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# User-Centred Knowledge Management

A Constructivist and Socialized View



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**Immanuel Kant Baltic federal university**  
 18.10.2012, Kaliningrad, Russia

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## Agenda

1. Introduction: Key Trend / What, Why of KM
2. Basic Model of KM / KM terms: Experience
3. Managing Work ≠ Managing Knowledge
4. Knowledge Iceberg
5. Defect Analysis of KM
6. Kant / von Glasersfeld / Maturana
7. Knowledge as Logic of Experience, Autopoietic Model
8. KM Design Principles
9. Community Learning, Social Theory of Learning
10. Knowledge Cooperation
11. FFHS Community of Research (CoRe)
12. Conclusions





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**Key Trend**  
**«Participative Working»**

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1. Distributed co-creation moves into the mainstream
  - Co-creation of products / services
  - B2C, C2C
  - Design, develop, market, support
  
2. Making the network the organization
  - Networks of employees across „siloed business units“
  - Social network as „pool of talents“ for projects
  
3. Collaboration at scale
  - Growth of knowledge work & knowledge workers
  - Need to understand knowledge work / collaboration
  - Technology by itself cannot foster collaboration

*Source: Bughin, J. et al., Clouds, big data, and smart assets: Ten tech-enabled business trends to watch. McKinsey Quarterly, August 2010*

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**Knowledge Management**

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**WHAT**

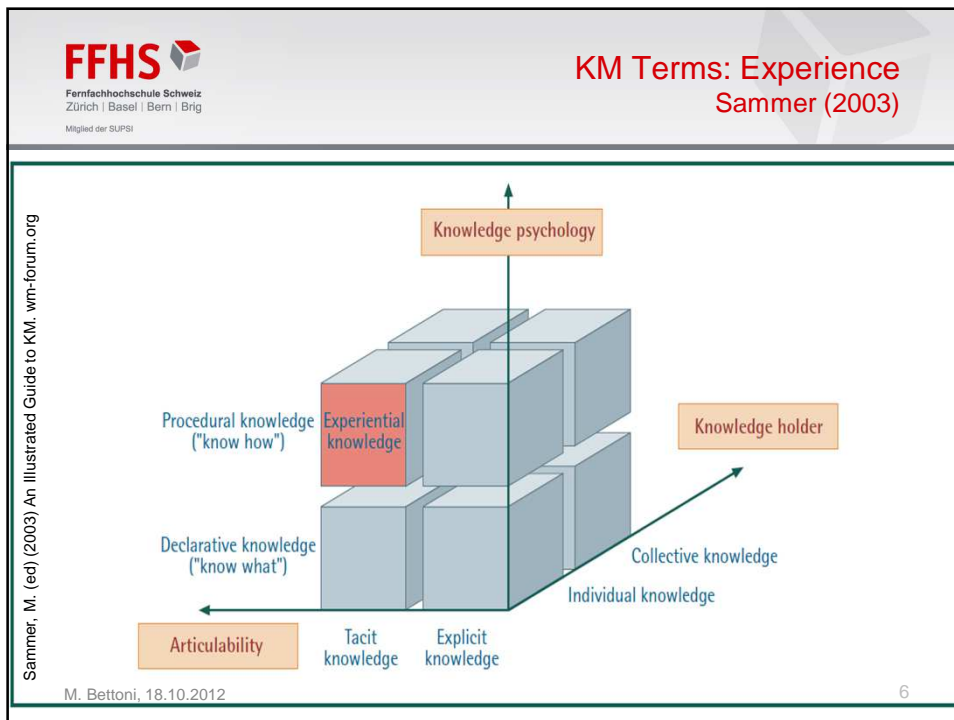
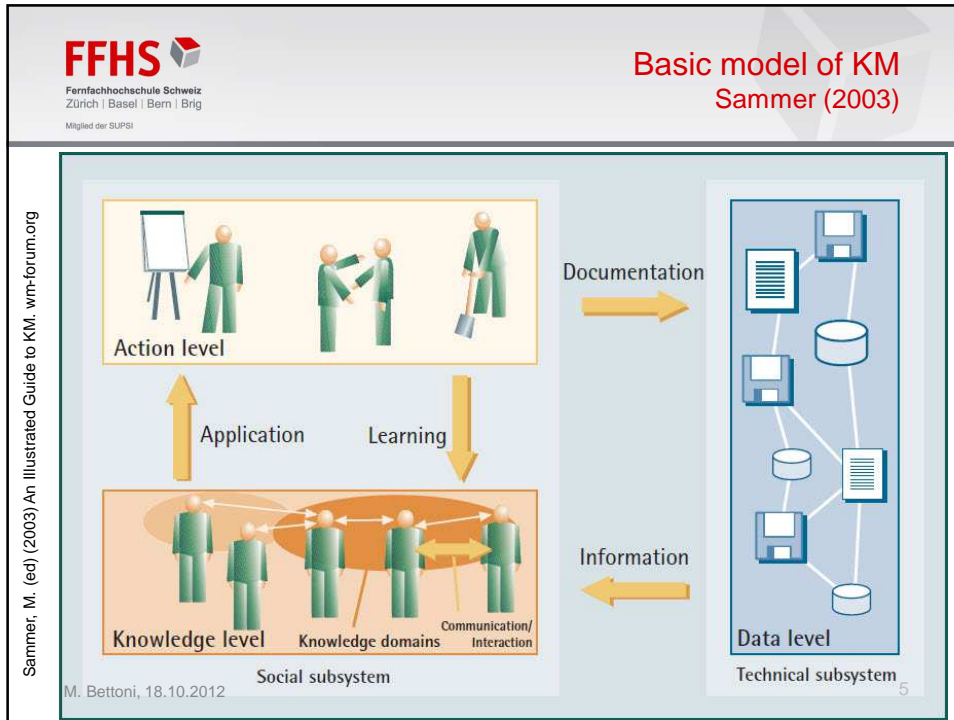
- the management of knowledge processes (not of "knowledge")
  - management = support & coordination, improvement initiatives
  - knowledge processes = creating, sharing, storing, applying, etc.
  - knowledge held by individuals / embedded in processes & practices

**WHY**

- Trend: Globalisation, rapidly changing markets & technologies
- Need: more flexibility (time to market, improve quality), innovation
- Objective: better use of knowledge available in the organisation

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**Managing work  $\neq$  Managing knowledge**


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**Traditional KM does not understand ....**

1) how to **put people in the center** of Knowledge Management?

↓

2) the approaches used to manage work **are not suitable** for managing knowledge

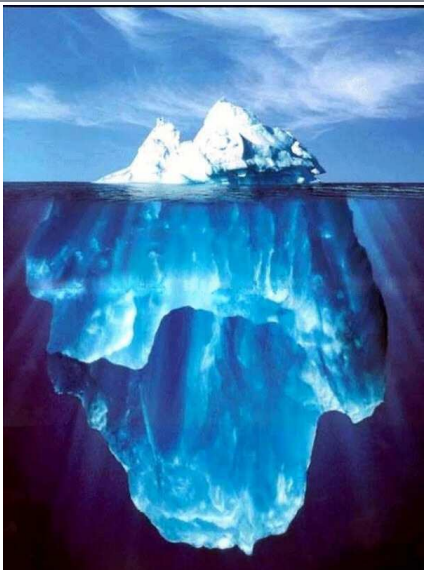


**Manage work  $\Rightarrow$  Manage knowledge**

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**Knowledge iceberg**



Traditional KM  
 sees only the tip

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In KM we need to become aware of the way  
we look at Knowledge, because ...

1. Importance attributed to knowledge ⇔ vague concept of knowledge (Schreyögg & Geiger 2007)
2. «Original Sin» of KM (Schneider 2001)
3. Process-Object duality of knowledge as an asset (Mentzas 2003)
4. Knowledge concept as framework for KM approaches and activities (Reinmann 2001); KM built upon sand (Matthew 7:26)
5. Knowing as fundamental human need (Maslow 1987, Aristotle)

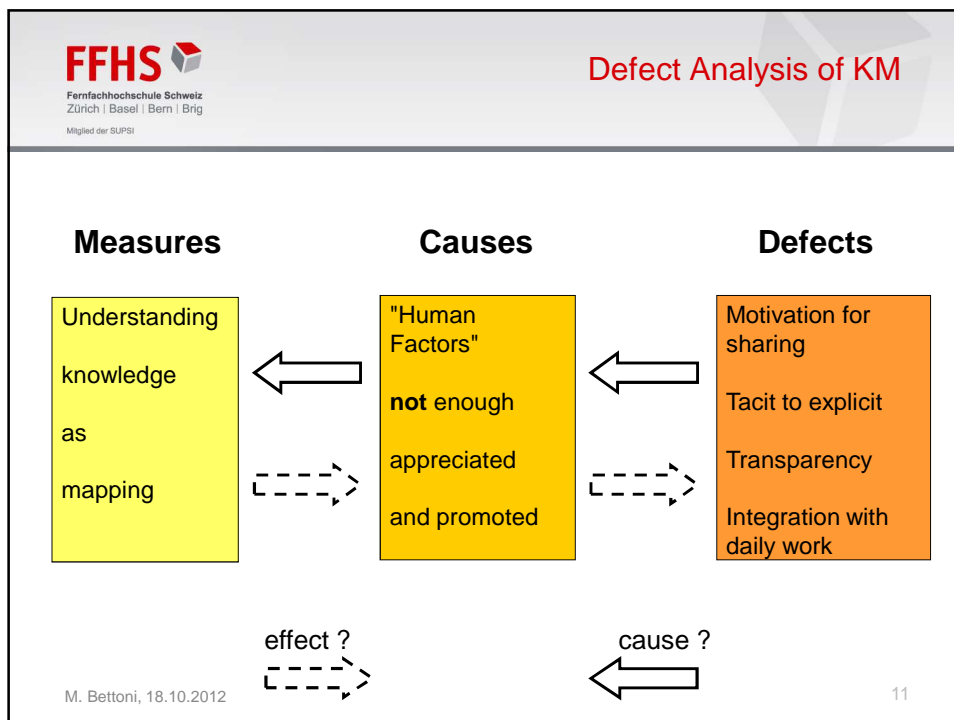
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Lessons from Knowledge Engineering (KE)

- KE = making explicit the tacit knowledge of experts
- Successful KE is possible => also successful KM
- Both require a new understanding of knowledge
- One that promotes the relevant human factors




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**A new Understanding of Knowledge**

- An understanding of knowledge that pays serious attention to the *human dimension* (Wheatley 2004)
- Becoming aware of the active, constructive role in cognition
- Sources: Immanuel Kant, Ernst von Glasersfeld, Humberto Maturana



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**Ernst von Glasersfeld**  
influenced by Immanuel Kant

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- All knowledge exists only in the head of people
- We can construct our knowledge only based on our own experience
- The world as we experience it is our own construction (Experiential reality)
- Validation of knowledge: Viability criterion (replaces ontological truth)
- Ontological reality cannot be grasped by rational means



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**Humberto Maturana**  
influenced by Immanuel Kant

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- A phenomenon is an experience (not something independent from us)
- I am aware that I have no way of making reference to anything independent from me to validate my explaining (objectivity in parenthesis)
- Our experiences can be validated only through our experiences
- Love is the emotion that constitutes social phenomena (through mutual acceptance)

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## Knowledge as Logic of Experience

1. Main function of knowledge: adaptation to situations
2. Core mechanism: construction of viable experiences
3. Physical state: tacit and explicit (articulated) knowledge
4. Knowing as autopoietic process
5. The “Water Logic” of Perception and Conceptualization

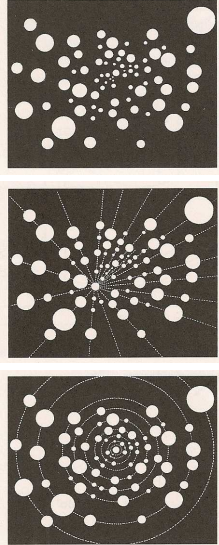
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## Example: Multiple Perceptions

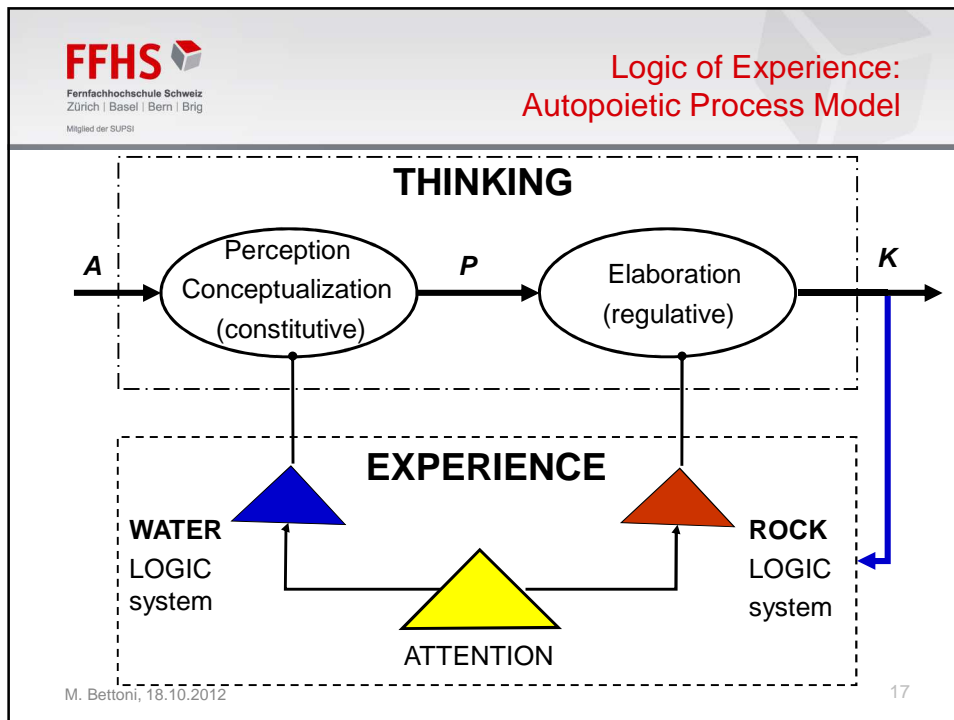
We must become aware ... of the possibility to have **multiple perceptions, all equally valid.**

*(de Bono, 1998, p. 75)*



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**Message for KM**

Understanding knowledge  
as "construction"  
(as "Logic of Experience")  
promotes  
the human factors

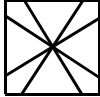


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## KM Design Principles

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	Constructive: How determines What
	Inseparable: Knowledge & its Owner
	Balance: Economic Constraints and Human-Social requirements
	Pact: Negotiate a knowledge contract
	Community: Networking of tacit & explicit knowledge

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## Knowledge Identity


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Principle:


- Whereas explicit knowledge is something we «have», tacit knowledge is something we «are»: it is constitutive of our identity.

Knowledge ...

- is unique to each individual / group
- must be respected as a constituent of the identity of the person / group who owns it
- dispossessing it negates the owner
- is *shared* only limitedly to the sense of “*taken-as-shared*”



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## Social Interaction for KM? Learning & CoP

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**Social Theory of Learning:**

*"Learning is changing participation in the practices of one or more communities."*

A Community of Practice is ...

... a group of people, who

- share similar challenges
- interact regularly
- learn from and with each other
- improve their ability to address their challenges



Etienne Wenger

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## Social Interaction for KM? Community Learning

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- *learners inevitably participate in communities of practitioners*
- *mastery of knowledge and skills requires newcomers to move toward full participation in the sociocultural practices of a community*
- *newcomers become part of a community of practice through a process of "Legitimate Peripheral Participation" (Lave & Wenger 1991)*




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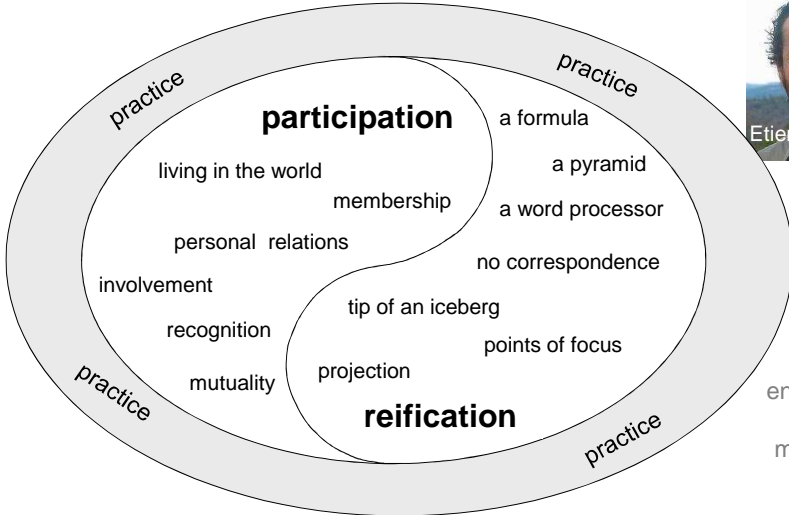
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**Social Theory of Learning**  
Negotiation of Meaning



Etienne Wenger



The diagram illustrates the Social Theory of Learning as a nested structure. An outer grey oval labeled 'practice' contains two overlapping white ovals: 'participation' at the top and 'reification' at the bottom. Inside 'participation' are terms: living in the world, membership, personal relations, involvement, recognition, and mutuality. Inside 'reification' are terms: a formula, a pyramid, a word processor, no correspondence, tip of an iceberg, points of focus, and projection. To the right of the diagram, the text reads 'world & engagement as meaningful'.

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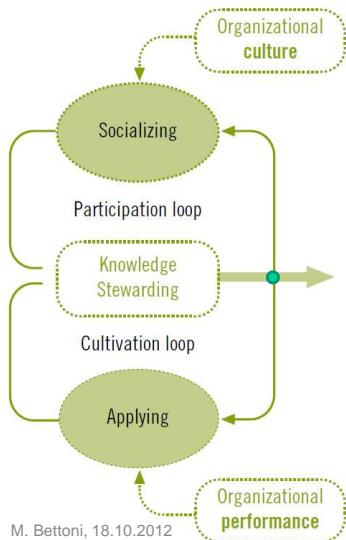
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**Knowledge Cooperation**

Participation loop

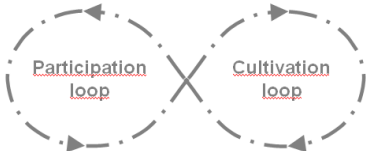
Cultivation loop



The diagram shows a vertical flow of four green ovals: 'Socializing', 'Knowledge Stewarding', 'Applying', and 'Applying'. Arrows connect them in a cycle: Socializing to Knowledge Stewarding, Knowledge Stewarding to Applying, Applying to Socializing, and Socializing to Applying. A central arrow points right from Knowledge Stewarding. 'Organizational culture' is in a dashed box above Socializing, and 'Organizational performance' is in a dashed box below Applying.

Participation loop

Cultivation loop



The diagram shows two dashed circular loops, 'Participation loop' on the left and 'Cultivation loop' on the right, connected by a central vertical line with arrows pointing in opposite directions.

Organizational culture

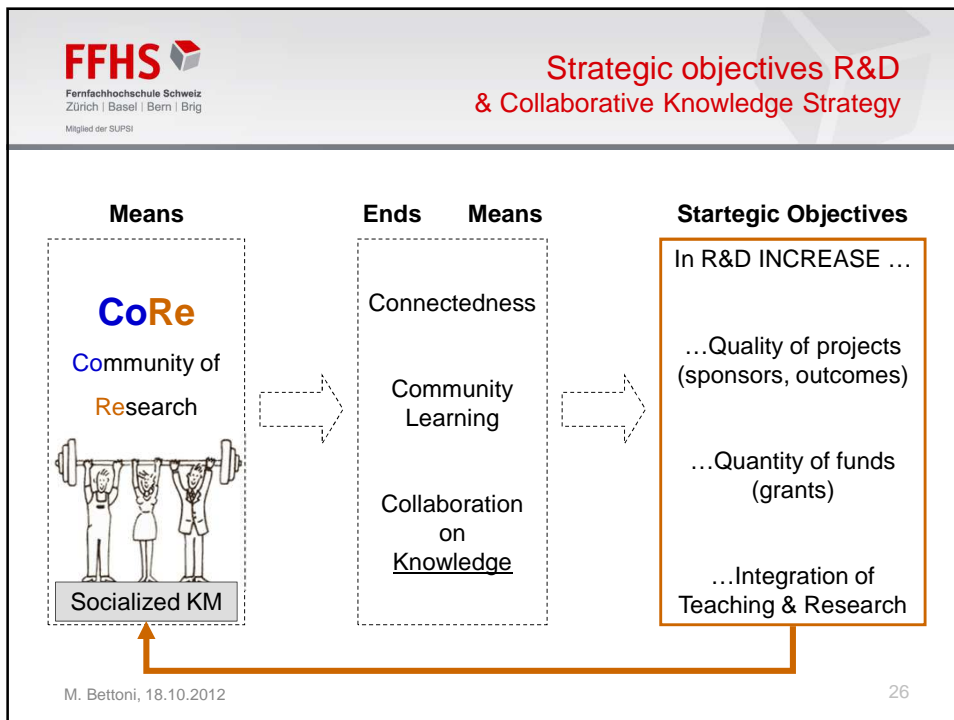
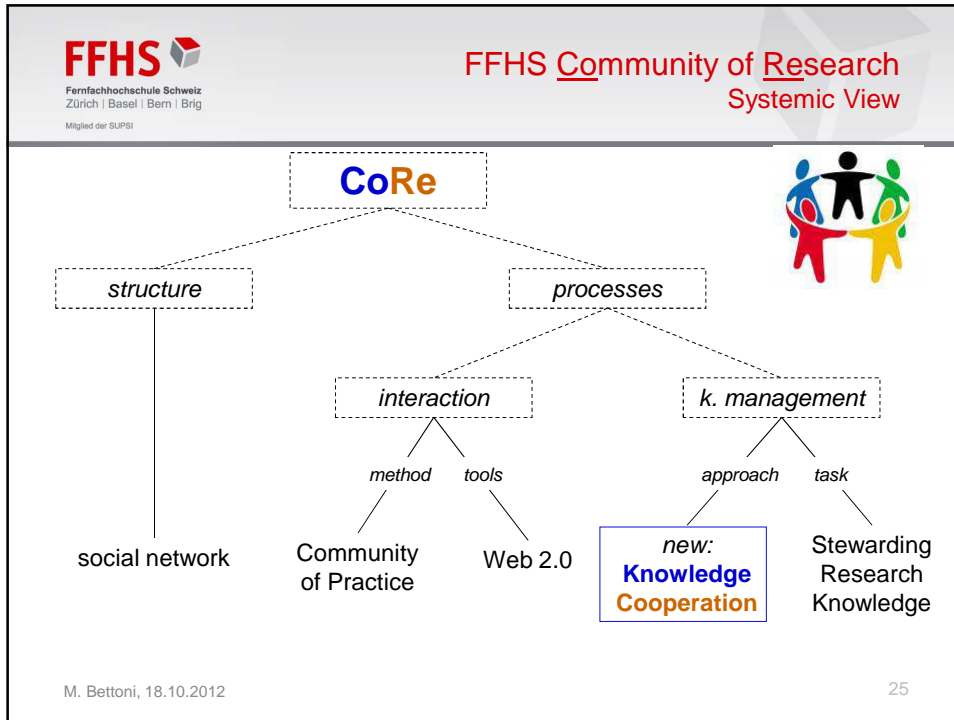
Organizational performance

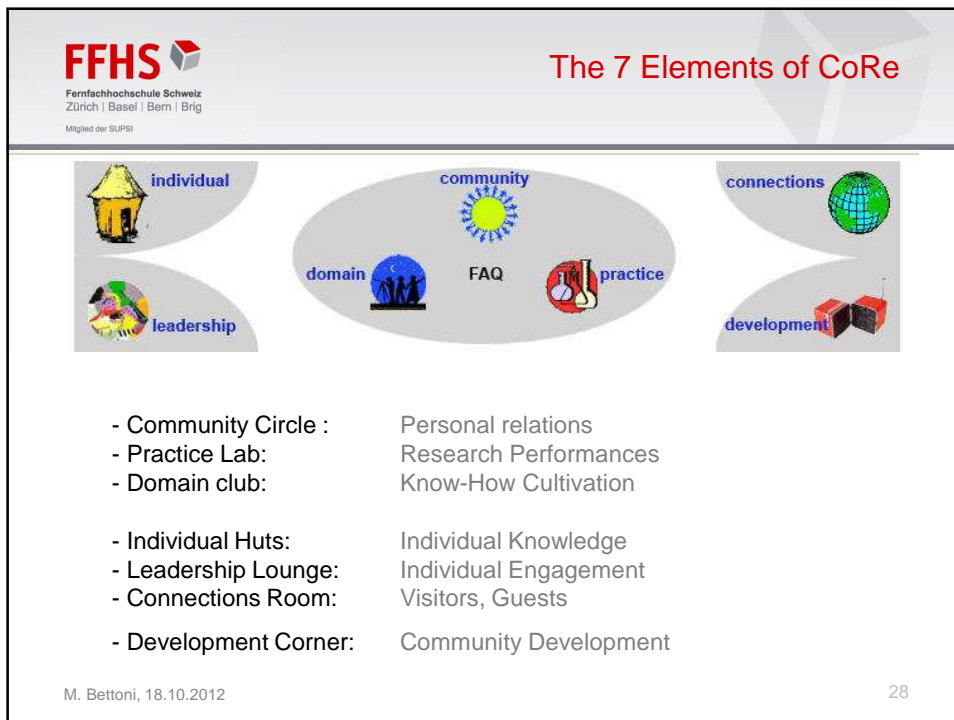
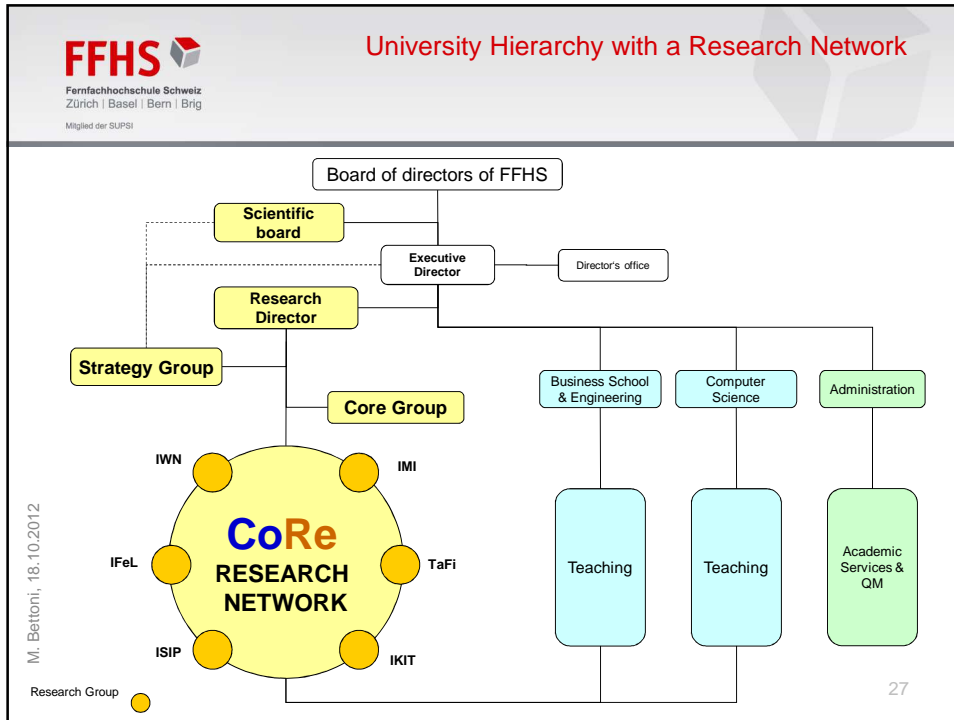
Participation loop


Cultivation loop

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## Lessons learned from the experiment 2005-2007

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- 1. Socialize KM (Social network & CoP & Knowledge Cooperation)**
  - Delivers Connectedness, Community Learning & Collaboration on Knowledge
- 2. Network vs. Hierarchy**
  - become aware of the power struggle ... and get out of it
- 3. Manage expectations**
  - 2.1 monitor perceived value; 2.2 explain delivered value
  - Organic growing needs time: educate your boss!
- 4. Autonomy vs. Guidance**
  - self-organization and voluntary participation
  - obligatory interactions and mandatory use of tools
  - 3.1 The silent novice** feels uncomfortable when he cannot provide "facts & figures"
  - 3.2 The prototype „deadlock“** Using waits for improvements & improving waits for usage
  - 3.3 Voluntary is not serious**
    - Work seen as "*serious but not fun*"
    - Voluntary activities in a CoP seen as "*fun but not serious*"
- 5. Facilitative Leadership**
  - "Conversational" type of leadership: creates opportunities for conversations
  - Leader: facilitator of negotiations of meaning (shared meanings, structures, methods)

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## Conclusions

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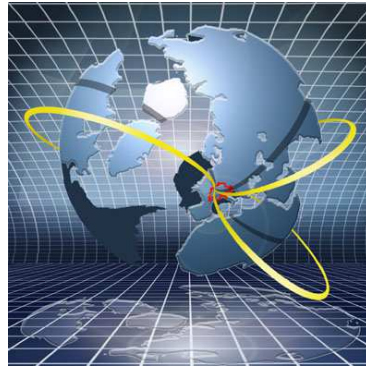
Seven interrelated means for implementing a user-centered KM:

1. Defect analysis of KM
2. Knowledge as «Logic of Experience»
3. Five Design Principles for KM solutions
4. Principle of «Knowledge Identity»
5. Model of «Knowledge Cooperation»
6. Architecture of a User-Centred KM-System
7. Insights from the CoRe experiment

Knowledge economy ⇔ Work economy : how different?  
Survival by love ⇔ Survival by power : different "fittest"!

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Thank you for your attention!

Picture by: Christian Vogler, [www.workonweb.ch](http://www.workonweb.ch)