KNOWLEDGE SHARING IN FINLAND – CONSTRUCTION INDUSTRY APPROACH

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Goal

To describe the conditions of the knowledge sharing among four construction projects in Finland
Knowledge management (KM)

- obtaining and using resources to create an environment in which individuals have an access to information and in which individuals obtain, share and use this information to raise the level of their knowledge.

  (Brelade and Harman 2001),

Knowledge sharing

- Articulation: an individual succeeds in formatting the fundaments of his/her own tacit knowledge in a way that can be stored or formalised. This process of making tacit knowledge explicit allows it to be shared within an organisation.

- Socialisation: the sharing of tacit knowledge between people. Knowledge is therefore moved from tacit to tacit. It does not become explicit and the organisation as a whole cannot easily use it.

  Nonaka and Takeuchi 1995
Conditions of knowledge sharing

• Culture
• Structure of the organisation network
• ICT support

CULTURE

• Commitment
• Trust
• Appraisal
• Egalitarianism
• Slack
STRUCTURE OF THE ORGANIZATION NETWORK

• Organization of the project
• The network form
• The importance of changing people
• Communities of practice

ICT-TOOLS

• Repositories
• Routemaps
• Platforms
CASE STUDY

The four construction projects

- Renovation of a school that had mould problems, total area 7000 m² and budget of 4 Million euros. Project started 1997 and ended 2002.
- Renovation and partly new construction of a school that had mould problems, total area 3000 m² and budget 2.7 Million euros. Project started 1998 and ended 2005.
- Hospital for senior citizens, the renovation of the nursing home, total area 7 000 m² and budget 5.7 Million euros. Project started 1996 and is still on-going.
- University project, 24 000 m². Alteration of an old factory into a university and partly new construction. The project started 1997 and finished at 2004.

Culture

- employees had psychological bonds to their own company but not always to the project
- strong beliefs in the construction industry about what the parties value and how they act
- project managers did not reward knowledge sharing
- fairness was understood to be very important and the project managers tried to be open with every matter and all the made agreements were discussed openly in design meetings or site meetings
- status barriers often between the site workers and engineers and also between the users of the building and designers
- the project workers were always in a hurry (late decisions)
Organization

- The number of parties is huge (In one of the projects there were in total almost 200 users of the building: 77 people working in the building and in addition 120 patients)
- The whole construction project is a fragmented network
- One project had communities of practice
- Continuous change regarding who is the key player of the project and even who participates the project meetings

ICT support

- The ICT support was mainly in design stage
- Three of the projects had some kind of information on the Internet. – knowledge repository – often in paper and digital format
- Most of the communication happened via emails
Conclusion

• Knowledge sharing is essential for construction projects due to the complex nature of the industry:
• The knowledge sharing needs time and we should not set too tight timetables.
• A more general conclusion of our research is that challenges in knowledge sharing in projects do not only concern the flow of knowledge between, but also within projects.