

# Evaluating the regional knowledge economy: A case study of the BMW Region

Adrian O'Donoghue analyses a recent report on the Regional Knowledge Economy and discusses some of the concerns it raises.

The development of the 'knowledge economy' in Ireland has long been a national strategic objective, but while policy and programmes to deliver this 'smart' economy outcome have been rolled out over the last decade, there has been limited analysis of the impacts at regional level. Building upon the 2004 report, *Audit of Innovation in the BMW Region* which provided a useful benchmark of the region's innovation performance, the BMW (Border, Midland and Western) Regional Assembly, the body charged with overseeing the expenditure of regional development funds from the EU, has published *An Audit of the Innovation System in the BMW Region: An Evaluation of a Regional Knowledge Economy* which was recently launched by the Minister for Enterprise, Jobs and Innovation Richard Bruton TD. The report examines the region's innovation and economic performance and identifies the key challenges and opportunities for job creation and economic growth in a range of emerging high value economic sectors. This article reviews the main findings of the report and also the results of a recent OECD report on regions and innovation policy.

## Rural economy with lower value-added activities

The Border Midlands and Western (BMW) Region was designated an EU objective 1 region from 2000-06. Objective 1 areas are those lagging behind in their development and where the GDP is below 75 percent of the community average. The region is made of up of 13 counties, accounts for 47 percent of the land mass of Ireland and had a population of 1.1m at the last census. The Region is less densely populated than the Southern and Eastern (S&E) Region and is principally a rural economy which



continues to be reliant upon 'primary' sectors for employment. The Region has a lower proportion of the labour market with just 28.9 percent (Q4 2010) of all those employed in Ireland, but only produces 18.5 percent (2008) of national output (Border 7.8 percent, Midland 3.9 percent, Western 6.8 percent). The report also found that up-skilling remains a key challenge for the BMW Region with a lower proportion of professionals, employers and managers than the Southern and Eastern Region.

## Low levels of public and business expenditure of R&D

The BMW Region has one University, NUI Galway and five Institutes of Technology (Athlone, Dundalk, Letterkenny, Galway/Mayo and Sligo) along with the Marine Institute, the Teagasc Rural Economy Research Centre as well as St. Angela's College Sligo. However, the Region's share of public research and development (R&D) investment remains low. Since 2000 the Region has received just 13 percent of awards under the Programme for Research in Third Level Institutions and 11 percent of Science Foundation Ireland awards. While these programmes have developed capacity, the distribution of this funding has important consequences for the BMW Region's comparative research and innovation capacity. Further evidence

from ESPON (European Spatial Planning Observatory Network) found that R&D policy across EU countries was adversely impacting on spatial balance by reinforcing existing concentrations of activity, while economic geography literature suggests that spill-overs from research can be quite limited in distance. For this reason, the BMW Region, and indeed all regions, needs to ensure the development of relevant research capacities, complemented by mechanisms to ensure effective dissemination/diffusion of knowledge and enhanced absorption capacity within individual firms. This is necessary in order to ensure the commercialisation of research outcomes on a widespread basis. These challenges are also reflected in the BMW Region's total share of Ireland's BERD (Business Expenditure on R&D) which stood at 19 percent, while 21 percent of total R&D personnel were employed in enterprises in the Region. It is worth noting that since 2000, 19 percent of Enterprise Ireland's expenditure on enterprise programmes has been allocated to the BMW Region.

## Emergence of dynamic knowledge-led sectors

The report highlighted the emergence of dynamic knowledge-led sectors in the BMW Region which illustrates the gradual evolution of the economy towards one led by knowledge intensive sectors. Estimated to be worth close to €1bn to the local and regional economy in 2008, further opportunities were identified for job creation and growth in Medical Devices, Computer and Communication Hardware, Pharmaceuticals and Software and Communication Services. Collectively, these sectors alone were found to employ almost 27,000 within the BMW Region and are also more resilient to the challenges posed by the economic downturn.

The report evaluates the performance of Knowledge Intensive Service companies which provide services such as ICT, R&D and Management Services and are key inputs into the knowledge economy as well as vital indicators of the scale of knowledge-

intensive activity taking place in a region. Of those Knowledge Intensive Service companies surveyed, graduate employee levels were found to be high (78 percent) with more than half (52 percent) reporting entirely graduate workforces. Those companies offering these services were found to be mostly small in size with 90 percent employing fewer than 10 employees.

### Lower satisfaction level with innovation services provided by the public sector

From surveys undertaken with innovation-active firms, the report concluded that innovation activities were market led rather than grant driven. Grants were found to be a key consideration when engaging with the public sector, whereas the availability of specific/renewed competencies was identified as the main factor for engaging with the private sector. Further analysis of the regional innovation system found a 78 percent satisfaction rate amongst companies who engaged with the public sector, which compares unfavourably (92 percent) with the satisfaction levels of those who employed the innovation services of the private sector.

Several barriers were identified by companies who engage with academia:

- Accessing the appropriate points of contact
- Lack of co-ordination
- Difficulty in accessing appropriate services
- 'Culture gap' between academia and industry
- Lack of awareness of available funding
- Opportunity cost of investing in innovation/R&D activities.

The internal culture in higher education institutions was identified as a serious constraint to engaging in technology transfer in the higher education sector. There are limited incentives for staff to engage and inadequate processes to facilitate this engagement, particularly in the Institutes of Technology. Given the shift in emphasis whereby the State is seeking more tangible and immediate returns on investment in the knowledge economy, this finding should be one of considerable concern. This issue requires particular and immediate attention, indeed the report strongly advocates the development of technology transfer intermediary bodies between industry and academia which can help overcome the barriers identified and the 'culture gap' that

currently exists.

### More explicit regional dimension to innovation required

The BMW Regional Assembly's report recommends that there should be a more explicit regional dimension in national innovation policy to reflect local and regional economic realities and build on existing networks and linkages in order to fully exploit the potential of each region. This recommendation is also grounded in the European Commission's flagship initiative Innovation Union approach to developing Europe's innovation capacity under the Europe 2020 strategy. The Commission points towards the need for Member States to reform both the national and regional R&D and innovation systems to foster excellence and smart specialisation. This challenge needs to be confronted by the Irish Government by gaining a greater understanding of the regional (and ultimately national) comparative advantages in order to maximise the potential for high value economic activity, consistent with the National Spatial Strategy. One of the recommendations of the report argues that regional innovation strategies can take national considerations into account but also form a more effective level of implementation at the regional and local level, for example in the medical devices sector in the West Region. The first positive step in this direction has come from the National Strategy for Higher Education to 2030 which recommended the development of regional clusters of collaborating institutions, but this should be executed through an informed process for regional development.

### OECD and regions and innovation policy

In May this year, the OECD published a report entitled Regions and Innovation Policy which found that the territorial approach is now entering the new innovation paradigm in two distinct ways. The first of these is the mounting concern for the regional and spatial dynamics of innovation in national policies and the second comes from those regional strategies which are put in place to address sustainability and development challenges.

Neither of these are currently being addressed in Irish innovation policy. Indeed the argument in favour of the current policy has been that Ireland is too small to pay any significant attention to the needs of individual

regions through regional innovation or 'smart specialisation' strategies. This is not just an Irish phenomenon as countries such as New Zealand, Portugal and Greece have also been deemed by their Governments to be either too small or centralised to promote distinctive regional innovation policies.

In their conclusions the OECD identifies several key areas for policy improvement:

1. Acknowledge the diversity of regional economic and innovation profiles
2. Open the 'black box' of regional innovation policies to identify the scale and scope of innovation policy in regions
3. Enable regions to become agents of change

### A 'one-size-fits-all' approach to regional innovation not appropriate

The OECD demonstrates from empirical evidence on specialisation and innovation how varied regional innovation systems are and argues that there cannot be a 'one-size-fits-all' approach to it. A greater appreciation that regional competitiveness can improve national innovation and performance is also highlighted. This is an issue that requires further attention, in particular for Irish economic and innovation policy makers. The OECD advocates the development of an innovation-driven vision based on solid analysis of regional assets and relevant global trends to complement science, technology and innovation strategies adopted at the national level.

### Conclusion

Drawing on our own analysis and that of the OECD, we can conclude that a greater focus on building regional research and innovation capacity within Irish STI (Science, Technology and Innovation) policy would enhance the capacity for regions to grow and impact positively at local, regional and national levels.

The BMW Regional Assembly report is available for download at [www.bmwassembly.ie](http://www.bmwassembly.ie). To see a full list of sources used in this article please contact [editor@publicaffairsireland.com](mailto:editor@publicaffairsireland.com).

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