

## The New Industrial Connectivity

*By Nigel Thrift*

Universities are becoming a vital part of national and international economies.

That involvement has taken three forms.

First, there is the general hum of industrial-research contracts. Universities have carried out research for firms for so many years that this activity has simply become business as usual.

Second, there is the generation of spin-off companies, licenses, and patents. This is the kind of involvement which preoccupied universities in the 1990s and 2000s.

Third, universities have begun to experiment with much closer forms of industrial affiliation. For example, there has been the gradual development of Fraunhofer-type centres across Europe, stimulated by the German experience at universities like Aachen as well as the longstanding importance of beacons like the Warwick Manufacturing Group. Here the intention is not just to do research but by producing close relationships with firms to participate in the actual process of industrial development, which involves continuous incremental change.

These developments have become more important because of the way in which corporate strategy has been moving. Increasingly in many countries that espouse shareholder capitalism costly research is being outsourced to universities. Pharmaceuticals is only the most obvious instance of this tendency. There, the need to placate investors has meant that many companies are cutting their research budgets, so freeing up funds locked up in fixed assets that can be used to boost innovation in other less costly ways, most notably by trawling universities and small biotech companies. Indeed, at the extreme (and crazily), financial markets have begun to treat spending on research and development as though it is destroying value.

There has been much criticism of the so-called corporate university, but this criticism has often stemmed from the feeling that universities are under the corporate thumb. However, what happens when universities become central to growth and innovation and are perceived to be engines of innovation in their own right – vital partners and not just subcontractors?

It is an interesting and unfamiliar position that most universities therefore now find themselves in, but it is one that they can hardly step back from in a time when the citizenry needs jobs and income as never before. And there is hope of change. For example, I have been co-chairing a task force of the British Council for Industry and Higher Education that has been addressing these issues in relation to manufacturing (see [www.cihe.co.uk](http://www.cihe.co.uk)). What is clear from the taskforce's initial findings is that many in industry are rethinking their relationship to higher education. They are looking at how to construct industrial ecologies which can naturally promote a spiral of growth.

But there is a hitch. What is also clear is that innovation is becoming even more of a public good as the private sector runs down spending on research and development. For countries like the U.K. and the U.S. that desperately need to stimulate economic growth, that means that the most crucial thing is to keep up and likely increase public spending on research and development. So far, this argument has only been half-won. In many countries outside Asia, what is vital to future economic growth and general prosperity is in danger of being strangled by a rigidity about what is considered as public and what is considered as private.

And there is a more general issue. As universities become key economic actors, so even more thought needs to be given to how to assure their other functions and responsibilities. As Ronald Barnett has argued in his recent book, *Being a University*, universities need to beware of becoming excessively parochial on any dimension.

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