

Spectrometry of Success

Purdue ‘Start-up’ Survives, Now Thrives

Despite a history that now dates back a little more than 10 years and includes a number of successes along the way, Dennis Barket still terms his company a “start-up.”

BizVoice® followed the progress throughout 2003 of what was then Griffin Analytical Technologies, co-founded by Barket and Garth Patterson. The two met while pursuing doctoral degrees at Purdue and their goal was to commercialize technology developed at the university. Now FLIR Mass Spectrometry, the company remains located in the Purdue Technology Center building that is part of the university’s signature research park in West Lafayette.

The early days were true start-up survival mode. Additional financing, government contracts and an eventual 2005 merger were, according to Barket, a start-up growth phase. Now a division within FLIR Systems, Inc. – a \$1.4 billion organization with more than 3,200 employees worldwide – the company is an operational start-up producing a variety of mass spectrometry systems for government and international customers.

Barket describes the evolution of the company and looks back on developments along the way in this *BizVoice*® interview. (Patterson is still actively involved with the company from his new home in the Washington, D.C. area, serving as a subject matter expert and helping sell some of the technologies to government clients).

Executing the plan

What was a nine-person operation near the end of 2003 is now a 45-employee business unit of FLIR. There is a full manufacturing operation, but Barket says 75% of the workforce is composed of scientists and engineers. Big Ten alumni are prevalent. The Purdue, Indiana and University of Illinois analytical chemistry programs are among the top five in the country, with graduates from Michigan and Ohio State also included. The company is one of only three (the others are in Boston and San Francisco) in the country doing research, product development and manufacturing in mass spectrometry.

The co-founders have stayed true to their original mission.

“I don’t know if that’s because we’re stubborn or we saw a niche in the market and we were able to exploit that,” Barket offers. “(There has always been) several good companies providing mass spec to the lab environment. We had this technology, and we wanted to develop products and compete outside the lab so we weren’t going against such entrenched competitors.

“Over the years, through our government contract work, speaking at conferences, and hopefully because our products are now out on the market, we started to develop a leadership position in that fieldable instrumentation market. The core of most everything we have done to date is centered around mass

spectrometry and how to take mass spec equipment outside the lab.”

Griffin Analytical launched its first product in 2005 and soon merged into ICx Technologies. Barket describes that as putting together “several companies of our size and technical disciplines that had a tether into defense and homeland security.” Other ICx companies were located in cities that included Boston, Baltimore, Pittsburgh, Atlanta and San Diego.

Home sweet home

Yet, the original Griffin Analytical was able to not only remain in Indiana but expand its original Purdue Research Park base, including taking over a state-of-the-art chemistry laboratory within the Purdue Technology Center. There was never a strong incentive to move, and there was a real desire to succeed close to home. Even in 2003, Barket said, “We’re committed to making a go of it here in Indiana.”



Dennis Barket and the FLIR Mass Spectrometry team saw some of their products featured on a recent *CSI: Crime Scene Investigation* episode.

Today, he recalls, “We were efficient with our capital raises. The money we needed to get to the next stages was all from Indiana.” Early partners included the state’s 21st Century Research and Technology Fund, Purdue Research Foundation, Rose-Hulman Ventures, Twilight Venture Partners, and various angel and institutional investors.

“We didn’t have those pressures to take money from Silicon Valley or Boston,” he continues. “One of the attractive parts of merging into ICx was part of that model was to keep the innovative companies where they were and (in our case) leverage our association with Purdue and the footprint we already had with Purdue Research Park.

“We were a 21 Fund recipient. That, along with being able to raise an angel round and a round of institutional investment here in the state, engendered a lot of loyalty by the management team. It’s been quite gratifying to be able to start a company



Homeland security and military customers utilize the Griffin line of field spectrometers in a variety of ways.

and grow it through those stages right here in Indiana. It shows that tech companies, analytical instrumentation companies, can and should grow in the state.”

ICx became a public company in 2007. FLIR, headquartered in Portland, Oregon, completed a \$268 million acquisition of ICx in the fall of 2010. The Indiana-based unit of FLIR provides products for chemical detection in the defense, security, forensics and environmental markets. Key customers are the Department of Defense, Department of Homeland Security and a number of foreign agencies.

Looking back and ahead

While environmental monitoring has always been a focus, research funding has led to the government agencies “wanting us to look for what I call the nasty stuff – chemical warfare agents, toxic industrial chemicals and explosives,” Barket explains. In addition to the current deployments, he adds, “We are working on next generation and generation after that products for some of these government customers.”

Barket shares his perspective on the last 10 years:

Significant surprises?: “Probably none that I will put on record,” he says with a smile. “Along the way, it’s just the total immersion a project like this takes on. You know it’s going to be quote, unquote, *hard*, but you don’t realize that until you’re in the middle of it, being accountable for driving a company like this, responsible for jobs, people’s benefits. While it’s been a lot of fun, it’s also a tremendously challenging endeavor.

“One of the challenging things is almost having two minds. When you’re trying to grow the company, you’re thinking out a couple of years about where you need to be with your product map or financing, or growth and capacity. At the same time, you’ve got to think, ‘I need to pay rent next month or make payroll in two weeks.’ So that juggling back and forth between the short-term needs of the operation and your longer term strategy build is an interesting challenge entrepreneurs have.”

Would you do anything differently?: “As it’s turned out, it’s been a pretty good run. A lot of companies now grow vertically, run really lean and farm things out. But, for us, we just had made the determination we wanted to grow our muscle internally, grow the capability to develop systems from the board design all the way to the software. Now, I’m glad we did that. Maybe some companies starting out today might take that other track of having that core technology and farming out more of the design and engineering.”

How far has the technology come?: With a chuckle this time, Barket admits, “It’s probably taken us twice as long as we thought it would take. We had hoped the systems at this point would be a little more portable, a little smaller. But we’ll get there. Right now, we have transportable systems and a lot of accessories that work with our systems. We figured out a little different way than the original vision to get that mass spec capability out in the field.”

What’s next?: “We all still feel there is a long way to go as far as where the technology can go, how much market share (we can gain) and how big we can help grow this. We think there is still a lot of opportunity.”

While many factors evolved over the years, two remained the same.

“I don’t know if I ever got extremely comfortable with raising money – or ever will,” Barket confides. “It was just one of those things that was necessary to grow the business. We relied on having a strong story, a good story to tell and let that speak for us instead of being particularly dynamic salespeople.”

And that story, more than ever, remains a very compelling one.

INFORMATION LINK

Resource: Dennis Barket, FLIR Mass Spectrometry, at www.FLIR.com/GS

Story by Tom Schuman