Knowledge Management Projects in Practice

WK-8
Welcome to Teltech.com

Teltech is now Sopheon, a leading international provider of software and services.

Teltech users may click here to log into Teltech.com

Click here for more information about Sopheon
Our History

The company began in 1993 as Holland-based PolyDoc. Building on unique competencies in linguistics and language management, Sopheon created software applications that allowed organizations to capture knowledge through structured authoring tools, terminology management and thesauri. This technology was focused on enhancing specific processes such as hospital protocol management and the sharing of quality standards.

In November of 1999, Sopheon added knowledge harvesting and content dissemination to its competences by acquiring AppliedNet, a leading UK supplier of knowledge management solutions and products with particular skills in search and portal technologies. As well as extending the intellectual property of the group this acquisition brought real strength in implementation services and significantly expanded Sopheon’s market presence in the UK.

With strong software tools in place, Sopheon next looked for an opportunity to gain a foothold in the U.S. market and to integrate content into its solutions. In September 2000, Sopheon completed the acquisition of Teltech Resource Network Corporation, a leading U.S. knowledge management and research services organization. With a 16-year history, Teltech immediately gave Sopheon a diversified, blue chip U.S. client base.

In July 2001, Sopheon acquired the Technology and Information Services division ("AIT") of Aventis Research & Technologies, Frankfurt, Germany. Originally formed as the Scientific Information Department of Hoechst A.G. - Central Research, AIT was converted to profit-centre status in 1998 when it extended its service reach to include a growing number of customers outside the former Hoechst group. Its capabilities and activities are highly complementary to Sopheon. The acquisition will immediately give Sopheon a substantial presence and customer base in Germany and in the life sciences market, including a relationship with one of the world’s leading pharmaceutical companies.

In November 2001, Sopheon acquired Orbital Software, a leading provider of knowledge sharing and collaboration solutions. Orbital’s technology captures questions and answers for reuse, and directs users to sources of expertise. The acquisition expands Sopheon’s offering to R&D communities through expertise sharing software that dramatically enhances innovation and productivity, reduces time to market and maximizes the value of corporate intellectual capital.
Share price performance in the last 12 months

(Data updated to 23 October 2002)

Source: Thomson Financial

Select Share Monitoring Service to plot performance against other companies and indices.

By using the drop down boxes below you are able to benchmark your chosen company against the FTSE Indices and FTSE Sectors. Please select the registered options and select refresh.
### Stock Quote for SOPHEON PLC

**As of 21-Oct-2002**

<table>
<thead>
<tr>
<th>Splits: none</th>
</tr>
</thead>
</table>

- **Last Trade:** 9:51am - 6
- **Change:** 0 (0.00%)
- **PrevCls:** 6 1/4
- **Open:** 6.20
- **Volume:** 773,554

- **Day's Range:** 6 - 6 1/4
  - **Bid:** 4 1/4
  - **Ask:** 6 1/4
  - **P/E:** N/A
  - **Mkt Cap:** N/A
  - **Avg Vol:** 198,737

- **52-wk Range:**
  - **Bid Size:**
  - **Ask Size:**
  - **P/S:**
  - **Dw/Shr:**
  - **Div Date:**

---

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved
What Clients Say

*Sopheon Due Diligence Helps Biomet Assess Joint Venture Opportunity* (PDF, 147kb). Looking for objective, reliable research, Biomet turned to Sopheon.

“Sopheon’s research portal for Armstrong is a state-of-the-art way for our employees to find answers to business and technical questions. It blends the speed and economy of a ‘search-on-your-own,’ Web-based portal with the skills and know-how of the Sopheon research staff and network of experts.”

Jo Tyler, Vice President of Organizational Development
Armstrong

*Ericsson Connects its workforce with Organik* (PDF, 42kb). Ericsson’s need to address the business critical challenges of rapid growth, time to market and organizational fragmentation warranted the need for a coherent knowledge management solution. Read the full story here

*Information Co-Sourcing Key To Adding Value At Glaxo SmithKline* (PDF, 146kb). Sopheon’s flexibility opened the door to a workable solution.

“Access to Sopheon’s experts is like having an unlimited staff to keep me abreast of current and new technologies and to act as sounding boards for discussions in areas that fall outside my area of expertise.”

William Ryszytewskyj, Development Associate
Coming, Inc.

“Sopheon’s research helped reduce our lead time for a new business venture from 12 months to four.”

Richard Salomone, Director
3M
Epitaph: Ex-Post Analysis: Orbital / Sopheon

- Knowledge management is the ongoing creation, capture, preservation, and management of information. This gives employees, customers, partners, and companies the resources needed to be more efficient and productive.
KM Projects in Practice

- KM world of budgets, deadlines, politics, culture, leadership
- People, technology, processes, K
- KM project as unit of analysis ???
- 31 different projects, 20 different firms
- 4 firms visited, rest telephone interviews
- High level typology of KM projects
- Success factors for w-I-p KM projects
Types of KM Projects

• Knowledge repositories
• Improve K access
• Improve K culture and environment
• What do you think???
• How does this relate to 10-step KM???
• How does this relate to the Performance Oriented Paradigm of KM
• What is the state of KM world today???
Dimensions of KM Performance

- Non-Routine
- Increasing Returns

- Hi Structure to Lo Structure
- From Stable to ‘White Waters’ (Speed, Range)
- From Routine to Non-Routine

‘White Waters’

KM for Whitewaters
K Repositories – K as “it”

- **External K** – for CI or BI
- **Structured internal K**
- **Informal internal K**
- **Extracting Tacit K** – Community solutions and lessons learned solutions (discussed in previous sessions)

What is the current state of above three??
K Access and Transfer

• Story of Teltech
• What was their business model?
• How did they incentivize K sharing?
• What can you learn from them????
• Where is the state of KM World today???
K Environment

- Skandia and its internal audit
- Other companies – know what we know but we don’t know that we know
- External, internal, bridge goals of K processes
- Relate to CRM, ERP, SCM, etc.
Success and Measurement

- How much more funding for KM?
- How much use and volume of K?
- Accumulation of critical mass and top level support
- Comfort with K and KM ????
- Evidence of some ‘returns’ – financial ???

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved
Success Factors of KM

• K-oriented culture
• Technical and organizational infrastructure
• Senior management support
• Link to economic or industry “VALUE”
• Process orientation
• Nontrivial motivation aids
• Some level of K structure
• Multiple channels of K transfer.
10-Step / 4-Phase

Phase 2 and Step 4

Audit Existing Knowledge Assets and Systems

KMT-8
Knowledge Audit – Recommended Approach

• Determine **Where You Are**
  – Existing CVPs and BVPs
  – Existing K Processes
  – Existing K-Inputs and Resources

• Determine **Where You Want to Be**
  – Desired CVPs and BVPs
  – Desired K Processes
  – Desired K-Inputs and Resources

• Determine **How to Bridge the “Gaps”**
The Knowledge Audit

The journey of a thousand miles starts with a single step

The transformation to the knowledge-driven enterprise is a long and complex journey, but it starts with one vitally important step: the creation of a Knowledge Vision and Strategy.

Cap Gemini Ernst & Young can help organisations take this first step with an Audit of their current knowledge strategy, systems and processes. The K-Audit service, delivered by Cap Gemini Ernst & Young with the support of Microsoft, will help organisations ask questions such as:

- Does your organisation frequently re-invent, processes and business content?
- Do your people know where to look and how best to access important information and knowledge?
- Are key decision making processes clearly articulated and effectively implemented?
- Do you have a broad base of skills and expertise, but find it hard to share this
Testing the Waters: Harvesting Knowledge Through Internal Audit

Terry Puchley, Global Knowledge Manager, Internal Audit Services

Reprinted from PricewaterhouseCoopers' original Web Journal, re:Business

Corporate power, profitability, and success all can be linked to one word: knowledge. Companies that best recognise and exploit the vast stores of knowledge disbursed throughout their operations have seized a crucial competitive advantage.

They understand that they must erase the lines of departmental division if they are to establish an effective Knowledge Management system. And Internal Audit is well on the way to achieving this goal. Author Terry Puchley makes the case for merging Knowledge Management systems into Internal audit to achieve the best results -- throughout and across business lines.
The Knowledge Audit

What is it?

A K-Audit is a study, carried out by Cap Gemini Ernst & Young consultants with the support of Microsoft technologists, that helps you to understand the real knowledge drivers for your business, the technology platforms you need to fully exploit these drivers, and how to link the two effectively through the way your people use them.

For example, ask yourself today:

- Do you have an Intranet? Do you know if it is delivering any business benefit?
- Do you have E-mail? Do all your people connect to it? Are they fighting a constant mail overload battle?
- Do you have document management? How many documents in your electronic library are out of date?
- Do you have a global view of your people’s skills? How easy is it to form teams or locate experts quickly?

The answers to these questions involve a complex analysis of the way people, technology, process and content interact. This is what Knowledge Management is about - recognising meaning and value and the means to exploit it in your business.

A K-Audit will help both identify and understand the key issues and opportunities, and show a way forward.
1. KNOWLEDGE AUDIT
   Jay Liebowitz
   R.W. Deutsch Distinguished
   Professor of Information Systems,
   UMBC; (LIEBOWIT@UMBC.EDU)

2. What Do You Hope to Learn?
   • Further background on KM
     processes and the role of the
     CKO in the organization
   • Knowledge management
     methodology
   • Knowledge audit process
   • Practical advice about
     knowledge audits

3. Knowledge Management
   Process
   • Developing new knowledge
   • Securing new and existing
     knowledge
   • Distributing knowledge
   • Combining available knowledge
   • Important element --
     Connectivity

4. "What is a CKO?" (Earl and
   Click to add notes

Jay Liebowitz
R.W. Deutsch Distinguished
Professor of Information Systems,
UMBC; (LIEBOWIT@UMBC.EDU)
Knowledge Audit
First Important Stage of KM
Without a Knowledge Audit Your KM is Likely to Fail
The K-Audit will give an insight into the company's current knowledge health
it will allow for the mapping of knowledge resources within the company

how well knowledge is being captured and managed

how well business processes support knowledge sharing

Try our 2 Minute Sample Online-K-Audit
What is a K-Audit
SnapShot K-Audit
Information Audit
Why a K-Audit
Sample K-Audit Proposal
Knowledge Audit Articles
Portal Wars

Conduct a knowledge audit to clarify your portal plans

By Claudia Willen

The enterprise information portal (EIP) market is expanding, as more vendors toss their portal-building tools into the ring. Many solutions are leveraging XML as the fastest way to aggregate content originating in a wild variety of sources, applications, and platforms. Oracle is offering a five-day portal solution in its FastForward Enterprise PortalRPM (rapid pre-configured model), complete with content and services partners to help you come within shouting distance of the five-day deployment goal. IBM is launching EIP 7.1, based on its DB2 Universal Database, which includes limited-use editions of WebSphere Application Server and MQSeries Workflow. Other emerging portal contenders are Sequoia Software, which recently announced XML Portal Server 3.0, Verity Inc. with Verity Portal One, and Insight Softwares Categorizer and Summarizer portal tools derived from technology developed at Xerox PARC (Palo Alto Research Center).

The reason for the accelerating activity in the portal world can be traced to optimistic estimates from analysts at Merrill Lynch and Summit Strategies predicting an EIP market in excess of $14 billion by 2002. A recent GigaFlash report from the Giga Information Group entitled Portal Market Poised for Shakeout reveals that application integration and application server vendors are entering the EIP market, traditionally dominated by knowledge management (KM), DBMS, and business intelligence (BI) vendors.
Knowledge Audit and Analysis

- Purpose of K audit
- Bohn’s Stages of K growth to ‘measure’
- Identify, evaluate and rate critical process K
- Select audit method
- Gather K audit team
- Audit your company’s existing K
- Identify your company’s K-spot(s)
- Choose a strategic position for KM system?
Problems!!!!

- Progression from
  - High dependence on Tacit K of few
  - Art
  - Highly subjective and depends on Tacit K
- To
  - Both Explicit and Tacit K are shared and easily accessible
  - Science
  - Repeatable and Robust Methodology capable of handling variations
### Table 2: Some Effects of Knowledge Stages

<table>
<thead>
<tr>
<th>Knowledge at Stage . . .</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of production</td>
<td>Expertise based</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Procedure based</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role of workers</td>
<td>Everything</td>
<td>Problem solving</td>
<td>Learning and improving</td>
<td>In databases or in software</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of knowledge</td>
<td>Workers' heads</td>
<td>Written and oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of learning</td>
<td>Artistic</td>
<td>Natural experiments</td>
<td>Controlled experiments, simulations</td>
<td>Table look-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of problem solving</td>
<td>Trial and error</td>
<td>Scientific method</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method of training new workers</td>
<td>Apprenticeship, coaching</td>
<td></td>
<td></td>
<td></td>
<td>Classroom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural type of organization</td>
<td>Organic</td>
<td>Mechanistic</td>
<td></td>
<td></td>
<td>Learning oriented</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitability for automation</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of transfer to another site</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feasible product variety</td>
<td>High</td>
<td>Low</td>
<td></td>
<td>Statistical process control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality control approach</td>
<td>Sorting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Feed forward</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bohn’s Framework is About “Process Knowledge”

- Technological knowledge, i.e., knowledge about how to produce goods and services
- The level of knowledge that a process has reached determines how a process should be controlled, whether and how it can be automated, the key tasks of the workforce, and other major aspects of its management.
- Primarily about Model 1 – Efficiency and Optimization – “Doing Thing Right”
Problems!!!! – Show and Tell!!!

- Most companies are at stage 2 or 3.
- To manage knowledge effectively, a company must progress to stage 5, 6, and 7.
- Stage 8, although desirable, has proved extremely difficult to reach.
- Stage 8 – has no need for KM or K managers.
<table>
<thead>
<tr>
<th>Knowledge at Stage...</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of production</td>
<td>Expertise based</td>
<td></td>
<td></td>
<td></td>
<td>Procedure based</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role of workers</td>
<td>Everything</td>
<td>Problem solving</td>
<td></td>
<td>Learning and improving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of knowledge</td>
<td>Workers' heads</td>
<td>Written and oral</td>
<td></td>
<td>In databases or in software</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of learning</td>
<td>Artistic</td>
<td>Natural experiments</td>
<td></td>
<td>Controlled experiments, simulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of problem solving</td>
<td>Trial and error</td>
<td>Scientific method</td>
<td></td>
<td>Table look-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method of training new workers</td>
<td>Apprenticeship, coaching</td>
<td></td>
<td></td>
<td>Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural type of organization</td>
<td>Organic</td>
<td>Mechanistic</td>
<td></td>
<td>Learning oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitability for automation</td>
<td>None</td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of transfer to another site</td>
<td>Low</td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feasible product variety</td>
<td>High</td>
<td>Low</td>
<td></td>
<td>High*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality control approach</td>
<td>Sorting</td>
<td>Statistical process control</td>
<td></td>
<td>Feed forward</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8-Stages of Knowledge Growth – Are They???
Is This Model Upside Down (D-K or K-D)

1. Can Tell a Bad Process
2. Created a List of Variables
3. Can determine the significance of variables
4. Can Now Measure Variables
5. Repeatable Methodology or Recipe
6. Repeatable Methodology + Localized Adaptability
7. A Formal or Informal Model
8. Perfect Knowledge – Highly Routinized, Structured and Predictable Processes with Zero Uncertainty

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved
Knowledge Ecology & e-Ecosystems

‘Old’ Biz
- Metaphor
- Knowledge
- Assets
- Strategy
- Design
- Role of IT
- Management
- Returns

e-Biz
- Machine
- Utilization
- Tangibles
- Prediction
- Structure
- Converge
- Compliance
- Diminishing

Ecosystem
- Creation
- Intangibles
- Anticipation
- Edge of Chaos
- Diverge
- Self-Control
- Increasing

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved
Leveraging Smart Technologies* and Smart Minds**

Routine, structured *info processing* for stable environments*
Non-routine, unstructured *sense making* for dynamic environments**

From Routine to Non-Routine
From Hi Structure to Lo Structure
Hi Structure
Stable Environment
Non-Routine
‘White Waters’
From Stable to ‘White Waters’
From Routine to Non-Routine

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved
From Reengineering to “Re-Everything”

Stable Business Environment
Reengineering
Rationalization
Automation

Dynamic Business Environment
“Re-Everything”
Innovative CVPs
Innovative BVPs
Adapt the Programmed Logic to Deliver the VPs

Harvest the Given Business Logic
Rethink the Given Business Logic
Managing Knowledge for e-Enterprise Performance

RADICAL DISCONTINUOUS CHANGE

DESIGN FOR AGILITY, FLEXIBILITY AND ADAPTABILITY

INFO-PROCESSING MODEL

SENSE-MAKING MODEL

KNOWLEDGE MANAGEMENT for e-BUSINESS MODEL INNOVATION
B2C, B2B, B2E, P2P... and Beyond

TIGHT SYSTEMS Optimization and Efficiencies

LOOSE SYSTEMS Agility, Flexibility, and Adaptability

KNOWLEDGE HARVESTING & EXPLOITATION

KNOWLEDGE CREATION & RENEWAL

In Control

INTEGRATION OF DATA, ACTIVITIES & PROCESSES

Out of Control

CREATIVE ABRASION & CREATIVE CONFLICT

Engineering Design ‘Machine’ Focus

Communities of Practice, Customers, Suppliers, Partners

Emergence ‘e-Agility’ Focus

ERP, EAI, EEAI, CRM, SCM, Workflows, BPR, Intelligent Agents, Best Practices

Managing Knowledge for e-Enterprise Performance
Hindsight + Insight = Foresight

- Why audit K?
- What should you do it for? When?
- Strategy, architecture, system development, R&D, People, D / I, Value, SWOT
- Knowing the direction in which KM strategy and investments should be done
Measuring K Growth

- Coffee Based Reasoning and other Tables
- See the individual forms and discuss
K Audit (Continued)

• Planning a K audit
• Conducting the K audit
• Defining Goals – specific, measurable, predictive, AND how to achieve them
• Defining Ideal State (Form)
• Audit Method
**Non-Routine**

**Increasing Returns**

- **Lo Structure**
  - From **Hi Structure** to **Lo Structure**
  - **Hi Structure**
  - **Stable**

- **‘White Waters’**
  - From **Stable** to ‘**White Waters**’ (Speed, Range)

- **Non-Routine**
  - From Routine to Non-Routine

---

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved
Dimensions of e-Business Performance

- Virtual process
- Virtual channel
- Increasing Returns

- From Atoms to Bits
- ‘Gray Matter’ to e-Matter
- From BPR to e-Agility
- From Bricks to Clicks

e-Business Performance

© Copyright 2002, Yogesh Malhotra, www.yogeshmalhotra.com, All Rights Reserved