

University Alliance represents 19 higher education institutions in England and Wales with a combined intake of around 550,000 students – a quarter of the sector total. Between them, our members employ one in seven researchers working in UK higher education. They also have strong links to industry, maintaining relationships with over 20,000 businesses including 14,000 SMEs.

This document forms our submission to the House of Commons Science and Technology Committee inquiry on managing intellectual property (IP) and technology transfer.

## Introduction

- Technology transfer and the exploitation of IP is one of multiple ways that Alliance universities forge long-term partnerships with industry. Nestled at the heart of our institutions, it sits alongside consultancy and contract work, collaborative R&D, SME drop-ins, employer involvement in the curriculum and various other business-related activities that enhance the quality of the teaching, learning and research environment.
- While all our members have structures in place to handle technology transfer, it is rarely – if at all – managed by a traditional Technology Transfer Office. Institutions have instead incorporated technology transfer and IP exploitation into their research and enterprise services which have a much wider remit. This integrated approach helps to simplify access to university resources and makes it easier for institutions to build long-lasting relationships with industry.
- Below are some examples of the University Alliance approach to technology transfer and IP. The information was originally provided to us by members in response to a request from the BEIS Innovation Directorate.

## Teesside University

1. Teesside University is committed through the Teesside 2020 corporate strategy to delivering excellence in applied research and working with industry, co-innovating and commercialising our research predominantly through knowledge transfer rather than technology transfer. The rationale is that it is often more effective to undertake challenge-led research, informed by and co-developed by industrial partners than pursuing a protect and technology push approach.
2. The IP arrangements for knowledge transfer are usually based upon a Lambert 4-type collaboration agreement where commercialisation rights rest with the

company, with the university retaining usage of IP for research and teaching. The Head of Knowledge Exchange at Teesside University has represented the Association for University Research and Industry Links (AURIL) members for the past two and a half years on the Lambert Working Group and is familiar with factors affecting the detail of collaboration agreements.

3. The university does on occasion seek to protect IP through patents for exploitation through licences and via spin-outs but this is the exception rather than the rule. It uses patent attorneys HGF and employs Shakespeare Martineau to assist an in-house legal team with company formation and formalities of company reporting.
4. The university has explored a number of IP expertise sharing arrangements in the past and participated in the Commercial Edge initiative with Staffordshire, Northumbria, Sunderland and other universities. Currently the university is at the early stage of exploring opportunities for future IP exploitation through Mercia Technologies PLC which is seeking to expand its presence in the North East and currently partners with a large number of Midlands universities on IP exploitation.

## University of Salford

### IP Commercialisation Pipeline

5. The University of Salford's single strategic priority is the creation and development of Industry Collaboration Zones (ICZs) providing a focus for collaboration within and across the University. By giving students, staff and industry partners the opportunity to co-create and experiment, the university aims to offer new and unique learning opportunities and fully prepare its students for their future.
6. Salford sees the commercial development of IP as a key aspect of its ICZ programme, providing living examples of collaboration derived from our research, teaching and enterprise activities.
7. In 2013 the university established an IP commercialisation pipeline and there is a continuous flow of projects through this IP development process. These projects derive from all academic areas of the university.
8. The IP Pipeline introduced a four-stage development process: Opportunity; Disclosure; Development and Commercialisation. There are clear outcomes that

the projects must fulfil in order to move through and between the stages.

### **Team and Funding**

9. The work is led by the Technology Transfer Team in the university's central Research and Enterprise Department. This small team works with academics and students within the ICZs and across all academic areas to identify and develop IP projects using the IP Pipeline process.
10. Throughout the commercialisation process the team helps to create extensive industrial partnerships and external networks to facilitate the development of each project. This is a particular challenge given the breadth of disciplines at the university and the variety of industrial and business sectors in which the IP can be commercialised.
11. The team has extensive experience in legal, IP and commercial activities but also seeks and uses external professionals to assist in its work. This includes:
  - a. patent lawyers;
  - b. legal advice;
  - c. external consultants;
  - d. external networks and groups.
12. The use of external resources can be expensive and the costs vary on an annual basis. In one year recently almost 75% of the annual budget went against such costs when multiple deals were in progress. More commonly, these external costs have been 30-50% of the annual budget with the remainder going towards other project development requirements.
13. The staffing costs and project development funding are supported directly by the university with additional development funding for these activities coming from Higher Education Innovation Funding (HEIF) when appropriate.

### **Benefits**

14. Financial returns from the IP Pipeline are growing but there is acknowledgement that these are long-term projects which can take several years before they might realise their potential value.

15. In the meantime, the focus is on ensuring awareness of other benefits and tangible outcomes resulting from this work such as:
- a. national and international publicity, including receiving a Times Higher Education Award for 'Outstanding Contribution to Innovation and Technology' in 2014;
  - b. real-world economic and social impact as part of the university's ICZs in digital and creative, engineering and environments, health and wellbeing, and sport;
  - c. the creation and sustained development of strong, multi-faceted collaborations with industrial partners;
  - d. supporting the development of a culture of innovation and entrepreneurship.
16. In addition, the IP commercialisation activity is seen as a key contributor to research impact as assessed by the Research Excellence Framework (REF).

#### **University of Salford Enterprises Ltd (USE)**

17. The university has a wholly-owned company, USE, which acts as a holding company and provides governance services for all university companies. USE has university and external business representatives on its board.
18. USE is the final step of the university's IP commercialisation process, acting as the contracting body for any IP licences, and it holds any spin out equity resulting from commercialisation activities.
19. USE has freedom to support the commercialisation ventures as it sees fit and has, on several occasions, contributed equity investment into spin out companies. This is normally done alongside external private investment to ensure that there is appropriate and independent due diligence behind any such agreements.
20. Through this approach and through the sustained support of the spin out companies in its portfolio, the estimated value of shareholdings held by USE has increased by approximately 500% since 2012.

#### **University of South Wales**

21. USW actively seeks to provide a research environment that makes it easy for external stakeholders to access research results in the most efficient way possible. This enables USW staff to maximise the impact of their research whilst building beneficial relationships with external partners. To do this, the university's Research and Innovation Services (RISe) provide a number of services to enable research staff to manage their intellectual property and their business relationships and secure funding.

### **Collaboration & IP Management**

22. Staff receive support with collaborative research contract development that enables USW to maximise the benefits arising from collaboration whilst minimising the risks associated with this type of activity. Advice on confidentiality and publication is a key part of this to ensure that IP can be adequately protected where possible.
23. Lambert model collaboration agreements are used wherever possible and internal and external legal advice is sourced where necessary. The outcomes of this work are high quality agreements with industry and academic partners that allow research partnerships to operate efficiently and grow.

### **Intellectual Property Commercialisation**

24. USW provides support to staff to help them identify partners with which it can develop new products and processes based on research as a way of maximising the social and economic impact on the region. A process has been developed which includes the following key stages;
- a. Identifying & registering IP
  - b. Market & commercial due-diligence
  - c. Securing funding to prove technical and commercial viability
  - d. Demonstrating to industry and other stakeholders
  - e. Negotiating licencing agreements
  - f. Developing spin-out companies
25. External patent agents support IP registration. Independent technical and

commercial consultants contribute to due-diligence work. Internal and external legal advice is used for contractual support. Funding is secured from a range of government sources. The outcome of this activity is new spin-out companies, licences, new industry partnerships and grant funded projects. Case studies are also produced to showcase the impact of the research.

#### **Knowledge Exchange Networks**

26. USW advises staff on ways to maximise their external engagement and collaboration through promoting regional and national networks that address the priority areas of research and the regional economic and social challenges. An example is the Welsh Government's life science industry Networks (MediWales & the LS Hub) which provide academics with opportunities to meet and engage with industry in the life science sector in Wales.

#### **HE Collaboration & Continuous Improvement**

27. USW is a founding partner in the four year HEFCW funded IP Commercialisation project which brings the five research intensive universities in Wales together to share best practice and attract funding and investment in IP commercialisation. USW has also led numerous cross-sector projects to promote innovation and engagement to great effect.

#### **Impact Investment Scheme (I2S)**

28. USW has continually invested in early stage development of ideas for collaboration and commercialisation of research. The most recent scheme, I2S, has invested over £200,000 in 39 projects to enable staff to engage with external partners to amplify the impact of their research.