



LAMBERT REVIEW

SUBMISSION FROM THE UNIVERSITY OF NEWCASTLE UPON TYNE

We welcome the opportunity to contribute to this review. We have structured the latter part of our comments around your “Questions for consultation” but we felt it would be useful to summarise what we see as the key issues first.

Role of intermediaries

We believe, from our experience, that direct engagement by the University with business is the most productive for ‘industry’ and ourselves. Staff in companies usually wish to engage directly with the academic community (supported by our in-house teams) rather than through third parties. We are not selling a specific commodity product and therefore engagement with business tends to be a human process and should not be reduced to simple sales or marketing documents. Engagement through intermediaries (e.g. Business Link) can be effective but the offering has to be very well articulated. Establishment of collaborative groupings of universities to make common offerings is more likely to be effective – this is being further refined in the North-East with the RDA through their ‘Strategy for Success’ and the development of the Science and Industry Council. This was stimulated by the RDA agreeing to place the universities and colleges at the heart of the Regional Economic Strategy. The RDA then agreed to employ ADL to carry out a survey of the science infrastructure of the North East that led to the identification of five Centres of Excellence. These have now been established and promise to provide a new forum for business/industry interaction with the universities. The further establishment of NorthSTAR to facilitate the financing of the technology emerging from these Centres is an important additional step.

Freedom to operate

Universities are significant enterprises in their own right but they are commonly seriously constrained through funding mechanisms. Many activities are often supported or pump-primed by specific initiatives with project funding. The disaggregation of activities to a project specific level can be counter-productive. At the same time the efficiency gains which have been delivered by HE in the last ten years have reduced the flexibility universities have in their operation. If we had to make one specific plea it would be to resource each university directly through programme funding rather than through specific project initiatives – this is developed further below. This need not increase the public sector financial contribution to University-business interaction but would increase its effect significantly.

Distinguishing between outcome and outreach oriented activities

Universities are complex organisations with very significant human and intellectual capital it is difficult to ‘market’ that overall capability to business given the diversity present in each research-intensive university. In a recent ‘Lambert Review’ seminar in Newcastle it was quite clear that businesses valued the University but it was recommended that we need to distinguish between the University as a provider of service and as potential partner. Much interaction with business is developed through an iterative process, where the level of understanding is developed through time rather than through a simple customer-supplier relationship. In our view,



research intensive universities' greatest contribution is likely to come from developing partnerships with companies large and small rather than through competing with commercial consultancy providers. Ensuring that we have the capacity through our infrastructure to focus on the development of the right relationship is more important than viewing the University as just another provider of commercial services. We believe the net gain to UK plc would be significantly greater by adopting such an approach.

Questions for consultation

1) Examples of best practice

The University of Newcastle upon Tyne has numerous interactions with business large and small but we would bring three to your attention in research and commercialisation.

Knowledge House – <http://www.knowledgehouse.ac.uk/index.htm>

BioNE²T – <http://www.ncl.ac.uk/bionet>

INEX - <http://www.inex.org.uk/>

We cite these examples as they are very different in their origin and operation. All are collaborative. Knowledge House is a 'top-down' initiative seeking to make university expertise in consultancy and commercial services more accessible with a strong cross-referral network across the HE base and providing a single point of contact to business. BioNE²T is 'bottom-up' initiative developed by scientists' desires to interact with each other and with business in a specific technology domain. INEX is the University of Newcastle's part of the University Innovation Centre in Nanotechnology. INEX provides a major facility at Newcastle in a focussed technology domain driven by a strong academic champion and seeking to develop direct engagement with business combining commercial services with R&D, training and incubation. There is a need for initiatives of all types, but the role of strong academic leadership in developing such activities is essential for many activities. 'Over-engineering' of the business-university interface should be avoided.

2) Barriers

In our view the most significant barrier to strengthening relationships with business is over-management of schemes and the multiplicity of initiatives and project funding. The process of securing such funding can be circuitous and out of proportion to the return. The timescales are often long and out of 'sync' with business need. We believe that some of the moves which are being discussed around the Higher Education Innovation Fund and other initiatives in terms of developing and sustaining the underpinning infrastructure are essential if we are to achieve our potential. Each University needs 'freedom to operate'. However, we are very concerned at the suggestion in the Higher Education White Paper that the new HEIF funding should be restricted to the non-research intensive universities. This does not make any academic or business sense. Technology transfer and knowledge transfer are not, and should not be, localised to the new universities.

As an example, the University of Newcastle is involved with the EPSRC in piloting a scheme under the banner of Collaborative Training Awards. The intention under this scheme is to provide programme level resource to the University under a number of EPSRC schemes. In simple terms, the University will manage the public resource



directly as a programme (and be accountable for it) rather than bidding jointly with companies for project funding. As a consequence when companies approach the University we will be able to 'do the deal' without going through a long-winded and time-consuming process with research councils and government departments to secure project specific funding. We believe this will be a significant benefit to our business partners and will lead to the development of stronger more meaningful interactions. This pilot scheme is only just being established but we believe such a protocol could be expanded and developed significantly - we hope detailed examination of this mechanism will be one of the outcomes to emerge from the combination of your review and the DTI Innovation review.

Intellectual property rights are always raised as an issue in the university-business interface. In our view IPR should not be an issue. In simple terms commercial return in many technologies can only be achieved where sufficient IP protection is secured. It is therefore in industries' overall interest to have an IP aware academic community. However, as we develop our own experience we are starting to recognise that many companies need to increase their IP understanding to secure maximum business benefit at the same time as we increase ours.

The academic community's use of the patent literature is developing rapidly as the University engages more overtly in commercialisation of intellectual property rights. IPR developments also increase significantly the visibility of the outputs of the University's research in a manner which companies can understand. Many companies do not have in-house research capacity and engagement can only occur when the 'offering' from a University can be understood in business terms. There is still some way to go in this regard, but recent advances should not be underestimated. However, we believe that many companies would benefit from greater IP awareness and the CBI Innovation survey would seem to support this contention. UK businesses need to be more technology acquisitive and as they become so the opportunity for interaction with the research base becomes more viable.

The Bayh-Dohl Act in the USA was fundamental in changing the relationship between US industry and US universities. We would not wish to get into the rights and wrongs of Bayh-Dohl in this discussion, but what we take from this example in the USA is that a clear statement of government policy and implementation through legislation can have a profound effect.

Nonetheless, the biggest obstacle to development of IPR still returns to costs – it is around 5 times more expensive to secure patent protection for the European market compared to the US market – the Community Patent may address this in part but the constraint such expense builds in to the early stage of IP commercialisation is important – this is a hurdle which inhibits both universities and business.

3) Graduate and postgraduate skills

The University has a very active careers service with many examples of good practice. You may wish to visit the web-site and study the 'site-map' at <http://www.careers.ncl.ac.uk/students/pages/catIndex.asp> we would be pleased to provide further information or to host a visit should you wish to find out more.

Employers are engaged in degree programmes e.g. PWC Flying Start, SET undergraduates from the armed services, SFEDI endorsement of our Business Enterprise Module. However, many businesses are small and their recruitment



needs insufficient to develop significant links. In addition, graduates do not always see their future in SMEs and SMEs do not always use their graduates effectively. Through brokering links (around 400 per annum) and through our enterprise education activities we have had some success in breaking these barriers down. There is much still to be done.

We are continually developing the under-graduate and post-graduate curriculum. All employers agree that 'soft skills' are important and we take this very seriously. However, in our experience employers do not speak with one voice as far as skills are concerned. Immediate business needs will often, quite rightly, drive a company's comments on graduate recruitment. We need to exercise some caution here. We now expect a graduate to have at least 3 or more **career (not job)** changes in their working life. Their first degree must equip the student to give them the best life-chances and this may not be best served by responding to employers needs for graduates in that discipline as expressed in 2003 for graduates emerging from 2007 onwards. Despite considerable efforts there is still no clear way for business to communicate its needs for specific technical skills at a national or, indeed, regional level. Furthermore, even if we could achieve that outcome there is no guarantee that a graduate would seek to stay in their chosen field on graduation. The increasing financial contribution of students to their education will change HE significantly. A clear area for action will be to develop new models for sponsorship of individual students through 'golden hellos' and company sponsorship.

We believe that Continuous Professional Development and the University's role in that activity is in its infancy. The role of CPD and up-skilling existing graduates in industry would, in itself, merit significant attention during your review.

We are also concerned that many employers still pay heed to 'A' level scores when recruiting a graduate. At the same time as universities are being asked to review their admissions criteria there may be a need for companies to share best practice in recruitment strategies.

We believe that there is a stronger role for representative bodies e.g. CBI and Chambers of Commerce to be more pro-active in their engagement on some of these key issues. The engagement of industry champions can have a major impact. This is best achieved where engagement is on a broader front rather than where they represent only their specific business interests.

We are conscious that you will be receiving many inputs to your consultation process and we have tried to keep our comments moderately brief. However, should wish us to amplify on these comments or provide further information we will be delighted to do so.