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Learning region platform for competitiveness, innovation and clusters

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Cooperation among Innovation Support Structures

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Executive summary

In Central Finland different stakeholders have built up the region of interaction, knowledge and entrepreneurship. This is based on the context of Learning Region, a region with dynamic structures and stakeholder relations to support continuous and mutual learning between organizations for effective economic development. The stakeholders possess the knowledge and skills to make the changes and affect the operating and market environment. The learning region is the platform to cultivate the different natural, human, social and financial capitals - to create innovations, clusters and to empower competitiveness. The case of Central Finland as a learning region is especially a description of strategic cooperation, practical tools and impacts - lesions to learn.

Introduction

Central Finland has made its regional development based on the context of learning region implementation for the past ten years. In a region traditionally concentrated on natural resources and heavy industry, it has been all about the *people*. The regional strengths and advantages are connected to the global markets and different success stories to inspire entrepreneurs, businesses and the stakeholders for continuously better performance. For this we need huge amount *enriching interaction*. Enriching interaction is based on the joint activities and co-creation. The stakeholders have actual strategic need to develop and to do practical actions. Question is do stakeholders have the capability to break organizational borders in coopetition, the agility and dynamics in the mindsets and processes. Central Finland has had a joint trend of development through concrete cooperation agreements. The same disciplines go for different processes from foresighting the labor market and entrepreneurship to supporting education-business cooperation and more specialized economic development in the global markets.

The main impacts of the learning region context have been e.g. the creation of a network of education and business the EduCluster (Public-Private), a one-of-a-kind framework for well-functioning labor markets and operational models for matching the business needs for e.g. vocational education or higher education. The stakeholder organizations have co-created many dynamic models and tools for business knowledge development, boosting entrepreneurship and facilitating the open innovation processes from science to business. Combining knowledge, skills and entrepreneurship has been the core in creating learning clusters from business networks.

CENTRAL FINLAND TO-DAY

Central Finland's population is 274 000 (5 % from the whole population in Finland) and employment is 111 000 employees. Central Finland is one of the continuously growing regions and has its one of the important areas of expertise. It has based its economy in natural resources, strong industry and knowledge in ITC. Finnish Education and teaching has its history in Jyväskylä.

The region has based its growth in certain fields of businesses and clusters: machinery and equipment, housing and construction and bioenergy. These fields form the Human Technology Clusters. In the same time Central Finland and specially the capital of the region Jyväskylä has linked to the national Centers of expertise like Forest Industry Future, Ubiquitous Computing, Energy technology and Nanotechnology.



Jyväskylä is the driving force and capital City of the region. It is seventh biggest city in Finland. There are 174000 inhabitants in the city and sub region around it. The employment is 63 000 employees and 7500 companies. The most of the big companies are located in Jyväskylä. It is also the center of high quality education as well as the center of research and innovations. University of Jyväskylä, JAMK University of Applied Sciences and The Jyväskylä Educational Consortium are all the top institutions in Finland. There are 30 000 students studying in these institutes. In addition there are 20 000 adults studying focused on their lifelong learning. Central Finland is one of the 19 regions in Finland. The region is politically governed by Regional Council, which is a joint municipality and forum for cooperation of 23 municipalities. The main tasks of the region are spatial and regional planning. The core of development is in competitiveness of the region, businesses, entrepreneurship and the quality of life for citizens.

DECISIONS AND NEEDS TO MAKE THE CHANGES IN 2000TH

Economical depression

During the depression in the 1990th Central Finland (population 257967/273637 in the year 1990/2010) the regional loss of the employment was 20 000 employees and enterprises/employers 1500. The amount of unemployed was maximum 30 000 and the need to educate and train new employees 30 000 during coming 10 years and the growth of the adult training supply 70 %. Education was challenged with quantity, quality, on- the job learning and entrepreneurship. All stakeholders were working in their fields and mostly separately based on their own strategies. The regional administration was strongly guided by national government (central administration). There was a need for new strategic cooperation between all regional stakeholders, especially with educational organizations.

Deep depression in regional economy focused the intentions to develop the competitive advantages in every municipality. Through this mindset was important to see the region as a whole. Same time the structural changes in business lines was boosted by the supportive experts in the fields of Wood Industry, Metal Industry, Graphical Industry, Electronic Industry, Tourism and Small and Handicraft Industry. The objective was to find the core business areas surviving best in the markets. This profiled the future of Central Finland. The mission was to generate knowledge and work for self supported economical changes. In this phase Jyväskylä in the end of 1990th started to create strong center of ITC. In the labor and education matching policy it was "important to have knowledge and know-how responding the work, more than have just a working place to different fields of education". Question was what comes first?

In the education was the national policy target that 75 % of young generation should have higher education. Same time the labor markets demanded that 50 % of the new employees have higher professional skills and degrees. The vocational education and training was not valued and the content needed changes. The labor markets were strongly unbalanced. In the end of 1990th started a change in vocational education based on the on- the job learning. Many of the adults unemployed or at work did not have any degree and needed the renewing of skills and competences. The need for adult training was huge, 70 % more students as well as the whole amount of vocational degrees. This target had to be a joint decision between ministry and regional organizations. The economy started to survive and grow. But there were still the wicked problems of employment, knowledge and entrepreneurship.

Leading thoughts for strategies and objectives for the changes

In the beginning of 2000th entrepreneurs, business managers, politicians, executive directors of local and regional governance, managers of educational, research and developing organizations, 200 participants, gathered together. They co-created the pathway to future based on learning region principles. The vision of Central Finland in 2010 should be boosted with know-how, knowledge, collaboration and entrepreneurship and inspired with the "breeze" in the region. Central Finland identified the elements of Knowledge Society. It was needed more human and social capital than just natural resources. The strategy was to make changes in the regional structures and create joint

processes to activate competitiveness and innovations. In this was needed a common will, capability to break the boarders for structural changes, new mindsets for innovations and strong market and client orientated practical actions.

Central Finland agreed common objectives for the regional economy. Key points defined in the regional plans, regional EU programs and the annual agreements of stakeholders were the objectives as

- $\checkmark~$ The amount of employment should increase 7000 until 2006 and after the employment rate to 65 %.
- $\checkmark~$ The amount of unemployed should decrease to half until 2006 and after the unemployment rate to 11 %~
- \checkmark The amount of enterprises should increase 2000 until 2006 and after have yearly 500 -700 net-growth
- \checkmark The amount of all degrees (% of the population) should increase 1% /year
- \checkmark The atmosphere and milieu for entrepreneurship should be the best in Finland
- \checkmark The amount of young and adult students in the vocational education and training should increase remarkable

The leading thoughts underlined that Central Finland should have continuous growth in population and economy (GDP). The export was a crucial factor in the industry and the changes in the role of services have growing importance. The demography of the population meant challenges in public and private sectors. The education was one of the strength of Central Finland and it needed the mobilization of the whole potential of people. The development was deeply based on know-how and renewing the competences.

THEORIES TO PRACTICE

The theoretical background is based mostly on the theoretical consideration "From Learning Region to regional Success in Competition" to support regional development in Central Finland (Hannu Niittykangas, Rauli Sorvari 2005 and 2008). The practical evaluation of the strategies and projects were made by University of Jyväskylä theoretically based on the learning region context. It was made with long-term project Alueosaajat (2001-2007), concerning also the talents in regional development.

Why Learning Region?

Learning region is a concept that has as an idea of the know-how and knowledge based regional development. Learning region emphasizes the basis for competitiveness of economy, regions and companies. Learning means change and not only adaption to the environment and structures but having also a targeted impact to these. In markets we can also speak nowadays about the market design. Learning underlines understanding and sustainable changes in performance. It is needed a context which guides and outlines learning. Learning is a process of participation and interaction. Learning region sees the importance of dynamics in economy.

The learning organizations have certain key elements for success. The organization should produce, obtain and transfer knowledge. The knowledge should be the inspirer of new knowledge and problem solving. We have to have different opinions, creativity, activity and innovation. In

companies it means interaction inside and outside the company. Reflection is the important tool for learning (Senge 1994; Argyris 1993). Senge sees also the team learning, personal mastery, mental modeling, systemic thinking and shared vision as the elements of learning organization. This also supports the processes of creating human capital as well as social capital. Learning and learning region emphasizes the place, infrastructure and environment. In the region we have huge amount of knowledge (explicit and tacit), models, services for wellbeing, culture which is not removable. It is capital for competitiveness. This means that learning region concept has two key elements **regional structure as well as learning and innovation processes**.

There was an era when competition was driven heavily by input costs, location with some important endowment and seen comparative advantage that was both competitively decisive and persistent over time (Porter 1998). Competition today is far more dynamic. According to Porter, this means that immediate business environment outside the company plays as vital role as functions inside the company. Thus, the enduring competitive advantages in a global economy lie increasingly in local things - knowledge, relationships and motivations. This role of locations has been overlooked, despite striking evidence that innovation and competitive success in so many fields are geographically concentrated. Porter has summed up his statement in an idea of a cluster: critical masses of unusual competitive success in the particular field in one place. These clusters attract more new companies, suppliers and customers than a single company could alone and that's why they have to be considered when any company makes site selection decisions.

The cluster approach goes along with the concept of economies of agglomeration. The concept describes the benefits that companies obtain when locating near each other. As more companies in related industries cluster together, costs of production may decline significantly because companies have competing suppliers, greater specialization and division of labour.

Knowledge economy

Regional development is an innovation process, which crucially depends on interaction. Interaction between persons, groups and organisations is the basis for learning and innovation and hence eventually for the economic prosperity of the regions. Thus, central to successful innovation are the structures and modes of interaction between knowledge producers, knowledge disseminators and knowledge users. Hereby, networking and network knowledge are the vital elements in today's knowledge economy. Sustainable and effective networks are characterised by such considerations as reliability, honesty, co-operation and a sense of duty to others.

Social capital

Social capital is the glue of the well functioning network. Knowledge in the network refers not only to the skills of individuals but the transfer of knowledge from one group to another to form learning systems (Goddard 1998). As the network knowledge is highly dependent on interpersonal relations, it can most readily be developed within a particular region.

The Finnish Parliament had deep dialogue for Future. As a report for this Pirjo Ståhle and Markku Sotarauta (2003) have defined four basic requirements for an innovative environment that refers heavily to the above-mentioned statements about network knowledge and also the concept of learning region:

- 1. Players: identity, devotion and charisma
- 2. Networks: links, trust and mutual dependence

- 3. Knowledge management: information and communication flows, interaction
- 4. Mastering timing: situation and space awareness, courage to act

Regions must adopt the principles of knowledge creation and continuous learning. In other words, they must become learning regions. In his statement on learning economy Bengt-Åke Lundvall (2002-2003) argues that learning economy is characterised by the following features:

- the success of individuals and firms reflects the capacity to learn (and forget old practices);
- change is rapid and old skills get obsolete and new skills are in demand;
- learning includes skills and the building of competencies, not just increased access to informa tion;
- learning is on-going in all parts of society, not just high-tech sectors; net job creation is in knowledge intensive sectors.

Building up the learning and innovation networks we need trust and the network creates social capital.

Wicked Problems

The development and planning faces many times the problems, which are wicked. This is also the situation when doing regional plans and strategies. What is wicked problem?

"Wicked problem is a phrase originally used in social planning to describe a problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize. Moreover, because of complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create other problems. Wicked problems always occur in a **social context** - the wickedness of the problem reflects the diversity among the stakeholders in the problem. A wicked problem is one for which each attempt to create a solution changes the understanding of the problem. Wicked problems cannot be solved in a traditional linear fashion, because the problem definition evolves as new possible solutions are considered and/or implemented. The term was originally coined by Horst Rittel." This is one of the leading thoughts when doing regional planning and implementing strategies in learning region.

LEARNING REGION PLATFORM IN CENTRAL FINLAND

Vision to guide

To create the learning region is needed the *common responsibility and trust* between the people, organizations and companies from the region. The purpose was to create possibilities and economical dynamics to the region and the vision the catalyst. In the beginning it was: "*Central Finland is a region of great quality of life, be built through knowledge, skills and entrepreneurship*".

- Knowledge as research and education connected to know-how
- Skills as professionalism, skillfulness and skills in learning
- Entrepreneurship as responsibility of the self and future, willingness and ability of taking risks and innovative thinking

• The quality of life as positive experiences from the opportunities of the environment, security for the citizens, public and private services

Learning region structure and competitiveness

The regional competitiveness was in the focus. The key elements of Learning region structure and regional competitiveness are described in the following figure:



Figure 1. Boosting the elements of regional competitiveness in Central Finland

The regional competitiveness is based on the identity which is seen visible in the image. The key elements are the resources and the different capitals in the region. The other strength is leaning on the key players; enterprises, entrepreneurs, developing organizations and dynamic governance (administration). For the innovation milieu and ecosystem is needed a strong entrepreneurial atmosphere and competent business thinking. It is also needed the involvement of politicians to the renewing culture. The challenge is networking and networking needs huge amount interaction. Creative interaction is also the main tool for managing regional processes.

Learning region processes

In the same way as in structures we can see the key elements of Learning region Processes and strategic actions. The core for the development is the efficient collaboration and interaction with all educational organizations. All educational organizations have to have the common concept to develop the know-how and competences based on combining knowledge, skills and entrepreneurship. This covers then the education system in the region and co-creates the capacity for innovation system. The other pillar is the strong interaction with companies and working life. This is how is built up the learning and innovation network. The processes should boost both human and social capital for competitive success.

As the leading thoughts for actions the key players agreed the principles of cooperation and interaction:

- all actors have to have common will and real commitment to true development
- all actors have to be able to cooperate breaking the organizational boarders
- the mindsets and the processes are dynamic supporting hands on working
- the trend of development is jointly approved and bases on the market orientation



Figure 2. Building up the processes of Learning Region in Central Finland

The field of education and training should have a role in competitiveness and economical development. The role is not only a resource for HRD and competences it is as well the generator of businesses in global markets. Clusters are inspiring the business networks. Education and training needs also business interaction and understanding the market and client orientated context. So the mission of EduCluster is to be the business partner to businesses and also cluster to clusters. It also creates next generation Public Private Partnership.

DEVELOPING THE PLATFORM AND THE IMPLEMENTING THE STRATEGIES

Governance

The governance in Central Finland is based on local municipalities and state governance organizations and there regional services. The main state organization is the Centre for Economic Development, Transport and the Environment (ELY). The municipalities (23) have a joint municipality the Regional Council of Central Finland (RC). It is a political organization. Its main tasks are by law the spatial and regional planning. Based on these laws Regional Council is responsible for the common regional will for future. Regional Council is coordinating the implementation of regional plan, regional program and annual action plan. For this it has the relationships to all ministries and have annual budget negotiations.

The financing of the regional development and projects are done mostly by ELY and initiatives by RC. The financing is coming from national budget, EU - programs and project partnerships (companies, municipalities, educational organizations). As mentioned before for development and productive projects is needed common will, strong commitment, key player's agreement and trust. That is why for this management and coordination is the Regional Steering Committee. Committee has representatives from municipalities, state governance, companies (employees) and employees un-

ions. It is linked to the Regional Council (politicians) and it has two expert groups; Employment and education, Business and enterprises.

Decisions made to scope the development

Education has strong traditions and a remarkable situation in Central Finland and it could be said that education is one of the specialized fields in the County. During the years 1975-2007 education industry's proportion (output and employment) has been bigger than the average amount in Finland. The economic impacts from the education sector are significant: according to output-input model, education provides 645 million euros production effect to the region where 2/3 of the money focuses to the Jyväskylä region. Education provides also other incomes, which have significance through tax money and consumption and those factors affects all the way to production. Beside direct economic benefits from education, education produces knowledge and know-how to the region which could be also called as human or social capital. This is also the bases for educational cluster.

In 2010, the Central Finland regional plan's vision for the future was modified and focused as: "Central Finland - the region of collaboration, entrepreneurship and know-how". This meant a strong and dynamic learning and innovation networks. The core pillars for regional development as a learning region are

- Balanced development of the whole region and all municipalities
- Ensuring the talented and skilled workforce in the well functioning labor markets
- High quality in Management boosting the changes in all organizations
- Boosting the knowledge based development
- New curricula for know-how, competences and path ways to entrepreneurship
- Ecosystem combining innovation and education systems to practical actions

THE KEY PROCESSES OF THE IMPLEMENTATION

Looking at all development and projects in the concept of learning region we can see the key points during the time 1990 - 2010 in the figure3. The starting point of new kind of approach was the economical depression in the middle of 1990th. This started to focus on competitiveness, competitive advantage and the real success in the markets. For building up the Learning Region implementation there are to be seen three main processes

- Implementing Actions in Labor markets mobilizing the whole potential of People
- Building up the learning and innovation network of People
- **Generating** the market driven interaction of People for actions in education, research and development organizations, businesses and working life



Figure 3. Implementation of strategies boosting Learning Region in Central Finland

On-line forsighting the demand and supply on education and labor market

One target and process was to create well - functioning labor markets. This has meant the use of the potentials in labor markets. Forsighting the future needs have been one element of implementing the strategies. In the beginning of 2000th the main task for the region was to make and report and proposal about the demand and supply of education to the Ministry of Education. This was jointly made by all educational organizations. This was done using a new Operational team approach to cooperation. Same time was enhanced the interaction to businesses and working life. There was a strong touch to the labor markets. In the same time these results (figures and arguments) were represented to the Ministry for decisions in the strategies.

The problem was still the timing in forsighting. How can be established an on-line continuous forsighting and make specially the supply dynamic with the high quality. In the year 2008 and after that the economical situation has challenges the structural changes agein. This created once more new strategic actions and models in the labor market. This was the cause to have a common strategy for Well-Functioning Labor Markets. The work was done by the network of 200 experts and stakeholders. Now it is guided and supported by the regional Steering Group of Education and Employment.

Strategic collaboration for Well-functioning Labor markets

Briefly this program shows the crucial factors of mobilizing the whole potential of People in Central Finland. It links together all regional policies like Business & Innovation policy, Social & health policy, Educational policy, Regional policy and Labor policy. It means in practice short- and long-term activities for changes concerning competences of workforce and new professionals, new entrepreneurship, employer's know-how, workforce reserves and education and employment of young

generations. Target is to change the mode of cooperation and services for ensuring the well-functioning labor markets.



Figure4. Well-functioning labor market in Central Finland

THE "DRIVING FORCES" CO-CREATING THE LEARNING REGION

The governance model for creating the "Learning Region" model is a puzzle which is consisted of different strategies and projects. As a kick off start becoming a learning region and the Learning Region - thinking could be seen the event, called Central Finland Learning Café which was organized in 2001. The strategy and vision was introduced in the regional plan as a long-term objective in the beginning of the 21st century. This vision started strategically linked projects and collected as "the *driving force*" People with commitment, creativity, partnership, influence and expertise.

The target of all actions was to make changes in the regional structures, economy and capitals. The implementation based on the enriching interaction and used brokers to build up the networks. As an example we can quote Director Hannu Salminen's leading thoughts about the strategy implementing VET innovations in Central Finland. Strategy based on three explosions (The harsh word of explosion is used because of the remarkable change of performance and attitudes). According to project team these are to:

- Explode the administration the development will be guided to be done over the educational institutions' borders
- Explode learning to be where learning happens it means learning in work places, institutions, through hobbies, information networks, etc.

• Explode the geographical borders - it means that vocational education will be examined in whole Central Finland underlining the regional and local perspective and coherency."

Mapping the projects of change in Central Finland

One success factor for learning region is efficient coordination (mapping) of strategic projects and productive funding. The projects which are briefly described are generating the market driven interaction of People for actions in education, research and development organizations, businesses and working life. There was a need for scope and scale.

EduCluster- clustering education

Starting with Optiimi -project it was developed model for a flexible and practical learning and innovation network. In Optiimi - project it was recognized the importance of education brokers which will connect the educational and regional sector together and bring "the Optiimi working practice" as a sustainable model to their own organizations and collaboration inspiring the learning together. EduCluster connected Optiimi network to the businesses and SME companies. Especially in the field of education and training it built up the cluster platform. This showed also the challenges of Public Private Partnership. Next step was to develop the capability of cluster-cluster collaboration. This enhanced the networking to global networks and started the export through Edu-Cluster Finland Ltd. Focus was in commercialization of know-how and professionalism especially in the field of education and innovation.

Skills and competences (VET Innovations)

Taitava Keski-Suomi (Skills Central Finland) - strategy recognized the importance of Skills brokers and develop vocational education to be more demand orientated. Strategically there have been six (6) streams having theme initiatives. 1)The development of curricula; Changes in the need of workforce and competences; On-the-job learning renewing the curricula, Quality and qualifications, Teachers competences and business relations enhancing collaboration of VET; Pathway to entrepreneurship in the education system and training 2) Professional development of teachers; New age teachers - inspiring knowledge, skills and entrepreneurship; Adult guidance in wellfunctioning labor market; Quality development in VET curricula through interaction 3) On-the-job learning and business relations; On-the-job learning place for entrepreneurship YOPPI; VET teachers in on-the-job learning in companies; National competition in Skills and qualifications 4) E-learning tools; Tools for e-learning in Central Finland (pedagogy); Mobile guidance for VET 5) Entrepreneurship and talented personal; Brokers for SME human resource development; VET and know-how in key business lines and clusters; School for international skills and on-the job-learning. 6) Wellfunctioning labor markets; Talent Market (Meet the Can-Dos) - open events to meet employers and students.

Knowledge Brokers for SMEs - enhancing the capabilities

Yritysten Taitava Keski-Suomi (Enterprise Skills Central Finland), has recognized the significance of Knowledge brokers between companies and educational organizations. It has enhanced the business network and given special notice to SME's knowledge and skills based competitive advantage. There is a strong idea of learning as a resource and enterprise as a learning organization. The driving forces are The Chamber of Commerce and Association of Entrepreneurs.

Entrepreneurship in policy and all levels of education

The two projects Y4 and Solid Pathway to Entrepreneurship have developed the atmosphere and mindset of entrepreneurship. Y4 -project has a mission to "create to Central Finland the best entrepreneurial milieu in the world". The project was awarded by EU as a best entrepreneurial initiative in EU. The practical work has been to make changes in different municipalities, educational and governance organizations in the attitude and decision making. Continuing this process the other project has created Solid Pathway to Entrepreneurship in all levels of education. Supporting these projects there are collaborative agreements and action plans for implementation.

Science to Business - ideas fast to practice

There was a need to more effectively exploit university-based research results and link them into products and services. At the University of Jyväskylä there was the will to increase the number of disclosed R&D -results and convey the R&D -staff of the importance and possibilities of technology transfer. The same kind of need was in JAMK University of Applied sciences. A big interactive activation campaign was planned to encounter the staff in their own environment.

The technology transfer staff of the university, pre-incubator environment Protomo and outsourcing services from small innovative companies like Business Arena Ltd were responsible for the action. Nearly hundred interactive, creative and captivating events were organized in order to encounter the researchers in a positive atmosphere. The operation model proved to be an effective way to inform, influence and move the scientific society towards transferring research results into the business life. The model was practical. The lesson learned was: "Go to the potential customer, the idea owner". Everything was based on huge amount of interaction, broker work and contacts People to People. So was born the story of "The Might of a Donut - University to Incubator"

Brokers supporting changes

The one main process is to build up the learning and innovation network. In all of these projects the "driving forces" have been Brokers and Interaction. So there are Edu Brokers, Skills Brokers, Knowledge Brokers, Innovation Brokers and Business Brokers. The key question to networks and organizations is- "what are the roles, mindsets and competences".

PRINCIPLES FOR PRODUCTIVE PROJECTS LEARNED

The strategic development starts usually from theory and in 2001 it was started in cooperation with the Ministry of Education an evaluation project called ALUEOSAAJA (Talent in regional development). One of the main purposes of the project was to define what could the concept of "learning region" mean in Central Finland and how the region is developed through the concept. Another purpose was to define the key elements for building the functional learning region and a guideline for coming projects. The key factors and guidelines for the projects according to ALUEOSAAJA evaluation were

Projects should

- Have a clear connection to the concept of learning region
- Have the main target to achieve sustainable impacts
- Be innovative and practical
- Have realistic implementation strategy and effective operation

- Define the ownership of the projects and productivity of funding
- Build sustainable learning and innovation networks

THE IMPACTS OF THE LEARNING REGION POLICY

In this paper it is not possible to evaluate all economical impacts. But as a glance of Central Finland there is the figure5 to describe regional economy factors in years 1990 -2010.



Figure 5. Glance of regional economy factors in Central Finland



Figure6 Education degrees in Central Finland (Human capital)

KEY POINTS AND LESIONS TO LEARN

Looking at the development and experiences in Central Finland and living through the learning region processes it is important to underline the following key points;

- The key players have to have common will and leading thoughts as well as the practical agreement of mindset for the People involved.
- The learning and innovation network is the resource for joint learning and working. Management of the network is management of relationships to empower enriching interaction.
- **Brokers** in the network are the catalysts, coordinators and network builders as well as knowledge managers.
- In different actions are needed the **on-line connection** to labor and business markets for forsighting the future. The key connections and dialogue are between business and working life, education organizations, development and governance organizations to create and maintain well-functioning labor markets. This the bases in Learning Region **to master the timing**.
- To have special capital and potential of knowledge, skills and entrepreneurship it is essential to have deep collaboration and Public Private Partnership in the field of education and training. This means **EduCluster thinking** and generates cluster development in the regional economy. EduCluster can be the competitive advantage in the region.
- **Competences and know-how** should be developed combining the knowledge, skills and entrepreneurship. This empowers the capability to build the regional human and social capital.

The final question

Learning region is a platform of regional interaction and development empowering Human and Social capital. It seems that it can support the innovation ecosystem and boost the regional competitiveness, cluster and innovations. Is there a role of learning region platform in the Science Park context?

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