractive. Using C, and tools such as source-level debuggers, designers can more rapidly develop and debug an application than with an associated assembly-language program. Isis' products provide these tools to the software programmers.

Management Team

Michael Collison is President of Isis Associates and Carmon Cunningham is Vice President of Marketing. Mr. Collison has developed extensive contacts throughout the DSP industry while working for more than nine years in the compiler industry. As President of Isis, he led the development of commercial compilers and software for DSP chips for Lucent Technologies, Northern Telecom and DSP Group. Mr. Collison spent several years at Analog Devices where he developed software tools for the SHARC DSP, including the SHARC C compiler. Mr. Collison is the driver for the development effort for the Isis multiprocessor compiler products.

Carmon Cunningham uses his experience and knowledge to implement the sales and marketing effort. Mr. Cunningham has twenty years of experience in the marketing and sales of high-tech products and services. He worked at Xerox and Digital Equipment Corporation - fifteen years of which were in the electronic design automation market. He holds an MBA in Marketing and has extensive experience in strategic alliance management, relationship marketing with OEMs and joint marketing partners, along with numerous contacts within the industry.

Presentation

Though Isis' market may be quite different than that for the company you have started, their position may be exactly the same. Mr. Collison will present the company's business plan for the Forum, covering their technology and products, market, management team and projections. Then, a panel of three experts will discuss the plan based on their specific industry expertise. Issues that Isis would like the panel to address are: funding sources they can identify and secure to allow the company to grow today to meet the market demand for their products, which of several marketing options should they consider and the overall strategic possibilities for their business. Our panel will help Isis work through their tough decisions to help put them on a successful track. Please join us at October's Forum to hear the exciting story of a company on its way to great success. **VF**

Watch What You Say

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infringer used one of the recited bases, but instead of the solvent acetone used butanone mixed with water as the solvent. With no literal infringement, the patentee had to go for infringement under the doctrine of equivalents. So the question came down to whether the difference in solvent was a substantial difference or an insubstantial difference. If the difference was found to be substantial, no infringement under the doctrine of equivalents could be found.

Naturally, the patentee argued that the difference was insubstantial. But the accused infringer put into evidence statements made by the patentee in the European Patent Office, the Finnish Patent Office and the Israeli Patent Office. The patentee had argued to those foreign Patent Offices that only its unique base-solvent combinations could produce the high reaction yields desired. Relying on this evidence, that is, because the patentee had argued before foreign Patent Offices that its specific base-solvent combinations distinguished its process from similar, previously known processes, the Federal Circuit concluded that the accused infringer's use of the solvent butanone should be found to be a substantial difference from the literal scope of the claims.

In short, the patentee's own statements shielded chemical reactions which might otherwise have been found to infringe the patent claims. The patentee's statements abroad had opened the door, and a competitor had walked through that open door.

What does this teach us? For a large foreign filing program it teaches a lot about making sophisticated use of international filing protocols, such as the Patent Cooperation Treaty widely referred to simply as the PCT. But even for the more routine cases in which there are only a few corresponding foreign applications filed, it teaches us to coordinate well the arguments we make in the various foreign Patent Offices and, of course, to watch what we say.

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vinced they offer the best service. One such company insists they offer the best of everything—from sales assistance to applications engineering to high-quality manufacturing. In fact, the market perceives its products as poorly engineered, the sales department is understaffed and undertrained, and the applications engineering group has little interest in giving a customer more than two minutes on the phone. Although this company keeps trying to convince buyers that they have the best service, the market tells them through decreasing sales and loss of market share that they don't.

The Long Road Back

Such companies face a long haul in changing this perception. None of the steps in market positioning happen overnight, and it's a long, painful process to position both a company and its products. Having to reposition a company and change customers' views is even harder. Therefore, it's best if a company carefully considers these issues up front—long before it introduces any products.

Whether it concerns product positioning, public relations, advertising, or distribution channel management, marketing must be treated as a long-term, strategic process. To be successful, marketing must be a learning process for the entire company, from the CEO to the receptionist. With the proper guidance, your marketing efforts will represent an accumulation of knowledge and experience about your products and, most importantly, your customers.

Figure 1. The first stage in positioning is the honest evaluation of your internal strengths and weaknesses compared to the needs and wants of your target markets. Many companies are often surprised that there's little consensus internally regarding the answers.

- What business are you in?
- What are your company's strengths and weaknesses?
- Describe your market. Is it mature? What is its growth rate?
- What do you think the public considers to be your strengths and weaknesses?
- Who are your competitors? What are their strengths and weaknesses?
- What directions will your company take in the near future? Longer term? Consider aspects such as technology, pricing, distribution channels, and new application areas.
- What are the key factors for success in each of the above market segments?
- How long will it take to implement your strategy in each segment?
- What are the trends in each market segment?
- What percentage of company resources will be devoted to each segment?

References

1. McKenna, R. *The Regis Touch*. Addison-Wesley Publishing Co. Inc., 1996.
2. Shanklin, W. and Ryans, J. *Marketing High Technology*, DC Heath and Co., 1984.

*Shari Worthington is President of Cirrus Technology, an 11 year old high tech marketing and Web development firm. Active on the Internet for 10 years, she is an expert in established and innovative marketing techniques, both online and off. As a result, Worthington is an international speaker on the topics of Internet marketing and e-commerce. She can be reached at sharilee@aol.com or <http://www.CirrusMarketing.com>. **VF***