

This research brief series is intended to provide overviews of different strands of research associated with the Impact of Higher Education Institutions on Regional Economies research initiative.

The initiative is a major research venture jointly funded by the Economic and Social Research Council (ESRC) together with the four UK Higher Education Funding Bodies in England, Scotland, Wales and Northern Ireland. The initiative involves researchers from across the UK and is coordinated by the University of Strathclyde.

The initiative, which began in 2007, aims to promote better understanding of the key economic and social impacts generated by higher education institutions in the UK. There are nine projects, involving academics from across the UK, examining issues of:

- higher education institutions and regional competitiveness
- influence of students and graduates on regions
- knowledge exchange between University and Industry
- universities and community engagement

For further information about the initiative and related research, please see:  
<http://www.impact-hei.ac.uk>

R E S E A R C H B R I E F S E R I E S

**No. 5**

How has devolution affected the  
knowledge economy in Scotland and  
Wales?

N O V E M B E R 2 0 1 0

## How has devolution affected the knowledge economy in Scotland and Wales

**Knowledge transfer is seen as one of the priority areas in the United Kingdom's research and innovation policies. In many regions, universities are considered key elements of innovation systems, supporting science and innovation-based regional growth. However, national governments still retain significant influence over science and innovation policy, although some powers and responsibilities are devolved to regional governments.**

This research looks at the knowledge economy in Scotland and Wales since devolution in 1997. It assesses knowledge transfer and exchange between higher education institutions (HEIs), governments and industry - the so-called 'triple helix' model. Focusing on universities as research actors, and on the economic governance of knowledge transfer from universities through the devolution process, it identifies different patterns of interactions through which triple helix systems are emerging.

### Key Findings

**Scotland and Wales are seeking to develop science-based innovation strategies in which universities play a central knowledge transfer and commercialisation role**

- Both regions have facilitated partnerships between universities and industry to support more effective collaboration, particularly within key regional growth sectors.

#### Scotland:

- Has made good progress in developing effective strategies. There is a relatively high spread of income and activity across the region's universities.
- Ranks top out of all the UK regions in terms of higher education research and development as a percentage of GDP. However, there are low levels of connectivity between HEIs and business.
- Continues to focus its post-devolution science policy on the supply side – on the science base in Scottish universities – partly disregarding the demand side role that could be played by firms.

#### Wales:

- Has been less successful in the establishment of regional networks. University commercialisation income and activity is less well distributed. Two institutions – Cardiff and Swansea – receive more than two thirds of total income.
- Ranks lowest in the UK in terms of HEIs sourcing their commercialisation income from within the region.
- Has relatively low levels of investment in research and development. A lack of regional innovation restricts the growth of the regional economy.
- Has the lowest proportion of firms engaged in knowledge-based activities across all UK regions.

**The complexity of the devolution process comes from conflicts of interest between the various actors involved**

- Some stakeholders in Wales believe that innovation policy promoted by the UK Government may result in a focus that is England-oriented and does not take adequate account of the devolved regions.
- Although the establishment of regional policies to develop innovation systems requires more than appropriate resource allocation, a continued lack of funding limits the engagement of universities in knowledge-based economic development.

### Implications

**To be effective, policy initiatives to promote regional innovation require knowledge of the locality and the engagement of a range of regional and non-regional actors.**

- In order to embed a regional triple helix system in the wider context of economic governance, science and innovation policy should go beyond notions of geographical proximity.
- Policy makers need to recognise the complexity of interactions between the local, national and global levels.
- Regional contexts are an important influencing factor on the economic and innovative performance of universities.
- Knowledge can be put to most effective use by networking it globally.
- In order for regions to operate through global network nodes, regional communities must have the capability to exploit the knowledge generated by their universities.

### Methodology

The principal methodology employed consisted of a review and analysis of relevant policy documents, coupled with an analysis of relevant metrics concerning university knowledge transfer practices.

### Further Information

The study was carried out by Robert Huggins of the Centre for International Competitiveness at the Cardiff School of Management, University of Wales Institute, and Fumi Kitagawa at the Graduate School of Education, University of Bristol.

To contact the authors of this report:

Robert Huggins  
Centre for International Competitiveness  
Cardiff School of Management  
University of Wales Institute, Cardiff  
Colchester Avenue, CF23 9XR

Tel: +44 (0) 29 2041 7075  
E-mail: rhuggins@uwic.ac.uk