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## **Successfully Creating Your Own Business**

by Susan M. Fitzpatrick

Founding and running your own company offers an attractive alternative to the "leaky pipeline," "glass ceiling," and the many other names we give to the dearth of women filling senior positions in the academic and corporate worlds. Women scientists and engineers have the skills and knowledge needed in an expanding tech-market and it seems to me that women could benefit from forging a company where the operational principles are based on their own work/life values.

Why is it that women-owned businesses represent one of the fastest growing segments of the economy, but most of the businesses started by women are in the service sector. Reading the available literature on women-owned business doesn't give one the impression that many women scientists and engineers found their own companies.

The exact numbers on how many science and technology-based businesses are founded by women are hard to find (believe me, I've looked!) but there are good financial indicators. Businesses owned by women and minorities garner 1.5 and 2.8 percent, respectively, of federal research dollars set aside to nurture new businesses, respectively. The Center for Women's Business Research reports that technology companies represent the majority of venture capital deals, yet women received only 1.6 percent of the \$33.5 billion invested by venture capitalists in recent years. There are a number of reasons analysts suspect that women attract a small percentage of venture investment, one being that women who start their own businesses don't seek venture capital, preferring to maintain their independence. However a new generation of women entrepreneurs may be changing the financial landscape and several organizations have sprung up with the mission of helping women garner venture funds.

What does it take to leave the security, regardless of how illusory, of belonging to an established institution and go off on your own? What are the ups and downs of starting your own business? What might a budding entrepreneur want to consider before taking the plunge? I posed these questions to Susan Elliott, founder of SSE in St. Louis ([www.SSEinc.com](http://www.SSEinc.com)); AWIS member Alice Deutsch, who launched Bioscreen, Inc. ([www.bioscreeninc.com](http://www.bioscreeninc.com)); and Alexis Traynor Kaplan, founder and chief scientific officer of Seattle-based Inologic ([www.inologic.com](http://www.inologic.com)).

Susan launched SSE, an information technology solutions provider, in 1966, a time that witnessed the birth of numerous computer-based businesses, but with few founded and led by women. Susan graduated from Smith College in the 1950's, majoring in American Studies. Drawn to mathematics and Latin, but not interested in a pure mathematics major, the American Studies curriculum offered Susan a broadbased program of study. Near the completion of her senior year, Susan visited a Smith career counselor for leads on future employment - with the caveat being that Susan was only interested in career opportunities that did not require her to attend secretarial school. (Remember, this was the 1950s!) Remarkably, IBM was actively recruiting women as system engineers. No computer experience was required; IBM tested applicants for analytical skills, hired those with high scores, and then provided all the necessary training. Susan joined IBM in 1958 and held a highly technical position for 8 years. During this time she married fellow St. Louisian, attorney Howard Elliott. In 1966, IBM told Susan she would have to stop working in the sixth month of pregnancy. Rather than take leave, Susan founded SSE so she "could work for a company where it was OK to be pregnant." Even though SSE had only one employee and no office, Susan secured her first client, a bank needing programming. Of course, Susan didn't need to incorporate a business to carry on such consulting work, but she was savvy enough to know that her clients liked the idea of hiring a "corporation."

Susan furloughed SSE for nine years while her two daughters were young and her husband's career took them to Jefferson City, Missouri's state capital, and Washington, DC, before the family returned to their home in St. Louis. Susan's business muse returned during a charity auction in 1983. Rather than bidding on the trips and trinkets, Susan successfully bid on an IBMPC. When asked what she was going to do with a PC, Susan replied "revive my business." Twenty years later, SSE is a leading provider of technology based solutions for businesses in the St. Louis area.\*

In 1981, Alice Deutsch was in her fourth year of postdoctoral training at Downstate Medical Center in Brooklyn, NY, and facing the reality of having to pursue a second postdoctoral position in a tight academic job market. Then she discovered an attractive alternative -- the emerging biotechnology industry. Alice was recruited to set up and run the laboratories of a start-up, Genetic Diagnostics Corporation. With no experience starting a laboratory-based business, Alice learned every facet of what it takes to get a biotech business off the ground by having to do it! She discovered she really liked making an idea happen, and that she was good at it.

When the company began to have problems, as is characteristic of many startups, Alice decided she'd spent enough of her energy and talent working for someone else. In 1987, with the support of her family, Alice founded Bioscreen, Inc., a company filling a niche market manufacturing products for use by research laboratories studying male fertility. Alice made some decisions early on that shaped the way Bioscreen would operate. She did not actively seek business partners, since a large component of her entrepreneurial motivation was a desire to maintain control over her work. Rather than invest in the expense of setting up a laboratory Alice bartered her laboratory skills for bench space from colleagues needing assistance. Alice continues to keep Bioscreen "light on its feet," open to new ways of increasing efficiency so that her own time commitments never seem onerous.

Alice, an active member of the MetroNew York AWIS chapter, is quick to point out that participating in AWIS activities is a great way to help women strategize career changes as well as providing a network of colleagues with broad interests and experience. She acknowledges that a start-up business can be unforgiving and that you'll learn quickly not to make the same mistake twice. But, she still gets a "kick" from knowing researchers are using her products and that she is helping to solve problems.

Alexis Traynor Kaplan's company, Inologic, which she launched in 1996, was founded on her belief that the products of bioscience research should positively impact the lives of individuals suffering from disease. Inologic develops therapeutic drugs for cystic fibrosis and inflammation based on Alexis's research with inositol compounds and the control of cell signaling pathways. Alexis realized she could keep pursuing her academic research acquiring more and more information about these compounds or she could "leapfrog" ahead and think about how to use existing knowledge to discover drugs and help patients.

As an associate professor at UCSD, Alexis found herself growing disenchanted with the academic science reward structure tending towards favoring narrower rather than broader intellectual interests and spheres of influence. As a biomedical scientist, Alexis believed that demonstrating "relevance" should be the real goal, with the ultimate bottom line measured by developing treatments that benefit people. Alexis also disliked that the increasingly competitive nature of biomedical research gradually squashed the "joy" in discovery that originally attracted her to science.

By starting her own company, Alexis could create a collegial, respectful scientific environment with its mission focused on finding solutions to real-world problems. As a woman in science Alexis had always felt a bit "outside the pack," so leaving the faculty at UCSD to start Inologic was less isolating than one might expect. When her scientific hunches about inositol began to pan out, the technology transfer office at UCSD helped Alexis through the patenting and licensing processes. Securing federal SBIR (small business innovation research) grants meant Alexis and her husband (a tax accountant who committed himself fully to the enterprise) could start looking for Inologic's home. They settled on a small room in a "pretty funky building" in Seattle, a city with the capacity to support biotech but offering more reasonable real-estate costs than California.

Alexis admits that in the early days there were plenty of times that they were "tied to the railroad tracks" and not quite sure how Inologic would pay its bills. Amazingly, funds were always secured when they were most needed -- and from investors who shared Inologic's core values. Inologic recently created a number of senior scientific and management positions, freeing Alexis from wearing a multitude of hats. True to her collegial style, Alexis welcomes turning over responsibility to people who are expert at the different aspects of running a biotech business. However, she doesn't regret the hectic early days. Having to have done it all gives her a good sense of what to expect from individuals she brings onboard.

During my conversations with Susan, Alice, and Alexis we discussed what they considered the essential attributes of aspiring entrepreneurs. There was general agreement that the usual suspects -- solid organizational, communication, and problem-solving skills are key. Susan thinks starting a business goes beyond "passion" since she suspects many professionals are passionate about their work. She does think aspiring entrepreneurs need optimism and a true comfort with risk taking. Susan never feared failing because she never really considered it possible. She knew SSE would succeed --and she trusted her strong internal compass and business instincts. Susan's willingness to take risks, to see opportunities where others may not, and to build a company based solidly on her values and integrity gave her a competitive edge. Alexis and her husband never wavered in their belief in Inologic, even when keeping it going required they max out credit cards and mortgage their home!

The three women expressed, in one way or another, that the flame of entrepreneurship is lit when you recognize you do something better than the others who are doing it. Alexis warned that academics thinking of changing tracks must assess their comfort with new benchmarks for success, because they will no longer be racking up publications on their curriculum vitae.

Alice believes women are perfectly suited for entrepreneurship. The juggling of responsibilities many women experience makes them naturals at looking for opportunities where others may not always see them. All three women mentioned that they could not have succeeded "alone" -- but that they truly value the expertise and contributions provided by friends, family, colleagues and advisors. I got the sense that Susan, Alice, and Alexis are succeeding in creating work environments where much of the popular business rhetoric about respecting employees and aiming for a balance in work, family, and community life is a reality.

Another commonality is the ability these women had to carefully examine their motivations and abilities. I think their comfort with risk derives in part from their ability to take an objective view of themselves. Striking characteristics common to these three women are their palatable confidence, vibrancy, enthusiasm, and genuine joy in their work -- each seems to be exactly where she wants to be.

Near the end of our conversation, Susan described something she did that I think makes a wonderful exercise for anyone contemplating a major life change. Preparing to revive SSE, she reviewed a year of her appointment calendar asking herself what she would have to give up if she decided to devote a dominant portion of her time to her company. Luckily for the 100+ employees of SSE, Susan's answer was "not much."

When I asked Susan if it is easier for women to start a business today than in the 1960s, I anticipated her answer would be, "Of course!" Her answer, instead, reflected a deeper understanding of the hurdles women face. While acknowledging that over the past 40 years society has certainly become more accepting and comfortable with women in leadership positions, Susan felt the real stresses for women do not derive from the outside world and its thinking. The real conflicts are internal. The tradeoffs for women trying to balance work and family have not really changed.

Susan suggests that women take the long view, seeing their life as a mosaic. Our choices and responsibilities may mean that we do what seems right at the time. It may not always be obvious how the different pieces fit together -- ultimately it becomes clear that the knowledge and skills we bring to our lives at the present derive from the sum total of our prior experiences.

\* A Wonderful capstone to Susan's success story with SSE is that her daughter Elizabeth is a senior member of the management team, poised to provide the second generation of leadership.