Collaborative Course Development!

Thanks to my colleagues Prof. Dr. Markus Bick and Prof. Dr. Franz Lehner who have developed parts of the Knowledge Management Course which we taught together during the Jyväskylä Summer School Course 2011.

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Business Process Management

R&D → Marketing → Sales

R&D → Management

R&D → Services

R&D → Production A

R&D → Production B

Marketing → Sales

Marketing → Services

Marketing → Production A

Marketing → Production B

Sales → Services

Sales → Production A

Sales → Production B

Services → Marketing

Services → Production A

Services → Production B

Production A → Production B

Production A → Marketing

Production A → Sales

Production B → Marketing

Production B → Sales

Material Flow

Information / Data Flow
The Challenge: Key process classes

- Managing knowledge-intensive business processes
  - Which business processes require specialized knowledge?
  - How to capture process-related knowledge?
- Managing knowledge management processes
  - How to support business processes?
  - How to improve knowledge activities?
- Implementing knowledge management projects
  - How to plan and implement KM processes?
  - How to integrate business and knowledge processes?
Process orientation

- **knowledge-intensive (operative) business process**
  
  denotes a business process that relies substantially ‘more’ on knowledge; regarding organizations core competencies on the operative level: e.g., design products and services, produce products and services.

- **knowledge process**
  
  refers to a dedicated service or support process which supports the flow of knowledge within and between knowledge-intensive (operative) business processes: e.g., search, acquisition.

- **knowledge management process**
  
  kind of a ‘meta’-process that is responsible for the extensive implementation of the knowledge management initiative: e.g., organizational instruments, ICT instruments, controlling.
Business Process Management

Business Process
- a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. A business process has a goal and is affected by events occurring in the external world or in other processes (Hammer & Champy, 1993)

Types
- Core BP: Creating value (e.g. manufacturing, service provision)
- Management BP: planning, organizing, steering, monitoring [...] operations
- Support BP: no direct value creation but essential to achieve business goal
(Global) Business Process Management

Supporting business processes using methods, techniques and software to design, enact, control and analyze operational processes involving humans, organizations, applications, documents and other sources of information (v.d. Aalst et al., 2003)….in a global context / distributed settings
Some Issues

- How to identify the key knowledge intensive business processes?
- How to set up knowledge management systems?
- How to integrate knowledge / learning processes?

- How to analyze, design and optimize distributed processes?
- How to organize successful distributed teams? Which knowledge should be shared with whom?
- How to integrate additional processes?
  - Risk management
  - Coordination
  - Training & recruiting
  - Culture awareness & integration

- How to integrate cultural aspects? How to include cultural aspects in a location decision?
Analyze / Model

- Describing the current situation
  - Process modeling
  - Identification of knowledge-intensive processes
  - Identification of critical processes
  - Modeling (own organization and main partnerships)
    - Process description
    - Knowledge flows
    - Knowledge description
    - Knowledge levels (what can be shared)
  - Value knowledge
    - Most critical processes
    - Most critical knowledge areas
    - Most critical roles
## Process description

<table>
<thead>
<tr>
<th>ID</th>
<th>Category</th>
<th>Process</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HRM / Training</td>
<td>Course Planning</td>
<td>Individual course planning and course acquisition</td>
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</table>

### Sub-processes / Sub-aspects
- Competency assessment
- Manager consultation
- Content selection
- Selection: Inhouse or external training / face-to-face or E-Learning
- Provider negotiation

### Objective
- To find, perform and evaluate adequate courses to develop the competencies of staff members
- To select cost-efficient training providers
- To continuously monitor staffs’ performance
- Knowledge: To share knowledge on didactic success scenarios (important)
- Knowledge: Choosing culture-aware didactic scenarios (critical)
- **Barrier:** Lack of communication
- **Barrier:** Lack of data integration / willingness to share data
- **Barrier:** Culture related didactic differences

### Method
- Competency gap analysis
- Agreement / negotiation talks with managers and staff
- Human oriented instrument: Knowledge fair on didactics

### Systems
- HR Management System (competency profiles and learner data)
- Gap Analysis tool (excel)
- Tech-oriented instrument: Course catalogue with discussion and rating options

### Actors
- Manager, staff member, HRCS team member, training providers, internal trainers
Business Process Management in a Networked Business

Material Flow

Information / Data Flow

Routine

Important

Critical

Planning

Procurement

Manufacturing

Assembly

Maintenance

Shipping

…
Design / Optimize

Designing alternatives
- Process extension
  - Incorporate knowledge processes: Awareness creation, knowledge acquisition, knowledge sharing, ...
  - Change management
  - Process specification: what can and should be shared?
  - Set up knowledge management processes
- Process optimization
  - parallelization, automation, re-sequencing, automation of knowledge processes
  - Integration of processes
- Assessment
  - Cost calculation
  - Performance metrics
  - Quality metrics
  - Simulation
- Identification of re-design candidates
- Negotiation and evaluation with all stakeholders

Design / Model
- Analyze
- Optimize
- Monitor / Control
- Enact / Realize
Knowledge Management Framework

Core Knowledge Activities (CEN, 2004)

Five core knowledge activities:
- **identify, create, store, share and use.**
- Supported by the right KM methods and tools

Requirements have to be fulfilled to achieve improvements
- Integration / alignment of core activities with organizational processes and daily tasks.
- **Carefully balanced** in accordance with the specificities of each business process and organization. A KM solution should not focus only on one or two activities in isolation.
Knowledge Management Framework
Core Knowledge Activities

Knowledge Management Tasks (Maier, 2004)

- creation, building, anticipation or generation
- acquisition, appropriation or adoption
- identification, capture, articulation or extraction
- collection, gathering or accumulation
- (legally) securing
- conversion
- organization, linking and embedding
- formalization
- storage
- refinement or development
- distribution, diffusion, transfer or sharing
- presentation or formatting
- application, deploying or exploiting
- review, revision or evolution of knowledge

(Probst & Romhardt 2000)
Design / Optimize

Designing alternatives
- Identify relevant processes
- Identify knowledge management process type: identify, create, store, share and use (or more detailed one, e.g. Maier’s tasks)
- Create extension knowledge management process
  - Mark context influences and barriers
  - Define responsibilities
  - Define sequencing
  - Re-write process model and job description

Change Management
- Assess potential barriers
- Provide awareness instrument
- Provide training

Assess and validate
- Execution / realization?
- Performance
- Further metrics / analysis
## Process: Knowledge Acquisition

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<tbody>
<tr>
<td></td>
<td>KM Process</td>
<td>Knowledge Acquisition</td>
<td>Acquiring knowledge from external source</td>
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<td></td>
<td></td>
<td>Sub-processes / Sub-aspects</td>
<td>- Knowledge requirement specification</td>
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<td></td>
<td>- Bidding</td>
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<td>- Bid selection</td>
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<td>- Negotiation</td>
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<td>- Contracting</td>
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<td>- Training</td>
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<td></td>
<td></td>
<td>Objective</td>
<td>- To acquire critical knowledge from external experts</td>
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<td></td>
<td>- To acquire knowledge on Japanese customer preferences until 2013</td>
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<td></td>
<td></td>
<td>Constraints</td>
<td>- Knowledge: To acquire knowledge</td>
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<td></td>
<td></td>
<td></td>
<td>- Context: No internal experience on target market</td>
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<td></td>
<td></td>
<td></td>
<td>- Context: Cultural influence on market approach</td>
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<td></td>
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<td></td>
<td>- <strong>Barrier: Lack of communication</strong></td>
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<td></td>
<td></td>
<td>- <strong>Barrier: Culture related differences</strong></td>
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<td></td>
<td>Method</td>
<td>- Call for bids</td>
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<td></td>
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<td></td>
<td>- Competence assessment</td>
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<td>- Kick Off workshop</td>
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<td></td>
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<td>Systems</td>
<td>- Call for bids in business network</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Competence specification and assessment tool</td>
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<td></td>
<td>- Tech-oriented instrument: Culture specification</td>
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<tr>
<td></td>
<td></td>
<td>Actors</td>
<td>- Manager, staff member, HRCS team member, training providers, internal trainers</td>
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## Process: Knowledge Sharing

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<tr>
<td>KM</td>
<td>Process</td>
<td>Knowledge Sharing</td>
<td>Sharing knowledge between Far East Sales Representatives</td>
</tr>
</tbody>
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### Sub-processes / Sub-aspects
- Sales protocol
- Sales good practice (GP) reporting
- GP database entry
- Notification
- Related process: Sales / Order Processing (parallel)

### Objective
- To share knowledge on sales processes in Japan, Korea, China
- To create a network of sales representatives in the Far East region
- Knowledge: Sales initiation, presentation, negotiation, contracting, key account relation building

### Constraints
- Context: Partial lack of knowledge on target market
- Context: Sales representatives from sales agency (Japan, China)
- **Barrier: Cultural differences: Communication, negotiation, trust**
- **Barrier: Fear of power loss, lack of time**

### Method
- GP reporting (part of sales process)
- GP fair
- Sales incentive trip

### Systems
- GP database
- Sales network
- Sales Blog

### Actors
- Manager, sales managers, sales representatives, external sales partners
Process Integration (Remus & Schub, 2003)
Process Integration (Remus & Schub, 2003)
Process Integration
(Remus & Schub, 2003)
Integration of E-Learning and KM

Business Process

Knowledge Management

Knowledge Management

Requirements analysis
Design
Implementation
Test
Roll Out

Knowledge and competency requirements and needs

Problem descriptions and solution:
Context, sequences, experiences, actors

Scenario extraction:
sequences, contents

Scenario extraction:
sequences, contents

Learning experiences

Knowledge identification
Knowledge development
Knowledge sharing

Knowledge maintenance and distribution

Context, sequences, experiences, actors

Problem descriptions and solution:

Learning experiences

Knowledge and competency requirements and needs
Further aspects

- Modeling across cultures and organizations, multilingual modeling
- Collaborative Modeling
- Participative Modeling
Participative Modeling

Summary and Outlook

- Networked businesses and globally distributed processes require new analysis instruments.
- Knowledge management, change management and culture management play a key role.

Challenges across borders
- Additional processes (risk, coordination, culture)
- New barriers (in particular cultural barriers)
- Understanding tool, instruments, interventions based on the context and barriers

Key role for Knowledge Managers
- Understanding processes
- Analyzing and validating knowledge needs and requirements
- Designing and integrating interventions
- Designing change processes
- Validating solution
Remember? We just managed this part…
GKM Design (1)

Design Knowledge Processes
Aligned with the context, you should…

- Design potential knowledge processes
  - Specify processes
  - Embed with business processes
  - Agree / integrate with international collaborators
  - Prepare change processes

- Knowledge description
  - Develop knowledge descriptions / standards
  - Incorporate collaborators
  - Develop problem specifications
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