UNIVERSITIES AND THE LEARNING REGION: CREATION OF KNOWLEDGE AND SOCIAL CAPITAL IN THE LEARNING SOCIETY 1

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I. Introduction

In his trilogy on the emergence of the network society Castells argues that informational capitalism signals the importance of innovation, knowledge and learning in a globalising, rapidly evolving economy (Castells, 1996). The importance of creating, distributing and using knowledge challenges the process of economic development. Learning, that is the accumulation of knowledge, appears as the driving force behind the increases in efficiency leading to economic growth. Recently, attempts have been made from the perspective of new growth theories to analyse the economic implication of learning processes that result from social interaction, particularly in the context of the information society (Conceição and Heitor, 1999). Learning refers to the building of new competencies and the acquisition of new skills, not just gaining access to information (Wolfe, 2001:5). In this line of thinking, questions are raised about the role played by institutions such as firms and universities, as well as the suitability of traditional management methods and public policies. Furthermore, recent studies have revealed that because of the importance of tacit knowledge and learning by doing within and between organisations, networking 'both within and outside organisations becomes a more important part of the learning process' (Sharp, 2001).

This paper highlights the geographical dimension unfolding in the processes of learning, with special attention given at the regional level. Attention is drawn to the role played by individual researchers and institutions in creating knowledge, developing and implementing a project drawing from different sources of funding, forging local as well as transnational partnerships. In recent years, the concept of a 'learning region' has emerged to describe those places that offer an appropriate institutional environment to encourage both private and social learning processes (Florida, 1995; Morgan, 1997; Asheim, 1996). Many scholars emphasise the importance of regionally embedded knowledge and the shared norms and values that allow effective organisational as well as individual learning (Maskell and Malmberg, 1999). Therefore, it is argued, 'regions must adopt the principles of knowledge creation and continuous learning', whereby they must in effect become 'learning regions' (Florida, 1995:32). This paper sees the 'learning region' as consisting of strategic webs of networks of knowledge, which are organised regionally as well as globally by individuals and institutions in search of new resources in the knowledge-based economy.

Key questions that concern most policy-makers at the regional and local level seem to be:

¹ This article is based on a paper presented at the RSA International Conference, Aix-en Provence 31st May and 1st June 2002 Evaluation and EU Regional Policy: New Questions and New Challenges.

How can appropriate institutional mechanisms be generated and how can a region be activated within the context of learning regions? Can lessons be learned from best practices from fundamentally different conditions across locations? This paper investigates the roles played by higher educational institutions (HEIs), particularly universities in the learning society. Goddard and Chatterton see the recent globalisation of economic activities as one of the push factors for the 'emergence of new territorial development dynamics' (Goddard and Chatterton, 1999:686) in which universities can play a crucial role. Many national governments have recognised the role played by universities in the economy as powerful drivers of innovation. In both policy and academic literature a great deal of effort is devoted to creating closer links between universities and the regions. For universities, with fewer public resources available for higher education, there will be a need to place higher priority on being 'responsive to their local and regional communities' needs' and on being useful to society in order to receive public support (Shattock, 1997:27). For industry and regional development agencies, universities are increasingly seen as local assets to be realised for the benefits of the regional economy (Goddard, 1997). Considerable resources are made available through European programmes in support of regional development with some dimension of regional interaction or support, through vocational training initiatives, and through RTD programmes. Many of them, in fact, involve universities.

In this light, the following principal questions are examined in the following sections:

- In what ways can universities serve as knowledge providers in local and regional innovation and learning processes?
- To what extent can university-based local economic development in a given country be successfully replicated in other regions in Europe?
- What are the implications for European regional development policies, and how are these to be evaluated?

Following the argument proposed by Lagendijk and Cornford (2000), this paper investigates the ways concepts have evolved, and how they are translated (Callon, 1991) from site to site, *mobilising* certain resources and networks in the organisational field (Clegg, 1994). Policy trends are exemplified by reference to recent European initiatives as well as to those in U.K./ England in the 1990s. Empirical data is provided based on the fieldwork conducted between October 2000 and July 2003, including participant observation (see Kitagawa 2003).

This paper consists of three sections. First, along with presenting policy discourses that focus on the role of universities in regional development, the principal two key concepts, the 'learning region' and 'social capital', are clarified, drawing attention to the different conceptualisation of the terms in Europe and in North America. The second section illustrates the ways in which these concepts have been employed and appropriated in the discourses of regional development at different spatial levels: at the international/European level, national and regional levels. Thirdly, regional experiences in a specific region in England are examined. This paper particularly illustrates the case of a region that experiences various economic and social transformations, and consequently, encounters local socio-economic problems. By illustrating the experiences of institutions and by incorporating views of individual actors, who work as intermediaries in the organisational field, some of the barriers to integrating knowledge capital and social capital within a region are identified. Two European Programmes: Regional Innovation Strategies (RIS) and ADAPT under the European Social Fund (ESF) are investigated, with particular interest in the ways and the extent to which universities and

individual researchers have acted as catalysts for creating not only knowledge capital, but also social capital for the region. The paper concludes by highlighting the importance of understanding how the various actors appropriate to their advantage the resources at their disposal. There are implications for the evaluation of EU policies here.

II. Interface between Knowledge, Universities, and Learning Regions

There is a growing political consensus at international, national and increasingly at regional and local levels, as to the importance of knowledge and learning. On a global scale, the Organisation for Economic Cooperation and Development (OECD) claims that 'knowledge and the way we use it are becoming central to our prosperity and success as societies' (OECD, 1996:14 original emphasis; also see OECD, 2000; 2001 a). The World Bank (1998) has also adopted "Knowledge is development" as its recent theme in the World Development Report. Jacques Delors' report to UNESCO talks of 'a learning society founded on the acquisition, renewal and use of knowledge' (Delors, 1996:24). In 1996, the European Commission issued a White Paper, Teaching and learning: Towards the learning society, and declared the year 1996 as 'the European Year of Lifelong Learning', envisaging itself as 'Europe of knowledge' (CEC, 1997). More recently, the role of universities in knowledge transfer has been raised by the European Commission in a recent consultation paper (CEC, 2003).

Policy communities in many countries have come to view universities as the knowledge base at the heart of the knowledge economy (e.g. OECD, 1996; for the U.K., see DTI, 1998; DTI/DfES, 2001). There are two factors that highlight the role of the university in society in general. First, the importance of learning in the information society puts forward a new role for the university. In order to participate effectively in 'the globalizing learning economy' (Archibugi and Lundvall, 2001), education and training are seen to be essential. Continuing education has considerably increased and it is becoming a central element in business strategies and in public concern. The concepts of 'lifelong learning' and the 'learning society' have pushed the university from 'formal teaching' to 'participatory learning' which is associated with continuous (lifelong) education and training. Second, in the study of innovation literature, there is a growing interest in taking account of the conditions of production of universities' research and commercialisation of knowledge. Rather than seeing innovation in a kind of linear fashion from basic research to commercial success, a more interactive model of innovation has been identified. Of particular importance in terms of policy is the process of exploiting 'knowledge capital' for economic competitiveness (see Gibbons et el. 1994).

In this light, there has been a shift in the attitudes of governments towards the role of the universities and particularly with regards to their contribution to economic development. Governments exhort universities to be entrepreneurial and commercialise their knowledge. Estkowitz and Leydesdorff (1997) termed this as 'the triple helix model' of university-industry-government relations. From a regional development perspective, some researchers emphasise that universities can play a key role in the building of a learning region (Goddard and Chatterton, 1999). Bob Morgan argues in his recent article in *Regional Studies* that universities can play a role in constructing social capital and act as catalysts in networking (Morgan, 2002). A specific purpose of this paper is to investigate the ways in which knowledge/intellectual capital produced in universities can be translated into social capital

(Putnam, 1995) of a specific condition of a locality and lead to the creation of the learning region. This model has to be examined in consideration with the evolution of a 'multi-level governance' structure (Cooke, 2002) in the European Union, which can mobilise regions as a strategic site of economic development.

While the role of universities in regional development has been recognised, it has not been explored systematically until recently.² Policymakers worldwide have noticed the rapid growth of the sub-regional economies of Santa Clara County in California (Silicon Valley) with the contribution of Stanford University, and in and around Boston (Route 128) with the Massachusetts Institute of Technology (MIT). Governments in other countries are trying to follow these success stories.³ In academic fields such as economic geography and regional studies, many of case studies note the relationship between regional development and universities. The impact of universities on the development of successful localities such as Cambridge in the U.K. is widely recognised (SQW, 1988; 2000). However, apart from exceptionally successful universities such as Stanford, MIT, and Cambridge, the overall academic view on the impact of the university on regional development remained sceptical until very recently despite the increasing attention of policy makers. This is explained partly by the circumstantial approach taken in research communities regarding the roles of the university (Patchell and Eastham, 2001).

There is a growing convergence between the concerns of agencies with responsibility for territorial development and those in charge of the management of higher education (OECD/IMHE, 1999). Several inter-linked structural factors serve as an interface between the region and the university. These include: reduction in central government funding; growing interest in local economic impact of universities (e.g. McNicoll, 1995); inequality among regions in knowledge production and learning systems; the European Union programmes; and increased regional networking and benchmarking.

This paper examines the links developing between universities and their regions by highlighting the interactions between public policy and institutional behaviour in a multi-level governance structure in the knowledge economy. In investigating the influence of the policy discourses upon the spatial dimension of institutional behaviour, the paper draws on the theoretical contribution made in the field of science and technology studies. Rather than fully presenting the theoretical framework, the gist of the ideas is summarised below. According to Clegg (1994), organisations are essentially loci of decision and action. Their power is defined by the way they are capable of mobilising or enrolling other actors and resources for their own interests, which is described as the 'translation of interests' (Callon, 1991). Following Callon (1991), actors can be defined as 'any entity able to associate texts, humans, non-humans and

² Since the mid 1990's, several authors have drawn attention to issues specifically involving the university as a regional actor (de Gaudemer, 1997; Chatterton and Goddard, 2000; Lynton, 1996). Although regional issues have existed for universities since the 1960s, it was not broadly shared amongst established universities. There has been a new recognition of the agenda with the growing international and national efforts towards the integration of these issues (e.g. UNESCO, 1998; for the U.K. example, NCIHE, 1997). These trends are epitomised in the two publications that came out as a consequence of international research projects initiated in mid 1990s: "The dialogue of universities with their stakeholders: comparisons between different regions of Europe" (CRE, 1998) and "The Response of Higher Education Institutions to Regional Needs" (OECD/IMHE, 1999).

³ For example, the Japanese government very recently announced the plan to set up 'the world's best scientific university' in Okinawa, which will make the area 'the highest level intellectual cluster in the Asia Pacific region' (*Financial Times*, 13 May, 2002).

money' (1991:141), both as a network or an agency working through the network.⁴ Networks, it is argued, cannot exist without the actors who make them up and actors do not exist independently of the linkages with a variety of humans and non-humans (Jacob and Hellström, 2000).

The idea has been applied in the regional development studies of Lagendijk and Cornford (2000). This approach attaches a strong emphasis to the role played by concepts. Concepts are primarily intermediaries that serve the articulation of ideas between agents. Concepts are endowed with the 'capacity to shape the behaviour of agents and shape the relationships between organisations' (Lagendijk and Cornford, 2000:210). Concepts are essential for agents in regional, national and global policy communities to make partnerships, shape strategies and mobilize funding. Concepts have evolved in such a way that they reflect, absorb and shape the main interest in the field, such as emphasis on networking, on innovation, on the role of SME in the knowledge economy, sharing best practice and so on. Concepts can be, therefore, perceived as actors themselves (Lagendjik and Cornford, 2000:213). They play a role in conferences, symposiums, seminars, study reports, etc. promoting the rapid dissemination of particular knowledge in the organisational field. The concepts are not constrained to a particular geographical or administrative boundary. The concepts are translated internationally (e.g. through the E.U. programmes, international symposiums and conferences), nationally (e.g. through national policy initiatives) and between localities (e.g. through local partnerships). The main purpose of introducing the framework of this particular network theory is to examine the extent to which institutional dynamics take place in terms of sharing actors, concepts and networks within organisational fields.

Two principal concepts are examined below in turn: the learning region and social capital. The prevalence and use of concepts such as the learning region and social capital are problematic. Concepts such as 'clusters of competitive advantage' (Porter, 1990) and the 'learning region' (Florida, 1995) have become buzzwords in local discourses on regional development and have been criticised of being not only 'fuzzy' but also being incapable of providing policy advice (Lorenzen, 2001). Likewise, a series of concepts based on the idea of 'collective learning' embedded in regional institutional settings can be accused of being 'theory led by policy' (Lovering, 1999). On the other hand, for Schuller, it is the 'heuristic quality of the concept' of social capital that is its primary advantage, providing a framework for addressing a series of other policy areas (cited in Alexander, 2000). This is the potential strength or 'almost limitless versatility' (Schuller, 2000) of the concept as it can mobilise a wider range of actors forging further partnerships across territorial development and the educational sector.

⁴ 'The network of intermediaries accepted by an actor after negotiation and transformation is in turn transformed by that actor-converted into a scenario, carrying the signature of its author, looking for actors ready to play its role. For this reason I speak of *actor-networks*' (Callon, 1991:142).

III. Conceptualising Policy and Organisational Frameworks

3-1. Two Concepts

Following discussions regarding structural constraints and potential use of the concepts and their interactions with policies, the ways in which particular concepts are *translated* across the two fields, mobilising new range of actors and resources are illustrated below.

A) The Learning Region

As already mentioned, one of the concepts which has recently acquired a significant mobilising power in the field of regional development is the 'learning region' (Lagendijk and Cornford, 2000:216). The concept was coined by academic authors such as Florida (1995) and Kevin Morgan (1995) in the field of innovation studies and economic geography. Florida's conception of the learning region focuses on the extent and quality of the institutional infrastructure that constitutes a key element of the regional innovation systems.

Wolfe (2001:8) points out that conceptions of the 'learning region' differ between North America and Europe. In the North American context, learning regions are associated with the presence or absence of a dense network of research institutions and the broader set of social and environmental amenities that attract highly skilled workers to a locale and keep them there. According to Florida, learning regions are 'collectors and repositories of knowledge and ideas, and provide an underlying environment or infrastructure which facilitates the flow of knowledge, ideas and learning' (1995:528).

In the European context, analysis of learning regions focuses on the 'contributions that social capital and trust make to supporting dense networks of inter-firm relationships and the processes of interactive learning' (Wolfe, 2001:8). Asheim defines a learning region as 'representing the territorial and institutional embeddedness of learning organisations and interactive learning'. In this conception, the emphasis is placed on 'the role played by cooperation and collective learning in regionally based learning organisations understood as regional development coalitions' (Asheim, 1998:3 cited in Wolfe, 2001). In most European contexts, the regional government and its development-related agencies play a key role in animating the regional innovation system to stimulate the learning process. Regional governments provide the central stimulus to spark the transition to becoming a learning region. For this to succeed, regional governance structures must undergo a cultural and organisational shift 'away from traditional bureaucratic structures towards more flexible and less rigid institutional forms that can develop effective partnerships with private sector organisations and associations' (Wolfe, 2001:9).

The strength of the concept of the learning regions lies in the fact that the concept facilitates the broadening out of local technology policies to areas of business development and skills improvement (Lagendijk and Cornford, 2000:216). Through the development of the concept, various levels at which learning takes place have been recognised: 1) individual, social and organisational learning, 2) inter-organisational and network learning; and 3) regional learning. These three levels of learning processes can be systematically integrated into regional development in *translating* the concept into the organisational field. Lagendijk and Cornford (2000) illustrate how the concept of a learning region quickly traveled from innovation policy

to other domains of policymaking, skill-oriented business support and into the realm of higher education.

Universities have found particular interest in the concept of the learning region, particularly at a time when they are facing severe budgetary constraints from central government. Their home region is a potential source of students and research income, and may provide answers to increased demands for the universities to be accountable for their social and economic contribution to society. Embedding in local partnerships and strategy-making also endows the universities with social legitimacy and support. Lagendijk and Cornford illustrate an example of a university that has embraced the learning region as institutional strategic discourse.

In the opening speech of the academic year 1998-1999, the Vice Chancellor of the University of Maastricht used the concept of a 'Learning Region' not only to promote the regional embedding of the university, but also explicitly as 'a way to create more independence from the central state', presenting the 'Learning Region' as a key strategic response to the continuous budget cuts imposed upon universities (Lagendijk and Cornford, 2000:217).

To be part of the 'Learning Region' is seen as strategic positioning on the part of the university creating new opportunities and resources independent of the control of national government. It is therefore not appropriate to presume that universities are integrated as part of their surrounding regions. What determines institutional behaviour most is the interests and strategies of each university based on its history, current resources and expertise, and future aspirations in relation to central government and other stakeholders in society.

B) Social Capital

Social capital is now seen as a vital ingredient in successful economic development (Putnam, 1995; Coleman 1998; for an account of the historical roots of the concept, Woolcock, 1998). The concept is growing in significance as an actor in some overlapping organisational fields. Social capital is hard to measure, and several different definitions have been proposed (see OECD, 2001 c). It can be seen as 'the expression of norms of reciprocity and trust between individuals and organisations that are embedded in a system of cooperation and favour exchange which gives advantage to those that belong, usually, to a particular locality or non-proximate community linked by ethnicity or religion' (Cooke, 2002:11). Woolcock states that 'social capital refers to the norms and networks that facilitate collective action' (cited in Alexander, 2000). According to OECD (2001 c: 41), social capital is: 'networks together with shared norms, values and understandings that facilitate co-operation within or among groups'. The central premise is that social networks have value, because of the trust, reciprocity, information and co-operation that flow from them (Morgan, 2002:66). Social capital is the stock created when groups of individuals and organisations, both public and private, develop the ability to work together for mutually productive gain.

The famous study of Italy by Putnam (1995) demonstrates how differences in social capital accumulation have important effects on regional development. Again, the conception of 'social capital' and 'trust' is different in European and North American contexts. Social capital in Silicon Valley is grounded in the collaborative partnership that emerges out of the pursuit of economic and institutional objectives related to innovation and competitiveness. In Europe,

social capital tends to be seen more as associative and developmental, and in the conception of the learning region, there is less emphasis on high-level skills development and human resource development. Following Wolfe (2001:11), it is useful to distinguish two aspects of social capital. One attributes to 'historical and cultural factors, whose roots are buried deep in the region's past', and the other 'built up through the dense interactions of firms engaged in interrelated economic activities.' The latter kind of social capital can be enhanced through interactive learning processes. Other regions eager to emulate the success of Silicon Valley must differentiate between the specific characters of social capital and the networked relations that underlie its success (Wolfe, 2001:11-12).

It is argued that universities can play a key role in the building of social capital (Morgan, 2002:66). How can universities mobilise social capital in local communities and act as catalysts for networking? In the field of education, the notion of social capital is linked to discussions about human capital and lifelong learning (see Schuller, 2002). More reflection is needed to identify where public policy can affect the creation and accumulation of social capital and human capital.⁵ In the field of regional development, too, there has been an increasing emphasis on human capital development (OECD, 1997; 2001 b). Human capital is seen as the principal factor of 'competitive advantage' both on a national and regional scale. The role of education and training in job creation and competitiveness requires further analysis and reflection (OECD, 1997:19). Higher education cannot but be affected by these concepts, given the proliferation of even wider conceptual frameworks of the learning society accompanied by policy agendas of equity, access and opportunity and HEI's role as a means of achieving participation and prosperity. There has been a recent attempt to analyse the economic implications of the learning processes that result from social interaction (OECD, 2001 a). This perspective is particularly relevant to universities with reference to the significance of continuing education and training in the learning society, in which universities transform themselves from an institution of formal teaching to one of participatory learning (Conceiçao and Heitor, 1999: 45).

3-2. European Policy Framework

The analysis proposed above with respect to learning regions and social capital provides a basis for considering the policy framework for developing sub-national intervention. Regional policy is concerned with regional disparities and regional development. Three levels of government in the European Union try to address disparities and promote development through a variety of policies, programmes and instruments. There is a paradox for policy makers. On the one hand, while localised learning policies are required, such localised learning policies cannot readily be transported from one region to another, because not only are regions located within different national systems, but also such learning policies derive their efficacy precisely from the specificities of their regional context (OECD, 2001 a: 25). On the other,

⁵ The notion of social capital is closely linked to the idea of human capital (Coleman, 1988). Both Woolcock (2000) and Schuller (2000) see that social capital resides in relationships while human capital resides in individuals, but as Alexander posits, it is debatable whether it is meaningful to distinguish the two in terms of policy making. The whole debate cited here about social and human capital was taken from the record of the International Symposium on the "Contribution of Human and Social Capital to Sustained Economic Growth and Wellbeing", Quebec City, Canada, 19-21 March 2000.

there is a risk that programmes developed in isolation from one another, for diversity of each local circumstance, lead to fragmentation or costly duplication of effort, as well as vastly differing levels of skills and knowledge between people in different regions (OECD, 1997:18). What is required is an effective learning policy in the process of applying general policy principles to the particular social and economic circumstances that characterise individual regions.

The following section examines how the Regional Innovation Strategy (RIS) was implemented, and influenced one particular sub-national region in the European Union, and how learning took place during the process of policy implementation. The aim of the analysis is to highlight the processes of social and policy learning in the region and across regions by focusing on the university as an institutional actor within the organisational field. Through the EU programmes *concepts* are circulated, *actors* and resources are mobilised, forging new partnerships and networks. Employing the analytical framework outlined above, the EU funded programmes such as the RIS can be considered as *actor-networks* (Callon, 1991:142) in the region as an organisational field. It is beyond the scope of this paper to give descriptions of each programme in detail. Short summaries of the main features of the European programmes are given below.

The emergence of the Regional Innovation Strategies (RIS) programme through joint action between DG13 (the Innovation directorate) and DG16 (the Regional Policy directorate) signified the first step towards building soft or intangible, network-form, infrastructures in less favoured regions to complement more typical past investments in transport and energy infrastructures (Cooke, 2002). The Regional Innovation Strategies (RIS) are part of the European Regional Development Fund (ERDF). The main objective of innovative actions under the ERDF is to 'influence and improve European regional policy in order to make it more efficient in terms of its content and policy action'. These innovative actions rely on 'the principle of helping regions to help themselves through initiatives to mobilise local knowledge in a process of collective social learning' (Lanbasado et al. 1999:10). In the U.K., three RISs were published in 1998 and 1999, for Strathclyde in Scotland and Yorkshire and Humberside, and the West Midlands in England (see Thomas, 2000).

Another European programme is investigated as it evolved in the West Midlands in the U.K. ADAPT is a Human Resource Community Initiative funded through the European Social Fund (ESF), i.e. one of the Structural Funds, with a budget for the period 1995-2000 of 333.5 million Euros in the U.K.. Introduced in 1995, ADAPT supports projects that aim to help the workforce, particularly those employed in SMEs, to adapt to industrial change. What distinguishes the ADAPT initiative from other mainstream ESF programmes is that all projects are required to be both innovative and transnational in nature. Projects submitted for

⁶ In Great Britain, there have been three separate bidding calls or Rounds of the ADAPT Initiative. These are as follows:

Round 1: 1995-1997- 88 Projects completed

Round 2: 1997-2000- currently 167 Projects

Round 3: 1998-2000- currently 181 Projects, selected in 1998 and 1999

First Round projects supported the broad aims of ADAPT. Under the Second Round, however, there is a particular emphasis on helping the workforce to adapt to the demands of the Information Society. The Third Round of ADAPT is linked to the UK Government's University for Industry (Ufi) concept (see p.21). ADAPT is contributing directly to the aims and objectives of the UK National Employment Action Plan. http://www.adapt.ecotec.co.uk/Index02.htm 20/05/02.

support under ADAPT are delivered by public and private sector partnerships, led by an eligible intermediary. Support from the private sector is a requirement of ADAPT, and projects are currently working with small-and medium-sized enterprises (SMEs), in partnership and as service providers. Intermediaries typically include: Training and Enterprise Councils, (now Learning and Skills Councils), Local Enterprise Companies (Scotland), Business Links, Business Connect Wales, Local Authorities, Further and Higher Education Institutions, Industry Training Organisations and Government Departments, Chambers of Commerce, Trade Organisations, Enterprise Agencies and some Voluntary Sector organisations are also eligible intermediaries. Large firms are also playing an important role in ADAPT, by transferring know-how and expertise to workers in SMEs or unemployed redundant workers.⁷

IV. Case Study of the West Midlands Region in the U.K.

The U.K. White Paper on Enterprise, Skills and Innovation, *Opportunity for all in a world of change* (2001) emphasizes the importance of 'building strong regions', 'investment for innovation', 'fostering enterprise growth', and strengthening European and global connections. These are the *concepts* identified by the U.K. government to compete successfully in a changing world.⁸ The West Midlands is chosen as a case region that has received the European Regional Development Fund (Objective 2) and the European Social Fund, and especially with its recent transformation through the partly European funded programme, Regional Innovation Strategy (RIS). The West Midlands region experienced economic growth of 29% during the 1990s, with a significant fall in unemployment rates from 12.1% to around 6% (Advantage West Midlands, 2001). However, there remain sharp contrasts between urban and rural areas, and in urban areas, within wards and communities. The region contains seven of the 88 most deprived wards under the funding criteria for the Neighbourhood Renewal Fund. There is a need to address regeneration issues while fostering the potential for the region to innovate as a dynamic multi-cultural centre (Adapt Support Unit, 2001:5).

By referring to specific regional experiences, this section exemplifies the roles of higher education institutions (HEIs: universities, university colleges and colleges of higher education) and a few intermediary organisations such as Learning and Skills Councils (LSCs), in the creation of social capital and the learning region. In this context, the newly established Regional Development Agency (RDA), which is a powerful actor in terms of forging concepts and providing funding for the organisational field, played an important role. In the U.K.

⁷ In most of Great Britain, ADAPT funds up to 45% of the eligible running costs of the projects. In Objective 1 regions, the Highlands and Islands of Scotland, and Merseyside in England, projects receive up to 50% funding from ADAPT. Current projects in the programme vary in size from £50,000 ESF to £5 million ESF. The balance of funding comes from public and private funding sources. A minimum of 10% of the total projects costs comes from publicly-funded sources. A minimum of 20% of the total project costs comes from private sources. Where employees are to be trained, and retrained as a result, their employers will normally be expected to contribute to the cost of the project. http://www.adapt.ecotec.co.uk/Index02.htm 20/05/02

⁸ Previously, a similar ethos was clearly articulated in other U.K. white papers, notably in the 1993 White Paper, *Realising our Potential*, and the 1998 White Paper, *Building the Knowledge Driven Economy*, in which the support for the commercialisation of academic expertise was identified, and higher education institutions were given great emphasis as part of a national agenda.

following the devolution processes in Scotland, Wales and Northern Ireland, in 1999 and 2000, all nine English regions established RDAs for the implementation of their own regional economic development. It has been pointed out that all eight RDAs' 1999 strategies had one or more priorities related to the 'knowledge economy and /or innovation', and most have reference to 'skill needs of the knowledge economy' in skill strategies. The following accounts reveals how universities contribute to these regional strategies while being seen as one of the key players in the regional scene.

A) The West Midlands RIS (WM RIS)

The West Midlands Regional Innovation Strategy project was commenced in September 1996. The strategy has been adopted and endorsed by the newly established Regional Development Agency (RDA), Advantage West Midlands, and is implemented by the RDA in partnership with all the key players in the region.¹⁰

Phase 1 of the WM RIS was characterised by the formation of the two-layered structure comprised of the Operational Group and The Steering Group, which brought together key players within the region. The University of Birmingham was substantially involved in the beginning phase of the RIS, with the former Vice-Chancellor being the Chair of the WM RIS Steering Group. The establishment of an effective institutional process has laid the foundation for the successful completion of the subsequent phase of the WM RIS (Landabaso et al. 1999: 27). However, the representation of the regional universities in these two groups of WM RIS is far from comprehensive. Only two universities (Birmingham and Warwick), and one University College were represented in the membership of the Steering and Operational Groups. When the RIS was initiated, WMHEA (West Midlands Higher Education Association) did not exist. In the North East region in England, the regional consortium of the universities was set up as early as the 1980s.¹¹ In the West Midlands, too, individual institutions have played certain roles in their locality, but most of the collaboration occurred at a sub-regional level, and the regional system of higher education did not exist until the mechanisms set up by RIS began to function in the late 1990s.

⁹ Jim Lewis, presentation at Regional Studies Association Annual Conference (2001) "Regionalising the Knowledge Economy".

¹⁰ The West Midlands Local Government Association, the Government Office for the West Midlands, the region's universities, science parks and higher education institutions, European Business Innovation Centres, the Midlands Innovation Relay Centre, Engineering Employers Federation, the Training and Enterprise Councils (now the Learning and Skills Councils), Business Links, CBI, TUC, Chambers of Commerce and Industry, Advantage West Midlands-the Development Agency, West Midlands Enterprise, private sector research organisations and individual firms.

¹¹ The Higher Education Funding Council for England (HEFCE) has been promoting the formation of regional associations or consortia with small pump-priming funds, and during 1999 and 2000, all of the remaining English regions, including the West Midlands, established such consortia. This shows that the recognition of regional role of universities was not particularly strong in the West Midlands region compared with the North East and Yorkshire and Humber, which saw the establishment of universities consortia in 1983 and 1993 respectively. Higher Education Support for Industry in the North was established in 1983 as a collective endeavour to meet some of the problems of the region through industrial training and technology transfer activities. It became more established with the support of European structural funds and a range of specific networked projects during the 1990s. In 1999 it was relaunched as Universities for the North East with a broader remit. This model of the North East region was followed by other regions (Universities UK, 2001:24).

The overview of the WM RIS Action plan provides insights into the evolution of higher educational institutions' involvement in the regional agenda. In fact, the advent of the government regional offices and the RDAs has encouraged all English regions to have higher educational institutions in the map of RDA boundaries. These new geographical groupings of universities reflect the emerging regional partnership arrangements in England (The Universities UK, 2001: 24). There are three important points to note: First, there is an increasing emphasis on the necessity for strategic thinking at the regional level, and there has been a growing expectation for universities to play this role. Second, numerous new programmes aiming at facilitating university-industry relationships have been forged, and many of them are co-financed by the E.U. funding and national initiatives such as HEROBC (Higher Education Reachout to Business and Community Fund) through HEFCE, and University Challenge Seed Corn Fund, and the Science Enterprise Challenge. Third, the new programmes and initiatives are shaping into a kind of regional system of higher education in the West Midlands. The knowledge house system (CONTACT) was created to facilitate university-industry interaction through Industrial Liaison Officers. Mercia Spinner, a new mechanism aimed at increasing the number of university spin-off companies has been formed as a consequence of the new HEIF (Higher Education Innovation Fund).

However, compared with the North East region in England, institutional coordination of issues such as skills development, business growth, and the competitiveness agenda are weak at the regional level in the West Midlands. In other words, the creation of intellectual, social and human capital is not strategically coordinated within the regional system of higher education. This is probably due to the geo-economical diversity of the West Midlands and its relatively short history of being a region. The mechanisms for the learning region have been gradually constructed through the RIS, followed by the Regional Economic Strategy (RES),¹² but social capital such as trust and reciprocal relations are insufficiently robust at the regional level. The reciprocal relations and interaction occur mostly at the sub-regional level, and universities have played a greater role in these sub-regional partnerships.¹³

B) ADAPT in the West Midlands

The ADAPT initiative in the U.K. was organised into clusters of regional networks. With 28 projects receiving more than £ 10 million of European Social Fund (ESF) support between the period of 1997 and 2001, the ADAPT Community initiative generated a significant level of innovation in the West Midlands region (ADAPT Support Unit, 2001). ADAPT has worked on the principle of partnership between public and private-sector organisations at local, regional and/or national levels. These partnerships ensured the strategic development and

¹² Regional Economic Strategy (RES) is the first ten year economic development strategy for the region. The four main pillar of the strategy are: Developing a diverse and dynamic business base;

Promoting a learning and skilful region; crating the conditions for growth; and regenerating communities.

¹³ There are a number of sub-regional partnerships involving universities as main actors across the country. For example, in the West Midlands Region in England, there are a number of notable sub-regional higher education partnerships. Warwick University and Coventry University have developed collaborative relationships over the years with the local authorities, and they are members of the Coventry, Solihull and Warwickshire Partnerships (CSWP). The other example is between Keele University and Staffordshire University working together in the North Staffordshire regeneration and local economic development.

| Table 1. Breakdown of Projects by Promoter (ADA) | 'I Support Unit, 2 | 2001) |
|--|--------------------|-------|
|--|--------------------|-------|

| Type of promoter | Round2 | Round3 | Total |
|---------------------------------|--------|--------|-------|
| Further Education | 2 | 6 | 8 |
| Higher Education | 5 | 3 | 8 |
| Local authorities | 5 | 2 | 7 |
| National Training Organisations | 0 | 1 | 1 |
| TEC | 0 | 1 | 1 |
| NPOs | 0 | 2 | 2 |
| Trade associations | 0 | 1 | 1 |

TABLE 2. UNIVERSITIES' INVOLVEMENT WITH ADAPT PROJECTS (ADAPT support unit, 2001)

| HEI | Project Name | Round 2 | |
|--------------------------|-----------------------------|---------|--|
| University of Birmingham | AUTONET | | |
| University of Central | SME Learning | 2 | |
| England | Organisations | | |
| University of Central | Learning and Innovation 2 | | |
| England | Systems for a Knowledge | | |
| | Creating Region (LISKRC) | | |
| Coventry University | CASCADE UK | 2 | |
| Coventry University | Industrial Adaptation | 2 | |
| | Through Sector-Based Co- | | |
| | operative Networks | | |
| Coventry University | Revitalisation of Expertise | 2 | |
| | in Foundries Using | | |
| | Information Technology | | |
| Coventry University | SCOPE | 3 | |
| University of | Black Country Lifelong | 3 | |
| Wolverhampton | Learning Network | | |

sustainability of projects in light of broader issues and priorities in the labour market. The following three areas served as the central themes of the projects: Lifelong learning and skills development; Business support; and Development of ICT skills. The benefits of new areas of synergy between academia and industry and participation in the Ufi (University for Industry¹⁴) cluster activity helped to forge new partnerships. As Table 1 shows, the projects encompassed a broad range of actors as participating organizations.

Further and Higher Education Institutions are important actors in ADAPT projects. Table 2 below presents the engagement of universities in the West Midlands Region with ADAPT projects. Some universities are more actively involved than others in the European funded projects.

Comments made by one of the researchers in the region, who managed a project, part-funded by the ADAPT programme, building upon the work previously funded by the ERDF programme, illustrate the following points. Firstly, one cannot underestimate an

¹⁴ Ufi Limited was created in 1998 to bring about the government's vision of a 'university for industry'. It is a unique partnership between government and the private and public sectors. Within a year of becoming fully operational in October 2000, it had created with its partners learndirect — the largest publicly-funded online learning service in the U.K..

individual researcher's strategy to develop a project drawing from different sources of funding, forging local as well as transnational partnerships. Individual programmes such as ADAPT, the Framework programme, and the ERDF programme, consists of only part of the longerterm relationship between a university researcher and local industry. An evaluation framework that takes into account the longitudinal development of a project, including the synergy of different programmes is therefore very important. Secondly, the agenda of sub-regional economic development does not always coincide with the priorities set by the Regional Economic Strategy. Again, the relevance of social capital at a sub-regional level has to be emphasised, while acknowledging the significance of the construction of the regional mechanism of the Learning Region. Co-ordination of sources and strategies within each level and between the two levels (sub-regional and regional) are increasingly necessary. Thirdly, there is the issue of human resource management of HEIs and human mobility across sectors. For HEIs, the issue of individual incentives for academic staff to engage in third-stream activities is one of the most difficult tasks. Strengthening performance-based financial incentives is an example. Increasing numbers of research students in social sciences look for jobs outside the higher education sector, mostly in private consultancy companies. Each HEI needs to build up an appropriate incentive mechanism for individual researchers as part of the wider institutional strategy.

Mechanisms for the learning region are being created. The two European programmes, the RIS and ADAPT/ESF, coincided with a significant phase in the development of national public policy initiatives within the U.K. Over recent years, the role of regional policy and institutions as key contributors to economic growth and regional prosperity has been recognised. The Regional Economic Strategy (RES) prepared by the RDA emphasises the following concepts as key elements: partnership work, a geographical sensitive approach, sector-led growth, connectivity, and investment in human resources. One of the key intermediary agencies in the region, the Learning and Skills Council (LSC) sets out in its corporate plan the significance of the link between strong sectors and improved regional economic performance, competitiveness and employment. WMHEA, a regional consortium of universities and HE colleges, is one of the senior members of the West Midlands in Europe, a new regional partnership, which represents the interests of the region in Europe. This may provide a useful channel for higher education in the region to tap into resources at the European level.

There are very many different initiatives and programmes taking place separately for a limited duration with limited geographical target areas, and these are often not well coordinated and therefore not sustainable in the long term. Some of them are European, and others are national and local initiatives. Efforts are being made at a regional level to map out these different HE initiatives together, including regional innovation and entrepreneurial schemes, student placement schemes and other funding opportunities for collaboration between industry and academia, and to integrate them for the benefit of potential users and stakeholders. These may include students, businesses, local authorities, local communities as well as the university researchers and staff themselves. Under HEROBC funding, new posts have been created in expectation of functioning as 'boundary spinners' or 'animateurs' within/ between different university departments, institutions and sectors. These functions have had to be fully integrated into the organisational mechanism/culture of HEIs. From an institutional perspective, multilateral partnership between the EU, RDAs, GOs, LSCs, and HEFCE, DTI, DfES and HEIs will provide communicative competencies across and within the regions.

V. Concluding remarks -Towards Learning Organisation in the Learning Region

In this final section, the role of universities in the learning region is reiterated, and consideration is given to the implication for the prevailing culture of evaluation in the higher education sector as well as in the regional development sector. The main questions are: Are universities re-constructing themselves as Learning Organisations in the Learning Region? To what extent has the EU regional policy been successful in incorporating the expertise and knowledge of *reflexive* individual researchers as well as the institutional knowledge capital created in universities?

Regarding the concept of 'learning organisations', Marquardt and Sashkin (1995) provide an insight into 'the distance between the power of rhetoric and that of brute reality' (cited in Cooke, 2002:161). Their chapter entitled 'Rover-one organisation's journey to success as a learning organisation' provides the following lessons from the world of business (see Cooke, 2002:161). First, even if an organisation preaches the virtues of the 'learning organisation', it would not have an effect without enhancing the achievement of business goals, the main one being high quality customer service. Second, a supplier with higher productivity and a more stable workforce has a high level of trust with an active training policy, giving greater efficiency and flexibility. Third, a location close to customers and suppliers is ideal when firms operate as learning organisations with locational spillovers, facilitating interactions and communication. But above all, a critical examination of the concept of the learning organisation itself, and as to whether it really works in the organisational context is essential.

In relation to the higher education sector, Duke (2002) proposes the concept of the 'Learning University' as:

Open systems, building partnerships and sharing networks in and beyond their localities, and playing leading roles in the creation of learning regions and in new modes of knowledge creation.

He argues that the region is a vital focus and locale for the learning university to recreate its destiny. Allegedly, more universities will become 'both more local and more global' (Duke, 2002: 34) or become 'a bridgehead to the global community' (Shattock, 1999). This statement has to be matched with solid evidence of the university's performance, in terms of its core business, namely, teaching and research, and its external relations, described as 'third leg activities'.

The U.K. White Paper on *Modernising government* makes it clear that policy decisions should be based on sound evidence, and this includes evidence from the social sciences. Social scientists are to help to determine what works and why, and what types of policy initiative are likely to be most effective (Blunkett, 2000). There is an ongoing interaction between evidence and public policy, urban and regional research being a significant arena of such interaction. The culture of evaluation is growing in this process. Evaluation is important in a result-oriented environment because it provides feedback on the efficiency, effectiveness and performance of public policies and can be critical in policy improvement and innovation. Evaluation must be 'part of a wider performance management framework' and 'collaboration between key participants' is the key for successful evaluations (OECD, 1999:6).

In the higher education sector, research evaluation has become an accepted fact of university life, and universities have seen some advantage in being pro-actively involved in the evaluation processes.¹⁵ The U.K. higher education scene and the regional development scene are both changing rapidly under different pressures, E.U. regional policy being one of them. Quite recently, HEFCE published *Evaluating the regional contribution of an HEI: A benchmarking approach* (HEFCE, 2002). It aims to encourage debate on a voluntary basis within and between individual HEIs, to assess the contributions they are making to the economic and social development of their region, and how those contributions might be developed (HEFCE, 2002). The formation of the European Research Area (ERA) and the emphasis on its regional dimension is a significant step in linking higher education institutions, their research strategies and their regional impact (see CEC, 2001).

Diez (1999) proposes 'a participatory approach' to the evaluation of regional policies:

The evaluation design is not imposed from outside, but gradually takes shape through the collaboration of all the stakeholders and their active participation in the analytical evaluation process. This focus considerably increases the probability that the results achieved by the evaluation will be used in an effective way to improve the policy, since it allows the actors in the programme to make the actual evaluation process and the results are their own (Diez, 1999:916)

Such an approach will enable achievement of a better learning policy both at individual and collective levels.

Researchers in both academic communities, i.e. higher education policy and management researchers, and regional development researchers need to communicate and share their academic as well as professional expertise to construct a framework for evaluation of both policy and social learning processes. For universities, having clear institutional purposes in relation to their regional stakeholders is the way to start. Policy makers, both at national, sub-national and transnational levels, need to consider how to initiate learning processes at both the individual and collective level. Interests and resources of various actors have to be drawn into the localised system of learning, forging links between globalisation and devolution processes, and national and sub-national delivery mechanisms.

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¹⁵ In England, for example, a shift in the direction of extensive and active use of incentive tools by the government began with the introduction of the Research Assessment Exercises (RAE) since 1985/6. In Finland, the exercise of external evaluation of institutions precedes many other countries. The culture of evaluation is spreading in higher education sector in Europe. The conference on "The Impact on Academic Institutions of Research Evaluation Systems" (2000) illuminates the development of the concept in the European context.

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