

First write your business plan

After completing a degree in chemical engineering and working for six years in industry, David Perry went to Harvard Business School with the goal of being involved with or launching his own high-technology start-up company. "If you can get people who understand technology and people who understand business and put them together so that they communicate with each other effectively, you've got something extraordinarily powerful," says Perry.

He has taken the business plan that earned him runner-up honours in the inaugural contest for Harvard Business School and put it to the test — starting his own company. In 1997 he co-founded Chemdex.com, where he is now the chief executive officer. The company uses e-commerce technology on the Internet to improve the process of finding and buying life-science products for researchers.

According to Perry, communication is often the most difficult part about launching a start-up. Often technologists cannot explain what they are doing or the business people cannot grasp the technology. Although Perry hates to pretend that he is an expert, he says: "I did it once and it worked; I'm not sure how much was luck and how

much was skill." He does stand by some principles that he used in developing Chemdex.com. One is to get as many people's opinions as you possibly can. "Sometimes you learn something, sometimes you don't, but it allows you to refine your business plan as you go. People think of things you haven't thought of or will ask you questions you have to figure out the answers to. In the end, you can either convince people you have a good plan or you can't," says Perry.

He adds that, in organizing a company, you want to hire people who are better than you in every category. "If I don't hire someone who's better than me as a chief financial officer or vice-president of sales or marketing, then I'm not doing my job." The only way to do this, however, is to have enough working knowledge of those areas to tell good from bad, he says. Make sure that you use your skills. If you're really good with technology, make sure you find people who are good at the other things. The fault he sees most often is that technical people go into business and hire other technical people but undervalue financial or management skills. "It's very hard to grow a business unless you have other people who can do those things well," says Perry. **B.H.**

where the environment is more dynamic and you are more actively involved in the overall process. "We are a drug discovery company, very focused on assay building and meeting objectives in drug discovery pipelines. When we interview people we make sure they are absolutely aware of it," says La Thangue.

According to Valerio, the work differs from academic research in the absolute focus that you should keep in industry. For the most part, you should leave alone the many paths you will come across, because it's the end goal that you want to reach. On the other hand, flexibility is also important, because "you should be able to move away from something that looks like a dead end," he says.

Generally, projects in start-up companies are driven by budgets, which are forecast over one- to five-year periods. The availability of financing is far more volatile than it is in academic research. Market forces drive the financing and investor confidence, says La Thangue. Whether or not investors see a product or the possibility of a public offering of shares also influences the level of financing enormously. In academic research, support depends essentially on the research and publication record that you have, he says. "The funding is tight, but it's consistently tight." In a biotech company, funding goes up and down, and this is essentially out of the control of the people in the company, he adds.

For example, biotech has gone out of favour in the United States, and it is much

more difficult to get a biotech company started there these days, according to Rolf Schneider-Günter, a venture capitalist who specializes in the life sciences for Atlas Venture in Frankfurt, Germany. Most prominent venture capitalists have shied away from biotech to a large extent or stopped investing in it altogether. Since about 1996, however, the climate in Europe has become much more favourable, apart from in the United Kingdom, where it is the same as in the United States, says Schneider-Günter.

According to *The New York Times* last November, the climate for start-ups has become a "far cry from the feeding frenzy of 1997 and the first half of 1998... start-ups face a market where they have to pitch their business plans to more venture capitalists, and give up more equity in order to raise cash".

No shortage of advice

According to Valerio, the atmosphere today is different from when he launched IntroGene because more and more life-science companies are spinning out of academic research in Europe. "The whole infrastructure of professional business developers that you can use as advisers, the public relations people, the venture capital community, have moved into the life sciences in a much bigger way than in the early days." He says that relationships with academic institutions also needed to be developed. IntroGene was trading on new ground, structuring rela-

tionships that included equity positions for universities in spin-out companies, which is still the model being used in The Netherlands today. There were few role models in those days. "But I never sensed any negative sentiments about 'going commercial'."

US companies are increasingly looking to Europe for available capital. For example, Riboscience, a company based in Boulder, Colorado, has opened a subsidiary in Germany, and the San Francisco-based Exelixis co-founded Artemis Pharmaceuticals in Germany with Nobel laureate Christiane Nüsslein-Volhard. "An increasing number of American companies are talking to us about the possibility of establishing something over here, and ease of financing is the main reason," says Atlas's Schneider-Günter. The climate has improved considerably thanks to the establishment of technology-oriented stock exchanges, such as EASDAQ, Le Nouveau Marché and Neuer Markt, says Schneider-Günter. By some accounts Europeans in general are bullish about start-up companies, if not down right speculative. (For more information on venture capital markets, search *The New York Times* website with the key words 'venture capital'.)

In Germany in particular, says Schneider-Günter, the combination of venture-capital mechanisms, the technology stock exchanges, a government push into biotechnology, substantial funding, and the availability of 'soft' money, has provided a framework that is very conducive for early stock offerings. □

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