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BUILDING INNOVATION CAPABILITY IN THE LESS FAVOURED REGIONS - UNIVERSITY COLLABORATION AS A TOOL

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Abstract

The aim of the paper is to study how universities through collaboration and localisation (establishing regional joint-institutions) can take part to local innovation networks in the less favoured (or institutionally thin) regions? What kind of collaboration models has universities and other development actors formed in the less favoured region for improving local innovation capability and last, how have universities managed their changed role? Universities role has changed during the past two decades. Universities are seen as a mechanism through which broad social and economical change towards a knowledge economy would be achieved. Universities are thus a part of local innovation supporting system or innovation supporting “milieu”. Universities are a part of the network of building and maintaining local/ regional *innovation capacity*.

The paper is based on a qualitative case study from Seinäjoki sub-region (in Finland) and NorthEast region in UK. These regions are examples of disadvantaged regions, which are building a strong institutional base of Higher education institutions and university-based knowledge transfer systems in order to emphasise the interaction between region and these higher education (and research) institutions collaboratively. Building institutional capacity could be a development tool to these less-favoured regions to boost their economical processes. In the beginning there are a need for structures and *institutional base*, further there are a need for *relationships* (networks) between the institutions, both organisational and non-organisational, formal and informal institutions. Thirdly, the *process of institutionalisation* is also a crucial element of the development in the less favoured regions (see Amin & Thrift 1995, Henry 2001). To lead the process, there is a need of special regional or local development leadership (see Sotarauta 2001). To gain the leadership partners of the development network are in the need of *mobilisation resources* (see Healey et al. 1999).

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Innovation capability as development task in the less favoured regions

Know-how, innovations and learning have become key issues in a new regional development logic and there has emerged a need for implementing new kinds of academic institutions creating and applying new knowledge. This means that economic actor's or players have to be part of the knowledge formulation and networks where the most essential knowledge is built and formulated. Regional or local *knowledge environment* has become more important. This kind of learning and knowledge supporting, knowledge and human resources pointed environment is based on the local institutional settings and the relationships and partnerships in and between different institutions. The relationships and the range of institutions, which are concerned as members of the development cluster, can be weak or strong due the passed development path. Both the institutions and the interaction between them are needed.

Universities role has changed during the past two decades. Universities are seen as a mechanism through which broad social and economical change towards a knowledge economy would be achieved. Universities are both national players and local actors in this development game. Universities are thus a part of local innovation supporting system or innovation supporting "milieu". Universities are a part of the network of building and maintaining local/regional *innovation capacity*. The innovation capacity is formed by different institutions and relationships between them supporting the individual organisation and those capability to innovate as well as relationships to the resources outside the region. Local institutional base is affecting to the innovation capacity and the capability to form the competitive capacity through knowledge resources, through relational resources and mobilisation capability.

Institutional settings in the specific region can be seen as a form of "development cluster" where the firms as well as public, private and semi-public research and development institutions forms a kind of local development network with thick institutional relationships. The relationships and the range of institutions, which are concerned as members of the development cluster, can be weak or strong due the passed development path. Both the institutions and the interaction between them are needed. If there in a certain region are not a lot of formal and informal research and development institutions and interaction between them, actors find it more difficult to transform information to new knowledge and innovations. If the regions do not have a lot of research and development agencies etc. the possible information channels can be weak on the one hand between different actors in the region and on the other hand to and from the region. This kind of regions can often be seen as "less favoured regions" or "institutionally thin" regions. Therefore national, regional and local authorities and development organisations (including universities) are trying to support innovations through different knowledge networks and new type of collaboration.

The aim of the paper is to study how universities through collaboration and localisation (establishing regional joint-institutions) can take part to local innovation networks and how have the roles of universities changed in these

institutional building processes. Furthermore the interest is in the issue of how university based development actors in the less favoured (or institutionally thin) regions are activating local innovation capacities? What kind of collaboration models has universities and other development actors formed in the less favoured region for improving local innovation capability and last, how have these actors managed their changed role? How could these actors activate the innovation processes from the one hand through local and from the other hand national and international networks? The paper is based on a qualitative case study from Pori and Seinäjoki sub-regions (in Finland). These regions are examples of disadvantaged regions, which are building a strong institutional base of Higher education institutions and university-based knowledge transfer systems in order to emphasise the interaction between region and these higher education (and research) institutions collaboratively.

Building institutional capacity

The innovation capacity is formed by different institutions and relationships between them supporting the individual organisation and those *capability* to innovate as well as relationships to the resources outside the region. Actor's capability to innovate depends on both external possibilities (laws, regulations, economical trends and possibilities) and capabilities to use own resources and make new competencies from them. The region's capabilities to support economical innovation processes could be called as a *regional innovation capability*. The regional innovation capability consist of:

- Notice and interpretation of the major changes in the economical reality
- Form new resources from the basis of the new information
- Collect new resources
- Combine different type of resources and sources for these resources to get essential knowledge
- Form competencies from these resources
- Transfer and transform knowledge and resources in the wide networks

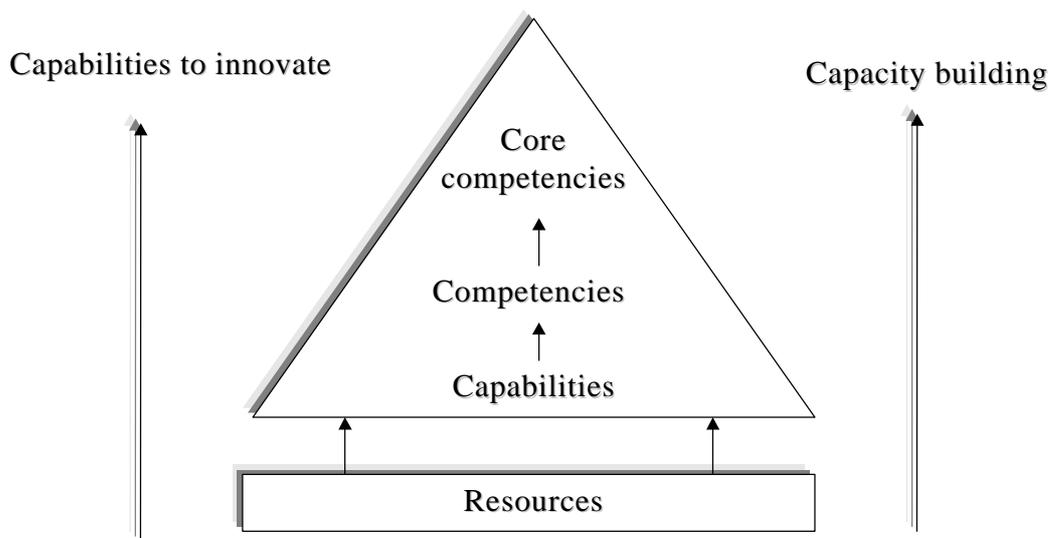
(Kautonen & Sotarauta 1999).

In the innovation capability building, the local urban development network has a great value. General developers are working for collecting, building and supporting the specialised developers and their targets. General developers also work for building such an economical environment or settings that individual actors and institutional bodies could improve their capabilities to form new knowledge and innovations. These specialised developers in their turn work for getting the local economical actors such as companies, inventors, start-uppers, investors etc. together to the specific development programmes, projects and tasks. The specialised developers also work for informal way, building informal networks and therefore trust, interdependencies and embeddedness to the locality. Therefore, it could be seen that the local development network is a part of the local institutional thickness. The relationships and the range of institutions in a certain area can be weak or strong due the passed development path. The components and processes for the institutional thickness are according to Amin and Thrift (1994, 1995) following:

- a strong institutional presence, a plethora of diverse institutions (supporting innovations)
- high levels of interaction amongst the institutional network and a social atmosphere of shared rules, conventions (innovative milieu)
- structures and patterns of coalition

- a mutual awareness of a common enterprise or industrial purpose among participants and institutions (innovative milieu).

Regional innovation capability and institutional thickness or thinness could be seen as a frame to region's capability to support actors (enterprises etc.) and their capacity to innovate. The capabilities which certain individual institution has, affect beside the institution's own abilities but also the local environment and institutional settings in the locality. If the locality or region is capable to support institution's innovation and knowledge processes separately or in a partnership with other institutions, has the institutions better options to create new resources and knowledge and transform it to core competencies.



PICTURE 1. From Resources to competencies (Javidan 1998, Sotarauta 2000)

One possible path to create the institutional thickness in the less favoured regions is to strengthen the resources of *institutional capacity* and the interactions between different types of resources. More detailed way, the institutional capacity, which could also be described as a capability to use institutional capital, is according to Healey et al. (1999) the capability to use different kind of knowledge related resources. The important resources or the elements of institutional capacity are *knowledge resources*, *relational resources* and *mobilisation resources*, where knowledge resources and relational resources are crucial for the creation of the mobilisation capabilities. Institutional capacity is built on some institutional base where the participants have certain abilities to also use these institutional settings.

The abilities are the capabilities in one hand to use, form and collect the resources and from the other hand to activate other actors to built and use new knowledge in partnership, collaboratively, with others. There are according to Healey et al. (1999) some principals and underlying conditions (criteria), which are needed to build necessary resources and institutional competencies from that. For *knowledge building* these are following:

Range: is scientific/ analytical, technical, craft-based (including the craft-skills of policy-work in policy networks) and commonsense. That is performed both in formal events and in routine practices. This should produce a knowledge map available within the partnership relations.

Frames: that is, the underlying conceptions which shape the meanings and interpretations given to the flow of information and the policy theories deployed in the network.

Integration: refers to the extent to which the range and frames are seen and used as interlinked or disparate. This also refers if there are conscious attempts to deliver knowledge from one discussion arena and network to another.

Openness and learning: this relates to the capacity to absorb new ideas and combine those to the older local traditions, to search for new ways of understanding and acting and to access new sources of information and inspiration.

(Healey et al. 1999, p.126)

Institutional capacity is mostly worked through local development networks. The institutional capacity consists both the resources be found through interactions between local actors and development networks (in the regions) and through the interactions to partners outside the region or local networks. Behind the innovation supported focused networks there are most often wider, urban economic development network. The closely formed social and economic relationships and networks in the region and to outside partners could be seen as one the definition or indicator of the innovation capable region. These relationships could be close social relationships built on trust, the informal knowledge of the possible partners and local settings, commonly held norms habits and established customs. The urban economic development network is divided to the *general developers* (public, or semi-public institutions) and the *specialised developers*, which are specialised to work with some certain, locally important business or development area (Sotarauta 1999, 2000, 2001, Linnamaa & Sotarauta 2000, 2001, Raunio 2000).

General developers work through financing and norm-settings for building such an economical environment or settings that individual actors and institutional bodies could improve their capabilities to form new knowledge and innovations. General developers are aiming the development done in the region as wholeness and towards commonly shared ideas of the course of development and visions. Specialised developers work for deeper and more specialised course of development in their specific branch and put together the aims of the development work through customer's and personalities separate and often not so shared needs. Healey et al. (1999) have developed four further criteria to identify the qualities of the *relational resources*. They are following:

Range: who are the key players active in and around the partnership, how do they relate to all others, what networks are important to them and the other stakeholders? What bonding values hold them together and what divisions and boundaries do people refer to and how these link to wider dimensions?

Morphology: this refers to the "architecture" of networks and the linkages between them. This encompasses both the thickness of network interconnections and the identification of their patterns, their geographical reach and the references (boundaries to certain organisations and localities), their nodal point of arenas, key switching points. These switching points are according to Healey et al. (1999), points where transfers and connections are made between one network and another, and the relations between core and periphery in the family networks.

Network integration: this refers to the extent to which the relational webs are integrated to each other.

Power relations: this refers on the way the relations are held together and the active work required to maintain the network relations and also to the way how access to these relations are managed (open, welcoming, sincere, trustful vs. closed, discouraging, corrupted). It is also linked to either the

authoritative, allocative or ideological structuring networks could have and to that, who are having the power and more specifically, the leadership in the networks.
(Healey et al.1999, p.128-129.)

Moreover, reflecting the ideas Healey et al. (1999) presented, the key issue for governance arenas (and networks) is whether they lie in the core or the periphery of the power field and power games where participants of the networks seek to act and find valuable resources. The question is also whether it is possible to establish new network or institutional structures to achieve central position. To activate and create mobilisation recourse the development network bodies should have several abilities. According to Sotarauta (2001) there are several special skills and abilities, these are needed that more "stock-type" resources can be changed to competencies and capabilities:

- ability to co-operate and ability to encourage other people
- ability to create an innovative working or development environment
- ability to shape the future and big pictures of the future
- ability to create new knowledge from the border areas of the new and old
- ability to take advantage of the unclear situations and unknown future
- ability to how to use narratives, metaphors and images to show the possible paths
- ability to create new and enthusiastic atmosphere.

In a networked and knowledge orientated society these abilities are essential for different development bodies to own and express. Especially general development organisations need personnel who has these abilities in order to mobilise other actor's actions and resource building. In a networked society, capable leaders are a part of local competitiveness as such, an element of necessary competitiveness. There are, according to Healey et al. (1999) criteria, which are needed to built *mobilisation capacity* and institutional competencies from it are following:

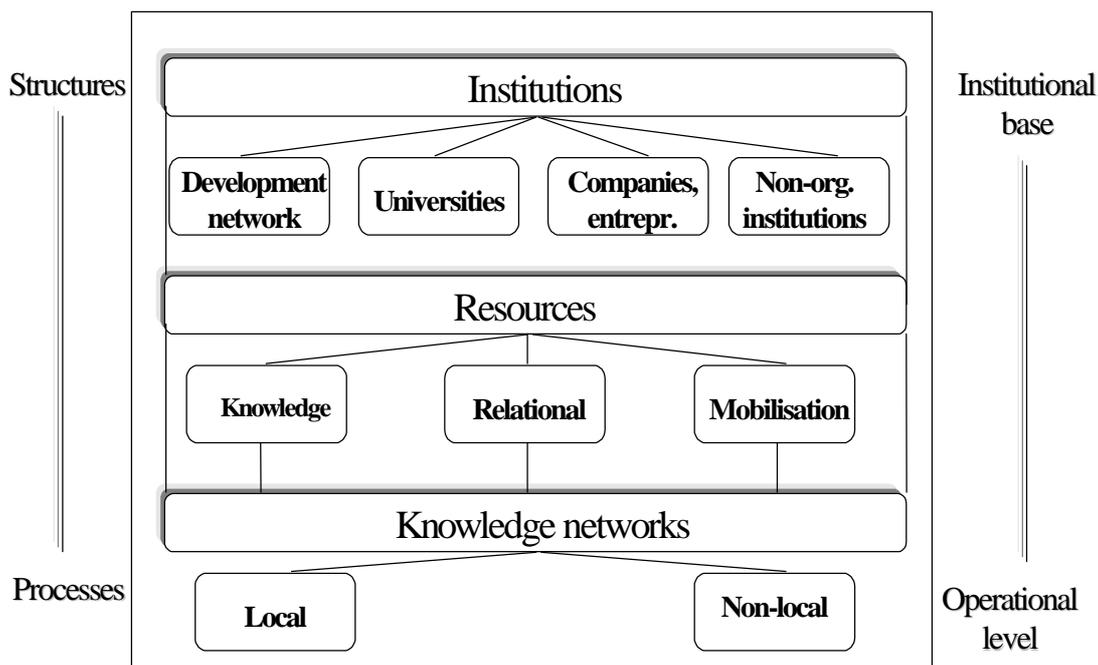
Opportunity structure: what perceptions of the desirability, opportunities and constraints on institutional change the various stakeholders hold? What issues are selected to mobilise around for example in formal reports and statements or informally as reflections by the actions and strategic choices of stakeholders? Are these perceptions and targets widely shared?

Arenas: what institutional spaces are being developed by stakeholders to take advantages of opportunities? Which routes are being considered as a route to power? Is there an agreement on both the arenas and the routes to reach them?

Repertoires: what is the array of techniques of mobilisation, which are considered or are in the experience of the stakeholders? Is there an agreement on the repertoires to use? Are there experimentation in adapting different, new techniques and a possible generation for new techniques for the future use?

Change agents: which people are critical to the mobilisation effort? Are there agreements on who these persons are and the qualities these people should have? Is there a succession of such agents at different stages and organisations? How far is the initiative dependent on a particular individual personality or institution or does it develop a network- type and institutionalised existence?

(Healy et al. 1999. pp.131-132.)



PICTURE 2. Innovation capability building and institutionalisation process in the regions (Kosonen 2001 and 2001b).

Local institutional base is affecting to the capability to form the competitive capacity through knowledge resources, relational resources and mobilisation capabilities. Then the crucial questions concerning the institutional capacity building university “reach out” processing in the less favoured regions are:

- *Is the institutional research and education base in regions strong or “thick” enough to get valuable resources and make competence from it?*
- *Is the development (or innovation and research) culture in the regions such that resources and relationships are supporting new knowledge creation and taking advantages from the future possibilities?*
- *Does the R & D network have a partnership type of working habits and is ready to collaborate for the common understanding of the economic development?*
- *Has the R & D network capability to build new links to competence-based wider networks and at the same time to explore and monitor the new possibilities from the changes of the economic trends?*

Case regions; Seinäjoki in Finland and North East in the UK:

The research method is pursued mainly as a qualitative case study. In this paper, I concentrate to Seinäjoki and North East England regions. Seinäjoki region (In South-Ostrobothnia) serves as an example of less favoured region in Finland. Seinäjoki study is a pre- study based on literature, other studies, reports and evaluations and experiences. North East Region in United Kingdom is an English example of disadvantaged region in UK-level, which has a already strong institutional base of Higher Educational Institutions (HEIs) and is now working to emphasis the interaction between region and these higher education (and research) institutions collaboratively.

Seinäjoki region

Seinäjoki region is a central service centre for large agricultural area where the ICT-sector and the new technologies are just emerging as an industrial sector. Seinäjoki region is nowadays enhancing the level of know-how in the regions through conscious development efforts through a concept of a network of academic institutions in South-Ostrobothnia and through investments in the business environment (technology centre, science park etc.) for technology- and knowledge based businesses. There are some research and educational (HEI's) institutions in seinäjoki region. Those are just established to the area since the end of 1980's and are separate institutions, but administratively bonded and not independent organisations.

So there are not university level, state-related independent research organisational institutions, while this definition is excluding companies' research centres, human medical and veterinary medicine research organisations (part of hospitals etc) and sc. third sector research institutes. Seinäjoki Polytechnic is a large higher professional educational institution with a wide range of specialised training areas and with some, R & D activities regionally related industrial areas. The role of Seinäjoki Polytechnic as an only regional-based higher educational institute in the region is pointed out in many reports, strategy papers and evaluations. In the Polytechnic's own strategies, it is targeting to become an *applied research* and higher education organisation.

In the institutionalisation and regional innovation capability building process, the first step is to build or strengthen the organisational institutional base in the region or specific area. As an outcome from strategic work done in the region, most of these organisations are more specifically research and/ or development institutions. The Seinäjoki Town Council and the Seinäjoki Polytechnic have established a joint- industrial park; the Technology and Innovation Centre of Seinäjoki. The centre is looking for a status as an innovative physical environment for several R&D institutions and high tech companies. The Technology and Innovation centre is located next to the university campus area and near the town centre, aiming to be physically easily accessed.

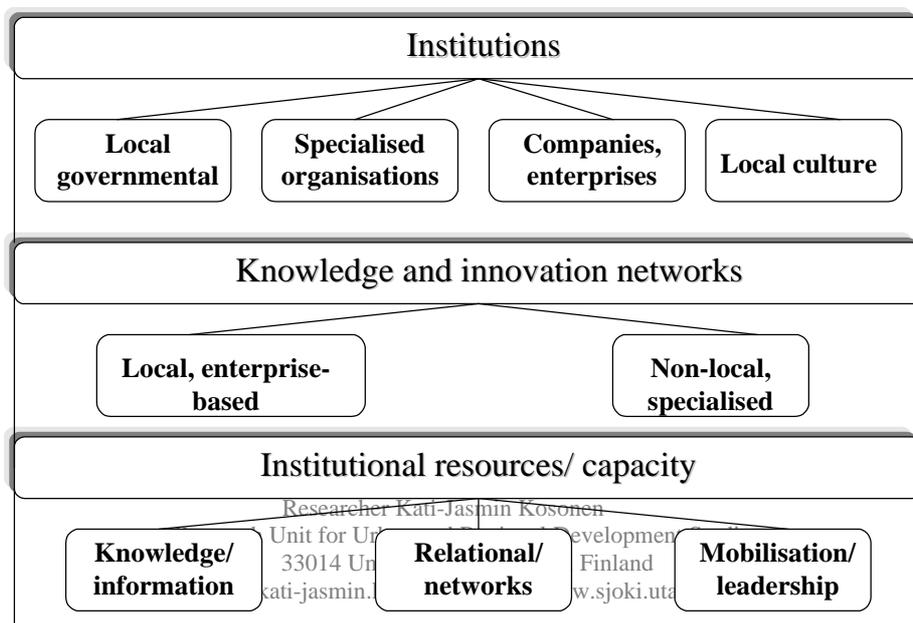
However, there are a new effort to create higher educational and research network, which is in its turn quite unique in the Finnish scale. The network; *South Ostrobothnian University Network* (EPANET), is a co-operation network of some Finnish universities in the South-Ostrobothnia Region and Seinäjoki sub-region. The basis for the network was laid during the starting a Research Programme project, implemented by the local university association in 1999-2001. The work resulted an agreement for the university network, which was an expression of the will of the six Finnish universities and the key regional development organisations in order to create new R & D work in the region. These six universities are: university of Helsinki, Sibelius Academy, Tampere University of Technology, University of Tampere, University of Vaasa and Seinäjoki Polytechnic. Other, more general type and local development agencies, were also partners in the agreement. (University Association of South Ostrobothnia.).

South Ostrobothnian University Network (EPANET) is working for the idea of developing a new kind of research culture in co-operation between universities, research institutes and enterprises. What is unique in this network is the

fact that network is built up from five different existing universities, which have their main campuses elsewhere. Some of these universities have had institutions in the region, but not a whole academic department or such independent institution, some have had only co-operation with local actors, enterprises or municipalities for example. In this sense, this kind of networking is a university reach-out operation for more non-traditional area or region work. The second fact is the form of funding. The most important sources of funding of the project are enterprises in the region, due the applied research fields. In the choice of the fields of research, the emphasis is laid on applied research and product development in the expanding branches in the region.

The core of the network is loosely organised group of around 15 fixed-term research professors, which in their turn will gather a group of researchers around themselves. The idea is that , by the end of 2005, the network will comprise a community of some 50 researchers. The research projects focus on the following fields: IT applications, Economics and Business administration, R & D & marketing of food stuff industry and more general theme with the title Regions and welfare. Each area of research will cover at least two research professorships and each research professor will lead research team of 3-5 researchers (mostly PhD students.). The network is also offering network based higher education in the South Ostrobothnia region, an independent training project, EDUEPANET, has been created to support the development of research work. It involves the planning and implementation of training projects supporting post-graduate education and contributing to the exploiting of research-based information in the region.

In the Seinäjoki area, *the general developers* are working to build up a certain type of regional development partnership network, a kind of family of development networks. The idea is, that the smaller, more specialised networks (ict-focused, or the foodstuff-networks, or technology park networks) would be a part of this wide regional network or "development institution cluster". Regionally local authorities focus on very often more formal networking and partnership building, building structures and formal institutions or (geographically, politically) representative partnership-institutions or form large formal project- or programme -based organisations to deal with some certain development tasks, when *specialised developers* build most often more informal partnerships.



PICTURE 3. Innovation capability building-theme in Seinäjoki area.

The university network is strengthening both the basic academic infrastructure (institutions) and putting forward the *institutionalisation process* for academic and research actions. The connections outside from regions are according to Raunio (2000) still more or less problematic. The problem is that these connections and partnerships are relatively undeveloped and poorly used for gathering knowledge and other essential resources. In the process of building innovation capability, one of the critical points is the openness to outside world and new knowledge gained from wide networks. This has not been fully developed in Seinäjoki area and would need some further work to be done. In such institutional setting, the network-typed innovation support could be said to be critical for the economical development, especially when individual economical actor's are small and have relatively poor pool of resources.

In the South Ostrobothnia region, the building of the institutional capacity and network relations is in the following state:

- *Knowledge resources*: a lot of work done, difficulties to get access to right resources-sources and therefore build new competencies
- *Relational resources*: a lot of work done, difficulties to realise which relationships and knowledge resources are the most valuable ones (value-added type), difficulties to create links both internally and externally
- *Mobilisation resources*: work going on, difficulties to support partnership, internal competition level high and capabilities to create a common understanding weak.

North East region, UK

North East Region in United Kingdom is an English example of disadvantaged region in UK-level, which has a relatively strong institutional base of HEIs and is working to emphasis the interaction between region and these higher education (and research) institutions collaboratively. By almost any form of benchmarking used, the NE economy and especially innovation-related areas, performs poorly in comparison to the other English regions. Regional Competitiveness Indicators reflect a bleak picture, with below-average performance in virtually all indicators. According to the region's Innovation Strategy and Action Plan, (ONE, IAP 2001), rates of new product innovation, rates of scientific and technologically based enterprises and levels of entrepreneurship are consistently lower than the national average. NorthEast region also has a relatively few research and development facilities, almost none in governmental ownership. The situation in key indication areas is following:

- density of business by population - 40% below UK mean
- new businesses as indicated by VAT registrations - 50% below UK mean
- employment in high tech businesses - 10% below UK Mean
- business spend on R & D by regional GP - 33% below UK mean
- proportion of graduates in the workforce 32% below UK mean.

(ONE, NE Innovation Strategy & Action Plan 2001)

Current UK arrangements for higher education institute- research funding concentrates in the SouthEast England. Also, the businesses are investing less to research and development in absolute terms compared to businesses located to other regions in UK. While the research and development expenditure of the region's universities is relatively

close to the national average, there is virtually no Government R&D expenditure (including local authorities), and no expenditure by independent research centres. There is a need to increase indigenous R&D capacity and expenditure if the region is to move forward. (One, IAP 2001.) The Innovation Action Plan emphasises the importance of improving business understanding of and *access to the universities' knowledge base*. Universities are launched the third strand- approach to reach out better way to the local and regional business environment. For the financial reasons, the linkages to governmental (Government office, ONE local councils etc) and EU- finance-offices or similar organisations are important in this institutional setting. In this frame, the regional urban development network is relevant for the University-region interaction.

The work started already about twenty years ago, when the five campus universities (University of Durham, University of Newcastle upon Tyne, University of Northumbria, University of Sunderland and University of Teesside) and the Open University in the North East of England began their collaborative activities. This happened as far back as 1983, with the establishment of HESIN (Higher Education Support for Industry in the North) as a vehicle for joint actions and was remodelled and strengthened in 1999, when it was re-launched *as Universities for the North East (Unis4NE)* in order to expand its remit. Universities for the North East is a established collaboration with a long track record of joint university activity on consultancy, enterprise development, widening participation and graduate retention, aiming to bring added and strategic type of value to institutional activity. Universities for the North East increasingly works with some partners across the region, including the Small Business Service (SBS), Learning and Skills Councils (LSCs, and formerly with the TECs) and Further Education Colleges, and with some governmental authorities as Government Office and the RDA. The consortium has jointly managed and delivered over 20 major projects throughout its history and include themes as:

- *Knowledge Transfer*
- *Knowledge exploitation*
- *Encouraging enterprise and innovation in Higher Education*
- *Retaining graduates in high-technology jobs and start-ups in the region*
- *Sourcing financial support*
- *Supporting culture change*

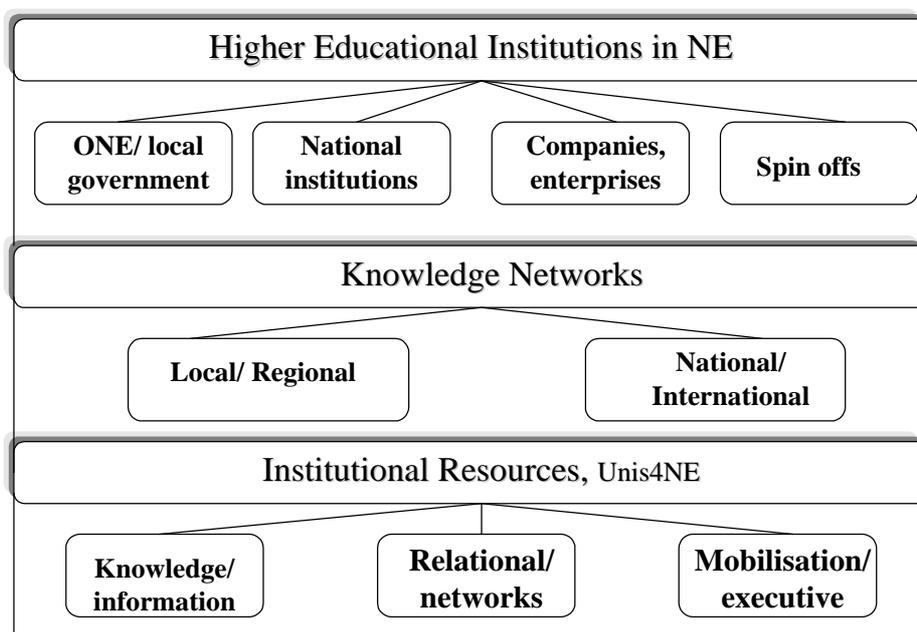
(Knowledge North East proposal/ Unis4NE, July 2001)

Under that collaboration there is several joint-programmes, targeted to business consultation and knowledge exploitation, one of the most important initiatives is *Knowledge House*-project. Knowledge House-project (KH) is one of the Unis4NE most longstanding and effective business services project, although it is mainly a consultancy service. KH operates as a “portal” through which the six universities provide these services to industry and businesses. KH has recently embarked on a joint marketing and events programme with the NE Chamber of Commerce (NECC), Regional Service for Clustering and the an access point for the new Small Business Service (SBS) targeting established clusters and sectors in the Region. The further challenge is to extend the KH model of collaboration to all aspects of knowledge transfer and enterprise.

Knowledge House project has had some limitations, however. According to ONE and Unis4NE representatives, these are following: Actions are pointedly meant only for SME's and the project is currently constrained in its range

of activity because of its reliance on European Union project-based funding. Although knowledge exploitation are in many cases more suitable for bigger companies and a part of their core strategies. Knowledge House financing is dependent on EU- Structural Funds while the whole region is not a part of the same objective area. Most of the region is an Objective 2 area, but some are not. Knowledge House funding also depends on short-term, project based funding.

Because of the knowledge exploitation part has still been weakly employed in KH-project and because the limitations that current Knowledge House financing has, the Unis4NE has recently made a collaborative initiative: *Knowledge North East*-proposal. In the Knowledge North East- proposal, there are elements, which could form an element to mobilise university resources and expertise for economic development in the NE.



PICTURE 4. Innovation capability building-theme as in the NorthEast.

Through Unis4NE, region's universities have already existing collaborative knowledge network. For many these universities relationships outside from the region are even more important in their strategic schemes than regional or local networks, most often these are internationally employed contacts and collaboration networks are for the sake of the international competitiveness building. In the NorthEast region, the building of the institutional capacity and network relations is in the following state:

- *Knowledge resources*: a lot of work done, a lot of competition going on between separate institutions.
- *Relational resources*: a lot of work done, some difficulties to realise which relationships and knowledge resources should be worked on, difficulties to create valuable links internally and joint-links with other local institutions externally.
- *Mobilisation resources*: work going on, difficulties to support local partnership, capabilities to create a common understanding weak, difficulties to build new competencies and to reach out to the region.

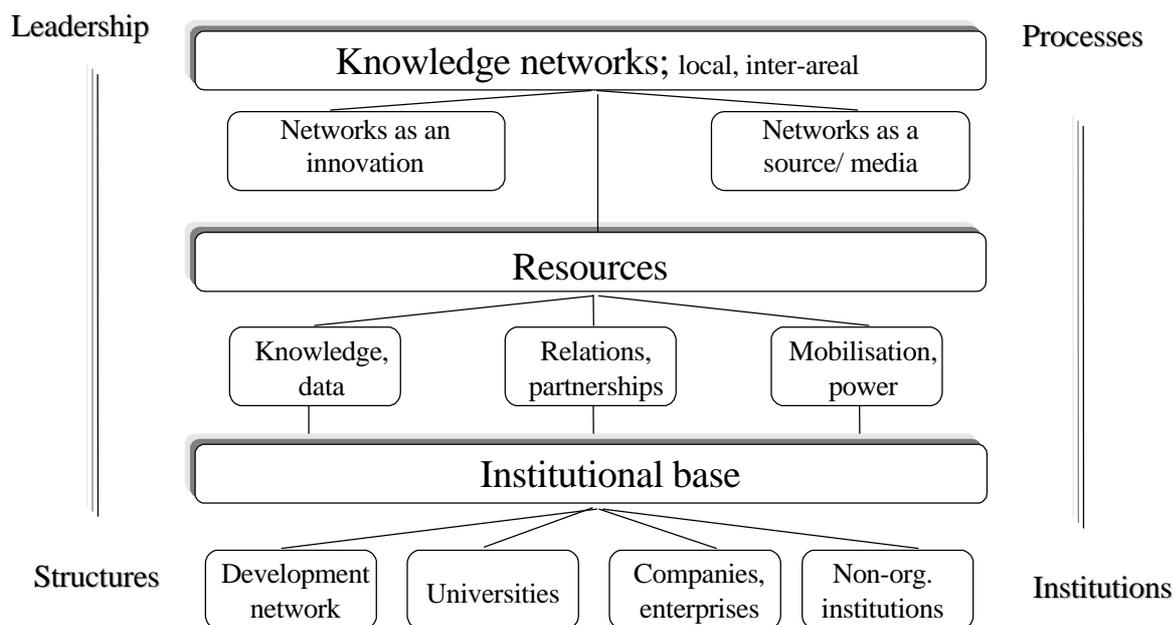
Conclusions

From the lessons, which could be learned from the still of the continuing case-studies, it could be said that building institutional capacity could be a development tool to these less-favoured regions to boost their economical processes. In the beginning there are a need for structures and *institutional base*, further there are a need for relationships (networks) between the institutions, both organisational and non-organisational, formal and informal institutions. Thirdly, the *process of institutionalisation* is also a crucial element of the development in the less favoured regions (see Amin & Thrift 1995, Henry 2001).

New organisations in the Seinäjoki area are in the *institutionalisation process* to create new type of the development culture, habits and common development view supporting innovations and knowledge creation (innovative milieu). In the Seinäjoki region the emphasis is now in the university network. This network is strengthening both the basic academic infrastructure and putting forward the institutionalisation process for academic and research actions. In this sense, this kind of networking is a university reach-out operation for more non-traditional area or region work. The second fact is the form of funding. The most important sources of funding of the project are enterprises in the region, due to the applied research fields. In the choice of the fields of research, the emphasis is laid on applied research and product development in the expanding branches in the region. The next steps would be more awareness and wide skills building, and the strengthening resources of the institutional capacity than putting emphasis on basic structures. The third step would be strengthening the knowledge and innovation networks.

It seems that in the North East region, the emphasis of the innovation capability building is mostly on universities and university-linked business-organisations. Universities are launching the third strand- approach to reach out better way to the local and regional business environment. For the financial reasons, the linkages to governmental (Government office, ONE local councils etc) and EU- finance-offices or similar organisations are important in this institutional setting. In this frame, the regional urban development network is relevant for the University-region interaction. In the North East region the work was concentrating to co-operation and joint-reach out actions. One of the underlying reasons for the Knowledge North East- proposal was also to strengthen the regional collaboration between region's universities, between region's universities and the business-linked organisations, (and through those - local businesses). That part of the Unis4NE network is still weak and does not work for the suggested and perhaps more targeted way. In order to do that, Unis4NE would need strengthening of the mobilisation resources and executive leadership in the collaboration in the future.

However, at the both cases there were an open question for the mobilisation and more precisely, the *leadership* of the institutionalisation process. To lead the process, there is a need of special regional or local development leadership (see Sotarauta 2001). To gain the leadership partners of the development network are in the need of *mobilisation resources* (see Healey et al. 1999). Urban development network has to be able to create new *spaces* for action (arenas) and collaboration (partnership-areas) and strengthen valuable existing ones. Networks should also be able to identify and lead the process through widely acceptable routes, where all interested parties can take a part.



PICTURE 5. The principles of innovation capability building-theme.

Leading and network management issues are especially crucial for the general development organisations, which should have enough power and capabilities to take a leadership of the processes. The abilities, which different development bodies face when they are in the leading process positions, could be summarised as follows;

- ability to look new activities,
- ability to define guidelines for activity,
- ability to involve people and make people work to reach goals,
- ability to speed up, boost the course of action and to change the course of action when the economical environment changes.

(Karlöf 1995, Sotarauta 2001.)

The local urban development network (especially the general developers), need a special type of mobilisation capability and abilities to activate and induce other institutions and individuals in these institutions to innovation supporting actions. In order to achieve this, there is a need to build networks around development tasks and through these networks to gather, reform and combine knowledge in the way the future challenges are faced and used for economical success.

Table of Pictures

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