

A Note From The Real World

Obtaining and retaining a reliable stream of work is my toughest job.

To offer an alternative to my usual rant, this month I thought I'd share some hard-earned insights with those of you who have an insane itch to develop, manufacture and sell your own products.

Until now, I have been shielded from the vagaries of actually manufacturing something in the real world. Recent events, however, have put me on the front line of this endeavor, and I hope my experiences will prove valuable to any who dreams of traveling this path.

Running a new product development (NPD) think tank has some real perks — and some real challenges. The greatest challenge, as with virtually any for hire consultancy, settles around being at the mercy of the economic misery of the day.

When the economy goes, NPD clients are in the front seat of the roller coaster. When an economic recovery gets things moving again, NPD is pushed to the back seat in all but the most visionary companies. Thus, obtaining and retaining reliable work is my toughest job.

The perks of this industry come from being able to wash your hands of the nasty business of getting something through manufacturing and onto the loading docks. At the fuzzy front end of NPD, we deal with capricious technology, not people. Now, however, I am deep in the misery of manufacturing, supply shortages, interim financing, shipping schedules, personnel scheduling and other HR chores.

Along with PCDworks, a technology innovation firm I founded nine years ago, I find myself president of a new partnership between PCDworks and Sam Houston State University in Huntsville, TX. Our goal is to start up and grow our newly founded venture, Active Water Sciences (AWS), into a real company.

AWS owns some wonderful patents for processing municipal waste, along with two or three successful demonstration units that the Army and Air Force have been funding for the past seven years. Not only do we have real, full-sized prototypes that work, we also have significant orders for additional commercial units intended for use in war zones around the world. Not bad for a company incorporated in August '09.

Let me disclaim any special insight or genius on my part. I happened to be in the right place at the right time to be run over by this juggernaut. In fact, I'm simply trying to hang on to the tail as it runs. In truth, I've been watching this technology develop for about four years, bringing venture folks to the table, and then stepping aside without staking a financial interest. I kibitzed from the sideline, hoping to catch a crumb of consulting work as the cake was eaten.

As things progressed, my company developed the control system for this technology and implemented a fundamental system design that took the product to a new level. We played the role of contractor, with no ownership. When venture capitalists became impatient with the progress, however, the university turned to us to move the project forward, and here we are out of the skillet and into the fire.

Lesson Number One: Patience pays big dividends when you're looking for the right vehicle to take to market. It certainly doesn't pay to get greedy or push harder than the situation warrants. Patience gives you a platform to stand on and a platform allows you to stand above the fray and watch things develop in a detached manner. Detachment is critical if one is to have clear judgment about the value of a product.

Speaking of seeing clearly, one should never lose focus of the fact that money is the main battlefield. If you think finding credit is tough for a Fortune 500 company, try finding it for a start-up that has nothing to do with IT, nanotechnology or alternative energy.

Recently, I manned a booth for AWS at a wastewater convention. Fortunately, our local banker has supported my fantasy of creating a new product development think tank in the boonies of East Texas for over a decade, so treating wastewater for the military was something he could get his hands on, so to speak.

Lesson Number Two: If you don't have a long term relationship with a banker, get one.

I used to think of myself as a big picture person, the visionary who sees all of the disparate pieces of a problem, intuitively understanding the interactions between those parts, weighing the importance of each, discarding the irrelevant and, from that morass, weaving a cohesive systemic picture of how everything works together. Today, I work on contracts, schedules and financial spreadsheets. If you find yourself in my shoes, be prepared for these questions: Is the word performance adequately defined? Should performance be defined by the number of units sold or how much money they produce? Is he a sub licensee or a distributor? If we sell the unit before we distribute shares, will there be an onerous tax burden on the shareholders? What shortcut will get that part here in time to hit the deadline?

Lesson Number Three: Learn to love details, minutia and the nuance of words. If you think you can hire a lawyer to do all of your detail thinking, fuggedaboutit. A good lawyer is a necessity, but a lawyer will not reduce your detail burden. The same is true for a good cost accountant.

Finally, the greatest misery and joy of running a business is dealing with people. Decades ago, I taught organizational behavior in a graduate business school. That made me an expert on leadership, or so one would think. I'm also a trained clinical psychologist, which should make me an expert on abnormal behavior, right? None of that prepared me for the frustration of attempting to get people to follow a vision, work together as a team, cooperate for their own survival or even follow simple instructions.

Lesson Number Four: Even if you have the patience of Job, the wisdom of Solomon and the leadership charisma of Patton, you will likely be disappointed with the human race as a productive force. With persistence, gentle guidance and a willingness to entertain uncertain outcomes, you might succeed in achieving your dream without committing a felony. One can only hope.

Mike Rainone is the co-founder of PCDworks, a technology development firm specializing in breakthrough product innovation. Contact him at mrain1@pcdworks.com or visit www.pcdworks.com. **PDD**

By Mike Rainone



I just happened to be in the right place at the right time to be run over by this juggernaut.