Industrial Forum 2007
Co-Creating Innovation in Service-product development

Workshop 1
“Best in class solutions for Governance, Business models and enabling ICT in collaborative clusters“

Concepts for CNOs
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WHAT DO WE UNDERSTAND BY CNO (Collaborative Networked Organizations)?

“MANIFESTATIONS”

Concurrent Engineering

E-Business

Business ecosystem

Co-Cretion

Project

Breeding environment

Networks

Virtual lab

Virtual organization

Virtual enterprise

Professional virtual community

Virtual team

Extended enterprise

Virtual community

Supply chain

Community of practice

Collaborative networked organization
WHAT DO WE UNDERSTAND BY CNO?

A CNO

- Constituted by organizations and people:
  - largely autonomous
  - geographically distributed
  - heterogeneous in terms of their:
    - operating environment,
    - culture,
    - social capital and
    - goals

- Collaborate to achieve common goals

- Collaboration supported by ICT
In CNO collaboration is an intentional property that comes from the shared belief that together the members can achieve goals that would not be possible or would have a higher cost if attempted by them individually.
“In ten years from now most enterprises will be part of some sustainable collaborative networks that will act as breeding environments for the formation of dynamic virtual organizations in response to fast changing market conditions.”
Concepts: VBE, VO, PVC, VT

Different levels of commitments and rules possible
Concepts

Breeding Environment (Network)
Dynamic Virtual Organisations
Professional Virtual Communities

A holistic approach created

Horizontal infrastructure
Theoretical foundation

ESoCNET
Breeding Environment, some definitions

VO Breeding Environment (VBE) - represents an association or pool of organizations and their related supporting institutions that have both the potential and the will to cooperate with each other through the establishment of a "base" long-term cooperation agreement and interoperable infrastructure.

When a business opportunity is identified by one member, a subset of these organizations can be selected and thus forming a VO. A VBE is a more stable organization, though not static as new members can join and members can leave. A key facet here is “preparedness”, i.e., being ready – in terms of infrastructures, operating principles, trust, etc. – to get involved in a VO.
Virtual Organisations,
some definitions

The Virtual Organization (VO) is a temporary consortium of partners from different organizations established to fulfil a value adding task, for example a product or service to a customer.

Set of co-operating (legally) independent organisations

Provide services and functionality to the outside world as if they were one organisation

The lifetime of a VO is typically restricted: It is created from the VBE for a definite task and dissolved after the task has been completed.
Core Concepts (one-of-a-kind products)

Source: Matti Hannus, VTT, Globemen-project
COOPERATION OR COLLABORATION?

Networking – involves communication and information exchange for mutual benefit.

Coordinated networking – in addition to exchanging information, it involves aligning / altering activities so that more efficient results are achieved. Coordination, that is, the act of working together harmoniously, is one of the main components of collaboration.

Cooperation – involves not only information exchange and adjustments of activities, but also sharing resources for achieving compatible goals. Cooperation is achieved by division of some labor (not extensive) among participants.

Collaboration – a process in which entities share information, resources and responsibilities to jointly plan, implement, and evaluate a program of activities to achieve a common goal. Meaning “to work together”, can be seen as a process of shared creation; thus a process through which a group of entities enhance the capabilities of each other. It implies sharing risks, resources, responsibilities, and rewards, which if desired by the group can also give to an outside observer the image of a joint identity. Collaboration involves mutual engagement of participants to solve a problem together, which implies mutual trust and thus takes time, effort, and dedication.

[Denise 1999; Himmelman 2001;...]

NOTION OF COLLABORATION

Integration level

Networking

Coordinated Networking

Cooperation

Collaboration

Communication & Information exchange

Communication & Information exchange

Communication & Information exchange

Communication & Information exchange

Source: Luis M. Camarinha-Matos
SOME DIFFICULTIES IN COLLABORATION

Resources – ownership and sharing of resources is a typical difficulty, whether it relates to resources brought in by members or resources acquired by the coalition for the purpose of performing the task.

Rewards – finding a fair way of determining the individual contributions to a joint property is a rather challenging issue. Property creation is not linearly related to the proportion of resources invested by each party.

Profits – Losses – finding a fair way of sharing possible monetary profits or loss of a joint activity

Commitments – whenever there is an obstacle to the collaboration do parties respond as a whole, facing the consequences together, or do each one try to “save its neck”?

Responsibilities and Liabilities – a typical phenomenon in collective endeavors is the dilution of responsibility. A successful collaboration depends on sharing the responsibilities, both during the process of achieving the goal, and also the liabilities after the end of the collaboration.
Challenges in VBE Formation

In order to minimize potential future problematic situations the issues and difficulties related to collaboration must be settled in advance by a set of common working and sharing principles.

However, in any case setting up for collaboration is feasibly only if

benefits of a long term alliance to be > the costs of creating the preparedness for collaboration
Thank You!

Further information
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