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## Marketing Plan Leads to 250% Sales Growth at Alir Systems

How does a contract manufacturer expand its existing capabilities and become a viable marketer of their own product line? This was the question facing the management of Phoenix Metal Fabricating. Development of a formal marketing plan was the chosen path to set its strategic direction for sustained growth over the next 3-5 years.

### The Company

Alir Systems was founded in 2001 as a subsidiary of Phoenix Metal Fabricating. Located in Jamestown, NY, Alir Systems is a marketer of metal casework, i.e. cabinetry and related systems, for the laboratory and scientific/institutional markets. The relatively new business entity offered the parent company the opportunity to diversify its base business as a job shop for metal fabricated parts to OEM accounts. The primary benefits of the new business venture would be increased utilization of manufacturing capacity, as well as the opportunity to offset some of the cyclical effects of the metal fabrication industry. Selling its own product offering could open up



Dennis Harnish, an Alir Systems' operator, forms cabinet panel component on press brake.

new and untapped market opportunities, including geographic and end-user segments. With the addition of several key individuals at Alir Systems, the company was in a position to effectively compete in the market for laboratory and scientific cabinets.

Senior management believed that Alir Systems would meet its growth expectations by increasing market share at the expense of a few very large entrenched competitors.

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## Product Development – A Customized Approach

by Bob Kosobucki

### What Could Be Easier?

What could be easier? Decide what new product you want to make, design it, make it, and sell it. Success is guaranteed. Just select the right products, for the right customers, design it right the first time, on time, build it to the budgeted cost, and sell it at the planned price, as quickly and as many as you planned. Or so say the articles on product innovation that is in vogue in the

current business press. In reality, the innovation techniques described as revolutionizing business at Fortune 500 companies may not be as applicable to a small manufacturing business. However, some tried and true basic management principles can increase the chance of sales success, reduce lead times, and keep costs down when developing a new product.

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## A Tradition of Delivering Results

The retirement of Robert Martin marks an important milestone for Insyte Consulting. For over twenty years, Bob has been instrumental to the success of Insyte Consulting and the Western New York Technology

Development Center. Now, we must say goodbye to Bob and prepare to build on the legacy of success he leaves behind. All of us at Insyte Consulting wish Bob well and thank him for his many years of service to both Insyte Consulting and the WNY community.

As Bob's successor, I know I have a tough act to follow. But that is one of the things that attracted me to Insyte Consulting — its tradition of delivering results for its customers with reliability and integrity. According to an independent survey, Insyte Consulting's customers reported 2006 project benefits that included:

- over **\$60 million** in new and retained sales;
- **\$3 million** in cost savings;
- almost **\$3 million** in new investment; and
- **571 jobs** created or retained.

Those are tremendous benefits and a huge return for an investment of \$2.3 million in combined customer fees and government funding, but I am not surprised. My own first hand experience in 2004 as a customer of Insyte Consulting made me a believer in this organization's capabilities. Insyte Consulting has a vital role to play in the future of WNY by providing business expertise to help companies grow and prosper here.

The prosperity of WNY is important to me because this is home for my wife and our three children, and because my roots here go back many years. My father, my grandfather and my great grandfather were all born and raised in North Tonawanda. I moved to Buffalo more than five years ago to join Sefar Filtration Inc. (formerly Tetko), becoming President of the North American filtration business of this multi-national Swiss company. I know from personal experience, the challenges many WNY businesses face. Before Sefar, I was with USFilter, a Fortune 500 water equipment company as Vice President & General Manager serving pharmaceutical, medical, microelectronic and food & beverage customers. I also have more than five years of management consulting experience with Deloitte & Touche. I will draw heavily on my experience in WNY and beyond in my new role at Insyte Consulting.

I look forward to meeting with many of you — our customers, partners and stakeholders — to hear about your business challenges and your ideas for the future. Insyte Consulting will continue to fulfill our vision to "Transform WNY Business" through our current offerings including strategic planning, growth services, product development and lean operations. We will also look for opportunities to expand into new services and markets. I am excited to be part of the Insyte Consulting team and I look forward to continuing our tradition of delivering tremendous results for WNY.

A handwritten signature in black ink that reads "Bob Rand".

## Looking for Lean in all the Wrong Places... by Thomas Quinn

It's been reported that approximately 75% of all costs associated with meeting customer demand are related to administrative or non-production functions. Companies solely focused on lean implementations on the shop floor may be singing this version of the classic country song.

All manufacturers are facing increased pressure from their customers to cut costs and reduce lead times. Lean is not a new concept. It has been used for more than 25 years to facilitate improvements on the shop floor. Only recently have companies begun using a Lean Office approach to eliminate the waste from their office and administrative processes.

If you've never considered using lean tools in the office, you'll be pleasantly surprised that the overall approach and utilization of these tools will be very similar to how they were used on the shop floor. A successful lean transformation in the office is a "bottoms up" approach. The experts performing the work today are educated and empowered to make changes that eliminate waste in their area creating a positive effect on the entire information-based value stream. A lean focus in the office can improve administrative processes and accelerate the flow of information at all levels of an organization:

### Company Level

Streamlines and accelerates those processes that involve external customers including order entry, customer service, AP/AR, sales & marketing, new product development, etc.

### Departmental Level

Focuses on internal customer requirements and their definition of value, improves communication and cross-func-

tional cooperation, and reduces activities that add time but little value.

### Individual Level

Reduces paperwork and improves individual efficiency using lean tools such as standardized work and workplace organization (5S). Individual roles and responsibilities which best support the objectives of the entire office are established.

Value stream improvements in the office are difficult due to the many small, intersecting value streams that exist within the office versus fewer, more easily identifiable product flows on the shop floor. Nevertheless, the multiple flows of "product" across each desk, service person or computer must be identified and sorted out in order to obtain an accurate picture of the process. For support and administrative operations, determining what information to focus on depends on what questions you are trying to answer about your value stream and how you define the "product" produced by these operations. For example, if your objective is to reduce days in receivable, it would be helpful to define "invoices" as the product and capture information such as the average total number of invoices issued (customer demand),

resource cycle times, or the amount of work in process inventory (invoices). These attributes are identical to the ones found in shop floor value stream maps. If you have already created value stream maps and are looking to make improvements in the office, your challenge is determining what information to include in your information-based future state map.

This article has scratched the surface regarding the utilization and capabilities of lean tools in the office. The beauty of a Lean Office approach is that many of you are already proficient at lean. The challenge is simply applying this knowledge to information versus material flows. If you would like assistance in introducing lean to your office and administrative processes or would like to understand better how the lean tools you already know could be applied to the office, please call Tom Quinn at 716.636.3626 ext. 310 or email [tquinn@insyte-consulting.com](mailto:tquinn@insyte-consulting.com).

*Thomas Quinn is a manufacturing and IT consultant with Insyte Consulting. Tom is a certified trainer in lean manufacturing initiatives and a certified ISO 9001:2000 Provisional Lead Auditor. ❖*

## Keys to Sustaining Lean

- Visual metrics — everyone sees how are we doing
- Regular status meetings — maintain focus & momentum
- Accountability boards — communicate who's doing what
- Standardize your project management process
- Walk the floor — leaders need to see changes first hand
- Leadership commitment to get involved, protect plan
- Provide opportunity for everyone to get involved

## Insyte Consulting Product Development Approach

Insyte Consulting's range of product development support enables a company to focus on its most critical development issues.

Insyte consulting	Product Development Phases					
	Concepts, Analysis & Planning		Engineering		Rollout	
<b>Insyte Consulting Support</b>	IDEAS Idea Development & Market Analysis	PLANNING Product Plan Development	DEVELOPMENT Engineering Process Improvements	PROTOTYPE Standards Compliance	MANUFACTURING Validation & Production	INTRODUCTION Sales & Marketing Implementation
<b>Project Goals</b>	Product ideas & market opportunities for growth & profit	Right products, right markets & a plan for success	Complete projects on-time, below cost & to 'spec'	Conform to industry standards & regulatory requirements	Build it right, to budget & on-time, the first time	On target to meet customer needs, beat the competition & start generating revenues
<b>Project Deliverables</b>	<ul style="list-style-type: none"> <li>New market ideas</li> <li>New product ideas</li> <li>Line extension ideas</li> <li>Market analysis</li> <li>Justification analysis</li> </ul>	<ul style="list-style-type: none"> <li>Product plan</li> <li>Product roadmap</li> <li>Gantt chart</li> <li>Capacity analysis</li> <li>Financial forecasting</li> <li>Marketing strategy</li> </ul>	<ul style="list-style-type: none"> <li>Development map</li> <li>Checklists</li> <li>Guidelines for improved management</li> <li>Information on external development support</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of a quality process</li> <li>Improved processes for compliance</li> </ul>	<ul style="list-style-type: none"> <li>Equipment layouts</li> <li>Supply chain management</li> <li>Line balancing</li> </ul>	<ul style="list-style-type: none"> <li>Promotion plan</li> <li>Rollout plan</li> <li>Sales training &amp; materials</li> <li>Market positioning</li> <li>Channel strategy</li> <li>Warehousing &amp; distribution</li> <li>Pricing strategy</li> </ul>
<b>Insyte Services</b>	<ul style="list-style-type: none"> <li>Facilitate idea generation</li> <li>Market research</li> <li>Technology research</li> <li>Strategic planning</li> <li>Sales &amp; marketing planning</li> <li>Financial analysis</li> </ul>	<ul style="list-style-type: none"> <li>Product plan development</li> <li>Market strategy development</li> <li>Market research</li> <li>Project management</li> <li>Lean accounting</li> </ul>	<ul style="list-style-type: none"> <li>Development process mapping</li> <li>Coaching on managing the process</li> <li>VSM</li> <li>Flow charting</li> <li>Equipment justification</li> </ul>	<ul style="list-style-type: none"> <li>ISO 9001</li> <li>ISO 13485</li> <li>AS 9100</li> <li>TS 16949</li> <li>Safety review</li> <li>Design for Manufacturing</li> <li>FMEA</li> <li>SPC</li> <li>APQP/PPAP</li> </ul>	<ul style="list-style-type: none"> <li>Production planning &amp; scheduling</li> <li>Supplier identification &amp; qualification</li> <li>Lean tools (cellular manufacturing, 5S, visual systems, etc.)</li> <li>Plant layout</li> </ul>	<ul style="list-style-type: none"> <li>Sales channel identification</li> <li>Pricing strategies</li> <li>Rollout planning</li> <li>Promotion development</li> <li>Subcontractor management</li> <li>Logistics</li> </ul>

Product Development 101 continued from page 1

## Every Company Does Product Development - Job Shop or Proprietary Products

Product Development is often portrayed as a single process. Instead, think of it as any of the series of sub-activities that stretch from idea creation to production and delivery. By thinking of product development as a series of separate sub-activities (see table on page 4), companies can adopt only those industry-tested methodologies that are most applicable to their type of business. For example, a job shop has to define and document steps for repeatable fabrication of a part to spec. A contract manufacturer has to document design changes for improved manufacturability. A build-to-order manufacturer has to design and fabricate fixtures or tooling. Companies in highly regulated industries must comply with numerous manufacturing and design standards and codes. Proprietary product companies in highly competitive markets struggle with finding sources for revenue growth, with reducing price competition and with winning market share. But almost all struggle with getting as much done, as quickly and as well as they want.

## Common Product Development Symptoms

Many product development issues are common regardless of a company's products, services or industry.

- Design lead time plus manufacturing lead time is causing lost orders
- Lead time to develop quotes is causing lost orders
- Time and money is being spent on redesign and re-manufacture
- Delivery is delayed or quality affected by missing specifications
- Design changes during manufacturing cost time & money
- New designs take too long, and never seem to be finished

Identifying the development sub-activity(ies) that are causing the problems and focusing there is the place to start.

## Back to Basics

Start the analysis by breaking down the product development process into phases and then into sub-activities. This makes it possible to select and refine those sub-activities that are most applicable to issues and goals for a particular company. For example, a made-to-order customized product company can focus on improving sub-activities such as the engineering configuration process including quote development and one-off manufacturing quality. A company with proprietary products can focus on their innovation process to develop leapfrog technical solutions that beat the competitors. A company wishing to enter new markets can focus on identifying the right markets and products and how a newcomer can introduce those products into a new market.

## Product Development as a Strategy to Grow Profitably

This brief article highlights how tactical improvements in development sub-activities can be applied to a specific company's situation. A follow-on step for a company is to determine how product development can be managed more strategically to insure that the company is on a path to long-term sustainable profits. The development plan should then be integrated with planning for other business functions to develop a strategic plan. Contact Bob Kosobucki at 716.636.3626 if you have questions or want to discuss improvements in your product development process.

*Bob Kosobucki is a consultant with Insyte Consulting who has guided numerous new products from concept to market as a vice president and as a manager of engineering and of sales and marketing with companies in Silicon Valley, Austin, Dallas and the Northeast. ❖*

## Myth vs. Reality in New Product Success

**Myth:** A "build it and they will come" philosophy

**Reality:** No one comes

**Action:** Analyze your market needs more thoroughly

**Myth:** Attempting to convert the marketplace to your logic on why to buy

**Reality:** Everyone believes, but no one buys

**Action:** Analyze the buying process more thoroughly

**Myth:** Opportunistically chasing every sales deal because it represents revenues

**Reality:** Not sustainable for recurring revenues or long-term growth

**Action:** Use market analysis to develop a competitively defensible market strategy and plan

**Myth:** Believing a feature is a product or that a product is a business

**Reality:** Some 'products' do not stand on their own

**Action:** Commercialize features with a related product or service. Consider partnering or licensing

**Myth:** "Throw it against the wall to see what sticks" new product development

**Reality:** Growth momentum never seems to happen

**Action:** Design & make what will sell instead of trying to sell what you design and make



## Insyte Helps ENrG Inc. Keep Its Cool

**M**oving a manufacturing operation to a new physical plant can be a challenging endeavor. When those operations require running multiple furnaces at temperatures exceeding 1300 degrees Celsius in a Class 10000 clean room environment, the challenges reach a whole new level.

That was the situation facing Bill Sunderlin, operations manager for ENrG Incorporated, a Western New York company specializing in the development and manufacture of ceramic membrane and coating technologies for energy applications.

"The issue would be the ambient temperature in the clean room during the summer, when the temperature can exceed 100 degrees Fahrenheit," said Sunderlin. "This would have created a very uncomfortable working environment and affect personnel productivity."

As Sunderlin was looking for economical solutions, he approached Insyte Consulting, who directed him to the NASA-funded Space Alliance Technology Outreach Program. SATOP can offer up to 40 hours of free technical assistance to qualifying small businesses with engineering challenges.

SATOP project engineers introduced Sunderlin to Harland Hyde, P.E., vice president for industrial projects at AJT &

Associates in Cape Canaveral, FL. Harland has 38 years of experience designing and maintaining clean and sterile rooms, making him an ideal person to advise ENrG on how to effectively cool the room while maintaining clean room standards.

In the end, ENrG moved to a different facility that was more easily configured to its requirements and therefore needed to implement only portions of Hyde's recommendations. "This new facility doesn't pose the same challenges that we were facing when we first approached SATOP, yet we still used two of the recommendations and will keep the others on file for future reference," Sunderlin said.

Hyde said that he enjoyed sharing his expertise with ENrG. "While this was a significant challenge for a small company, I was able to draw from years of experience in keeping hard working operators comfortable in hot clean rooms. I knew it would work because I had done it before," he said.

Insyte Consulting is a partner in the SATOP program. For more information, contact Karen Delius at 716-636-3626 ext. 301 or email [kdelius@insyte-consulting.com](mailto:kdelius@insyte-consulting.com). ❖

### Quick Tips to Improve Your Product Development Process

- Apply Lean principles to product development.
  - Engineering design is a value stream. Remove non-value activities to reduce lead time.
  - Reduce the batch size by working on fewer projects at a time & finish more projects faster.
- Use market analysis to confirm what people want, who will buy it, why they want it, & what they will pay.
- Differentiate your product on the basis of what is important to buyers – not what is different from competitors.
- Develop a product roadmap so that each development effort is a building block to the next product.
- There is no perfect information. Customers often cannot articulate what they want. Detect failure quickly by confirming product concepts as early as possible before investing in full design & manufacture. ❖

### Workplace Safety Tips

To maintain a safe workplace:

- Make sure that work areas are clean and organized
- Use modern engineering solutions & safety guards to protect against hazards
- Include safety instructions in work procedures
- Audit the preventive maintenance program to ensure effectiveness
- Comply with Material Safety Data Sheet requirements to abate hazards
- Actively seek out and employ safety improvements
- Adhere to OSHA regulations



Need assistance developing and implementing an accident prevention safety program at your company? Contact Insyte Consulting's Sharon Hilts at 716.636.3626. ❖

Alir Systems continued from page 1

While this new business would be significant to Alir Systems, it would be of minimal impact to industry leaders like Thermo Systems (formerly Fisher Hamilton) or Kewaunee Scientific. Overall, it appeared that the company was taking a realistic and systematic approach to the business and that its objectives were both modest and achievable.

## The Situation

While Phoenix Metal Fabricating possessed some significant operational and marketing capabilities as a contract manufacturer, there were some major issues that the company needed to successfully address if it was to become a viable marketer of its own product line. Alir Systems had virtually no name or brand recognition within its targeted market segments and it also lacked the necessary infrastructure in terms of field sales and dealer/architectural networks. In addition, the company's product offering was very limited and lacked several key line items, particularly fume hoods and countertops, to enable it to compete for major installations at potential key accounts.

As an industry start-up, the company was also entering an intensely-competitive market that was dominated by the two major players identified above. In addition, there were also 40-50 smaller manufacturers, all of whom were established and recognized entities within the key, targeted market segments.

## The Solution

Alir Systems' senior management contacted Insyte Consulting regarding the development of a formal marketing plan that would help the company address the above issues and set the strategic direction for sustained growth over the next 3-5 years. Upon the completion of a comprehensive situation analysis of the overall market, and Alir Systems' position within it, a clear strategic direction was set for the company. It was determined that Alir Systems could effectively compete as a niche manufacturer based on its ability to provide flexible/modular designs, superior quality, exceptional customer service and pricing slightly below pre-

vailing market levels. This overall positioning included several key strategies that covered brand awareness, sales and distribution structure, pricing and new product development. Each of these key strategies was supported by specific tactics, action plans (including individual responsibility and due date) and budgets that were intended to ensure timely execution of the plan.

## The Results

Since completion of the planning document, the company has been able to leverage the vulnerability of its key competitors. Alir Systems is consistently building, shipping and installing its systems in 25% less time than is typically required within the industry. The product line has been expanded substantially for the purpose of opening up additional market opportunities. This was accomplished through a combination of internal development and outside sourcing. Key product line additions include fume hoods, flammable storage cabinets and acid resistant cabinets, as well as new base and wall cabinetry in multiple sizes and configurations. From a sales structure perspective, over twenty dealer arrangements were established for the purpose of pursuing major end-user installations throughout the country. These arrangements have also helped the company provide required customer service for system installation and after market support. Also, by active participation in the industry's major trade show, Pitt-Con, the company has gained much needed exposure and credibility that have resulted in significant new business opportunities.

As a result of this marketing direction, Alir Systems is now established as a viable player in the industry. It has successfully established relationships with both architects and contractors that have helped expand the national presence for the business with major end-user accounts. Alir Systems is extremely well positioned to maintain its level of growth and continue the systematic expansion of the business as anticipated and desired. ❖

## Firm Benefits

- 250% sales growth since plan completion
- 25% less time needed to build, ship & install their systems than typically required within the industry
- Products sold nationally
- Strong relationships established with architects & contractors
- Alir well positioned to maintain desired growth



Alir's Steve McIntire completes final assembly of lower cabinet unit.

"The market planning process provided a road map for our immediate and long-term success. By establishing a market focus and measurable objectives, we have been able to achieve our business objectives and position ourselves for increased market penetration in the near future"

Gary Johnson, President,  
Phoenix Metal Fabricating

# Affiliates News

## Insyte Directory

726 Exchange Street, Suite 620  
Buffalo, New York 14210  
Phone: 716.636.3626  
Email: [info@insyte-consulting.com](mailto:info@insyte-consulting.com)  
Web: [insyte-consulting.com](http://insyte-consulting.com)

Karen A. Delius | Editor

Benjamin L. Rand | President

## For information contact

Erie, Chautauqua, Cattaraugus  
John W. Murray  
716.864.8675

Niagara, Allegany  
Philip Celotto  
716.289.0518

Insyte Consulting is a Western New York  
Technology Development Center, Inc. company.

This publication is funded in whole or in part by  
NYSTAR. Any opinions, findings, conclusions or  
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Insyte Consulting assists WNY manufacturing and technology companies to overcome their strategic and tactical business challenges. Whether it's a short-term engagement or a long-term commitment, we create positive change.

Because our employees have hands-on experience, we can help our customers see the opportunities and threats that lie ahead. We're always ready to roll up our sleeves to help get results — results you can measure.

We also place a strong emphasis on teaching our customers proven methods for maintaining and replicating the success that has been achieved. Knowledge combined with common sense — that's how our experience improves your business.

## Our experience improves your business



726 Exchange Street  
Suite 620  
Buffalo, New York 14210  
web: [insyte-consulting.com](http://insyte-consulting.com)

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