



## **Submission to the Lambert Review of Business-University Collaboration**

### **Introduction**

1. The University of Sunderland is pleased to submit a written response to the Lambert Review of Business-University Collaboration, which was announced by the Chancellor of the Exchequer in his pre-budget statement in November 2002.
2. This response provides a brief summary of the information requested by the Lambert Review consultation document. The University will be pleased to supply further details on request via the contact given at the end of this document.

### **University of Sunderland and Collaboration with Business**

3. The University of Sunderland has a long and wide-ranging record of collaboration with business. Throughout its history, from the founding colleges in the early 20<sup>th</sup> century, through its development as a Polytechnic from the 1960s, to its current status as a University, it has played a major role in responding to the skills and innovation needs of industry in the region, the nation and globally.
4. The mission of the University of Sunderland is:

“To promote learning, research and training through partnership between staff, students, industry and the community. To work together to improve quality of service, respond to diversity of needs and equip individuals with the skills for lifelong learning and for effective contribution to society and the economy”.

This highlights the University’s commitment to partnership, to working with industry, and to develop effective skills in graduates and postgraduates.

5. The University’s key objectives are to:
  - build academic reputation in teaching, research, and reach-out;
  - satisfy our markets and create demand;
  - concentrate on customer focus;
  - widen student participation;
  - support employability and enterprise;
  - maintain financial stability;
  - generate business growth.

These highlight the University’s commitment to develop further its interactions with business (reach-out) in a customer responsive way, as well as to develop employability and enterprise skills in our graduates and postgraduates.

6. The University's strategy for collaboration with business (and the community) sets out its objectives and plans in relation to the development of its reach-out aims, and very importantly, their integration with its research and teaching aims. The University believes very strongly that the three core strategic aims of a University should not be developed and operated in isolation, that many of its activities straddle more than one of these aims, and that therefore they are mutually supportive.
7. As part of this strategy, and supported by the recent 3<sup>rd</sup> stream funding, the University has established structures that provide professional business development and knowledge transfer staff resources to support internal departments and staff in their interactions with external business clients. These staff also work with companies in targeted business sectors/clusters to interpret and define their needs and to facilitate engagement with University expertise, so directing University responses to meet those needs. These specialist staff comprise the Business Development team that is based at The Industry Centre, which is a prestigious riverside business park facility providing a high quality visitor/telephone access mechanism/front door and a focal point for its business activities.

### **Questions for Consultation**

#### **Examples of best practice in business-university collaboration, how the relationships started, and what more could be done to facilitate them**

8. Academics who are enthusiastic and motivated towards collaboration with industry make a significant difference to the performance of the business interface, especially where such academics are also in a senior management role within their departments and therefore able to influence, or be a role model for, other academics. Professor John MacIntyre, Associate Dean in the School of Computing and Technology, was recently rewarded for his achievements and plans in this area with a HEFCE Business Fellowship – one of only 12 awarded in the UK and worth £100,000 over 4 years. This award has helped to give status to these activities alongside teaching and research – an important symbol to other academics – as well as provide additional personal capacity to develop business collaborations in the region.
9. In particular, Professor John MacIntyre has been developing, with the support of the Business Development team, major collaborations with the automotive cluster in the North East and with the broader North East Productivity Alliance (NEPA) leading to three recent contracts worth approximately £10 million. The initial reservations of Nissan and the automotive sector (highly focused on a 'just in time' supplier philosophy) about the abilities of universities to respond to their needs have been overcome through a highly professional response and delivery against milestones and targets. In fact, the constraints on this collaboration have not been the responses from the universities, but the ability of government funding mechanisms to respond flexibly to their needs and timescales. The University of Sunderland project manages a consortium of all 5 North East universities in these major projects – again responding to the client's requirements to deal with a single point of responsibility rather than multiple

contacts across all universities. A similar approach has been adopted through the regional Centre of Excellence for Life Sciences where John MacIntyre has facilitated the establishment of a BioInformatics Institute.

10. Another major area of business collaboration has been the establishment of the Digital Media Network, which recently led to the development of another regional Centre of Excellence in Digital Media and Digital Technology. This began with a senior academic (Professor Gilbert Cockton) recognising the need for a business network for the rapidly growing number of new media businesses in the region, and which also built upon our research base in digital media and a small amount of GR 'seed' funding. The Digital Media Network currently has a membership of over 110 digital media companies.
11. The North East region has the lowest rate of business start-ups in the country, and Sunderland has one of the lowest rates in the region (less than half the regional average, which in itself is half the national average). The University has established a New Ventures initiative to address this regional problem, by identifying, developing and implementing an original model of the sources and processes involved in the exploitation of the wide range of university knowledge and expertise. This involves not just spin-out from University research but more particularly from the establishment of businesses by undergraduate students and graduates and where 'Hatchery' facilities are being developed to enterprise development. This University initiative has now been adopted as a sub-regional initiative involving the Universities of Newcastle and Northumbria with financial support from regional Single Programme funding.
12. The University is also developing a range of business collaborations based on its analytical and testing service capabilities and expertise. In particular, it has established Chemispec as a state-of-the-art, fast turnaround, spectroscopy service to regional and national industry offering a range of pharmaceutical, fine chemical and materials analysis which is unique in the region, and among the most technologically advanced in the UK. This service is located in the local Business and Innovation Centre (BIC) and is dedicated to providing a rapid response to meet clients needs—reversing the conventional university model of selling spare capacity on research equipment ie when the university 'can' rather than when the client 'wants'. This service has been recently extended by a close collaboration with a local, rapidly growing company, Onyx Scientific.
13. A key issue for the UK, highlighted by the recent establishment/increase in 3<sup>rd</sup> stream funding, is the need for full-time trained professionals acting at the university-business interface. This is a relatively new 'profession' without any recognised infrastructure of qualifications and professional development. The University of Sunderland is leading the way in this field – following his involvement as an AURIL (Association for University Research and Industry Links) Council member in the development of a competency framework for this area of activity, Martin Haywood is leading a Universities for the North East partnership project (called CuPiD – CPD for university-industry interface staff), part-funded by HEFCE, for the development of a set of training routes and qualifications, which it is hoped will be rolled out across the UK in the near future.

14. The University of Sunderland is also involved with all the other universities in the North East in a number of other collaborative developments that promote and support interaction with industry. The most notable of these is Knowledge House, which provides a professional enquiry mechanism to enable businesses to access the resources and expertise in all NE universities. This service was established in 1995 and has been enhanced recently with HEIF funding.

### **Main barriers to strengthening business-university relationships**

15. There is relatively low demand from businesses for university services, especially from SMEs and especially in some areas of the UK such as the North East. It is of national and regional importance that efforts are made to strengthen, raise and channel this demand to HE. Business support agencies, especially Regional Development Agencies (RDAs), the Small Business Service and Business Links, have a crucial role to play. Business Links, generally, have not been successful in engaging SMEs with innovation or HE in any substantive, meaningful way. Businesses, especially SMEs, often don't know what they need – they tend to concentrate on short term 'wants' or problem solving rather than longer term, strategic needs where HEIs are more able to play a stronger role. Business Link Advisors can help SMEs to raise the sights and aspirations of businesses towards a more strategic approach involving higher levels of innovation and knowledge, as well help universities by feeding back on the SME demand areas, levels of demand and other related issues.
16. The recently introduced funding for 3<sup>rd</sup> stream activities in HEIs is welcomed but it is currently inadequate compared with the levels of funding for teaching and research activities. This disparity of funding sends important signals to the academic community about how important (or not) business collaboration is regarded by Government and its agencies, about how it might impact on their career progression, and therefore about how to prioritise their time. This funding should be increased and explicitly confirmed as permanent as soon as possible. The continuity of funding is critical in terms of planning and retaining HE resources (especially staff), activities, and availability of services to clients. In our experience, business clients are particularly critical about the stop/start/change nature of publicly funded activities and initiatives. Permanent 3<sup>rd</sup> stream funding should also remove the bidding overhead involved in responding to endless funding competitions – these resources are more cost effectively employed in providing services to business clients.
17. Increasingly RDAs are important sources of funding support for 3<sup>rd</sup> stream activities in HEIs. However, there are many issues associated with this funding – the application/approval process is often bureaucratic, the timescales for funding/delivery are often short-term and do not recognise the issues associated with the need to establish appropriate resources/marketing to SMEs, and outputs (eg jobs or businesses created) are inappropriate. The funding criteria and project appraisal processes often require projects to demonstrate a high number of low value outputs in a very short term rather than a lower number of higher value/longer term outcomes that are more appropriate for HEIs and the needs of a

knowledge based economy. The operational detail of funding mechanisms needs to match the strategic rhetoric of Government and regional agencies.

18. Improving the accessibility and responsiveness of HEIs is clearly a key issue (eg see recent CBI survey). In our view this translates into a need for more professionals acting at the interface between HEIs and businesses - since it will not be possible to educate most SMEs to understand the world of academia any more than it will be to educate most academics to understand the world of SMEs. Therefore the recruitment, training and development of HEI-business interface staff is critical.
19. There is clearly a negative effect on businesses from the fact that the business support landscape is littered with too many government schemes & initiatives, which often confuse businesses and which also lack flexibility in response to their needs. The University welcomes the proposed moves to rationalise DTI offerings and increase their flexibility, including the TCS scheme in terms of programme length and type of industry/sector involved. We feel, for example, that business sectors such as the creative, cultural, tourism and heritage, should have equal access to these initiatives.
20. Student and graduate industrial placement, work experience and employment schemes are important mechanisms both for building relationships with businesses and for developing the work skills of students. The shorter work experience schemes can also be extremely valuable in breaking down the barriers between HEIs and SMEs, especially for those SMEs that have no history of involvement with an HEI or of recruiting graduates – they can therefore be used as low cost/low risk ‘entry-level’ services to start an SME engagement with an HEI. However, the current financial climate for students in HE is such that fewer students are inclined to undertake a one-year industrial placement – they are more inclined to want to finish their degree as quickly as possible.
21. There is a tendency for the Government and its agencies to focus only on spin-outs and licensing in the context of 3<sup>rd</sup> stream activities, and therefore to underestimate, under-report and under-value the level and range of activities being undertaken under the 3<sup>rd</sup> stream aim, as well as the number of universities involved – ie its not just the ‘research intensive’ universities. The annual HEFCE HE Business Interaction Survey measures a wide range of business interactions in which universities are engaged and should be used as the basis for taking forward any discussions on metrics for 3<sup>rd</sup> stream activities.
22. HE interactions with business also need to move towards a more sustainable model where the full cost of the activity is met by the business (and/or the Government if provided under a business support scheme). Government departments and agencies, including research councils, do little to encourage a full cost culture in HE – they should be setting a lead.

### **How can business attract the best graduates and postgraduates?**

23. The difficulties of training and recruiting enough graduates in some science and technology areas are well known. This was highlighted recently in the

collaboration with Nissan, where there were considerable difficulties in recruiting sufficient numbers of high quality engineering graduates to join the TCS-like graduate training/knowledge transfer programme, despite the fact that relatively high salaries were on offer – three rounds of recruitment were required over a period of 6 months.

24. In the development and attraction of the best students, more work needs to be done by businesses and universities in partnership with schools to influence the options taken by pupils. Many students rule themselves out of science careers because they do not have the right mix of subjects, even at GCSE level. The University of Sunderland is already working with many schools in the region, including through open days, "fun" demonstrations in science, and science projects/competitions.
25. It appears that many good students at A-level do not go into HE due to their not wanting to get into debt. Sponsorships to support these students at A-level and/or through university may help redress the balance. In addition, consideration should be given to Government incentives for business to sponsor students, eg through tax credits or matched funding support.
26. In the current financial climate for students, employers should also consider paying off the student loan of graduates.
27. The current deliberate trend of constriction of the supply of postgraduates in particular – and especially those graduates with appropriate skills for business – should be reversed by building the research capabilities in universities, not by degrading them.
28. There are occasional comments in the press that HEIs do not produce the graduates that business and industry needs, or at least that they do not possess all the skills and knowledge required by employers. However, it can be difficult for HEIs to engage businesses in their course development processes and for businesses to be clear about their needs over a number of years into the future – this is important in relation to developing courses to meet expected market demand but also in relation to the length of the course development cycle.
29. Businesses should also commit to higher levels of training and development in the job through, for example support for Foundation Degrees and Part-time Undergraduate/Postgraduate degrees. Again, Government support to employers, and especially SMEs could be used to incentivise this commitment, eg through grants or training tax credits.

**Do financial considerations currently help or hinder collaboration?**

30. This question is addressed in many of the responses given above.
31. R&D tax credits – it is probably too early to judge fairly the impact of these measures, but at this stage there has been no noticeable increase in the levels of demand for research or skills as a result of their introduction.

## **Further Information**

32. Further information on this submission and the University of Sunderland's involvement in collaboration with business can be obtained from

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