

Universities, the Knowledge Economy and 'Neo-Endogenous Rural Development'

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Summary

Universities have played an important role in the emergence of the knowledge economy. However, in contrast to hi-technology clusters and university 'spin-out' companies, little attention has been paid to the potential of universities to stimulate neo-endogenous development through the mobilisation of intangible intellectual assets and human capital. This paper analyses an experiment in regional engagement through a rural development 'learning network' developed by the Centre for Rural Economy at Newcastle University in the UK. The Northern Rural Network (NRN), established in 2000, involves over 600 rural development practitioners from across the north of England. Regular seminars and workshops are supplemented with short courses and financial support for postgraduate studentships, including student placements with rural businesses, voluntary groups and public agencies. The learning network approach helps transcend the divide between research and practice, as processes of rural development are studied through the active participation of researchers and postgraduates. At the same time, capturing and rendering translatable the tacit knowledge and expertise held within the network becomes an ingredient in the building of institutional capacity to support regionally-distinctive approaches to rural and regional development. The paper draws lessons from the NRN for the development of university-practitioner relationships and for the role of universities in territorial development.

Introduction: Rural Economies and Rural Change in Europe

It is common-place to assert that universities have become important institutions in the emergence of a knowledge-based economy. However, to date, the dominant model of the role of universities in local and regional innovation has focussed on the development of so-called hi-technology clusters and university 'spin-out' companies. Far less attention has been paid to the potential of universities to stimulate neo-endogenous development through the mobilisation of intangible intellectual assets through learning, innovation and the enhancement of human and social capital. Less still has been paid to university activities in the periphery, such as the field of rural development.

This paper¹ presents an analysis of a practical experiment in the co-production of knowledge through a 'learning network' in rural development established at the University of Newcastle upon Tyne in the UK. This 'learning network' approach has been developed by means of a research and development initiative called the 'New Rural Economy' (NREC) Project. Central to the project is the Northern Rural Network (NRN), established in 2000. The network involves more than 600 rural development practitioners from across the north of England. A programme of regular workshops is supplemented with two-day short courses and a system of financial support for postgraduate studentships, which include student placements with rural businesses, community groups and public agencies involved in rural development.

The first section of the paper briefly examines the driving forces behind rural change in contemporary Europe. The paper then formulates a 'neo-endogenous' approach to rural development which, it is argued, best captures the realities and opportunities for territorially-based development in Europe and considers how a neo-endogenous approach to rural development might engage with the 'knowledge economy'. The paper goes on to describe the development of the learning network. It analyses progress to date and draws out some lessons from the experiment for the development of university-practitioner relationships through learning networks.

Although agriculture remains the predominant land use in rural Europe, it no longer dominates socially or economically. The sector accounts for only 5% of employment and even plays a minor role in rural employment and the GDP of rural regions. Nevertheless, the Common Agricultural Policy still accounts for just under half the EU's annual budget. Whereas agriculture thus remains a strategically significant policy sector and is the major force determining the rural environment, most rural areas rely to a diminishing extent on farming.

¹ Earlier versions of this paper were presented at the '*Universities and the Knowledge-Based Economy*' session at the Annual Conference of the Royal Geographical Society, London, September 2005 and at the international workshop on '*Local Development and Innovation in Rural Areas and Small Towns in Europe*' at the Chydenius Institute, Kokkola, Finland, November 2005.

As rural areas have come to fulfil other functions, so other public policies (apart from agriculture) have impinged on rural areas and governments have been drawn in to resolve issues concerning social and economic development in rural areas through rural development policy. However, the nature of rural areas and the challenges they face vary considerably across Europe with the consequence that what is understood to constitute rural development policy also varies (see Baldock *et al.*, 2000 for a review). The common feature is a certain perspective that cuts across sectoral concerns and has a territorial orientation. As a deliberate focus of activity, rural development policy has emerged as a counterpoint to, and in the intersection between, two other established fields: agricultural policy and spatial policy.

Until the 1970s, the dominant population trend across Europe was urbanisation — the concentration of populations in larger urban centres, driven by the concentration of employment there. The rural concomitant of this trend was rural depopulation, and particularly the loss of younger and more economically active people. This was partly a result of the 'pull' of growing urban economies, but also of technological changes which allowed the primary sector to shed labour.

Since the 1970s, the overall pattern has become much more complex. While depopulation continues, particularly in many parts of southern Europe and the remoter mountainous regions of central and northern Europe, it is no longer a universal rural phenomenon. More accessible parts of rural Europe, including much of the rural UK, have experienced extensive counterurbanisation as more affluent people have chosen to move from towns and cities into rural areas, either to commute to work, to retire, or to work in new or growing business sectors in the countryside.

The economic functions of rural areas have therefore changed considerably in recent decades. There has been an inexorable decline in primary sector employment, traditional rural industries have been squeezed, and new industrial and service activities have emerged. Although GDP per capita in rural areas tends to be lower than the national average, it is possible to find some rural regions in every EU Member State that figure among the most economically dynamic in their country. Unemployment in some of the most developed EU Member States (such as Denmark, Germany, France and the UK) is lower in rural than in urban areas.

Tourism has become a major growth sector for many rural regions. In some it has come to play a key role in maintaining rural livelihoods and landscapes. In parts of Europe, the development particularly of mass tourism has seen a radical transformation of local economies, landscapes and settlements, particularly along the Mediterranean coast. The expanding leisure demands of sophisticated urban consumers continues to provide significant development options for rural economies in much of Europe.

Because of the socio-economic diversity of Europe's rural areas, there is no single, overarching 'rural problem' for rural development policy to address. Yet it is increasingly agreed that the development of rural areas should build upon and conserve their intrinsic qualities and assets (van der Ploeg and Long, 1994). So what may be required in one rural locality may differ sharply from the prevailing needs and opportunities in another.

In recent decades, there has been a shift in rural development policy from an exogenous model to approaches informed by an endogenous model. The shift (depicted in Table 1) has been far from complete. Moreover, in recent years, critics have challenged the feasibility of endogenous development and put forward the alternative notion of neo-endogenous rural development.

Table 1 - Models of Rural Development

	Exogenous development	Endogenous development
Key principle	Economies of scale & concentration	Harnessing local (natural, human & cultural) resources for sustainable development
Dynamic force	Urban growth poles (drivers exogenous to rural areas)	Local initiative & enterprise
Functions of rural areas	Food & primary products for expanding urban economies	Diverse service economies
Major rural development problems	Low productivity & peripherality	Limited capacity of areas/groups to participate in economic activity
Focus of rural development	Agricultural modernisation; encourage labour & capital mobility	Capacity-building (skills, institutions, infrastructure); overcoming exclusion

The classical formulation of rural development, dominant in post-war Europe, was an exogenous model ('driven from outside'), which put industrialisation at the centre of development. The key principles of this model centred on economies of scale and concentration. Urban centres were regarded as growth poles for the economic development of rural areas. In other words, the main forces of development were conceived as emanating from outside rural areas. The function of rural areas was primarily to provide food for the expanding cities, and the development problems of rural areas were diagnosed as those of marginality. Rural areas were distant technically, economically and culturally from the main (urban) centres of activity and in all of these respects were considered 'backward'.

By the late 1970s the exogenous model was falling into disrepute. It was criticised as *dependent development*, reliant on continued subsidies and the policy decisions of distant agencies or boardrooms. It was seen as *distorted development*, which boosted single sectors, selected settlements and certain types of business (e.g. progressive farmers) but left others behind and neglected the non-economic aspects of rural life. It was cast as *destructive development*, which erased the cultural and environmental differences of rural areas and considered to be *dictated development* devised by external experts and planners from outside local rural areas.

Endogenous approaches ('driven from within') are based on the assumption that the specific resources of an area — natural, human and cultural — hold the key to its sustainable development. Whereas exogenous rural development saw its key challenge as overcoming rural differences and distinctiveness through the promotion of universal technical skills and the modernisation of physical infrastructure, endogenous development sees the key challenge as *valorising difference* through the nurturing of locally distinctive human and environmental capacities (van der Ploeg and Long 1994; Van der Ploeg and van Dijk 1995; Shucksmith 2000). The endogenous model sees local resource endowments — climate, land fertility, and environmental quality — and the specific characteristics of human and cultural capital, as providing the fundamental conditions for long-term rural development. The main purpose of this perspective is to improve local economic and social circumstances through mobilising internal resources.

Recently, some authors (Lowe *et al.* 1995; Ray 2001) have criticised endogenous development ideas. They argue that the notion of local rural areas pursuing socio-economic development autonomously of outside influences (whether globalisation, external trade or governmental or EU action) may be an ideal but is not a practical proposition in contemporary Europe. Any locality will include a mix of exogenous and endogenous forces, and the local level must interact with the extra-local. The critical point is how to enhance the capacity of local areas to steer these wider processes, resources and actions to their benefit. This is the notion of **neo-endogenous development**. The focus then is on the dynamic interactions between local areas and their wider political, institutional, trading and natural environments, and how these interactions are mediated.

Neo-endogenous thinking draws on institutionalist theories of development. Such theories maintain that the key to local development is building a local institutional capacity able both to mobilise internal resources and to cope with the external forces acting on a region. This perspective emphasises not only that economic or business development needs to be embedded in the region, but that the means of achieving this objective is through the participation of local actors in internal and external development processes.

Neo-endogenous Development and the Knowledge Economy

In most EU Member States, public policy for rural affairs is a wide policy area that embraces land use planning, environmental management and conservation, rural services provision, agricultural modernization and community development. Over recent years, concerns about economic development in rural areas have come to increasing prominence at the European level and within Member States. This is partly a consequence of the scale of economic restructuring among traditional primary industries in rural areas, but also because of a concern for more inclusive forms

of local economic development that work with the grain of the new economic functions of rural areas. What we might call 'new rural economy' approaches to local economic development in rural areas are characterized by efforts to encourage the diversification of farm businesses into non-agricultural enterprises, the promotion and development of rural SMEs and micro-businesses, the encouragement of community enterprise, especially through initiatives such as the EU's LEADER programme, and efforts to rethink the economic roles and functions of small towns in rural areas.

Ray (2003) has argued that key to conceptualising actions (and the potential for actions) within neo-endogenous local initiatives is the role of human capital, and the dynamics by which it accumulates within individuals, businesses and other organisations. A knowledge economy approach to neo-endogenous rural development seeks to develop the human and social capital within networks of businesses, practitioners and agencies working within rural areas. Social capital here is taken as "an informal norm that promotes co-operation" (Fukuyama, 1995). Trust between businesses and between businesses and development agencies is seen as important in reducing transaction costs and, like human capital, can be invested in and built up over time. Developing human and social capital thus becomes one key mechanism by which neo-endogenous approaches to local rural development might be encouraged.

A human and social capital approach to neo-endogenous development also focuses attention on the notion of embeddedness of local firms and institutions. Granovetter's (1985) seminal work on embeddedness has argued that economic activity is enmeshed in social relations and institutions and these affect its functioning. It has been demonstrated, for example, how local micro-business behaviour is often intensely embedded within the consumption and production relations of business households (Bennett and Phillipson, 2004). Embeddedness is a relational concept which integrates the economic and the social and links the actions of economic actors to underlying social relationships and structures. There are many implications for local economic development models. Embeddedness can serve to shift the expectations of actors away from the narrow pursuit of immediate economic gains towards the enrichment of relationships through trust and reciprocity. Equally, Uzzi (1996) discusses the processes by which the performance of firms in a network can be eroded as they become sealed off from new information or opportunities that exist outside the network. Distinguishing between arms length (*i.e.* non-embedded) and embedded ties, he argues that arms length ties can gradually become more and more embedded to the extent that positive returns are reversed. Grabher (1993) also argues that a business may use local networks as a means of maintaining reputation and standing locally, but the pressure to protect this store of credibility over time may encourage a cautious mentality, thereby preventing a firm from taking business risks that may be vital for successful adjustment to changing economic circumstances. In a similar way a rural area with a high degree of social cohesion can be resistant to change if the networks in the area are closed and do not allow innovation and learning — what might be termed 'over-embeddedness'.

Uzzi (1996: 684) argues that the optimal situation for a firm to counteract the effects of both under- and over-embeddedness exists when a network integrates both arms length and embedded ties. On the one hand, firms benefit from trust, joint problem-solving and information exchange in embedded ties, and on the other, from access to information expertise and resources circulating in wider networks and an enlarged ability to develop new trading partners through arms length ties (Woolcock, 2001; MacKinnon *et al.*, 2004).

In theorising how the development of human/social capital might contribute to neo-endogenous rural development, we can characterise different actors in the development process as either endogenous units, neo-endogenous units, or local/global actors. Endogenous units include households, local private enterprises, local community organisations, producer cooperatives and informal local networks. These tend to work almost wholly within a local rural area. Neo-endogenous units, which can act as critical intermediaries between endogenous units and local/global actors, include area-based partnerships, EU-funded LEADER groups, business support agencies, 'Protected Food Names' Schemes, local authorities and larger voluntary organisations. These are intrinsically locally rooted and have a localistic orientation, but also draw upon non-local networks and resources. For example, LEADER groups are able to network among other groups from across the European Union and local authorities are embedded in policy networks that extend through the regional and national state and sometimes transnationally. Finally, local/global actors include those actors whose mode of working is simultaneously local and global but do not necessarily have any specific localistic orientation or commitment. Such actors might include local elites and notables, NGOs, national and international companies, public agencies, trans-local alliances, the mass media and regional universities. Crucially, a local/global actor may take on the role of a 'neo-endogenous gatekeeper' if committed to local development.

Having set out the conceptual background to efforts to stimulate neo-endogenous rural development, we now turn to our case study. This is the New Rural Economy project, run by the Centre for Rural Economy at Newcastle University, and involves a university-based research unit actively engaging in the process of local rural development in an economically lagging region through the development of intangible intellectual assets of human and social capital.

Case Study of the New Rural Economy Project

Background

The Centre for Rural Economy (CRE) was established in 1992 as a result of an endowment to the University raised in memory of the 10th Duke of Northumberland, a former Chancellor of Newcastle University who died in 1988. Since its establishment, the CRE has grown to become a relatively large centre for interdisciplinary research on sustainable rural economies with approximately 40

staff and postgraduate researchers at the University now associated with it. Currently, the CRE also contains the Programme Office for the UK Research Councils' £24million interdisciplinary research programme — the Rural Economy and Land Use Programme — which involves more than 300 research scientists from 52 different institutions, including 34 UK Universities. The CRE is therefore embedded within an extensive network of national and international research expertise on rural economy/rural development issues.

CRE has also established a strong tradition of engaging with those involved in the practice of rural development in the north of England and this practical engagement has become a centrally important feature of the Centre's research and self-identity. Since the mid-1990s, one important focus has been the convening of a range of workshops and seminars in the northern regions. These began with a series of workshops on the European Union's 1994-99 Objective 5b programme for the Northern Uplands in 1995. The objectives of these regional engagement activities were: to help build shared understandings of the rural challenges faced in the North; to provide a forum for practitioners, policy-makers and researchers in the region to come together and learn about contemporary issues in a comparatively independent setting free from the institutional constraints of particular government departments or agencies and sectoral interest groups; and to facilitate the development of a regionally-based professional community of rural development practitioners — what might be termed a 'community of practice' (Wenger, 1998) — with enhanced capacity for joint-working. Since 2000 these activities have been formalised under the 'Northern Rural Network' (NRN) and, since 2001/02, funded by a combination of the Northern Rock Foundation (a regionally-based independent grant-making body established following the flotation of a regional building society — Northern Rock plc), One North East (the Regional Development Agency for the North East of England) and other agencies under the 'New Rural Economy' (NREC) project.

The CRE's philosophy underpins the thinking behind the NREC project. A central and distinctive feature of CRE's work as an academic research centre is that it seeks to **do** rural development by studying rural development (and vice versa). A new mission statement was developed in December 2004: "*to advance the study **and practice** of rural development, nationally and internationally, through high quality research, scholarship and postgraduate training*" (emphasis added). Thus the links between universities and regional economies are seen as not just about high-tech science clusters and spin-off companies, but about utilising universities to enhance human capital, deepen and extend knowledge-transfer bases, and bring together practitioners and researchers to foster mutual learning.

Activities under the New Rural Economy Project

The New Rural Economy (NREC) project began in 2001. One of the five objectives set by the North East's first Regional Economic Strategy was to place the region's universities at the heart of economic regeneration. This inspired CRE to look to develop a programme to transfer research

ideas and findings into policy and practice in the North East region and in neighbouring areas, and to facilitate work experience for postgraduate students and improve graduate retention. The project has had two interlinked components. First is a programme of seminars and short courses for members of the NRN and rural development professionals on strategic rural development issues. Second is financial support for postgraduate students undertaking one of two MSc degrees (Rural Development & Resource Management; International Agricultural & Food Marketing) at the University. Students undertake a 3-month placement at the end of a 9-month taught course.

Funding from the Northern Rock Foundation is used to support the work of a Network Co-ordinator who has two key roles. He leads on the planning of NRN events, which include workshops and short courses. Since 2004, these are planned on an annual basis and through dialogue with a Stakeholder Group (involving the funding agencies and business groups). He also liaises with businesses and agencies in the northern regions to help place MSc students with their hosts for their dissertation projects. The current Network Co-ordinator has more than 30 years experience of rural development and countryside management as a practitioner in the region.

The topics covered by NRN workshop events represent a mix of regionally-specific policy themes (e.g. what should a Rural Action Plan for the North East region involve), to more generic topics on rural tourism, housing, forestry or the implications of an ageing population for rural areas. Others examine regionally-distinctive issues in rural development, including the role of local development trusts or so-called 'grand attractions', such as National Trust properties and stately homes, in local economic development.

NRN events provide important opportunities for networking, both among businesses, public officials and other rural development practitioners but also between researchers and practitioners. Masters students and other researchers attend workshops and are thus exposed to debates among practitioners and able to discuss their own research interests (and career plans). Masters students are required to produce short reports on workshop events which critically reflect on proceedings. These form part of their assessment and, from 2005-06, are also to be posted on a web-site and thus made available to the entire NRN membership.

Postgraduate students taking Masters programmes spend two semesters taking taught postgraduate modules at the University. During the second semester, they work with the NRN Co-ordinator to identify a suitable project and placement host and then spend their third semester working with their host on a three-month research project. The project generates material for the student's assessed dissertation, and is also intended to provide research of use to the placement hosts. In recent years, student placements have been funded by a wide range of organisations, including the National Trust, Northumbria Larder (a regional foods business group), Business Link (an economic development advisory agency), Northwoods (a forestry company), the Environment Agency and County Councils and Rural Community Councils in the North East region. Student

placements have typically focused on market research or feasibility studies to help inform the development of a business or group of businesses such as, for example, the Kirkharle Courtyard — a cluster of craft-related businesses at a diversified farm development in rural Northumberland. Other projects have explored young people's involvement in rural decision-making, the role of rural microbusinesses in education and training provision, the role of local authorities in rural ICT provision, and the evidence base for local economic development focusing particularly on a large rural microbusiness survey administered by CRE. To date, almost 30 students have benefited from the scheme and approximately 350 firms are estimated to have benefited as a result of the work carried out during the placements.

Discussion

In late 2003, on behalf of one of the project's funding bodies, One North East, Newcastle University commissioned independent consultants to evaluate the NREC project (see European Economic Development Services Ltd, 2004). The evaluation considered the future potential and direction of the project and its relevance and value in helping universities engage with regional economic development. Overall, the evaluation was positive about the ambition and achievements of the project. The Northern Rural Network events were found to be well-supported and valuable among rural development practitioners.

The NRN meetings we have attended have been very good, with a good mix of people from different organisations, and a good and encouraging debate about the subject. It has been a very effective networking tool (Economic Development Officer, Durham County Council).

The NRN meetings are very useful networking events, with some very good speakers (Rural Operations Manager, Business Link Northumberland).

The seminars are particularly good at challenging thinking about rural development. They make me think about things that I do not usually have sufficient time to address (Regional Director, Countryside Agency)².

Placement hosts also generally reported positive experiences with the student placement projects. For example, Alan Stevenson of the Northern Counties Meat Group explained to the project evaluators:

The placement was very useful. It ensured we took a good look at ourselves. In part, Lindsay's worked helped to confirm what we thought we already knew. We are beginning to progress conclusions from the study. I would be happy to have another placement in the future.

² The quotes in this section are taken from the external evaluation report (European Economic Development Services Ltd, 2004).

Steve Ramshaw, an organic farmer who runs a company called Northumbrian Quality Meats and is a Director of Northumbria Larder, a local and regional food promotions network, reported his experience as follows:

CRE have helped us through our process of development and expansion. We had excellent students and they have really helped us with our marketing research. I thought Helen's work for us, and Northumbria Larder, was extremely helpful.

The NREC evaluation set out what it saw as the key features of neo-endogenous development encompassed by the project (p.17). It involves making the most of the human, natural and cultural resources of an area, and retaining as much as possible of the benefits resulting within the local area. It sees local initiative and enterprise as dynamic forces for regeneration, defining development in terms of the needs, capacities and perspectives of the local companies, communities and institutions. It focuses on capacity building (skills, local networks, infrastructure, institutions) to help respond to the threats, and make the most of the opportunities, presented by the larger forces of change (social, agriculture and environment policies, globalization, etc), and works to enable local communities and businesses to interact effectively among themselves and with the wider political, institutional, trading and natural environments. It addresses the interrelationships between economic, socio-cultural and physical aspects of development and well-being holistically, while focusing on individual issues and projects relevant to specific groups and localities. It works through local territorial partnerships — involving people from the public, private and voluntary sectors — assuming the key responsibilities for the design and implementation of development initiatives. It also focuses attention on the role of development workers — including academic researchers and development professionals — as catalysts, amateurs and/or mediators of the process.

A second concept underpins the project — the management of intangible intellectual assets. There are four key dimensions of these assets. *First* is knowledge acquisition (learning) and creation (invention, innovation), which is linked with a company or organisation's human intellectual capital, its customers' demands and preferences, and its systems, products, processes and capabilities. *Second* is human capital, and especially the quality of labour, acquisition of 'know why' and 'know-how-to-do' skills and experience (tacit knowledge). *Third* is innovation, including, for example, new patents, products, processes, co-operation between firms and with other organizations. *Finally* is organisational capital, including the capacity to combine internal and external sources of knowledge to respond effectively to external threats and to exploit opportunities, using communications technologies and systems more effectively, interacting with suppliers and competitors, and the development 'positional goods' (such as trust between suppliers and customers, legal agreements, brands, and so on) (see European Economic Development Services, 2004, p. 18).

The evaluation concluded that the successes of the project have been derived from a number of important factors. *First* has been the rural economy model pursued by CRE, which demands of academics that they should engage with the rural economy, identify needs, and respond to the needs as well as they are able, and in a variety of ways. *Second* has been the willingness of the funding stakeholders to support the initiative, and engage with CRE. *Third* has been the willingness of a wide range of other stakeholders, having an interest in the health of the rural economy, to participate in courses, seminars, and to take project placement students, on a regular and continuous basis. *Fourth* has been the success of the work of the Network Co-ordinator as 'broker' between the needs and interests of the external organisations and the needs and capacities of CRE and its students, with the clear evidence of trust established between external stakeholders and the coordinator/CRE. *Fifth* has been the mutual willingness to contribute (to seminars, courses, and the supervision of students) and to learn from other partners on a continuous and iterative way. *Finally*, an advantage has been the strong regional commitment of many of the participants engaged in this process, and mutual willingness to support each other in the wider interests of the rural and regional economy (see European Economic Development Services, 2004, p. 19).

Conclusions

The New Rural Economy Project has been a distinctive initiative designed to match local and regional needs in rural and regional development in accordance with regional strategies. It has also been an attempt to operationalise a new model of neo-endogenous rural development based on the management and development of human capital and intellectual assets and the engagement of a university as a neo-endogenous agent of rural development. The success of the project has hinged on the continuing strengthening and development of relationships between a university-based social science research centre and a wide range of research users and practitioners in the North of England. By drawing out and capturing the knowledge of practitioners and researchers from within and beyond the region, the NREC project activities have sought to help unlock the potential and build the capacity of endogenous and neo-endogenous actors to plan and deliver rural development in northern England.

Iteration and continual mutual learning are becoming the *modus operandi* of the Network. The NRN is increasingly being thought of as an 'iterative learning network', and greater attention is being focused on capturing, codifying and disseminating learning among network members and beyond. What might be thought of as a 'community of practice' (Wenger, 1998; Wenger *et al.*, 2002) is emerging, not least because as waves of graduates pass through the Masters programmes, so increasing numbers are then taking up jobs in rural development organisations in the rural North and deepening commitment to the ethos and practices of the Network. At the same time, new research questions emerge about how to evaluate iterative learning, and how meanings around successful rural development are negotiated in practice.

This paper has explained the conceptual background and historical policy context for a new approach to rural development that we term 'neo-endogenous rural development'. It has then gone on to describe the development of a particular learning network in the north of England that represents an innovative way for academic social science researchers in universities to engage in the processes of rural and regional development in the context of increasing interest in the so-called 'knowledge economy'. By analysing progress to date, some lessons from the experiment can be drawn out for the development of university-practitioner relationships through learning networks. The first concerns the fact that universities' involvement in the knowledge economy through engagement in their regions need not be limited to the 'hardware' of the knowledge economy in the form of the latest technologically-cutting edge products, innovations and 'spin-off' companies. The model embodied in the case study focuses on the nurturing of human and organisational capital through the iterative co-production of knowledge — perhaps a knowledge ecology as much as a knowledge economy. Second, iterative learning, in the form operationalised in the NREC project, requires the continual circulation of people and things. So postgraduate students attend Network events and network with business people and practitioners. Students take up placements with individual companies, groups of firms, or other rural agencies and hence researchers and practitioners work and learn together. Reports are produced and circulated, knowledge and learning becomes codified and transmissible. Such a context is very fertile ground for action research — research which aims to make a difference to social and economic practice. Finally, it is through the continual development of this 'learning network' approach that the capacity of rural businesses, community bodies and public agencies to act — to innovate and to do things differently — is enhanced.

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