

**INNOVATIVE RURAL REGIONS:
THE ROLE OF HUMAN CAPITAL AND TECHNOLOGY**

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Session II: *Development and attraction of human capital in rural areas*

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Introduction

Education accounts for almost 6 per cent of GDP in the OECD area. Within Europe the Lisbon agenda has placed the development of human capital at the centre of the struggle for a stronger economy and a better life for citizens. In the wider world, the Millenium Development Goals stress the urgency of achieving education for all.

Education is always about development – the development of human potential and human capital; economic development, global and regional; social and cultural development.

This is true of pre-school and primary education; of secondary school; vocational training and higher education –the whole gamut of what we have come to understand as lifelong learning, from the cradle to the grave.

My presentation will focus on a part of this world of education - a subset of the OECD countries. Moreover I will concentrate on higher rather than primary and secondary education; and I will of course – given the nature of this meeting – concentrate on rural as opposed to urban areas.

We are used to the idea of village schools, despite the problems they sometimes have of maintaining viability, as an educational presence in all but the most remote areas, but higher education institutions - universities and colleges – are, with some notable exceptions, generally associated with cities. They tend to be large. The dynamics of the higher education sector push them to become actors on the national and the international scene and their potential contribution to rural development is often overlooked. My thesis is that can do a lot more, given the right incentives and appropriate mechanisms.

I will illustrate this by making reference to a study that the OECD has been conducting of 14 regions to investigate the nature of the contribution that higher education institutions are making to regional development. The final conclusions of this study will be published in a report that will be launched at a conference in Valencia in September.

I'm not going to talk about the higher education institutions which have been established specifically to serve rural areas – places such as the University of the Highlands and Islands Millennium Institute in Scotland. Nor will I say much about the role of universities in knowledge transfer and economic development which focuses on innovation, patents and spin-offs. That is important, but I want to emphasise the education side - the knowledge which is embedded in students and graduates and is subsequently absorbed into the regional labour market – “knowledge transfer on legs”.

The contribution of higher education

Higher education institutions can contribute to improving human capital formation in four main ways:

- By widening access to higher education
- By improving the relevance of provision
- By attracting the best talent to the region
- By upgrading the skills and competencies of the population through adult education

Widening access

Higher education has expanded very substantially during the past fifty years. In many countries a majority of young people have some higher education experience. Existing institutions have got much bigger – the University of Sheffield in England had around 750 students between 1920 and 1940. Its student population is now about 23,000. New institutions have been created – we estimate the number has increased by about ten-fold since the 1950s. In some countries that growth has specifically been linked to addressing regional disparities. In the Nordic countries for example a strong emphasis has been laid on equity and expansion has aimed to include new groups in higher education and to reduce inequalities in gender, place of residence and socio-economic background. Far more people are now within easy traveling distance of a university, although this does not always mean that rural areas are well-served. In the most sparsely-populated areas widening access also means changing the way in which courses are delivered, for example through distance learning - whether via traditional correspondence courses or on-line.

Enhancing the regional relevance of education provision

Access is of little use without relevance. There are two aspects to this: improving the balance between supply and demand; and improving the relevance of the programmes themselves.

i. Improving the balance between labour market supply and demand

It is a challenge to balance the aspirations of individuals and the needs of the regional economy. In a lagging region with a low demand for graduates higher education can legitimately provide a ladder of opportunity for young people that in the short run inevitably leads them out of the region. Knowledge transfer on legs will be of little use if those legs simply walk away.

On the other hand, gearing teaching and learning towards the needs of established and possibly declining sectors to ensure graduate retention is no service to either the learners or the regional economy unless it is designed explicitly to raise competitiveness of these sectors by upskilling. The implication of these concerns is that research based measures designed to stimulate the different categories of business innovation must be linked to teaching based initiatives designed to enhance the regional skills base.

Some hard and detailed work may be needed. Creating, publicizing and using data on the regional labour market: undertaking comprehensive regional level surveys of graduates, and graduate employment opportunities; bringing the data together in a single place so that students can make rational decisions about the choice of subjects given their desired employability outcomes and to help graduates and analysing the data to identify regional priorities for development and change.

ii. Making education more relevant

Higher education institutions are under pressure from several directions to develop their teaching activities. Some of these pressures can encourage increased regional impact, particularly in ways that generate new income streams. Thus, many higher education institutions design tailor-made short courses for regional businesses. Many individual institutions are committed to promote graduate employability and use stakeholders in curriculum development. They also run alumni networks to gain feedback on their course provision (*e.g.* HEIs in Nuevo León in Mexico).

A number of higher education institutions have taken steps to embed employability and transferable skills in their core curriculum. A good example is *Aalborg University* which was established in 1974 after years of a local campaign to establish a university in northern Jutland, Denmark. An important early decision was to base research and educational activities on inter-disciplinary integration,

problem orientation and group work. In *Project Organised Problem Based Learning* study programmes are organised around interdisciplinary project work in groups. Students work in teams to solve problem areas which have often been defined in co-operation with firms, organisations and public institutions. The Aalborg model provides students with transferable skills and authentic work experience; enterprises benefit from a clearer picture of what the university stands for and how the students might fit in as prospective employees; and the university gains feedback and access to instructive cases and ideas for research and teaching.

Attracting talent to the region and retaining it

Numerous OECD countries have designed policies for attracting various types of talent (students, researchers, IT specialists, research scientists *etc.*), including tax incentives, repatriation schemes and improving the attractiveness of academic careers. Talent attraction of top flight academics, researchers, highly skilled knowledge workers is increasingly replacing inward investment attraction as a key role for regional development agencies. In Finland, Nokia invests in the cultural adaptation of foreign IT workers as a way to improve productivity, but also to help to retain this talent. Regional policy makers need to work closely with local higher education institutions to formulate the appropriate package to attract high potential individuals or groups of academics. Fast Forward is a post-graduate programme provided by Saxion Universities of Applied Sciences in Twente in the Netherlands

to retain high potential graduates in the region. Over a two-year programme the Fast Forward trainees receive tailored management training and undergo three eight-month work assignments in different local or regional companies and organisations. High potential graduates are matched with organisations which need innovative staff who are able to contribute from day one. For a graduate Fast Forward provides a personal development project with self-awareness training, peer development, continuous assessment and feedback from peers and coaches.

Upgrading skills and competencies of the population

Higher education has been slow to recognize its mission to educate adults. Adult learners, who have established links in a specific locality, are less mobile than younger students. Upgrading their skills will thus have a more direct effect on the region's economic performance. Where local initiatives are insufficient, upgrading the skills should become a strategic objective of national governments. The provision of programmes should be flexible taking advantage not only of work based learning but also e-learning and distant learning opportunities in order to take account non-traditional learners, those who combine work and study, and the needs of the employers. They also need to allow attendance on the basis of non-formal and in-formal learning.

Strategic co-ordination of the regional human capital system

Not everything can be done at the level of the individual institution. Regions – whether rural or urban – need better co-ordination and articulation both between the different stages of education, and between the individual institutions operating at each stage. In some countries each stage is managed by a different level of government with varying degrees of input from employers. There are also variations in responsibility between “academic” and “vocational” pathways. Typically, the pattern of higher education programmes is nationally regulated by government or

the professions; intermediate or vocational education may have a regional or sub-regional dimension while the education of young people up to the age of 16 or 18 is a local responsibility with all levels operating within a national framework. Finally, continuing professional development either at the initiative of the individual or the employer is typically unregulated, operating in a highly competitive market place.

In regions where there are a number of different institutions, co-ordination between them can contribute to:

- Critical mass: given increasing inter-regional competition, dialogue between higher education institutions allows for the identification of regional strengths – not necessarily congruent with particular institutional educational strengths – which could be used for talent attraction.
- Multiple pathways: in regions with low levels of educational attainment, the presence of multiple institutions with well-coordinated transfer routes and accreditation allows non-traditional students the easiest access to the most appropriate forms of higher education.
- Shared learning: collaboration between higher education institutions could facilitate best-practice sharing and development of supportive regional higher education system to address particular human capital problems.
- Problem solving: where there are identified omissions in higher education

provision, partnerships between higher education institutions could work to fill gaps in provision and to better meet the needs of regional stakeholders.

- Coherent voice for higher education institutions.

Barriers to progress

So there is a lot that higher education can do, and is doing. But it seems that there are some substantial barriers to maximizing this role. What is holding back progress? What are the barriers?

Incentives to individual academics

If you want to get on as a young academic you do not spend your time boosting the employability of local youth, or helping regional business develop new strategies. You research, and you publish.

The reputation race

If you - or more importantly your Governing Board - wants your university to move up the national and international rankings, you have to focus your efforts on key areas of research where you can be of the highest quality.

After decades of expansion we are beginning to see a rationalization of higher education systems through a process of mergers that will lead to a reduction in the number of independent institutions. These mergers sometimes have as their main objective to strengthen the national research environment. This trend is motivated not only by the ageing process in the population and the perspective of smaller cohort of students in the year to come but also by the need to develop internationally competitive and stronger higher education institutions. Scaling down the higher education sector may work against widening participation and geographical accessibility if at the same time distance learning, e-learning and lifelong opportunities are not stepped up.

Moreover where there are established hierarchies of institutions; entrance to the elite institutions inevitably provides individuals with positional advantage in the labour market often regardless of their personal attributes and home location. In these circumstances individual access to higher education as a means of social advancement from disadvantaged backgrounds may not be possible for students in regions without an elite institution if these students are unable to move away.

Lack of money

Funding needs to be directed to worthwhile initiatives. In a competitive world we cannot expect altruism of our institutions. Regional and local engagement has often been seen as the third stream, and a distant third at that, behind research and teaching. It has to be recognised as a legitimate mission, and funded accordingly.

Lack of knowledge and capacity

We should not underestimate the value of exchange of experience and good practice. Not all examples are transferable, but many good ideas can be adapted to different circumstances. That is the philosophy underlying our project, and we hope it will prove to be useful.

Conclusions

Higher education institutions can provide crucial human capital inputs for regional and local labour markets. By supplying knowledge in the form of educated people, higher education institutions increase a region's capacity for generation and absorption of knowledge and innovation. To achieve its potential, higher education needs to be more responsive to demand. The responsiveness of the system will be enhanced if the appropriate incentives are given. If not higher education institutions may continue to focus on the wider national and international scene. Given that one-third of the working age adults have low skills, a particular challenge is upskilling and lifelong learning.

If the barriers to progress can be removed or lowered, capacity-building within regions and within higher education institutions, coupled with the right funding and incentives, will enable the building of better bridges between higher education and their regions.

Thank you. For more detailed information about the study please go to:

www.oecd.org/edu/higher/regionaldevelopment