

Funding of higher education and regional development

Role of higher education in the regions
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SHARPENS YOUR THINKING

Where to start?

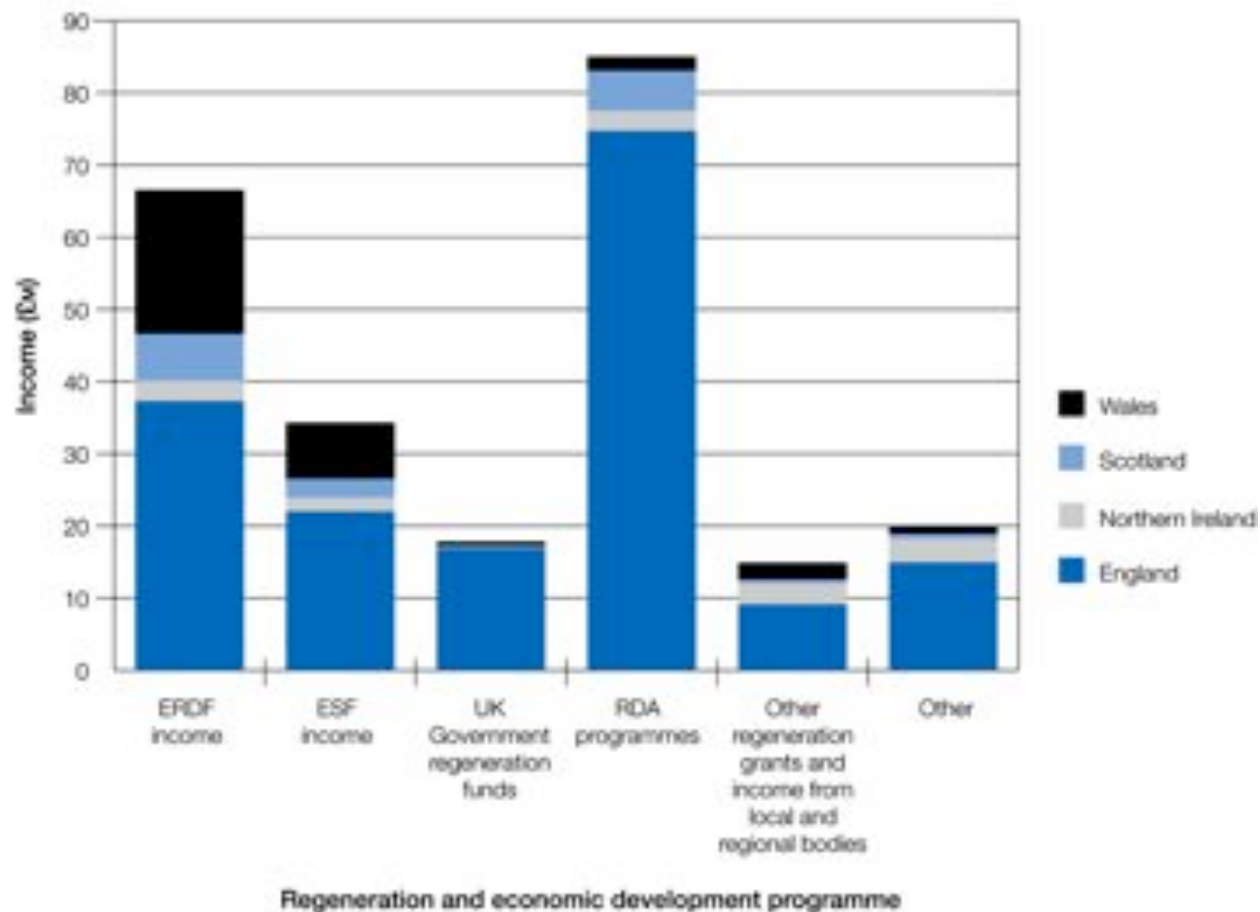
- Universities are powerful economic actors and are especially important because of their stability.
- Four important roles:
 - Universities are important sources of local employment and purchases from local suppliers
 - Universities produce skilled workforces and transfer knowledge through their graduates
 - Universities are leading sources of knowledge
 - Universities are powerful network-builders

Which region is of most interest?

- Depends on the university positioning:
 - *International*(*)
 - Europe
 - Regional
 - Sub-regional/City region
 - City/Town

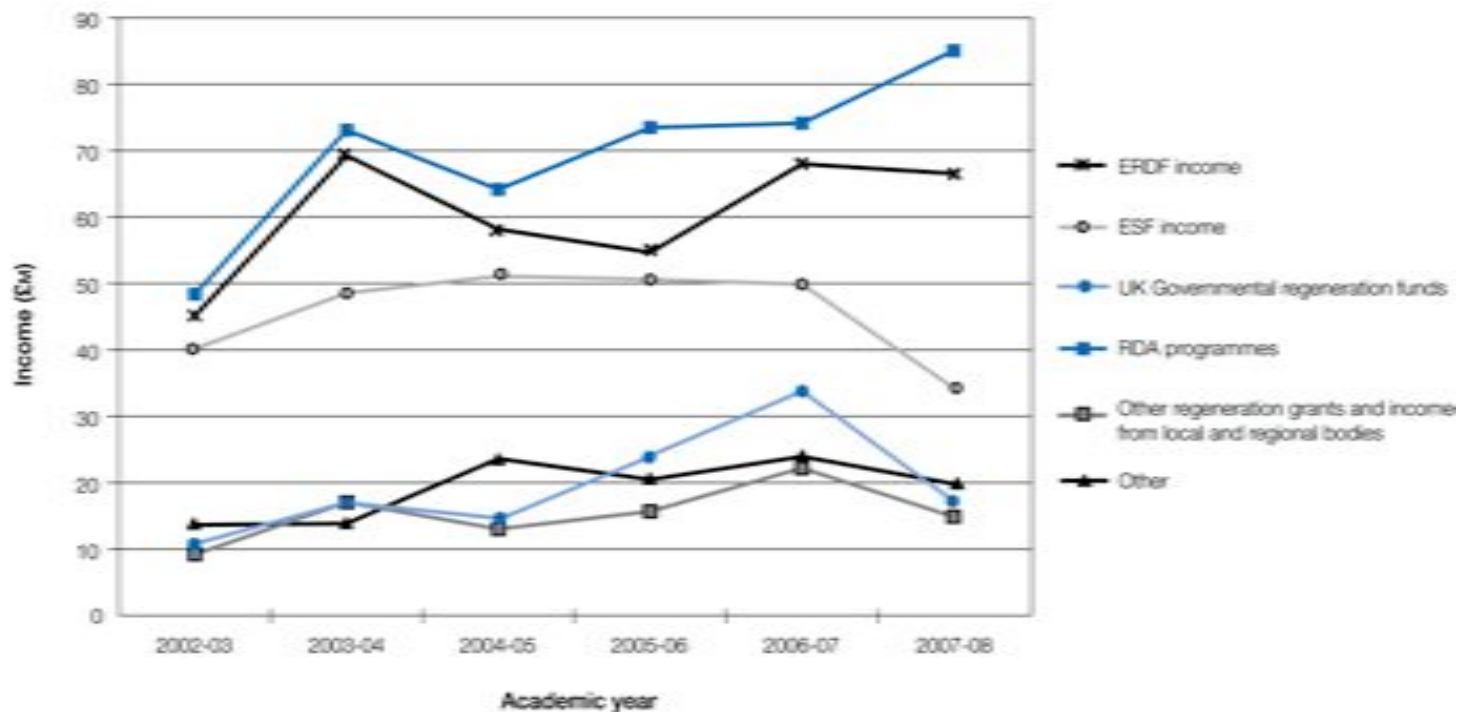
(*) Note: *Accelerating Innovation by Crossing Boundaries Cambridge-MIT 2000-2006*

University income from regeneration and development programmes




Source: Higher Education Business Community Interaction Survey 2007-08, HEFCE 2009/23

University income from regeneration programmes (real terms)



Source: Higher Education Business Community Interaction Survey 2007-08, HEFCE 2009/23

Europe (1): Overview



Current programmes for 2007/2013 include:

- DG Research - primarily the Framework Programme 7
- DG Region - primarily the current European Regional Development Fund
- DG Education and Culture - e.g. Lifelong Learning (including Erasmus for HE) and Leonardo da Vinci (vocational training and education)

Europe (2): Framework 7

- Size matters - €52 bn compared with \$2.9/3.2bn to UK research councils 2008/11
- Principal benefit - collaboration and partnership underpin framework programmes providing access to a large number of stakeholders
- The areas are topical and focus on economic and social transformation, a theme which resonates in the European agenda
- Financials - aim is to gain a contribution on direct costs but fEC is not accepted and overheads are a contentious point
- Rules are characteristically complex

Europe (3): Example - Marie Curie

- Marie Curie Initial Training Network (European Commission £328k)
- Partners - Sheffield Teaching Hospital (lead) Bristol Urological Institute; University of Leuven, Belgium; University of Antwerp, Belgium; University of Warsaw, Poland; Erasmus Medical Centre Rotterdam, The Netherlands; University Hospital Maastricht, The Netherlands; Plethors Solutions Ltd, UK; Urodoc Ltd, UK; Astellas Pharma Inc, The Netherlands and Sheffield Hallam University.



Europe (4): ERDF 2007 - 13

- ERDF and the European Social Fund have been funding sources for education and the public sector for over 20 years - priorities are:
 1. Stimulating successful enterprise
 2. Promoting innovation and R&D
 3. Developing sustainable communities; and
 4. Transitional funding for South Yorkshire coming out of Objective 1
- The scale mean that you can do big things
- Rigorous administrative and bureaucratic procedures and associated transactional costs and audit

Europe (4): ERDF - Sheffield Example

- **Collaborating with:**

- Advanced Manufacturing Research Centre (AMRC)
- Castings Technology International (CTI)
- Design Modelling and Simulation Centre (DMS), at NAMTEC
- OpenMats Centre (proposal under development by MERI, Sheffield Hallam University)
- PVD Coatings Centre (currently at ERDF OBP stage, led by University of Leeds)
- TWI
- Universities across the region

- **Working with agencies including:**

- Business Link Yorkshire
- Chambers of Commerce
- Manufacturing Advisory Service
- NAMTEC
- Nanofactory (Utilising Synergies in Nanomanufacturing, MNT2)
- Yorkshire Forward (e.g. Sector Champions, Innovation Team)

RCUK



- [Arts and Humanities Research Council \(AHRC\)](#)
- [Biotechnology and Biological Sciences Research Council \(BBSRC\)](#)
- [Engineering and Physical Sciences Research Council \(EPSRC\)](#)
- [Economic and Social Research Council \(ESRC\)](#)
- [Medical Research Council \(MRC\)](#)
- [Natural Environment Research Council \(NERC\)](#)
- [Science and Technology Facilities Council \(STFC\)](#)



HEFE Strategy

- **Enhancing excellence in learning and teaching**
- To ensure that all higher education students benefit from a high-quality learning experience fully meeting their needs and the needs of the economy and society.
- **Widening participation and fair access**
- To promote and provide the opportunity of successful participation in higher education to everyone who can benefit from it.
- **Employer engagement and skills**
- To encourage transformational change in the higher education sector that will enhance the capability of higher education institutions to establish long-term, sustainable relationships with employers to stimulate and meet their demands for highly competent and skilled employees.
- **Enhancing excellence in research**
- To develop and sustain a dynamic and internationally competitive research sector that makes a major contribution to economic prosperity and national wellbeing and to the expansion and dissemination of knowledge.
- **Enhancing the contribution of HE to the economy and society**
- To increase the impact of the higher education knowledge base to enhance economic development and the strength and vitality of society.

HEFCE - HEIF... and its antecedents

- Different variants since 2000 - HEROBC; UC; SEC; HEAFC; CKE; KTCF but now HEIF4 - a foundation stone of KT growth
- Subject to positioning, but many of the initiatives end up as being regional for example:
 - Project initiatives in design and digital; manufacturing; product design; sustainability - all involve regional SME's
 - Centres of Knowledge Exchange - the Software Factory and Knowledge Exchange, jointly with the UOS
 - Knowledge transfer champions to develop regional linkages and create multi-disciplinary offers

HEFCE: SDF, EE and Collaborations

- Third Stream as Second Mission - Food Innovation
- Centres of Excellence in Enterprise (CETLs)
- Employer engagement and external partnerships - 'capacity' and 'provision':
 - Combining the learning and teaching of higher level skills with research and knowledge transfer such as in HEFCE financed 'Innovation Leaders' a joint universities' bid
- HEFCE and the Federation of Small Business - 500 studentships
- HEFCE are always interested in leveraging the funding into economic benefit



BIS - New industry, new jobs (1)_

- A conceptual paper/to guide funds, not funded
- The theme of a balanced and diversified economy with opportunity and quality employment through the UK:
 - Low carbon industrial strategy/vehicles
 - Digital Britain
 - Life sciences and pharmaceuticals

Source: Building Britain's Future: New Industry, New Jobs BIS April 2009

BIS - New industry, new jobs (2)_

- Advanced manufacturing
 - Aerospace
 - Composites
 - Industrial biotechnology
 - Plastic electronics
- Professional and financial services
- Engineering construction
- Industrial opportunities in an ageing society

HEFCE's Economic Challenge Fund (1)



- Programmes, some joint and bid for in just 4 weeks, under a £50m (£25m) initiative by HEFCE and involved 120 bids nationally
- Very diverse bids bring together the efforts of teaching, research and business staff to cover a tendering period of 18 months - project management becomes critical
- Yorkshire and Humber universities awarded £3m matched by Yorkshire Forward, largely from the 'Train to Gain' budget, to make a total of £6m

HEFCE's Economic Challenge Fund (2)



- Yorkshire and Humber programmes included:
 - Bradford School of Management/University of Leeds Business School - learning pathways and support to 500 SMEs;
 - University of Hull - SME interventions of training, workshops and mentoring;
 - Leeds Metropolitan and Calderdale and Hull Colleges - interventions of re-skilling or up-skilling focusing on particular industry sectors or to equip for self-employment;
 - Sheffield Hallam and University of Sheffield- interventions on consultancy, entrepreneurialism through work-based skills and via Higher Futures - Lifelong Learning Network

Knowledge Transfer Partnerships

- Led by the TSB with 19 other funding organisations
- Growth 858/1002/1048/975/977 over the past 5 years to 2008/9 (supported also by ESF)
- Numbers for 2009: $975 - 406 + 450 + 13 - 55 = 977$
- Great diversity of industry and of associates
- Split by Micro Industry (9%); Small Industry (37%); Medium Size (29%); and Large Industry (25%)
- Main interventions: product design and development; research and development; and manufacturing
- 'Bell' distribution across research strengths (Mean 'old' 4)

Source: Knowledge Transfer Partnerships Annual Report 2008/9

Yorkshire RDA - universities perspective

- Yorkshire Forward (YF) seeks to deals with the universities through Yorkshire Universities (YU) equally and there is a YU/ YF 'compact'
- Total income of the 11 universities and 3 HE Colleges is £1.4 bn and the economic impact of the regions HE sector is £2.8bn (3.2% of the GDP)
- There are 206,000 students - 54,000 graduating annually - and 39,000 staff in the 14 institutions - 1.5% of the regions total
- Growing R&D connection (up to 10% in 2008/9) - but notable research contributions by HE - £347m and 42% of all regional R&D
- All HEs present a portfolio of courses, facilities and growth to support enterprise and growth

Source: Delivering Positive Impact, Yorkshire Forward 2009

The RDA's direct role (1)

- Yorkshire Innovation - the Science and Industry Council
- Stimulation activities in industry sectors matching NINJ
 - Advanced Manufacturing (UOS) and Nuclear (UOS & UOM)
 - Centre for Low Carbon Futures
- Innovation Networks and Innovation Hubs
- Centres for Industrial Collaboration (£11m)
- Yorkshire Concept (POCC); Venturefest; White Rose Seedcorn; and Yorkshire Enterprise Fellowships
- Facilitating financial support to incubation centre

The RDA's direct role (2)

- The region is challenged by retaining the appropriate graduates within the priority sectors:
 - competition from other regions (e.g. bioscience) and a shortage of industrial placements and sandwich degree courses
 - Poor industry image e.g in traditional sectors and where the industry locations has an adverse 'press'
- So a range of offerings including Graduates Yorkshire

Business Link in Yorkshire




- IDB model contracted to Yorkshire Forward, historically minimal joint referrals between BL and the universities
- Responsible for 'Services to Business' (the BSSP suite)
- Linkage into KTPs in Yorkshire
- Delivers 'Designing Demand' (a national programme for SMEs with the Design Council)
- Innovation Vouchers (£3000 going to £7000) have been an amazing success for 'the knowledge base'
- In development - Innovation Specialist Service

Collaborations with Health



- Strategic Health Authority - regional innovation funding (£5m over 4 years)
- NIHR SDO Programme - innovations in healthcare delivery (£3m p.a.)
- NIHR i4i Programme - high technology business streams (of £100k - £300k)
- Heath Foundation - innovations with healthcare quality/efficiency (£75k per project)
- Obesity - joint themed calls: NIHR PHR (£10m p.a.) and NIHR HTA Programme (£88m in 2011/2012)



City region (1) - Sheffield

- Situation in Sheffield - a research intensive and a post-1992 with 50,000+ students within reach of each other
- Many elements of academic collaboration between the universities - and some competition
- Objective One status led to 'Knowledge Starts', a joint spin-out/licensing venture led by Sheffield City with both universities
- Several joint University bids - Innovation Leaders (HEFCE) and ECIF (HEFCE)
- Many social and economic connections (mainly in-kind) from the universities associating with re-defining the City

City Region (2) - Initiatives

- 'Creative Sheffield' - 'a city development company':
- Sheffield has a LEGI (Local Enterprise Growth Initiative) with £18.25 for 3 years of a intended 10 year programme
 - targeted at deprived neighbourhoods and schools
 - successful bid for graduates and ventures
- 'Shaping the Future of the Sheffield City Region Economy' - joint by both universities, led by the University of Sheffield:
 - Excellence in materials and manufacturing
 - Excellence in medical technologies
 - Excellence in media, design and the digital knowledge economy

Reflections- collaborations and fit (1)

- Many academic linkages - creating additionality and building the virtuous circle
- 'Best-fit' use of 'regional' funding depends on:
 - complementary to university aims
 - builds on research/knowledge transfer platforms
 - social and economic context
 - industrial, educational and spatial geography around the university location
- Opportunities can be nationally or regionally orchestrated
- Other opportunities can be very individual, perhaps unique to the combination of circumstances
- Collaboration with other HEIs can be because they are similar or because they are different

Reflections- networking and work! (2)



- Collaboration with other institutions such as the NHS brings new forms of organisation and working to the HEI
- The enormous diversity of contacts between individuals in a university and the outside world is an opportunity but also a challenge to get a coherent strategy
- Getting lift to an funding idea requires creativity, capability, inspiration - and lots of bid writing!!
- Finding metrics which reflect this success is tough
- Success at winning awards always seem clear in retrospect - but sustainability is the issue.

The End