

Where have all the start-ups gone



Since 2000, venture capital investment levels in emerging companies have fallen significantly. The challenges confronting biotech CEOs are further compounded by weak investor confidence in the later stages of the business. **Skott Burkland, Christopher Mill and Luis Truchado** look to IT companies to find answers to the difficulties facing life science start-ups

When looking at the challenges facing the CEOs of emerging life science companies, it is useful to compare them with those confronting their counterparts in emerging information technology companies. This is relevant for a number of reasons. Both are dependent on venture capital investment; both apply relatively young technology; and both are generally aiming at global, rather than local, markets.

Not surprisingly, there are many differences between the two sectors, but in

As a consequence, the challenges faced by the CEOs in the two sectors and the skills that they require to be successful are radically different.

For the biotech CEO, sustaining a discovery process over several years requires the skills of a gardener – nurturing the venture towards success is an evolutionary process. By contrast, the IT company CEO is more likely to be a hunter leading his troops through a series of rapid discontinuous changes. Typically, the biotech CEO will have some scientific background, whereas his

IT counterpart may never have been near a laboratory, but his know-how will be market- and customer-focused. The biotech CEO relies heavily on relationship skills, building alliances, courting investors and keeping his team focused.

The IT CEO, by contrast, is likely to be a highly competitive animal, driving his team to reduce the time to market.

Companies in the two sectors have very different lifecycles. IT investors, and their stock option-holding CEOs, are likely to look at exiting the business in four to five years – in biotechnology that is unlikely to occur in less than seven to nine years (see Figure 1).

Since 2000, the massive downturn in investment in emerging ventures in both the US and Europe is striking, as is the fragility of emerging European life science

companies which was revealed in a recent report by EuropBio – Biotechnology in Europe: 2005 comparative study. We concluded that the two phenomena may be related.

Less for early-stage investment

As the figures for pan-European venture capital activity demonstrate, early-stage investment has been taking a markedly smaller share of a noticeably smaller pot of venture investment (see Figure 2). This has been true both in North America and in Europe. In the US, for example, venture capital investments in start-ups fell from US\$850 million in the final quarter of 1999 to US\$109 million in the same period of 2004. Private equity firms are raising large new funds, but very little money is finding its way into emerging companies in any industry sector.

Why is this happening? The answer seems to be clear from the five-year rolling internal rates of return (IRRs), provided by the European Venture Capital Association in Figure 3. The returns from investment in later-stage companies, from buy-outs, appear to be better.

At some point, the price of buy-outs will rise to unacceptable levels as too much money chases too little value and, with luck, some of that money may once again go towards emerging ventures. But the question remains how much of that money will be going into early-stage biotechnology? We are not optimistic, at least as far as Europe is concerned.

Typical stages in emerging company lifecycles

	IT	Biotechnology
Concept development	Year 1	Years 1 & 2
Product development	Year 1-2	Year 2-5
Product to market	Year 2	Year 5-6
Cash self-sufficiency	Year 4	Year 7-8
Exit by IPO/merger/sale	Year 5	Year 5-9

Figure 1: In the biotech industry it takes markedly longer to bring a product to market, for firms to reach cash self-sufficiency and for investors to cash out.

research carried out by the authors into these businesses, two particular differences began to stand out:

- Time to market: it takes two to three times as long to bring a biotechnology product to market.
- Scale of investment: it takes six to ten times as much investment in biotech.

While many IT products come to market in 18 months, few biotech products do so in less than five years. In the IT sector, US\$30 million of investment can go a long way, whereas US\$300 million is the minimum cost of bringing one drug to market.

EuropaBio's study has revealed that Europe is well represented among life science start-ups in comparison with North America. However, an unusually high proportion of these European ventures disappear between the third and fifth year of their existence. Why does this happen? The study points to a lack of late-stage financing.

This fascinated us. Why would venture capital investors pull the plug at this stage, just as the emerging bio-venture is approaching revenue generation? What causes investor confidence to collapse?

In looking for an answer we returned to the comparison between emerging biotechnology and IT companies. Could it be that CEOs in the biotech sector do not have the experience of transforming their companies from discovery vehicles to commercial entities? Is the biotech CEO in some way not equipped to take his business from the research stage to commercial exploitation? Do they lack the skills of scaling up? We concluded that there might be something in this, but if that were true we would expect to see a similar phenomenon in North America, and this is not the case.

Our thoughts then turned back to the venture capital investors. It appeared to us that these premature deaths were less common among emerging companies which had the support of established pharma companies. These pharma firms, particularly in continental Europe, perhaps less so in the UK, appear to have been wary of outside venture finance, and loss of control over the direction of the business.

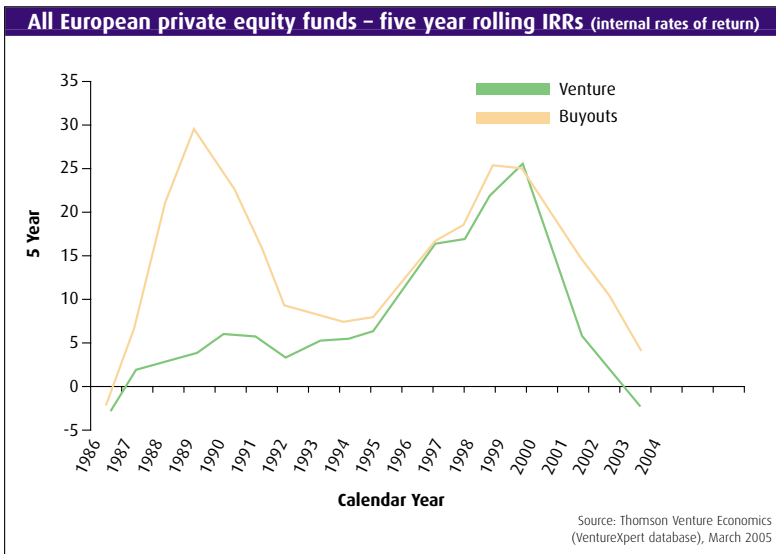


Figure 3: The IRR is measured at the point at which there is an exit from a project. This chart shows the historic rates of return and a negative IRR reflects the result of decisions to back projects in the past.

Could relatively conservative industry investors be more robust in their investment approach than their venture capital counterparts?

We also looked back at the history of venture capital investment in IT. Hardware and software businesses follow very different business models, and have very different dynamics. It was noticeable that when the balance of venture investment started to move from hardware to software in the 1990s, there were similar crises of confidence, and the plug was pulled on software businesses as they approached viability.

In the 1990s, some investors were applying hardware benchmarks to the very different software business, and were thus coming to the wrong conclusions. As time went by, they grew to understand the dynamics of software markets – plugs were still pulled, but they were being pulled earlier in the company's lifecycle.

We wonder if a similar phenomenon could be occurring in European biotechnology investment. Could venture capital investors be applying benchmarks derived from IT investment to the newer and very different business models, timescales, and funding needs of emerging biotech companies?

We feel that this might be the case, and that as well as calling for increased support from public policy initiatives, the European biotechnology industry may gain benefits from educating its investors, helping them to understand the dynamics of their market, and helping them to attune their expectations to its realities. It might also help to remind these venture capital investors that without early-stage investment there will be no late-stage buy-out opportunities.



Skott Burkland, Christopher Mill, and Luis Truchado are partners in Penrhyn International, an executive search consulting firm with global operations, specialising in emerging life science and information technology businesses.

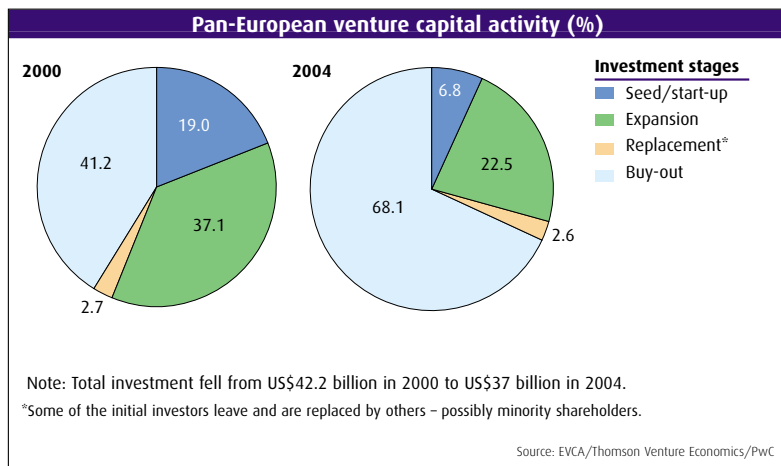


Figure 2: The downturn in investment at the start-up stage, in particular between 2000-2004, is striking, with early-stage investment taking a notably smaller share of a dwindling venture investment pot.