The KMS Road Map

The first phase: evaluation of the infrastructure and aligning KM and business strategy.

The second phase: KM system analysis, design, and development.
- Knowledge audit and analysis.
- Designing the KM team.
- Creating the KM system blueprint.
- Selecting KM technology
- Developing the KM system.

The third phase: KMS deployment.
The final phase: measuring ROI and performance evaluation.

Amrit Tiwana, 2002
KMS Step by Step

- Begins with planning
  - Form an cross-functional/multidisciplinary acquisition team according to the skills required
- Search for the information about KM systems matching knowledge processes in the organization
  - Vendor awareness session, vendor demonstrations, demo evaluation,
  - Evaluate suitability of cost and IT infrastructure
  - Feasibility testing
- Requirements definition:
  - Functional requirements;
  - Current technological environment
- Evaluation of human resources and management factors
  - Establish selection criteria;
  - Change management issues
- Ends with negotiations

AS 5037(Int)-2003
Standards Australia
Knowledge Management Model

KM must be aligned with organisational strategy, articulated through its drivers, analysed through the elements of people, process, technology and content, and implemented through its enablers to develop organisational capability and culture.
Standards Australia: Interim KM Framework

Knowledge Alignment
- Context
- Analysis
- Planning

Knowledge Processes
- Sharing
- Acquisition
- Creation

Knowledge Foundation
- Culture
- Technology
- Sustaining Systems

Establish the knowledge processes needed to achieve organisational objectives.
Establish the foundation needed to support required knowledge processes.


KMS in Context

Alavi, 1997

Knowledge Creation/Acquisition
Knowledge Storage/Organisation
Knowledge Distribution
Knowledge Application

Socio-Cultural Issues

Technology
CEN European KM Framework: Core Knowledge Activities

Knowledge Processes Cycles

Sharing Cycle (knowledge repository)

Innovation Cycle (knowledge creation & application)

### Knowledge Sharing: The SECI Model

<table>
<thead>
<tr>
<th>Socialisation</th>
<th>Externalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tacit to Tacit</td>
<td>Tacit to Explicit</td>
</tr>
<tr>
<td>Explicit to Tacit</td>
<td>Explicit to Explicit</td>
</tr>
</tbody>
</table>

#### KMS Objectives
- Support for knowledge work
  - must include the productive and cognitive aspects of the activity
  - doing, thinking, communicating
- Address all levels
  - individual, group, enterprise
- Focus on knowledge processes
  - making internal knowledge visible and external knowledge accessible
  - ensure knowledge is deployed
  - emphasis on knowledge production
- Development of human capital (personal skills/knowledge)
  - learning
  - sense-making
  - reflection
Implications for the Lifecycle

- The KMs lifecycle is not linear
  - multi-dimensional - need to address (contradictory) requirements relating to many different aspects of organisational life
  - temporal - requirements change with use
  - emergent - complexity of KM determines that requirements are not known but emerge in use
- Knowledge is not static
  - exists in action
  - contextual
  - Situational

A challenge: can you represent the KMS lifecycle (but which KMS?)

A Linear Lifecycle

The Waterfall Model

Implications of a Lifecycle

- A Lifecycle (objective and normative)
  - has a beginning and end
  - can be defined
  - has identifiable stages
  - is limited and constrained

- Knowledge (socially constructed)
  - is evolving
  - changes through use
  - can be reinterpreted
  - is not invariant

*KMS is a designed artefact that is a negotiated compromise*
Organisational Design: A Historical View

<table>
<thead>
<tr>
<th>Type of Org</th>
<th>Dominant Structure</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>Functional division</td>
<td>Expertise under hierarchical control</td>
<td>Functional silos</td>
</tr>
<tr>
<td>Multi-divisional</td>
<td>Business unit</td>
<td>Integrates functional expertise</td>
<td>Boundaries impede learning &amp; knowledge transfer</td>
</tr>
<tr>
<td>Project-based</td>
<td>Project team</td>
<td>Customer focus market agility</td>
<td>Short term focus learning localised</td>
</tr>
<tr>
<td>Knowledge-based</td>
<td>Community of practice</td>
<td>Integrates competencies into the org</td>
<td>Competing priorities</td>
</tr>
</tbody>
</table>

Communities of Practice (CoP)

- CoP
  - informal structures
    - business function
    - social practice
    - identity
  - intellectual leadership
    - develop members capabilities
    - build knowledge by learning together

- Require
  - supportive environment
  - infrastructure to support activities
    - do not have a budget
    - resources
    - coordination with formal structures
  - non-traditional methods to measure value
CoP, Learning and Innovation

- Participation in CoP involves:
  - production of continuity
  - displacement of established practices
- Learning integrates knowledge and practice and involves
  - internalisation
  - articulation
  - transformation
  
  *Learning is about participating in a community - becoming a practitioner*

- Innovation occurs at the same site as learning
  - community revision of its relationship with environment
  - discovery - efficient reaction to change (discontinuity)
  - enacting - proactively construct its environment
  
  *Innovation is about seeing the world anew*

Organisations as Communities-of-Communities

- Fostering work, learning and innovation
- Aligning organisational views with members’ understanding
- Legitimise and support activities that enact and discover
- Provide autonomy to communities
- Organisations need to be reflectively structured
Information Wards: The Politics of Information

An information ward (IW) is the combination of data and associated business processes that is perceived by an organizational actor as being owned and controlled by the actor or which the actor perceives they should own and control.

The political information ward (PIW) is the subset of that actor's information ward (IW) over which action will be taken to defend against any threat to its ownership and control, or which the actor will aggressively seek to gain ownership and control.

Warn&Hart, 1996

Potential for Conflict

- Negotiable
- Irreconcilable
- Confrontational
- Terminal
Enterprise-wide information system

Information Wards and KMS

- Which one can a KMS get access to?
- Which one should a KMS get access to?
- When does the KMS access either?
- Why it is important to answer these questions?
References

- Wenger, E., 2000, Knowledge and Communities, Butterworth-Heineman, p3-20