LAMBERT REVIEW OF BUSINESS-UNIVERSITY COLLABORATION

AURIL was created in 1995 from the merger of two sister organisations which had represented industrial liaison, technology and knowledge transfer and research administration specialists in universities and polytechnics since the 1970s.

AURIL is a network of professionals dedicated to the development of partnerships between higher education and industry to support innovation and competitiveness.

AURIL is now the leading representative body for professionals in the knowledge business in Europe. We provide a professional CPD service to our members and aim to influence knowledge transfer policy by lobbying funders, industry, HE stakeholders, government and its agencies.

Core Business

The objectives for which the association was established were to support its members, being universities in the UK and Republic of Ireland in the development of mutually beneficial partnerships with industry and other sectors in the fields of research, technology and knowledge transfer, consultancy and related activities to enhance wealth creation and quality of life.

Core Functions

- To promote and provide facilities for discussions and consultation between representatives of university, institutions and other organisations, on any matters effecting or relevant to industry links with external bodies, relating to research or other services provided by the university sector.
- To keep its members and others informed on current issues and developments relative to industry-related partnerships, research administration and technology/knowledge transfer.
- To improve professionalism and to spread good practice.
- To promote the association as a valuable resource in terms of information and expertise.
- To provide views, where appropriate, to Government/UUK and others on matters relating to its areas of competence.

All universities are members and they are usually represented by the staff of their Research, Regional, Development or Enterprise Offices (but also University Exploitation Companies). Members are responsible for a wide variety of activities ranging from acquiring research funding to knowledge transfer to Business Development and Spin-Out Companies (see Annex 1).

Management, funding and staff support

AURIL is governed by a chair, currently Brian McCaul, University of Liverpool and council of eleven, all voluntary (Annex 2) and who are elected rotationally, on a 2 year term by ballot of HEIs members, (1 vote per institution). For an annual blanket fee each institution can nominate up to 10 members. We believe that this number will cover most Knowledge-Transfer Offices.

The Association is supported by an Executive Director, Dr Philip Graham, who is currently seconded (60%) from Queen's University Belfast, a full-time Events Manager and one Clerical Officer and a part-time Finance Officer. AURIL's registered office is in London and the association is administered from Queen's University Belfast.

The Association is funded entirely from membership subscription and any surpluses from services and conferences.

The Association has a broad agenda and seeks to plug gaps in the development and best practice in the Knowledge Transfer sector. Continuing Professional Development (to address the skills shortage) and the spread of good practice among members being the most obvious mechanism by which this is achieved.

AURIL also has associate members who form an integral part of the association. Their input and support is essential for us understanding industry's needs. These companies range from multi-nationals and SMEs in all technology sectors, as well as Law Firms, Patent Agents etc.

The Association receives no government or agency funding and relies heavily on the time and goodwill of a voluntary council and members who are already heavily stretched in their HEI jobs.

AURIL delivers a comprehensive range of services to its members.

These include:

The Mailbase - which enables members and others to discuss by email issues of immediate concern. They facilitate the prompt circulation of information and comment.

Conferences, Seminars and Workshops – focused Seminars and Workshops, Professional Theme Group meetings and Conferences address current and emerging issues. They also provide an opportunity to meet with policy makers in government and industry and to give informed responses to new challenges.

Good Practice Guides and other Initiatives – AURIL works in partnership with others to produce high quality, good practice, material. These are listed in Annex 3.

Web – containing general information, links, current news and updates and all conference and seminar papers.

Professional Theme Groups

Each theme group has three main goals:

- Exchange good practice through the development of Policies, Processes, Guidelines & Procedures plus Measurement & Performance Monitoring.
- Exchange & Development of Sector Positioning, Policies and Practices.
- Influencing Policy (of Funders, Government, and Industry).

The Regional element for each theme will be addressed through the web.

There are 8 key Professional Themes identified, but others can be formed to address specific issues and these will have a finite life span.

- **IP and Commercialisation**
  - Contracts
  - Licensing
  - Protection
  - IP Awareness
  - Spin-Outs.

- **Regional Economic Development**
  - EU Structural Programmes – ESF and ERDF
  - RDA Linkages
  - Enterprise Learning
  - TCS
  - Incubation Initiatives
  - Economic Impact Studies

- **Research**
  - Industrial Research Partnerships
  - EU Framework Programmes
  - Research Councils/Office of Science and Technology
  - Costing and Pricing Issues
  - Research Assessment Exercise
  - UK and European Research Policy and Management
  - University Research Policy and Management
  - Conduct and Best Practice Issues
  - Other matters pertaining to University-based Research

- **Business, Enterprise and Commercial Activities**
  - Policy Seminar for Budget Holders
  - CPD/Training
  - Management Development
  - Short Courses
  - Consultancy
  - Marketing

- **Continuing Professional Development for Members**
  - Structures and Leadership Styles
  - Strategies for Managing Research and
  - Enterprise Support Operations
  - e-Learning

- Short Courses
- Workbooks

- **Medicine and Health-related**
  - Developing links with NHS
  - Building a working relationship with NHS via BEP, NHS HUBS and the NHS R&D Forum
  - Promoting AURIL via the Department of Trade and Industry quarterly journal – biotech advantage and the R&D Forum Website
  - Present on AURIL at BEPs and R&D Forum meetings
  - Facilitate networking of individuals who want to share cross-sectional expertise and experience between HEIs and the NHS
  - Support newcomers to careers in the technology transfer in the NHS.

- **Ethics**
  - This has been added following discussion at Council and after a meeting with ABPI and UUK. It will cover all aspects of ethics.

- **Cultural Creative Industries**
  - It has been agreed to form a CC Theme Group due to the exceptional interest shown at the recent HEFCE Conference in Surrey (January).
  - Purpose: To examine the ways in which universities support (regional) economic development through engagement with the creative industries, community sector.

AURIL also has Associate Members from Industry, Patent Agents, Law Firms, Higher Education Stakeholders (HEFCE, Research Councils etc), Government Agencies (Patent Office) and other related bodies.

Relationships with other Knowledge Transfer Organisations

AURIL Members operate in a changing potential, social and technological environment. AURIL therefore endeavors to influence change to the benefit, of its members and to aid industrial collaboration, economic regeneration and support entrepreneurship and innovation.

Due to its unique position, AURIL is well placed to, and has, advised government on knowledge transfer policy and has collaborated with many organisations in producing good practice material covering IP Management, Consultancy, Continual Professional Development, Research Collaboration with Industry and Management of e-Learning Materials. The publications and the partners involved are listed in Annex 3.

AURIL is a member of the CBI and sits on the ICARG (Inter Company Academic Relations Group). AURIL also has developed important and effective links with the DTI, OST, Patent Office, Treasury, HEFCE and other Stakeholders.

Within the Knowledge Transfer Sector (UK) AURIL has good working links with UKSPA (UK Science Parks Association), UKBI (UK Business Incubation), UNICO and LES (Licensing Executive Society). In conjunction with the Patent Office, AURIL is working

on a revision of its IP Handbook for Practitioners which would include new sections of direct reference to Science Parks and Incubators. These could include IP Financial issues, IP Company Law issues and Business Development.

It is our hope that this group, pulled together initially for this project, will eventually evolve into a formal Council of United Kingdom Knowledge Organisations (UKKO) providing greater coherence within the Knowledge Transfer continuum. There are many organisations and representative bodies in the UK with responsibilities or involvement in the university-based knowledge business either on the supply or demand side.

Many of these bodies have productive relationships with each other but perhaps the time has come to create a council of their representatives. Connected by a virtual basis it would convene a national annual meeting with government representatives from the interested areas such as the Treasury, Department of Trade and Industry, Department of Health, OST the Research Councils etc. Such an arrangement would help to facilitate the UK's policy mission of being pre-eminent in the Global Knowledge-based economy by providing a single national forum for the discussion of relevant issues to the university-based knowledge businesses in Northern Ireland, Scotland, Wales and England. A proposal is detailed in Annex 4.

Internationally AURIL has links with The British Council and will shortly be moving its London base to the Gordon Square Offices of the Association of Commonwealth Universities. It is hoped that as the leading Knowledge Transfer Practitioner group in Europe we can help spread good practice to other nations. We have already submitted a bid to the Association for Commonwealth Universities to host the maximum of 6 of their Professional Fellows, who under the scheme, must be mid-career professionals in the field of knowledge transfer. They will spend between 3 and 6 months in a UK HEI to learn good practice.

So far, on behalf of the British Council, senior AURIL representatives have visited Israel, Poland, India and Russia and have presented to many other delegates including Cuba, Brazil, the USA and Canada.

AURIL is also closely involved with the European network for Knowledge Transfer Association PROTON (Public Research Organisations' Technology Offices Network). PROTON Europe is a pan-European network of technology offices linked to public research organisations and universities. It is supported by the European Commission as part of its Gate2Growth Initiative.

The UK stands 2nd in the international league table behind the USA, in the commercialisation of university research. We have a lot of experience and good practice to pass on. AURIL is well represented on the PROTON steering groups and in fact when asked to supply nominations AURIL submitted twice as many knowledge transfer professionals than all the other European partners combined!

The ultimate objective of PROTON Europe is to boost the commercial uptake of publicly funded R&D throughout Europe by further developing the professional skills of those working in this field. This should further contribute to the creation of new products, processes and markets, improve the management of innovation and thereby stimulate sustainable and high-value economic growth, competitiveness and employment.

Regional Development Agencies

RDAs need to engage more fully with HE. This extends to the need to improve the efficiency and effectiveness of project appraisal processes, to improve the understanding of the role of HEIs in the knowledge economy (particularly in an appreciation of the contribution to innovation in fields which cannot always be industry led) and a move from an overemphasis on capital and building projects, which offer little practical support to business.

We have recently presented a submission to the House of Lords "Call for Evidence: Science and the RDAs" and have attached it as Annex 5.

Continual Professional Development

An extensive CPD Programme for not only our members but for those involved in Public Sector Research Establishments and RDAs (it has been suggested that one of the main failings of the RDAs is its skill shortage), has been a major objective of AURIL.

Data has shown that the number of Knowledge Transfer practitioners is likely to grow by 88% in the next few years. Training programmes already exist delivered through private companies, but they are expensive and therefore only certain HEIs can afford to send staff on them.

AURIL has been carrying out research into the CPD needs of the sector since 1999. Our report identified the key skills and knowledge required by knowledge transfer staff in fulfilling their role within a HEI. In conjunction with HESDA, in its role as the National Training Organisation for the UK Higher Education Sector, AURIL produced a CPD Guide (enclosed) and the main elements of it are contained in Annex 6.

AURIL has been lobbying for sometime to help with funding for an enhanced training provision. Government agreed that the lack of trained staff was hampering innovative approaches to commercialisation as existing experienced human resources were stretched. Government top-sliced HEIF of £1 million to provide such a programme. That was 18 months ago and only in the next few months will a call for proposals be issued.

AURIL believes that this delay has severely hampered CPD for staff in the sector and ultimately will have consequences for the UK in developing a competitive edge on other knowledge-based economies. The simple AURIL proposed solution could have generated significant rewards if acted upon quickly.

Research/IPR

We are concerned that there is a tendency to under-estimate the level of university/industry collaboration. Evidently there is always room for improvement but the facts in do indicate substantial HEI/Industry partnerships.

The HE-BI (Survey of the Interaction between Higher Education and Business December 2001) stated that:

- Sponsored research reached £2 billion in 1999 (which was an increase of 7% on the previous year. Of this 12.3%, £242 million was with business, which is a slightly larger figure than that of the US.
- The estimated total income generated from consultancy was £60.2 million in 2000, although the real figures are likely to be much higher than this.
- The UK is excellent at the formation of small companies based on high quality research and there are now examples of additional spin-outs spinning out from the original university spin-out!
- There have been 199 spin-out companies created in 1999/2000 compared with a total of 338 in the whole of the previous 5 years;
- UK HEIs created 1 spin-out company for every $8.6 million of research expenditure
  - in Canada it was 1 spin-out for $13.9 million
  - in USA it was 1 spin-out for $53.1 million.

As for as IP generation is concerned, the HE-BI survey reported that:

- Scottish Universities now generate more IP than Scottish Industry.
- Japanese Universities hold 0.1% of total patents in Japan.
  - US Universities hold 3%
  - German Universities hold 4%.
- UK patents filed in 2000, increased by 22% (on the previous year to 1,534).

This illustrates the level of HEI/Industry activity taking place in the sector and these forms of partnerships take many different forms. Some are:

- Contract Research
- Collaborative Research
- Sponsored Research
- Other Third-Party Funding
- Postgraduate Studentships
- Student Projects and Placements
- Sponsored and Honorary Post and Secondments
- Consultancy
- Spin-out Companies, Start-Ups, Incubators and Science Parks.

Too often universities are seen as suppliers of services on demand rather than partners with which relationships should be built to deliver economic and corporate growth. Businesses sometimes do not understand that universities are not designed to deliver what the company needs at any given moment.

The business community has a tendency to recite historical anecdotes. If there was a real problem they would be responding directly to requests for evidence and lobbying more pro-actively. This does not seem to be the case.

Regionally, networks have been set up whereby requests from industry for a particular type of research/consultancy have been directed towards a “central clearing house”.

This system seems to work well as those individuals involved are best placed to direct the inquiry to the most appropriate institution. This could be replicated nationally.

It is common place, however, for industry to build on individual relationships (some formed from consultancy services). Occasionally discussions go a long way on costing and pricing issues and contractual negotiation without contacting the official Research Office. By the time the "official" university office is involved, the deal has been done and the best knowledge transfer staff can do is to reduce the risk and prevent further IP leakage.

When looking for potential partners, business should consider other issues eg. policies and procedures within the University for managing IP, reward/incentive schemes, knowledge transfer experience levels etc.

AURIL in conjunction with the CBI published "Partnerships for Research and Innovation" which sets out benefits of collaboration. The main benefits are outlined below and the publication is attached.

FOR INDUSTRY		***FOR UNIVERSITIES***	
Thinking Longer Term	Accessing current research programmes. Gaining an inside track on emerging fields & enabling technologies developed in HEIs.	**Improving market Awareness**	Gaining insights into the research problems of interest to particular companies or industrial sectors.
Benefiting from New Ideas & Past Experience	Getting an alternative perspective on problems. Access to accumulated research & scholarly knowledge through people, libraries.	**Enriching Teaching Programmes**	Updating staff, sourcing ideas for student projects, developing curriculum material with practical examples, gaining new perspectives & new areas for teaching.
Going Global	Links with academics' extensive national & international networks.	**Maintaining Research Momentum**	Gaining status, prestige, keeping projects live & developing new ones.

Outsourcing	Harnessing the efficiency and/or cost effectiveness of getting research done by a university. Can be used to smooth fluctuating in-house demand.	**Applying Knowledge**	A chance to apply skills and knowledge to solving real business problems. Widening the customer base for your work.
Complementing the Company's base skills	Access to skills within universities that company staff lack.	**Complementing the University's base skills**	Learning new skills and techniques developed in industry.
Taking a Multi-Disciplinary Approach	Accessing a range of disciplines at once in a university (eg. providing the background for technology integration projects).	**Learning Business Processes**	Learning new approaches to managing projects and how industry works eg. through sponsored positions, seconded staff, guest lectures etc.
Harnessing Public Funds	Bringing additional financial resources to bear on research and thereby spreading costs.	**Harnessing Private and Public funding**	Drawing on a wider range of private funding. Assess to public funds that require industry collaboration.
Reducing Risk	Sharing costs, releasing staff time, finding out what others are doing, keeping options open.	**Building on Excellence and Reputation**	Establish a track record with industry, breaking new ground and enhancing prospects.
Complimenting the Company's Physical Resource Base	Accessing unique or specialist university-based equipment, facilities and services.	**Complimenting the University's Physical Resource Base**	Accessing state of the art facilities and services that the university may lack.
Recruitment Made Easy	Finding the right staff by getting to know students, PhD researchers and academic supervisors.	**Sourcing Job Opportunities**	Getting the inside track or possible work experience and job opportunities for students and staff.

Within AURIL we have experience in managing both HEI/Industry and HEI/HEI partnerships and therefore we can make some practical observations.

Funding Mechanisms

HE interaction with business needs to move towards a sustainable model where the full cost of the activity (if not assisted by grant schemes) is met by the beneficiary company. Otherwise reach out activity will merely drain resource from other University core activities (The Transparency Review has already pointed to this in respect of R&D, and this will equally apply to Reach out activity). The Research Council and Government department funding schemes do little to encourage a full cost culture in HE.

The mechanisms for the allocation of research funding also need to more effectively mesh with the objective of reach out to business and industry. The emphasis of the RAE and the pressures that it exerts on academic and administrative time need to be counter balanced by reference to explicit criteria on knowledge transfer.

Partnerships

It is generally agreed that "forced" partnerships do not work well. Whether it is due to some regional requirement or other funding condition, partnerships must stem from a natural alignment. The same can be said for bidding for government funding where it has been implied that a bid from a particular "cluster" would stand a better chance of their individual bids success.

Third Mission Funding

AURIL welcomes the Government's funding and commitment to third mission activities. Herobac and HEIF have made a significant difference to the ability of HEIs to respond to the needs of business – and to do this within a diverse framework, suited to the strengths of different HEIs. Consequently any retreat from a core plus model for the funding of this is likely to have a damaging impact on the ability of the sector to respond to business – just as that the necessary infrastructure, expertise and links are becoming embedded.

Continued bid based funding not only prevents long term planning but absorbs time in bid preparation as opposed to real work with business. Further it may result in the loss of capacity already built within HEIs. We refer again to the lack of skilled staff and this was the main cause of the slow start in delivery in is first years of the awards. The lack of delay in providing a national training programme has cost us valuable years but third mission must be embedded as quickly as possible within the Universities core funding.

Government must also make it clear however what it wants from the investment in third mission. AURIL is keen to help establish the metrics which will monitor third mission activity and is best placed to do that.

TCS

AURIL members have a major role to play in the management of TCS. Capacity building within the academic side of HE needs to be undertaken. Schemes such as TCS allow planning and cover for academics, whereas short term projects and the development of links with industry are more ad-hoc and these can create problems for high calibre academics who tend to have full timetables. There are concerns about the proposed change in the structure of TCS. Business Link do not have a good history of promoting TCS and if the timescale parameters are going to change, this will have a significant effect on quality of the programmes. It is felt, therefore, that the strategic nature of TCS will diminish.

Intellectual Property Rights

In recent years universities here recognised the need to raise awareness of IP amongst their staff. This is a top down issue and in order for staff to accept the importance of IP generated in their work, senior management must have policies and procedures in place to manage IP and make sure that their IP Strategic Plan dovetails with other university policies.

AURIL enjoys a close working relationship with the Patent Office and their support in this area must be commended. The joint AURIL/Patent Office/UUK "Managing IP – a guide to Strategic Decision Making in Universities" was originally designed for VCs and Executive Boards. The publication (attached) is now on its second reprint as Deans and departmental heads are now using the strategic guide to set policy within their own faculties and departments. (See attached Annex 7, presentation made by the Executive Director of AURIL on IP Policies and Procedures based on Managing IP: A Strategic Guide".)

More work of this nature can be done to raise the profile of IP and how to protect it. We have already mentioned that we are currently working on a similar guide for the wider knowledge-transfer sector and this should be encouraged and supported by government.

State Aid

Structural funding plays a critical role in facilitating the interaction of higher education and business – particularly interaction with the SME community in economical weaker regions. This is role is especially important whilst third-mission funding remains embryonic. This is another important reason for embedding third mission funding into core funds. Yet the current application of State Aid rules in the UK is confusing, heavy handed and insufficiently nuanced. In consequence at present the application of these rules greatly hinder the development of HE projects that seek to support SMEs. The DTI appear to recognise this problem but the sooner that we move to a regime that focuses solely on activities that really distort competition, the better.

Summary

AURIL is a membership organisation, its primary members being HEIs with Industry, Government Departments and Agencies, funders and other stakeholders being associate members. We are the professionals who have been involved in knowledge-transfer for many years. AURIL is there to support its members but also to advise government and others on policy and practicalities of delivering policy.

Currently our main concerns centre around the following:

- Industry/HEI collaboration – aiming for a better understanding of each others needs and how they can be accommodated and delivered.
- The Skills Shortage – setting up a national training programme which is appropriate and open to all those either carrying out or supporting knowledge-transfer in any form.
- Raising the awareness of IP within universities and among industrial partners.
- Third mission funding – helping to set realistic and meaningful metrics.
- The establishment of a group representing all aspects of knowledge transfer activity who could meet regularly with all stakeholders to ensure continuity of policy, funding and delivery.

Dr Philip Graham
Executive Director
AURIL
Queen's University Belfast
Lanyon North
University Road
BELFAST BT7 1NN

Tel: 028 9027 2589
Fax: 028 9027 2570
Mobile: 07711 126638
Email: p.graham@qub.ac.uk

Annex 1

AREAS OF ACTIVITY OF AURIL MEMBERS:

- University knowledge transfer, innovation and general management
- Reach out, enterprise and company management
- Research and development administration
- Commercialisation and exploitation
- Intellectual Property Rights – management of and rising awareness among both staff and students
- Contracts and Project management
- Spin-Outs
- Student Placement (TCS) and staff exchanges
- Facilities management and hire
- Enterprise programmes
- Fundraising and Alumni Offices
- Research Ethics and Research Policy
- Identifying Research Funding opportunities
- Liaison with Research Councils, Charities Industry
- Facilitation of Partnerships between Universities and other stakeholders leading to economic development
- Training Courses and Short Courses
- Regional activities – with local RDAs, Univest NI, Invest UK, etc
- Social inclusion
- Marketing (of enterprise)
- Consultancy
- Community programmes
- Work based learning.

Annex 2

AURIL COUNCIL
Elected Members

Chair Mr Brian McCaul Business Manager University of Liverpool	**Treasurer** Dr Tammy Long Knowledge House Manager University of Teesside
Vice Chair Mrs Kate Hughes Director, Research & Development Services University of Warwick	Dr Robert Bushaway Head of Research Services The University of Birmingham
Mrs Anne Craig Director Enterprise Liaison University of Salford	Dr Pat Frain Director of University Industry Programme University College Dublin
Mr Martin Haywood Director of Business Development University of Sunderland	Mr James Houston Director, Research & Innovation Services University of Dundee
Mr Neil Johnson Director of Research Support & Industrial Liaison The University of Bradford	Ms Gillian McFadzean Director of Technology & Research Services Heriot-Watt University
Mrs Maire Nolan Technology Transfer Manager Manchester Metropolitan University	Dr Philip Graham Executive Director AURIL The Queen's University of Belfast

Annex 3

AURIL HAVE CONTIBUTED SIGNIFICANTLY AND SERVED ON THE STEERING GROUPS OF THE FOLLOWING PUBLICATIONS:

Title: Continuing Professional Development Framework for Staff Engaged in University Industry Links

Collaborators: AURIL, HESDA, DFEE, DTI, HEFCE, Eversheds

Title: Handbook of Intellectual Property Management

Collaborators: AURIL, Murgitroyd, The Patent Office

Title: Intellectual Property Rights in e-Learning Programmes

Collaborators: AURIL, HEFCE

Title: Managing Intellectual Property

Collaborators: AURIL, Universities UK, The Patent Office

Title: Optimising Consultancy

Collaborators: AURIL, Universities UK, HEFCE, DTI, ELWa, SHEFC

Title: Partnerships for Research and Innovation

Collaborators: AURIL, CBI, DTI, EPSRC, Universities UK, HEFCE

Annex 4

RELATIONSHIPS WITH OTHER ORGSANISATIONS UKKO

AURIL

PROPOSAL TO ESTABLISH COUNCIL OF UNITED KINGDOM

KNOWLEDGE ORGANISATIONS

Introduction

There are many organisations and representative bodies in the UK with responsibilities or involvement in the University-based knowledge business either on the supply or the demand side.

Many of these bodies have productive relationships with one another but perhaps the time has come to create an informal national council of their representatives. Connected on a 'virtual' basis it would convene a national annual meeting with government representatives from interested areas such as the Treasury, the Department of Trade and Industry, the Department of Health, the Office of Science and Technology, the UK Research Councils etc. Such an arrangement should help to facilitate the UK's policy mission of being pre-eminent in the global knowledge-based economy by providing a single national forum for the discussion of relevant issues to the university-based knowledge business in Northern Ireland, Scotland, Wales and England.

Terms: To bring together representatives of all the relevant UK university-based knowledge organisations with representatives from government.

To set up an informal Council of such bodies in the UK as a single forum for discussion of issues, the sharing of ideas and practice, and the formation of policy advice.

Meetings: An annual meeting to be held with a linked 'virtual' network.

Convenorship: To be provided by each member body on a rotating basis.

Title: The Council of United Kingdom Knowledge Organisations (UKKO).

PROPOSED MEMBERS

ACADEMIC-INDUSTRY NETWORK
www.acindus.net

AMRC
Association of Medical Research Charities
www.amrc.org.uk

AURIL
Association for University Research and Industry Links
www.auril.org.uk

AUTM (US)
Association of University Technology Managers
www.autm.net/index_n4.html

(CBI)
ICARG

Inter-company Academic Relations Group
(A Working Group of the CBI's Technology and Innovation Committee)
www.cbi.org.uk

CIHE
The Council for Industry and Higher Education
www.cihe-uk.com

CIPA
The Chartered Institute of Patent Agents
www.cipa.org.uk

EARMA
European Association of Research Managers and administrators
www.cineca.it/earma

IP
Intellectual Property
www.intellectual-property.gov.uk

IPLA

Intellectual Property Lawyers Association
www.ipla.org.uk

LES (Britain and Ireland)
Licensing Executives Society
http://les-europe.org

OST
Office of Science and Technology
www.ost.gov.uk

THE PATENT OFFICE
www.patent.gov.uk

RAGnet
Research Administrators' Group Network
www.ragnet.ac.uk

The R & D SOCIETY
www.rdsoc.org

TTI
Technology Innovation Information
www.tii-org

UACE
Universities Association for Continuing Education
www.uace.org.uk

UKB1
UK Business Incubations
www.ukbi.com

UKSPA
UK Science Park Association
www.ukspa.org.uk

UNICO
The UK University Companies Association
www.unico.org.uk

Annex 5

HOUSE OF LORDS SUBMISSION ON RDAs

24 February 2003

Dear Mr Morgan

These recommendations are organised to reflect the questions posed in the "Call for Evidence: Science and the RDAs".

(a) Regional economic development, since the industrial revolution in eighteenth-century Britain, has been concerned with the triangle of capital.

- Firstly, knowledge capital which is the fruit of scientific and technological understanding and its dissemination, discussion and exploitation.
- Secondly, skills capital which is the community of labour and entrepreneurship available, equipped with the most up-to-date skills and techniques able to harness the knowledge of scientific invention in practical and applicable ways, generating new businesses or within existing business and industry.
- Thirdly, business capital which is the business acumen, entrepreneurship investment capital available to develop innovation and commercialise it in the global economy.

The Science, Engineering and Technology (SET) budget provides for the formation of knowledge capital and the development of skills capital. It also links to business capital by enabling the development of strategic partnerships and collaborations between knowledge and business capital. The role of the Regional Development Agency (RDA) has been and is to enhance regional innovation and entrepreneurship by developing a specific regional economic environment based upon interlocking regional economic strategies, including regional innovation policy and a regional skills plan. The RDA works at the interfaces between the triangle of capital and also provides the overall framework in which innovation and entrepreneurship operate.

Economic and community regeneration is a fundamental goal for the regional development agency and utilising the outputs of SET is a crucial tool available to the RDA to achieve this goal.

It could be said, taking the example of regions in Europe, that regional policy was more able to respond to SET advances and at an earlier stage than national policy. The examples of regions in France, Holland, Germany, Scandinavia and Italy show how this can be achieved albeit in a different statutory environment. Nations alone, however, have the economic strength to provide funding to SET to enable sufficient investment in the knowledge base from which new capital can be created. The role for the RDAs is to harness the fruits of national SET investment within the region. The RDA should do this by ensuring that its Board contains representatives of SET in the region (the universities and research centres whose infrastructure supports SET in the region); by developing a regional innovation strategy as part of its regional economic strategy; by recognising the importance of higher skills in the regional learning and skills strategy and facilitating the

development of knowledge centres (now picked up in the White Paper – The Future of Higher Education) and schemes of progression so that initial training can lead on to higher skills courses; fostering strategic partnerships and collaborations among the SET "providers" as well as between them and business and industry; by engaging in community regeneration through planting new businesses and industries spun from SET expenditure in universities and creating new commercial opportunities to stimulate economic growth and new investment in regional and local communities, recognising the matrix of sub-regional economic development as well as regional and trans-regional economic development.

(b) In most regions, SET advances are now perceived as essential to the strategies of their respective RDAs, to the extent that where Higher Education has been under represented there have been moves to create new higher education structures, even if only on a devolved or virtual basis. Regional development agencies need to audit their knowledge capital, recognise that it is held and produced on a differential basis by universities and in industry and business and develop a systematic approach to embedding SET advantages within its economic strategies.

A good example of a trans-regional approach to regional economic development might be the MEDICI project in the Midlands (combining East and West Midlands RDAs) to stimulate medical and biosciences entrepreneurship and innovation. Based upon initial support from HEFCE, MEDICI also engages both regional development agencies who recognise and support the project in stimulating medical technologies and biotechnology as a key priority for new investment. Combining the knowledge of the major universities and university hospitals in the two regions, MEDICI is a powerful engine for economic change.

The Science Councils in the North West and North East provide a focus in the North of England for harnessing and driving the SET agenda. It is intended to roll this out to other regions.

Many other examples could be given from among AURIL's membership of such innovative and practical partnerships between regional development agencies, higher education and business.

(c) The experience of AURIL members is that regional development agencies are adept at taking advantage of SET advances (and government investment) and, in particular, in seeking to form partnerships and collaborations able to access EU funds etc. There are three relative shortcomings:

- Firstly, regional development agencies have yet to engage business and industry fully whose own recognition of the importance, relevance and commercial strength of SET is variable and whose own investment in research and development is not as high as some of Britain's major competitors. It should also be noted that SBS / Business Links have to-date not engaged SMEs with innovation through HE in any substantive, meaningful way.

- Secondly, RDAs agencies have yet to develop effective mechanisms to recognise investment vehicles and disburse financial support quickly and efficiently to those priority areas. More flexible, less bureaucratic ways need to be developed so that investments can be made in a less cumbersome and ineffective way. This could be done by more effective *strategic* process and less *tactical* process combined in a smooth operational approach to recognising SET

strengths in the region and harnessing these to commercial advantage. Lessons could be learned from the Scottish model in this respect.

- Finally, RDAs need to demonstrate a true commitment to the HE sector by providing funding over longer timescales, not just in line with annual budgets.

(d) This leads on from (C) above in that process (often based on an attempt to apply clusters theory to economic growth led by the DTI) has not recognised the importance of sub-regional and trans-regional links.

- Performance matrix should be used as to the most effective RDA-led investments and interventions but it must be understood that these are most reliable when considered on a long term rather than short term basis and when taken in conjunction with longitudinal studies and case profiles.

- More holistic systems need to be developed to measure the impact of investment which aims to encourage and stimulate embedding SET into the community and business world, through such initiatives and funding streams as ERDF and HEIF. AURIL has been working with the key stakeholders and decision makers on the metrics debate.

(e) Lessons can be learned from RDA experience to date about the need for flexibility, less bureaucracy, more engagement of business and industry, less clusters management and more awareness of the relative SET strengths in the region and support for those whose knowledge capital is based upon large infrastructure assets in equipment, facilities and people whose outputs are recognised by international objective benchmarks of quality, more support for higher skills development and more investment in community regeneration based upon knowledge centre investments.

Please do not hesitate to contact the undersigned.

Yours sincerely

Dr Philip Graham
Executive Director (AURIL)

Dr Tammy Long
Treasurer (AURIL)

Annex 6

CONTINUAL PROFESSIONAL DEVELOPMENT

We have identified the key roles in Knowledge Transfer as:

1. **Manage Information and Communications**
   - 1.1 Obtain Information
   - 1.2 Exchange Information
   - 1.3 Organise Information

2. **Managing Relationships**
   - 2.1 Relationships with other parts of HEI
   - 2.2 Relationships outside of HEI
   - 2.3 Relationships between external agencies and HE

3. **Manage Projects**
   - 3.1 Manage a range of projects

4. **Manage the Commercial Interface**
   - 4.1 Recognise business opportunities
   - 4.2 Develop opportunities
   - 4.3 Market and promote the HEI

5. **Manage opportunities within a legal context**
   - 5.1 Understand basis of intellectual property
   - 5.2 Understand impact on operational activity
   - 5.3 Writing/negotiating contracts
   - 5.4 Licensing

6. **Problem solve and manage decision making process**
   - 6.1 Resolve problem areas

7. **Manage Finance**
   - 7.1 Preparing financial information (eg. budgets, costing, statements)
   - 7.2 Seeking grants/funding and preparing proposals.

Within these the key skills required are:

- Networking Skills
- Problem Solving and Decision Making Skills
- Facilitation Skills
- Business Development and Selling Skills
- Business Planning/Writing Business Plans
- Planning and Time Management Skills
- Conflict Resolution Skills
- Negotiating Skills
- Skilled in Receiving Feedback
- Influencing Skills

- Team Leadership/Team Workings Skills
- Editing and Precising
- Presentation Skills and Marketing Skills
- Meeting Skills: Chairing and Contribution
- Active Listening
- Oral and Written Communication Skills
- IT Skills
- Research Skills.

Annex 7

IP POLICIES AND PROCEDURES BASED ON MANAGING IP: A STRATEGIC GUIDE

(See Attached)