Some specification of learning activities in the ICT sector – special focus on ICT clusters

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Structure of the presentation

- The Hungarian ICT sector
- The procedure of the research and the analyzed companies
- Findings of the research

Hungarian ICT sector I.

- Difficulties to make research in the sector: multiplicator effect to the other sectors as well
- TEÁOR ’08 (NACE Rev.) see excel

Hungarian ICT sector II.

- Two features can be described from the statistics :
  - The production part is well performed in the last 5 years > the Hungarian ICT sector belongs to the EU leaders (mostly because of EU/USA sister companies)
  - However the R&D&I field of the sector far behind Europe and the world leaders

Hungarian ICT sector III.

- According to the interviews, those parts of the ICT sector are successfull which reqiure less resources:
  - Because Hungarian ICT companies are not able to invest to infrustructure, high-technology and also not able to invest huge capital for ambigous innovation projects

Hungarian ICT sector IV.

- Most of the companies have the „ follower” (lag behind) attitude also on the field of R&D&I
- Modest production development and instead of discovering new field > avoiding to take risks

Hungarian ICT sector V.

- The Hungarian ICT sector can be split into three main groups (like the entire Hungarian business sector), these groups differ from each other in the R&D&I activities as well:
- a) sister companies of multinational companies
- b) Hungarian-owned large companies
- c) Hungarian-owned SMEs (but most of them are micro) companies

Human resources

- The ideal human resource not only well-qulified but also flexible and open to learn, creative, cooperate
- The structure of enterprises almost melting, the hierarchy and structure positions have very vage and weak boundries both vertically and horizontally
- Main aim: to be flexible, to be efficient, to solve problems
- The structure must reflect on the actual situation
- ICT workplaces are amongst others the most flexible workplaces in the world recently

Positive effects of clusterilazation

- Synergy
- Learning activties
- Mutual developing activties both professionalzation and businesswise
- Horisontal relationship among the members
- Democratic cooperation

Some negative aspects

- Universities, research institutes and multinational companies are the engines of clsuter, joining the domestic SMEs shows very vary results
- Frustration of the SMEs: the „speed” of large and multinacional companies is very different
- The leaders if clusters are not really rely on the knowledge of the SMEs > frustration for SMEs

Research

- Interviews: October 2010 – March 2011
- 20 interviewes (20 organizations)
- Interviewees: top managers or responsible persons from the management

Theoretical framework

- Workplace learning
- Networks learning
- Organizational learning

Clusters

- Cluster policy has been strenghtened in the last 3-4 years, 6 accredited iCT clusters amongst the 25 clusters
- Development phase of cluster:
  - strater (40-160 thousand euros for management, and service)
  - developer (40 - 600 thousand euros for management common invesment and service)
  - accredeted (100 – 600 thousand euros for R&D, infractructure)
  - „Pole innovation” (600 – 1800 thousand euros for

The researched ICT clusters

1. North Hungarian Informatics Cluster (www.infoklaszter.hu)

   est. in 2007, 40 members

2. North Great Plain Informatics Cluster (www.itclsuter.hu)

   est. in 2007, 28 members

3. Silicon Field Informatics Clsuter

   est. in 2008, 33 members

Interviews

- Groups of questions (5 groups 21 questions):
  - Short desciption of the field of activities, and the struture of the organisations
  - Indentifying factors, which influence learning in general
  - Learning activties related to the cluster
  - Learning process and forms related to the cluster
  - Difference between learning activities related to the cluster members and the other partners and clients

Companies

- Silicon Field Informatics Cluster (33 members), 20 were interviewed:
  - 10 micro
  - 3 small
  - 2 medium
  - 1 large

Transformation of learning activities during the cluster development phases I.

1. Starter phase:
   - open attitude, learning and knowing each other but mainly on the surface:
     - professional activities
     - organizational structure
     - personnel
     - competencies
     - networks, clients etc.
   - getting touch mainly on the horizontal levels between the members: learning starts

Transformation of learning activities during the cluster development phases II.

2. Developer phase (TRUST phase):

- more information and knowledge about the members/partners and more importantly about the employees
- the knowledge an expertise of the members are more cristalized
- the learning activties and forms (between the employees of the member companies) which has shaped in the starter phase will be clarify and stabilize

Transformation of learning activities during the cluster development phases III.

- The implemetation of the goals of the cluster starting:
  - role of the cluster members become more clear
  - members identify their role and could make their own SWOT in the cluster

Transformation of learning activities during the cluster development phases III.

3. Accreditation phase:

- restructuring the cluster > the different roles (according to expertise, busieness activites etc.) will be clear
- Three activties (and learning) circles in the cluster:
  - 1. circle: daily base connetion in order to implement the goals: learning activties become regular (members are the flagships of the cluster); the interest of the companies can be fulfilled
  - The learning activties become more focused

Transformation of learning activities during the cluster development phases IV.

- real partnership, what the partners would keep even the cluster would end its activties
- 2. circle: companies out of the center of the cluster
- less or very less activies (even the activties focusing on only the formalized way)
- however they still can see their interest (and hope to implement it) to stay in the cluster
- keeping them in the cluster is also becuse „club-feeling”, especially when there are „big names in the cluster” IBM, DELL etc.
- 3. circle: out of the cluster activties, but not formally

Transformation of learning activities during the cluster development phases V.

- 4. Pole phase: ??????