

## CONFIDENTIAL

### UNIVERSITY OF WALES, BANGOR RESPONSE TO THE LAMBERT REVIEW OF BUSINESS-UNIVERSITY COLLABORATION

#### 1. **Best Practice and examples of excellence in business-university collaboration in UK and abroad**

Our own use of TCS is one of the best examples of best practice we can offer, since we have developed a portfolio averaging 25-28 programmes which has been in the top ten of University performances since 1998, despite our rural location, relatively remote from major centres of population or large numbers of businesses. This has enabled us to develop partnerships in a wide range of subjects (10 departments and schools of UWB) with companies of sizes from micro SMEs to large companies and including pioneering programmes in the arts and humanities. This is an example of the benefit of developing a critical mass of activity in a profitable area of business linkage.

TCS works well, partly because it combines benefits to the company through the project; benefits to the graduate through employment and training, and a financial return to the University which is reasonable in relation to the costs incurred.

TCS is relatively light on admin (at least once the project has been established) and has a flexible approach to demonstrating project outcomes. This is something from which other programmes, particularly programmes supported by ESF, could well learn.

There is considerable scope for enhancing business-university collaboration in the arts & humanities; our Music TCS's, particularly the one with Sain Records, are examples of what can be achieved. Many - perhaps most - of the programmes funded by the WDA focus on science and technology. I suspect other regional redevelopment agencies take a similar approach; there may be considerable scope for extending their activities into areas related to the arts and humanities.

#### 2. **What are the main barriers to strengthening business-university collaboration?**

**2.1 Status of third mission activity** - whilst in some cases different academics gravitate to specialisation in one or more of teaching, research and third mission, often the best academics become involved in all three activities. In this case time resource for these key staff is a major problem. If more emphasis is to be placed on the third mission, it will be necessary to establish the status of this area on a proper basis, with it being given equal status to the more traditional roles of teaching and research. Although there is much support, encouragement and pressure from all tiers of Government to develop third mission activities it is essential that quality assessments such as RAE (or an equivalent for the third mission) and formulaic funding properly accounts the third mission positively.

**2.2 Constancy in formulaic funding models** - It is important that success or activity based government formulaic funding for third mission maintains consistency and recognises that Universities need to have the confidence of long term support to build up their business. Changes to funding models represent a significant threat and barrier to developing third mission. A specific example of this would be if funding were based initially on levels of success but were later to change to funding based on increase in success. This would disadvantage those Universities which had invested in achieving high levels of success in a given area.

**2.3 Resource to offer timely service to industry** - Universities undoubtedly offer the outstanding resource in skills and technology available to business in the UK but there is insufficient investment in resources to enable this resource to be available when required by industry. Often business opportunities arise at short notice, through no fault of the business - it is imply a function of the working of the business world. Our experience is that valuable and long term partnerships can be initiated through responding to such short notice requests but the University must be adequately geared up to deliver. This comes down to being able to invest in having adequate resources permanently on hand and more government support is needed in this area.

**2.4 Resource intensity of supporting disparate sectors** – The specific situation of Bangor, is that the University has a very wide range of subjects having relevance to a very disparate range of industrial and business sectors. Support for such a wide range is relatively resource intensive and needs additional resource since each sector tends to have its own challenges and opportunities; there is little change for benefits of scale. Government initiatives often focus on the most promising technological sectors whereas the greatest potential for business interaction in terms of numbers of businesses is probably outside these sectors. Of course, many such business may not be dynamic growing enterprises, but one may consider that in order to enhance impact we need to cast our net wider.

**2.5 Lack of risk culture in Universities** - The commercial side of business-University interaction tends to suffer from the lack of a risk culture in the University. In order to exploit new technologies, commercialise patents and other IPR, normal business practice is to take calculated risks in establishing business deals and undertaking commercial partnerships. Although an infrastructure has been established to encourage enterprise, entrepreneurship and spin-outs, ventures and activities which involve taking risks in the name of the University sit uncomfortably with the normal way of operation. Although this can be mitigated by establishing for example, a University operations company, this fundamental different culture needs seriously addressing. Linked with this is the general lack of availability of investment funds and funds to catalyse new development which may lead to commercial advantage. Also, it is difficult to obtain funds unless a commercial venture is established, which is often not ideal until later in the development.

**2.6 Expertise and experience to optimise commercial exploitation and IPR** – In broadly based Universities, the areas of exploitation of IPR are likely to be very disparate with the requirement to deal with 1) a wide range of business sectors, 2) of business sizes from micro SMEs to large corporates and public sector organisations, and 3) of different cultures, from informal to highly structured. Each exploitation opportunity usually has a very tight timeframe and involves complex issues which have to be got right if the commercial opportunity is to be optimised. It is very difficult for Universities to win in this area unless a full range of legal, business, contract and IPR expertise is available. There is great potential to try to build critical mass by using network links in this area, but there are many difficulties because of the requirements of commercial confidentiality.

**2.7 Mechanisms to support long term partnership** – The most effective links with business are those which are long term. Mechanisms to assist the process of maintaining contact with businesses, irrespective of whether project collaboration is active at any time, would be attractive. For example, schemes which paid businesses to maintain a brief to support third mission development, including mentoring of businesses and technology development would greatly help in this area. Secondly. More joint strategic planning between Universities and business would help to drive this agenda forward.

One of the barriers to more effective technology transfer and IP exploitation is that many of the present funding programmes concentrate on parts of the process (such as “spin-out”, or “proof of concept” for example) rather than taking a holistic view. This tends to force people into certain channels of activity, depending on the available funding, regardless of the most effective practical exploitation route for a particular technology. This barrier could be overcome by more mainstream funding, as in 4.1.

### **3. How can business attract the best graduates and postgraduates with the skills they require, especially in technology.**

3.1 The main barrier to more attractive career paths for graduates working in science and technology is that these areas of work are seen as “difficult” and relatively (in comparison with other “difficult” subject such as law or medicine for example) badly paid. There is also a perception that science and technology skills are less highly-valued in the UK than they are in other western nations. Some of this may well be “media myth”, but like many media myths may well have some basis in reality. There are few complaints in the business world about shortages of lawyers or stockbrokers; salaries may be one of the factors that influence such surpluses or shortages. If so, the solution may well lie in the hands of the businesses themselves rather than in the Universities.

3.2 The best way to attract the best graduates to specific businesses is to build relationships between them. Methods which enable the graduate to get to know the business and see it from the inside are most effective. Whilst there are a number of programmes established to facilitate this, including the TCS scheme noted above, sponsorship of various types could be greatly developed as a tool, since it deals with the increasingly onerous financial burden faced by those in higher education.

#### **4. Financing Arrangements**

4.1 The main barrier which needs breaking down is the present, “jam-pot”, short-term, project-based approach to third mission funding of Universities. We need – and to be fair seem to be making progress towards – mainstream, long-term, strategy-based funding, to enable us to invest in long-term developments and to recruit and retain the staff needed to take these forward. I suspect – although I have not seen formal evidence one way or the other – that the recruitment and retention of skilled staff on short-term contracts is particularly difficult for Universities in rural areas. The present short-term funding also tends to lead to the appointment of external consultants for many projects; this has the disadvantage that much of the expertise is lost to the University at the end of the project.