

## THE UNIVERSITY OF BIRMINGHAM

### LAMBERT REVIEW OF BUSINESS-UNIVERSITY COLLABORATION

#### R E S P O N S E

1. The University of Birmingham welcomes the Lambert Review of business-university collaboration as an opportunity to demonstrate how far the sector has travelled in the last decade or so in the provision of business support services, knowledge transfer, the development of enterprise and employability skills, and contract research to UK business and to identify examples of best practice at local, regional and national levels.

The University recognises the challenge that the Lambert Review offers to demonstrate new approaches and to disseminate best practice on the supply side whilst noting that the main focus of the enquiry is on the demand or market for university-generated knowledge, whether originated in or acquired by the institute concerned. The findings of the Lambert Review will no doubt be made available to the DTI's Innovation Review currently on-going.

2. It is now axiomatic that, in the global market, knowledge is the principal driver towards economic success and social well-being as well as being a commodity in its own right. The knowledge-based economy is dynamic and nations cannot afford to become complacent in the continuing need to access knowledge, produced by university-based research, for the development of new products, processes and services in industry and business if competitive advantage through innovation is to be sustained and extended.

The University of Birmingham has this goal at the heart of its mission and embedded in its corporate strategy as illustrated below:

*“We will continue to serve Birmingham and the West Midlands region using our skills and knowledge and drawing on our international reputation to promote social and cultural well-being and to aid economic growth and regeneration.”*

(The University of Birmingham Mission Statement)

*“Benefiting Business and the Community: We seek to encourage enterprise and innovation throughout the University and intend to increase this activity, working closely with the Government Office for the West Midlands, the Regional Development Agency (Advantage West Midlands), local authorities, Birmingham City Council and other regional institutions for the benefit of the region.”*

We established our technology transfer company, Birmingham Research and Development Limited (BRDL), in the mid 1980s. I have attached information about BRDL but would stress that the objectives of knowledge transfer are embedded in the University and are supported by our Office of Research and Enterprise Services which was established in 1989 as a part of the University's Corporate Services.

3. The University has given extensive consideration to its enterprise objectives. These are achieved by putting in place the interface structures, policies and procedures to enable students and staff to generate new knowledge effectively and encourage its commercialisation. Not least, the University's financial viability has depended upon successfully delivering increased funding and a long period of financial stability despite government retrenchment to 1997. The University has established a coherent strategy call *Enterprise Birmingham* as its flag-ship for both research support and knowledge exploitation.
4. The University has provided a corporate support service, Research and Enterprise Services, to provide support and guidance to its academic community on how to succeed in obtaining funding for research and how to exploit, through knowledge transfer, the knowledge generated by research. The same office is responsible for the University's OUTREACH programme, comprising ten or so business development co-ordinators (known as OUTREACH Fellows) who work on a sector basis with industry and business to develop opportunities for knowledge transfer in a variety of ways including: consultancy, short course provision and other training and skills opportunities, knowledge transfer, start-ups, link programmes, interface centres and update seminar programmes etc. Each has a business plan with clear business objectives and the programme is resourced so that plans can be monitored and updated as necessary.
5. The University's wholly-owned company, Birmingham Research and Development Limited (BRDL) is the responsible agent for the management and exploitation of its intellectual property through a generous revenue-sharing agreement with academic inventors. The Company is responsible for licensing, spin-outs, incubator developments, venture capital investments, commercial consultancy and all forms of commercialisation and knowledge transfer on behalf of the University. The Company also manages the University's research park, Birmingham Research Park Limited, which is a highly successful venture established in the 1980s. Both Research and Enterprise Services and BRDL work closely together in a co-ordinated way in pursuit of the University's Corporate Strategy, the first being responsible to the University's Research Committee and Enterprise Board and the Pro-Vice-Chancellors responsible, the second being accountable to its own Board of Directors.

The UK's market for knowledge transfer is linked much more strongly than has been the case historically and large companies have continued to derive the benefits from their investments in the interface units which their capacity affords them. There is also a great deal of support in place to foster partnerships with small businesses, sponsored by UK Government and by the European Commission. Universities have developed effective strategies for putting in place interface units whereby economies of scale can be derived making working with small companies economic and cost effective. One such example at the University of Birmingham is the Castings Centre which works with small casting companies in Birmingham and the West Midlands, bringing them the benefits of the latest techniques and technologies in an affordable way. Again, information is attached about the Castings Centre as an example of good practice.

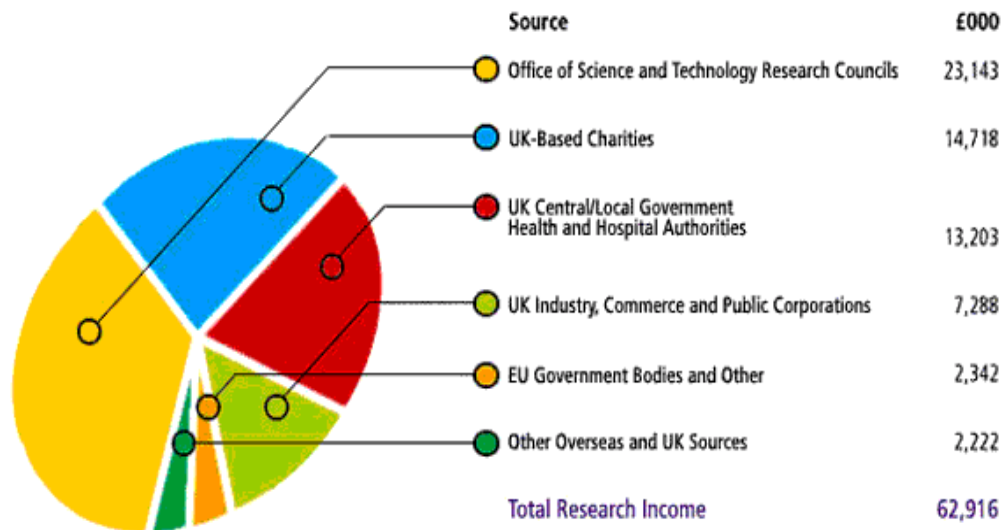
The challenge of the medium-sized business remains. Unable to afford the investment of the larger business and certainly of the global enterprise, and not supported so well by public-funded initiatives, the medium-sized operation has become the cinderella of the demand side in knowledge transfer. Support from national schemes such as TCS (the former Teaching Company) and Research Council initiatives such as Faraday Centres and Integrated Graduate Development Programmes is forthcoming but is problematic for the medium-sized company not used to engaging with universities. It is here that Britain risks future market failures and the evidence of the Science, Engineering and Technology reviews is that of under-investment in research and development and knowledge transfer in significant sections of British industry where the UK is vulnerable to global competition. This is particularly true for manufacturing

The University provides a framework of support for nurturing excellence in research, enterprise in the commercialisation of knowledge and engagement with the wider community of the West Midlands and the general public through its programme of outreach developed around the ten sector based business development (outreach fellows).

6. We have been successful as judged by a variety of measures.

### **Research Income**

- In 2000-01 the University earned nearly £63 million of external funding for its research. The diagram below shows where that income came from.



- In 2003 the University of Birmingham's SRIF allocation was £27,493,411

The University has achieved the following successes from this approach.

#### Awards for 1999/2000

Contracts signed with SME's	30% of total contracts
No. of Case Awards	76 (in 1999)
No. of TCS Awards	13
No. of disclosures	66
No. of patents	105
No. of new UK patents filed	15
Average income from IP	£566,667
Income from Consultancy	£4,328,000
No of Spin-outs	7 (1999/00)
CPD Short Courses	147

7. Major innovative examples of projects or structures we have developed to facilitate the interface with business include:

#### **MEDICI**

The MEDICI programme for the development of medical and bioscience entrepreneurial skills and capacities on the supply side is a university-based project, funded by the Higher Education Innovation Fund (HEIF) and by the regional development agencies for both the West and East Midlands, bringing together medical schools and universities across the Midlands region to provide a new powerhouse for knowledge transfer in the medical and biotechnology fields. The

programme creates more opportunities for the region in inward investment, new business formation, strategic partnership and economic regeneration of benefit to all which could scarcely have been developed in the early 1990s when lack of resources and lack of collaboration between universities was a serious impediment to such strategic relationships. Further details are attached to illustrate these points.

<b>A38 Technology for economic Corridor Consortium</b>	The Regional Development Agency's vehicle for regeneration at a sub-regional level from Birmingham to Malvern through Worcester – one of three such consortia and driven by this University as far as knowledge transfer is concerned.
<b>AKA</b>	The Advanced Knowledge Alliance (bringing together knowledge providers in the above sub-region, specifically the Universities of Aston, Birmingham and Central England with University College Worcester and QINETIQ (the former Defence Research Agency at Malvern) as a supply-side consortia).
<b>CONTACT</b>	<p>A West Midlands regional collaborative venture designed to provide a one-stop-shop, with Business LINK, for business development enquiries as a clearing house for knowledge-based problem solving in the private sector.</p> <p>Through regional networks such as CONTACT, embedded in the existing regional structures for business support, we provide a gateway to the services available in the region's universities. Through sub-regional activities such as the Advanced Knowledge Alliance, formed around the regional development agency's regeneration project, the A38 technology corridor, we bring together a sub-group of universities in Birmingham and Worcester, together with QINETIQ, to provide new services to business</p>
<b>SPINNER</b>	A venture capital investment vehicle for University spin-outs bringing together the Region's universities in collaboration.
<b>MERCIA FUND</b>	A fund for investment in University-based technologies so they can be pulled through to successful developments (created from University Challenge and European Regional Development Funds).

8. Our Science Enterprise Challenge funding (DTI) has allowed the creation of the Mercia Institute for Enterprise, in collaboration with the University of Warwick which is a facility to encourage and develop commercial enterprise in the Region's universities among both staff and students.
  
9. The University's *Enterprise Birmingham* strategy has resulted in an estimated £6m from all sources. The OUTREACH fellows operate as gateways to University-generated knowledge who can arrange for its transfer from Pathways in the University in those areas from where new knowledge is generated: the Business School, Engineering, Physical Sciences, Life Sciences and Bioscience, Medicine, Computer Science etc.

One of the University's pathways to knowledge is its world class School of Public Policy which operates in an enterprising manner closely with public sector bodies and government agencies at local, regional, national and international levels, providing business support services for strategic and operational policy formation and implementation.

10. The characteristic features for successful relationships with business from which long-term partnerships emerge are that such contacts are:
  - Strategic
  - Genuine – based upon an understanding of each party's culture and obligations.
  - Mutually beneficial
  - Flexible
  - Free from bureaucratic or administrative burden where these involve regional, European or government third parties
  - Clear (covered by agreements or contracts)
  - Based on new knowledge spun from leading research
  - Taking advantage of public support where available in the form of Research Council Link or other collaborative initiatives; TCS (the former Teaching Company Scheme), CASE (postgraduate research) etc.
  - Not seen as "Third leg" i.e. Third priority or marginal tasks for either party
  - Valued and, therefore, properly priced

11. For our graduates, the twin characteristic of employability and enterprise are the hallmarks of our undergraduate and postgraduate degree programmes. Through the University's Careers Centre, we support graduates in making the best case for their skills to employers. An example of good practice is GRADUATE ADVANTAGE, supported in the West Midlands by AWM. Aimed at SMEs and graduate retention in the region, the programme addresses concerns frequently expressed by employers and, through pre-employment induction training and on-the-job development, graduates are enabled to be effective from the start.

A second example would be JOBZONE which is a project run by the Guild of Students (the Students' Union) and is supported by the Careers Centre. The commitment is made to support part-time learning and vacation employment together creating a mix of learning and teaching and employability in those who take part.

12. The University has reformed its supreme governing body – University Council – and has established a much smaller and more effective instrument comprising representatives of business among its councillors and lay officers. Both the current and a past Chair of Birmingham Chamber of Commerce and Industry, a representative small and medium enterprise in manufacturing and others from stakeholders and regional business organisations such as the Engineering Employers Federation serve on Council. Transactions are business-like and Council manages the University as a business in which its members perform the roles of non-executive directors in an agile and flexible manner. Executive control is exercised by the Vice-Chancellor's Senior Management Group and financial affairs are the responsibility of the Strategy, Planning and Resources Committee where lay officers and Council representatives make up the membership with academic managers, working to an agreed five-year Corporate Strategy in which full consideration is given to risk management.

The business process in the University for undertaking research with business and industry or any other form of service contract is clear both within and outside the University. In particular, contracting is systematic and research and remuneration for those academic colleagues who are engaged is unambiguous. Relationships are strategic, developed around single agreements that cover various aspects of the relationship rather than a myriad of smaller "once-off" contracts subject to individual negotiation.

13. Universities occupy a dichotomous position with regard to industry in which their status is both that of charitable foundation and also a business. For example, there are legal constraints on the extent to which universities can become equal partners for commercial exploitation of intellectual property.

Universities have, however, become adept at patenting new inventions quickly, identifying commercialisation potential through licensing and seeing long-term benefits in spin-outs. Universities use bridge funding effectively with industry such as CASE and have invested in developmental projects to demonstrate new technologies and inventions.

The world-class excellence of the UK universities for research is acknowledged universally and has risen as measured by successive national research assessment exercises. Excellence has also clustered in fewer institutions which should signal available capability and capacity to industry in a clearer way.

Universities see engagement as a core academic value, necessary for their research to succeed and for them fully to take part in the international research market that has developed through the globalising of knowledge. International grouping, on the strongest commercial lines, have now appeared such as UNIVERSITAS 21 of which Birmingham is a founder and one of only four UK members.

14. The University's primary customer focus is provided through its business services particularly marketing, as previously mentioned, and a professional marketing office. The latter has the remit for conducting market surveys, brand audits promotional campaigns and marketing strategies in all the University's markets both national and international. Marketing works with the University's International Office, Academic Office and Research Office to maximise our markets for students, contract research and other knowledge-based services.
15. On the demand side, it is important for business and industry to identify and meet its innovation challenges, to understand the knowledge necessary for the underpinning of its products, processes and services and to update and reskill accordingly, to interact with knowledge-providers in Higher Education on a strategic level, forming a virtuous circle of innovation, knowledge acquisition and the development of new products, processes and services. The experience in the UK is very different and varies from sector to sector from that in Europe and the US. Business leaders and their conduit organisations should encourage such strong strategic partnerships with universities.

April 2003

