nature biotechnology

Joining forces

Similar to outsourcing in the corporate world, technology incubators are beginning to look beyond their own borders to find technology.

The need to adapt to today's more stringent investment climate is changing the way regional development agencies and technology incubators go about their business. Not only are they having to do more with less money; they are also increasingly receptive to technology and ideas beyond their own borders. This can only strengthen the biotech sector in the long run.

That the world of investment is beginning to look very different for life science startups is clear from the recent history of Paris-based venture capital company Sofinnova Partners. Two major exits from its portfolio—the sales of Fovea to Sanofi-Aventis at the beginning of October for €370 million and of CoreValve to Medtronic in February for an initial $700 million plus milestones—have meant that returns to its limited partners this year have been good. And yet, as managing partner Antoine Papiernik noted at the BioPartnering Europe in London in mid-October, the new fund Sofinnova hopes to close by the end of this year will be significantly smaller than previous funds—this despite over 250 meetings so far with potential institutional investors.

The knock-on effect for biotech investing is already plain to see. According to figures collated by *BioCentury* magazine, the average seed and early venture round in biotech in the US is now <75% of what it was two years ago. In Europe, the situation (as ever) is worse: although the average early tranche is just <55% of the 2007 value, the total amount raised in early-stage capital plummeted from >$920 million in 2007 to a measly $333 million in the first three quarters of 2009.

Such financial stringency is a savage cold wind that clears the fog away for even the most devout believers in any 'biotechnology model' that takes an isolated piece of technology and tries to build commercial value around it. The bottom line is that companies must make less money go further. The good news is that the nurturers of biotech have recognized that the change in financing implies a profound change for them as well.

A year ago, the Council of European Bioregions (CEBR, Brussels), an EU-funded confederation of life science clusters put out a 'Cluster Manifesto' calling for several fundamental shifts in the mind-set that accompanies early-stage biotech building. Refreshingly, it now appears as if many of CEBR's messages have been taken on board, particularly by those involved in technology transfer.

Thus, under the banner "if you love something, let it go," CEBR had called for "the geographical strings attached to technology transfer, incubation and finance to be cut. The resources should be portable, able to travel with the project as it finds its optimal location." The upside of the scarcity of venture capital cash is that the dramatic fall in value of 'raw' intellectual property (IP) has been recognized by an increasing number of technology transfer offices. No longer is it the role of the technology transfer office to be Gollum-like gatekeepers for all 'precious' IP. Instead, they know now they are in a discount business: pile it high and do something with it. Getting IP out there is the aim, not striking gold. Although it is far from commonplace, there is nevertheless an upward trend in the number of technology transfer offices that are networking their resources and aggregating IP from different institutions. The prime example of the genre is still Cancer Research Technology, the organization that used to see itself as the technology transfer arm of researchers funded by the Cancer Research UK charity, but which now acts as a broker for oncology-related resources from all over Europe, the US and Australia as well as its UK core.

There is also a more flexible and welcoming attitude among incubation facilities and clusters. There are still traditional incubators that try to tease a corporate entity out of concepts from a single local research institution. But now there is much more cooperation. This summer, two technology parks, Sophia Antipolis (Nice, France) and BioNegev (Negev, Israel), agreed that that they would jointly establish and nurture life-science companies. Other Israeli incubators, buoyed by successes in bringing Israeli concepts to commercial proof of concept, are now offering their experience to projects outside Israel. Non-Israeli projects can be incubated in Israel, taking advantage of government funds in exchange for an equity stake, with subsequent commercial development returning to the country of origin, or elsewhere. At the same time, moves are afoot to develop incubated Israeli-origin projects in European industry parks. The Bioindustry Park del Canavese near Turin could be one of these. The park has space, and the regional government of Piedmont is trying to attract projects that boost its existing strengths in diagnostics and imaging. Joining a cluster where vertical integration is next door looks like a business building strategy, and not just a matter of academic convenience.

CEBR had also called for rigorous commercial assessment from an international perspective of research intended for company creation where public money will be spent in its support. That's a message that is certainly getting through in other quarters. The Brazilian Biominas Foundation is currently raising a $150 million fund to invest in life science startups, and emerging and in-expansion companies. Although the fund will invest only in Brazil, investment decisions will be taken with reference to an international scientific and commercial panel.

In leaner times, then, desperation seems to drive a better grasp on realism. The bonds of technology transfer office imperialism are being loosened and the insularity that is the enemy of cooperation—and of success—is diminished. With more technology brokerage, more IP corralling and a more flexible approach to where a company can be encouraged to grow, it is more likely that companies will begin with a critical mass of IP, will face less competition and will avoid many of the business risks that befall the unwary who are charting new territory.