Delivering Smart Specialisation in Peripheral Regions: the Role of Universities

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Brief Description
This paper explores the opportunities and challenges for universities in contributing to regional smart specialisation, the underpinning concept for EU Structural funds 2014-2020.

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Abstract

Successful mobilisation of the resources of the university can have a disproportionately positive effect on regional economies; even more so in peripheral regions. The role of universities in regional development and growth comes into even sharper focus with the emergence of ‘smart specialisation’ strategies, an ex-ante conditionality for accessing European structural funds post 2013. However, partnerships between universities and regions can fail to achieve their early ambitions, often due to a lack of understanding of each sides’ drivers and barriers for cooperation. The collaboration between Region Värmland and Karlstad University demonstrates a systemic and broad-based view of innovation, which fits well within the policy framework of European and national innovation strategies. While there are a number of areas of ‘fine tuning’ that could further improve the collaboration, this case study provides valuable insights for other European universities in peripheral places who are seeking to work more closely with local partners to support ‘smart specialisation’ in their regions.
Universities and regional innovation

The importance of universities in supporting regional development and innovation has long been recognised (OECD, 2007) and particularly in less developed or peripheral regions which often lack the institutional ‘thickness’ of core regions (Asheim et al, 2011; Tödtling and Trippl, 2005). In recent years there has been increased prominence given to the role of universities beyond ‘just’ the core roles of teaching and research (Benneworth et al, 2009), driven in part at least by the OECD reviews (European Commission, 2011). This trend has been accelerated by the prevailing economic conditions since 2008 which has seen increased scrutiny by policy makers and the public at large of publically funded institutions, leading to greater demands for them to demonstrate their ‘value’ and contribution to social and economic development.

At the same time there is a growing recognition among policy makers of the potential role of universities beyond merely the supply of skills and knowledge, to playing a more developmental role by building capacity on the demand side (Gunsakera, 2006). This is seen as critical in less developed regions who otherwise may suffer from the ‘paradox’ of the research from their universities leaking out to regions with higher levels of absorptive capacity (Ougthon et al, 2002).

This enhanced and deeper role of universities in regional development is strongly reflected in recent strategy and policy at the European level such as Europe 2020 and flagship initiatives like Innovation Union. It is also increasingly played out at national policy level in many European states (e.g. the 2013 Witty Review in the UK) as well as at the sub-national level, where local and regional governments are looking to their universities to support them in their drive for ‘smart, sustainable and inclusive’ growth (EUA, 2014).

Smart specialisation and what it means for Universities

‘Smart specialisation’ is the key underpinning concept governing European Structural Fund investments in research and innovation in the 2014-2020 programming period. It is defined by the European Commission’s Smart Specialisation Platform (hosted by the Joint Research Centre IPTS in Seville) as “A strategic approach to economic development through targeted support to Research and Innovation”. A total of almost €330 billion has been allocated for the Cohesion Policy during 2014-2020, a substantial proportion of which is directed towards funding for research and innovation activities (around double compared to the previous period 2007-2013).
Although universities have long been seen as important actors in regional innovation systems, ‘smart specialisation’ reinforces, amplifies and even deepens this role. This is evidenced in the official EU guide for design and development of smart specialisation strategies (Foray et al, 2012)

“... universities have a crucial role to play in creating knowledge and translating it into innovative products and services, in cooperation with research centres and businesses. Successful mobilisation of the resources of universities can have a strong positive effect on the achievement of comprehensive regional strategies.”

There are some key principles underpinning this concept of ‘mobilisation’ that make smart specialisation distinctive from previous iterations of regional innovation strategy development making this a non-trivial undertaking. According to the European Universities’ Association (EUA, 2014), “The capacity of the relevant regional actors to absorb these funds and direct them to productive research and innovation activities for the region (‘absorptive capacity’) will be the key issue and challenge, and the role of universities’ direct engagement in the design and implementation of the Smart Specialisation Strategies will be crucial for their goals to be achieved.”

However, the increasing recognition of an enhanced role for universities in building as well as responding to regional demand for research and innovation provides some potentially valuable opportunities, particularly in the context of increased pressure to demonstrate the ‘value’ of universities in challenging fiscal circumstances.

**What are the potential roles for Universities in smart specialisation?**

As outlined in Goddard et al in 2012, universities have the potential to play a number of roles beyond contributing to the capacity to generate skills and knowledge for the benefit of local/regional innovation and growth. The other three ‘capacities’ identified by Goddard et al that universities can help to build are ‘absorptive’ (i.e. the demand side), ‘collaborative’ and ‘leadership’.

Looking at these capacities through the lens of smart specialisation, with its focus on an evidence based ‘entrepreneurial discovery’ process underpinned by the principles of ‘embededness, connectedness and relatedness’, Kempton et al (2013) identified seven areas where universities can play an active role in the development and delivery of a region’s smart specialisation strategy. These are:
1. Helping to define the focus of regional strategy by contributing to a rigorous assessment of the region’s knowledge assets, capabilities and competencies.

2. Contributing to the regional entrepreneurial discovery process by bringing global awareness and partnerships across regional borders.

3. Providing specialist research expertise and links to national and international networks of knowledge.

4. Improving the supply of human capital in the region through teaching programmes (including CPD and lifelong learning as well as under and post graduate courses).

5. Building absorptive capacity on the demand side for knowledge and skills through new business formation, student enterprise, and graduate placements as well as encouraging staff to actively engage with local businesses.

6. By helping to build the social relations which underpin the regional innovation system, universities can contribute to institutional leadership and governance of smart specialisation.

7. Through their research, which often has both global and local dimensions, universities can contribute to local knowledge creation and its translation into innovative products and public and private services.

The Case of Region Värmland and Karlstad University

The Swedish region Värmland is three hours’ drive to the west of Stockholm and to the east of Oslo. The region has a population of 273,000 and the capital city Karlstad a population of 85,000. The region is undergoing long term structural change from an old economy based on timber, steel and paper manufacturing and engineering workshops to an economy based on innovation, IT, knowledge and services.

Recognition of the need for structural change and the renewal of the economies in the region resulted in a political agreement among the municipalities in 2001 which established a joint regional authority to promote development in the fields of environment, infrastructure, industry and commerce, education, healthcare and culture. The newly created authority recognised an opportunity for a new approach to regional development and began to evolve an approach based around key industry clusters in the area, with a prominent role for Karlstad University in the regional development system.
Karlstad University is one of the youngest universities in Sweden, gaining university status in 1999. It has 12,000 students and 1,200 staff. The University has strong connections in its research and teaching with regional innovation business clusters. This is reflected through research funding partnerships, professional up-skilling programmes, degree programmes including work-based learning and close matching of university courses with regional needs.

The University continues to develop research centres and research with the capacity to enhance innovation as part of its goals of being a ‘modern university’. It is home to the Service Research Centre (CTF) – one of the world’s leading interdisciplinary research centres focusing on service management and value creation through service.

Following their participation in 2005-2007 in an OECD initiative entitled ‘Supporting the Contribution of Higher Education Institutions to Regional Development’, an agreement on collaboration in research was signed between Karlstad University and Region Värmland. The original agreement covered the period 2008-2010, but the overall success of the programme has led to this being extended and expanded. A recent evaluation recommended the collaboration should continue beyond 2014. During the course of the evaluation it also became evident that the role of Karlstad University in the regional development ecosystem demonstrates many of the roles that can be played by a university in contributing to smart specialisation. This provides valuable lessons for other regions and their universities, particularly peripheral regions where the role of the university as an ‘anchor’ institution becomes even more fundamental.

How Karlstad University supports regional smart specialisation in Värmland

The evaluation found that the collaboration agreement is based on a strong sense and evidence-based understanding of the region’s strengths, assets and opportunities. However, regions should be cautious of being overly focused on historic/current assets at the expense of being responsive to other, unpredicted or unexpected opportunities. Region Värmland and Karlstad University are addressing this challenge by supporting projects such as the establishment of two independent research institutes in Karlstad in 2012-2013. It is expected that these new institutes will contribute not only to current research but also to collaboration and open innovation in research, education and business.
In collaborations between regions and their local universities, it is important to strike the right balance between the desire for global academic excellence and regional need/opportunity. There could be a danger of ‘lock in’ or over dependency if the university orientates its specialisms solely around the needs of local industries. The university can also play a role in connecting business in the region with other universities who may have specific strengths that match their needs. In 2010 the Grants & Innovation Office was established at Karlstad University. GIO is focusing on supporting the collaboration between the university and the business and public sector when it comes to research and innovation. GIO has established a joint innovation office (Fyrklöver, or Four Leaf Clover) with three other Swedish universities. Through this cooperation, formal links have been established which can support the **entrepreneurial discovery process** by building partnerships across regional boundaries.

The Service Research Centre (CTF) has 60 researchers and doctoral students who are variously involved in business administration, working life science, sociology, psychology and sociology of religion. CTF’s research is organised around three multi-disciplinary research themes: Service Organisations and Employment Relations, Service Innovation and Customer Experiences. The presence of CTF in a relatively small and peripherally located university provides an important link to national and international networks of knowledge.

In terms of contributing to the **supply of human capital** in the region, the university offers approximately 40 Bachelors degree programmes, 30 Masters level degree programmes and 900 courses in the humanities and fine arts, social and economic sciences, natural sciences, engineering and technology, health care and teacher training. A number of doctoral programmes were introduced when the former college received university status, and today, doctoral degrees are awarded in 27 disciplines. The University has strong connections in its teaching as well as its research with regional innovation business clusters. This is reflected through research funding partnerships, professional up-skilling programmes, degree programmes including work-based learning, and close matching of university courses with regional needs.

As in many peripheral regions across Europe, insufficient levels of **absorptive capacity** in SMEs is a critical issue in Värmland – even among the key cluster group members who are clearly more dynamic than ‘average’ businesses. (While only about 3% of all businesses are members of the cluster groups they are responsible for 27% of regional employment). To help address this, one of the cluster groups - the Paper Province - developed an initiative for their members known as the
‘borrow a professor for a day’ scheme which was aimed at breaking down the barriers between the academics and business, and has proved to be quite successful.

The collaboration has helped to underpin the relationships needed to drive the institutional leadership and governance needed to support the regional development and innovation process. It is important to note that this collaboration was the outcome of a process that began in 2005. It has been the long term vision and ongoing commitment to cooperation that has led to the results being seen today. There was mutual understanding between the partners of the long term nature of the partnership and also the lead times needed to meet key milestones. The project has good governance with formal signed agreements, ensuring that even if personnel change, the project remains unaffected. For example, there have been three Rectors at the University since the first agreement was signed in 2008, but the dedication to the collaboration has not changed, and in effect has become ‘institutionalised’ into the core mission and purpose.

Like many other peripheral and non-metropolitan regions in Europe, Värmland is facing challenges related to rural-urban migration, ageing population, gender imbalance, and relatively low participation in higher education. The Centre for Research on Regional Development (CERUT) is a research centre at Karlstad University whose task it is to generate knowledge on regional development issues in a broad dialogue with the society. It conducts research on regions as living environment, i.e. regional change in the light of people’s living conditions and opportunities, and on sustainable regional growth, relating in particular to economic, social and environmental sustainability. One of the tasks of CERUT is to disseminate research results to the region using a range of engagement methods such as direct project collaboration, popular science lectures, seminars and conferences. This helps to ensure that research taking place within the university can influence the creation and development of products and services in both the public and private sector.
Conclusions

The emergence of smart specialisation as the underpinning concept for EU structural funds 2014-2020 should be welcomed by universities as providing a number of new opportunities for them to deepen and expand their role in regional development and innovation. Smart specialisation puts universities at the heart of their regions, laying the foundations for building new partnerships with local and regional authorities, businesses and civil society actors for mutual benefit.

The increased proportion of funds being allocated to innovation actions should be welcomed by universities, particularly as it comes at a time when public funding for research and education are increasingly under pressure. Furthermore, the European Commission has been working to enhance harmonisation of the structural funds with Horizon 2020 (the follow up to the Framework research and innovation funding programme) which creates new prospects for linking regional innovation priorities with research excellence actions.

Therefore universities and policy makers must consider the broader, more supportive role alongside the potential ‘generative’ role that universities can play, and universities should to be willing to ‘step up to the plate’ and take on a wider, developmental role in shaping and supporting regional institutions, supporting the creation of networks and other capacity building activities, particularly in ‘institutionally thin’ regions. While this developmental role may have a less direct link to achieving ‘traditional’ objectives in teaching and research, it will help to build the regional institutional capacity upon which a successful smart specialisation strategy will depend.

As has been demonstrated, there is a range of ways in which universities can contribute to smart specialisation. The case of Karlstad University and its collaboration with its regional partners shows how this can be achieved when there is a mutual understanding of the needs of the region and the potential for universities to play a lead role in achieving ‘smart, sustainable and inclusive’ growth.
References


