

The Translational Funding Landscape

This note sets out examples of publicly-funded schemes which relate to the translation of research. It is crucial to note that, whilst this should give the reader a flavour of the variety and complexity of the funding available, it is not intended to be a map of the entire landscape of translational research funding.

Funding Source	Role in translation
Higher Education Innovation Fund (HEIF)	<p>The Higher Education Innovation Fund (HEIF) provides a ‘third stream’ of funding - complementing the existing teaching and research funding streams – to Higher Education Institutions (HEIs) with the aim of promoting knowledge transfer and engagement with business.</p> <p>HEIF is worth £238 million over the 2006/7 - 2007/8 spending period. It is jointly funded by OSI (which contributes £168m) and DfES (which contributes the rest) and is managed by the Higher Education Funding Council for England.</p> <p>It provides funding to every HEI in England to build their capacity and increase their professionalism in knowledge transfer and business engagement.</p> <p>Funding is provided through two routes:</p> <ul style="list-style-type: none"> • The majority of funding is allocated by a formula, to give a stable and predictable income to the HEI. • A smaller component is allocated via competition to encourage high-impact innovative projects. <p>HEIF funding can support a wide range of activities in institutions, for example:</p> <ul style="list-style-type: none"> • Strengthening technology transfer offices and providing proof of concept funding to help with commercialisation of research results (e.g. creating licence deals and spinouts) • Support for a business development function in institutions to help increase interactions with business (such as collaborative research, consultancy, CPD training etc) and provide a more professional interface • Enterprise education for students to stimulate their interest and provide support for starting a business
Public Sector Research Exploitation Fund (PSRE Fund)	<p>The PSRE fund was established to support the commercialisation of research carried out by Public Sector Research Establishments (PSREs), by increasing their capacity to manage commercialisation and providing seed funding.</p> <p>PSREs are a diverse collection of public bodies carrying out research in pursuit of various Government objectives, including improving quality of life and economic development through advances in basic science, and informing Government policy making and statutory and regulatory functions. They include Research Council</p>

	<p>Institutes, Government laboratories, NHS Innovation Hubs and major museums and Galleries.</p> <p>The PSRE fund was launched in response to the Baker Report (August 1999) on releasing the economic potential of public sector research establishments:</p> <p>PSRE 1 (announced October 2001): £10 million.</p> <p>PSRE 2 (announced January 2004): £15 million.</p> <p>PSRE 3 (announced January 2006): £25 million.</p>
Science Research Investment Fund (SRIF)	<p>SRIF (a UK-wide scheme which has allocated £3bn to institutions over the period 2002/03 to 2007/08), was initiated to address the remedial investment need of approximately £8bn across the whole UK higher education infrastructure.</p> <p>SRIF aimed to address maintenance backlogs, poor fitness for purpose, a lack of legislative compliance in buildings, plant and services, and provide equipment needed to support teaching and research.</p> <p>Funding was distributed by a formula, half based on institutions' total research income from all sources (including charities, business and public bodies) and half based on their quality related (QR) research income from the UK Funding Councils.</p> <p>Institutions were expected to explain how their proposals took account of the Science and Innovation Investment Framework, which includes making institutions' expertise and facilities more open to access by business, as well as how proposals fitted with their own sustainable research strategies.</p>
DTI's Equity Investment Programmes	<p>The <i>Regional Venture Capital Funds (RVCFs)</i> are an England-wide programme providing risk capital finance in amounts up to £500K to SMEs who demonstrate growth potential. RVCFs have been established in each of the 9 English regions and have a total value of £250.5m. The Government is an investor in the Funds (£74.375m) alongside private investors, the European Investment Fund (EIF) and banks.</p> <p>The <i>UK High Technology Fund (UKHTF)</i> was established on a "fund of funds" basis to encourage institutions to invest in early-stage, high technology venture capital specialist companies and to increase the amount of finance available for investment in technology-based businesses. The Fund invests in existing high technology based venture capital firms instead of directly in high technology companies. The fund raised a total of £126.1m, comprising £106.1m from private sector investors and a £20m investment from Government.</p> <p>The <i>Early Growth Funding (EGF)</i> programme was developed to encourage the provision of risk capital to business start-ups and other businesses in the early stages of growth. In total, seven funds are operational and, as at 30 June 2006, have invested almost £16 million, matched to £43.5 million of private sector funding, into 136 businesses. Six of these are business angel co-investment models, where the Early Growth Fund invests alongside business angels on the same terms or better. There are funds in London, the East of England, West Midlands, England Wide, Yorkshire and the Humber, the North East and the South East of England</p> <p>The <i>Enterprise Capital Fund (ECF)</i> programme, introduced through a round of</p>

	<p>'Pathfinder' funds in July 2005, will address the equity gap faced by many small but potentially high growth SMEs. Funds will be run by private sector fund managers investing a mix of public and private money on sound commercial terms, with Government providing up to £2 for every £1 of private money. The competition to find fund managers closed in September 2005 and due diligence is now being completed on the short listed bids. Funds will probably be ready to start investing into SMEs later in 2006. Six funds have been launched in the Pathfinder round.</p>
<p>Small Business Research Initiative (SBRI)</p>	<p>SBRI was launched in April 2001 as a cross-departmental Initiative. It is modelled on the US Small Business Innovation Research (SBIR) programme, which is the nearest equivalent international programme.</p> <p>SBRI is co-ordinated by DTI officials. Like its American counterpart, SBRI is designed to stimulate and increase the demand for research and development from high-tech small firms and give them the opportunity to demonstrate that they have the ability to undertake and deliver high quality R&D to the public sector. The participating Government Departments agreed to a target of purchasing at least 2.5 per cent of their R&D from SMEs by 2004/05. The Research Councils are also participating in their own arrangements. The web site, www.supply2.gov.uk, provides an alert service concerning Government opportunities, and has direct links to the procuring organisations' web sites.</p> <p>In the Budget on 16 March 2005, the Chancellor made it mandatory for government departments to participate in the initiative. John Healey (Financial Secretary to the Treasury) and Lord Sainsbury subsequently wrote to Departments on 16 September 2005 to request their SBRI performance figures for 2003/04 and 2004/05. These figures were published in Parliament on 16 February 2006.</p> <p>In 2004/05 the total resources made available for extramural R&D under SBRI by the twelve biggest participating spending Government Departments was over £2.5bn. The value of contracts made with small firms was £269.1m (10.6 per cent of the baseline budget). None of the departments whose performance under SBRI is being monitored has failed to meet the initiative's 2.5 per cent target.</p>
<p>DTI Technology Programme</p>	<p>The Technology Strategy Board (TSB) advises the Secretary of State for DTI on business research, technology and innovation priorities for the UK, the allocation of funding across these priorities and the most appropriate form of intervention to support them. It reports annually on its own activities and on cross-government policies that relate to technology, innovation and knowledge transfer and oversees the DTI-led Technology Programme which supports Collaborative R&D (CR&D) and Knowledge Transfer Networks worth £370m over the 2005-2008 spending review period.</p> <p>The Technology Programme is already supporting over 450 CR&D projects, with grant funding of £330m from DTI & Defra, Research Councils and RDAs/DAs; and 19 Knowledge Transfer Networks to promote collaboration, best practice and knowledge sharing between industry and the research base.</p> <p>Budget 2006 announced that the government will be looking into options for running the TSB at arms length from government. Such an arms length body will have the remit to boost UK growth and productivity by strategically stimulating innovation in those areas that offer the greatest scope for improvement. It will focus on high value, knowledge based businesses and strategically stimulating emerging technologies, inward investment and government procurement policies.</p>

	A first report on the options for the body was put to Ministers in July 2006. [An announcement will be made to Parliament once final decisions have been taken on the structure and form of the new body.]
NHS Innovation Hubs	See chapter 6 of Cooksey Review Report
University Technology Transfer Offices	See chapter 7 of Cooksey Review Report
Research Councils	<p>As major investors in research and postgraduate training the Research Councils are committed to maximising the effective exploitation of their investments. Individually and collectively the Councils fund a portfolio of activities including:</p> <p><i>Collaborative research:</i> research developed and delivered in partnership with end users, including business, policymakers and practitioners in the private, public and voluntary sectors as well as the development of shared data resources to inform future research. For example, the Research Councils are actively engaged in the Government's Technology Strategy Programme and all fund a specific Small Business Research (SBR) scheme. This provides at least 2.5 per cent of an agreed baseline to fund university-SME collaborations.</p> <p><i>Commercialisation and exploitation of research:</i> the application of research findings in user organisations, enabling the diffusion of new technologies, realisation of intellectual property and the creation of patents and licensing agreements; the creation of spin outs; providing proof of concept funding; and seed corn and follow on funding.</p> <p><i>People and knowledge flow:</i> promoting the exchange of people between academic, business and user organisations, and investing in networking and brokering activities.</p> <p><i>Cooperative training:</i> developing and maintaining the skills needed to translate knowledge into innovative ideas, for example through doctoral training (CASE and Industrial CASE studentships), commercialisation and business skills training.</p> <p>The Research Councils are determined to achieve and demonstrate a significant increase in the economic and social impact of the research and training they fund. Taking up the challenge of the Warry Report (2006), the Research Councils will continue to invest in the activities outlined above, whilst striving to boost the level of knowledge transfer more widely from across the research base.</p>
MRCT	<p>MRC provides, from commercial revenue, financial support for the Young Entrepreneurs Scheme competition each year (run by BBSRC and Nottingham University). In addition, MRCT's Technology Transfer Managers have acted as official mentors to entrants and Directors regularly act as regional and finals judges, giving their time free of charge.</p> <p>MRC also provides financial support for the Research Councils Business Plans Competition and MRCT provides staff members to sit on the steering committee and judging panel for the biosciences entries to the competition.</p>

	<p>MRCT has also provided financial and personnel support to the Cambridge-based Careers Research and Advisory Centre (CRAC) 'Biobusiness' courses; teaching/mentoring support for UK Grad Schools Programme and regularly shares expertise through its senior staff teaching on Praxis courses.</p>
<p>Devolved Administrations: Scotland</p>	<p>Scottish Health Innovations Limited (SHIL) was established in late 2002 to support the development and commercialisation of innovations arising within the NHS in Scotland. With funding from the Scottish Executives Chief Scientist Office, Scottish Enterprise, Highlands and Islands Enterprise, the Department of Trade and Industry and the European Regional Development Fund programme, SHIL seeks to identify and develop new technologies which can be exploited through partnerships with the private sector.</p> <p>In so doing, SHIL seeks to:</p> <ul style="list-style-type: none"> • Improve quality and value for money of patient care throughout NHS Scotland; • Increase the generation of income to the NHS; • Stimulate economic wealth in Scotland through: <ul style="list-style-type: none"> • The creation of new jobs and enterprises, and • Delivering new market opportunities for businesses interested in licensing NHS Scotland technologies.
<p>Devolved Administrations: Northern Ireland</p>	<p>In January 2006 the NI Clinical Research Support Centre (CRSC) secured additional funding of £1.65 million - from PSRE, Invest Northern Ireland and the R&D Office - to create HPSS Innovations as an innovation management service providing:</p> <ul style="list-style-type: none"> • Efficient identification, assessment, and management of intellectual property (IP) assets through protection and technology development processes; • Training of staff in the management and control of HPSS IP assets and commercialisation activity; • Acceleration of potential products to market via commercial and non-commercial routes and the eventual generation of revenue streams; • New funding will also provide limited proof of concept funding for the HPSS as a means of directly supporting the innovation process.
<p>Devolved Administrations: Wales</p>	<p>Translational research within the NHS in Wales is being facilitated by an all-Wales intellectual property advisory service, called Welsh Innovations in Healthcare (WISH). The aim of WISH is to provide the NHS in Wales with advice and support in maximising the potential of the intellectual property and innovations generated by NHS staff. WISH's principal activities include:</p> <ul style="list-style-type: none"> • Increasing the understanding and importance of innovation in the NHS; • Providing training on innovation management and exploitation methods; • Identifying existing and new NHS innovations and any associated IP;

	<ul style="list-style-type: none"> • Assessing the practical and/or commercial potential of NHS innovations; • Providing specialised support to the process of innovations management and development of innovations; • Protecting innovations with significant commercial potential and their associated IP; and • Providing specialised advice and support to bring about licensing of IP and spinout company formation.
<p>The Regional Development Agencies (RDAs)</p>	<p>The RDAs are business-led agencies which have the potential to engage more businesses in knowledge transfer. All RDAs have science and industry councils, advisory bodies with senior business people and vice-chancellors, which identify areas of focus for programmes and technologies, where RDA intervention can have a significant economic impact.</p> <p>The RDAs are not research funding bodies, but encourage collaborative R&D. Typically RDAs focus on between three and five areas of technology, and healthcare technologies is one of the most common areas of RDA support. Different RDAs target different specialisms according to regional strengths and opportunities, for example:</p> <ul style="list-style-type: none"> • Advantage West Midlands – Medical devices and manufacture, e-health; clinical trials. • One North East – stem cell technologies and non-regenerative medicine, assistive technologies (ageing and disability) bioinformatics, and biosensors • SEEDA – medical imaging, informatics and medical devices. <p>The delivery mechanisms for RDA support include:</p> <ol style="list-style-type: none"> 1. Growth (including many start-up healthcare firms) 2. Access to Finance 3. Mentoring e.g. enterprise hubs 4. Innovation Support (targeting existing businesses to increase new products processes and services, many healthcare based). 5. Innovation Advice 6. Manufacturing Advisory Service 7. Design for business 8. Knowledge Transfer (releasing economic value from the knowledge base) 9. Technology Brokering and HE promotion 10. Knowledge Transfer Hubs - Centres of Industrial Collaboration e.g. 11. Knowledge Transfer Partnership (KTP) 12. Technology Strategy programme (Collaborative R&D; Innovation Platforms)

	<p>13. Networks (to share good practice and encourage collaboration)</p> <p>14. Business Sector groups</p> <p>15. Business – university knowledge networks</p> <p>16. National-regional networks eg micro and nano-technologies (MNT) network and STEM cell forum.</p> <p>17. Skills (identifying and addressing priority needs, with regional partners including HEFCE, LSCs etc)</p> <p>18. STEM skills</p> <p>19. Management, leadership and entrepreneurship.</p>
--	---