nature biotechnology

A blueprint for biotech's blues

The strategy outlined in the UK's Life Sciences Blueprint is unlikely to address the British biotech sector's woes or help it regain prominence and success.

The UK Life Sciences Blueprint announced in July is the result of a six months' consultation between industry and the British government's Office for Life Sciences. The Office is led by the Minister for Science and Innovation, Lord Paul Drayson, the former founder and CEO of one of the UK's biotech success stories, the drug delivery company, PowderJect. Drayson has drawn together in weekly meetings representatives of all the life sciences sectors—biotech, diagnostics, pharmaceuticals and devices—and those parts of government responsible for research, industry and health. But despite the undeniable credentials of those involved, the Blueprint's 50 pages read less like a plan and more like a credo, or perhaps a chant at a séance designed to summon the spirits of past achievements to the service of the desperate present.

Several 'big ideas' emerge from the Blueprint, but none is convincing. The most tangible, perhaps, falls under the banner of "Access to finance and stimulating investment." Acknowledging that early biotech ventures face increasing difficulties in securing venture capital, the UK government's response has been to create the Innovation Investment Fund (IIF). This will provide £150 ($246) million of taxpayers' money as a means of leveraging private capital to build a £1 ($1.6) billion, 10-year fund.

Unfortunately, the IIF will have no, or at best a negligible, effect on the life sciences financing environment for several reasons. First, £1 billion over 10 years is not much money. Second, the money will go not only to life sciences companies but also to clean tech, advanced manufacturing and IT. And third, the intervention may end up putting soft money into companies that probably would not be funded otherwise. That, of course, is the point of the fund.

But the point for investors is that de-risking should be conducted at the level of the business and not at the level of the incoming cash. By encouraging investments in early-stage ventures, the UK government is not correcting a market failure, it is simply ignoring the market reality that too many UK companies start that subsequently fail. Later stage finance; market access hurdles; an ability to collaborate and expand internationally: these are areas where the intervention might be needed, not in the translation of research into companies. IIF is likely to create more of the kind of weak companies that are already part of the problem.

Another big idea in the Blueprint is the 'recognition' of the National Health Service (NHS), Britain's overarching centralized healthcare provider, as a champion of innovation. Many in biotech will be amused by the juxtaposition of the terms 'innovation' and 'NHS', particularly when the UK's National Institute for Health and Clinical Excellence (NICE) is held up as the engine for innovation. NICE is the organization that determines reimbursement for drugs and other treatments in the UK. In effect, it has been responsible for delaying the introduction of several biotech compounds, including Nexavar for liver cancer, Velcade for multiple myeloma and Avastin for colorectal cancer. NICE puts the 'no' in innovation. It has reduced the UK drug bill but at the expense of technical innovation in medicine development.

The solution, according to the Blueprint, is for NICE to introduce an 'Innovation Pass', a way in which selected medicines can bypass the obstructive NICE appraisal. There is a £25 ($41) million budget for a pilot project, and NICE will be involved in developing the eligibility criteria for the Pass. So the big idea in NHS innovation boils down to a temporary measure to undo the harm, a measure overseen by the agency that is responsible for the harm in the first place. The NHS could, indeed, be a powerful resource if used properly: its nation-wide banks of patient samples and detailed health records are world-class assets that could be mobilized now for disease and adverse drug reaction stratification. At present, the primary obstacle is the hidebound attitude of physicians' organizations that view their members as guardians of patient data. A little bit of leadership from government might shift that balance. This is a critical challenge facing the drug industry today; the UK could lead the world if it seized the opportunity.

The final *coup de grâce* in the Blueprint—its other big idea—is that one of the key transforming actions necessary for UK biotech is to market the UK biotech brand. An industry-led UK Life Science Marketing Strategy Board will accelerate marketing activity in the next months with activities, such as attending trade shows and holding road shows to help the UK "speak with one voice" on the life sciences, tell venture funds about the IIF and create a "UK supercluster."

Creating this supercluster is not a question of forming and stimulating companies; it is a matter of corralling existing companies within a 'Supercluster' brand, a need that arises because the UK is no longer united in industrial policy. Spurred by the European Union tenet of devolution, central government has passed down responsibilities for industrial development to regional governments. Consequently, Scotland, Wales, North East of England, the Midlands, East of England and six other regions all believe they can and do have their own life sciences cluster. And this regional chatter drowns out any overall message about the UK's strengths.

The reality of government intervention in the UK, and perhaps elsewhere in Europe, is that the measures that government can afford to take (and is allowed by anticompetition European law to take) are not going to be effective. The Blueprint is, unfortunately, not only a litany of ineffectiveness; it is a feeble attempt to reverse government-originated harm to the biotech sector by temporarily disabling the measures that hurt the sector in the first place. By piling on fresh 'initiatives', the UK government complicates the bureaucracy that companies and innovators face. Of course, to remove the obstructions altogether would be a better solution, but that would involve admitting government culpability in the first place.