What is Knowledge Management?

Systematic methods to enable information and knowledge to grow, flow and create value.

**KM is about creating a new work environment** where knowledge and experience can easily be shared... enabling individuals to benefit from and apply the collective knowledge.

Communities of Practice

Groups of people who come together to share and to learn from one another face-to-face and virtually.

They are held together by a common interest in a body of knowledge and are driven by a **compelling need** and a **passion** to share problems, experiences, insights, templates, tools, and best practices.

Community members **interact regularly** to deepen their knowledge.
**Drilling Best Practice**

- **Name:** Consolidation by Paul Meek with input from Chris Airmack, John Johnson, John Crouther, John Reidrop and Chris Laramee
- **E-Mail:** pmeek@subislandbl.com
- **Date Submitted:** 03-Sep-09

**Categories:** Deepwater, Deviated Wells, ERD, Geothermal, Horizontal Wells, HTHP, Multi-Lateral, Underbalanced, Vertical Wells

**Summary:** Several different borehole temperatures can be measured or estimated. These are often used for a variety of purposes - for drilling, reservoir, and determining configuration for in-situ and downhole tools. Using the right temperature for the application is key. Taken from TemcoMB.

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**Drilling Best Practice – With Feedback**

- **Name:** Consolidation by Paul Meek with input from Chris Airmack, John Johnson, John Crouther, John Reidrop and Chris Laramee
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**Feedback:**

From: Nabil Mohamed
Sent: 3 Feb 09

We saw the same effect on Dejaund ERD project, with elevated temps causing unexpected motor failures. One of our action items was to note that CO2’s on the rig should be especially aware of cross-checking with MWD temperatures when specifying new or back-up motion to be sent to the job. Long, large hole sections drilled with MWD bits (as seen on most ERD projects) should be key indicators.

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**Community of Practice KM Process**

- **Discover new practices**
- **Validate & integrate new practices**
- **Share new practices**

**Power = Knowledge**

Should VAT (value added tax) be applied to medicines?

In the past: “We’ll get back to you”

October/November 1998
Public expenditure review
Madagascar:

Late October 1998
Public expenditure review
Madagascar:
should VAT (value added tax) be applied to medicines?

Within 72 hours...

Indonesia field office

MNA Region

Within 72 hours...
Late October 1998
Public expenditure review
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Late October 1998
Public expenditure review
Madagascar:
should VAT (value added tax) be applied to medicines?
The advice received shaped the Bank position as communicated to Govt, IMF and donors.

In the new finance law, medicines are exempted from VAT.

What are the results?

- Find the information you need when you need it, any time, anywhere.
- ...or find someone who knows ... and get the best advice available.
- Reduce costs by not repeating known mistakes.
- Increase speed, productivity and quality by sharing best practices.
- Identify and pursue innovative ideas.
- Increase personnel motivation.
- Accelerate time-to-competence of new personnel.
- Retain the knowledge of experienced personnel ... who are retiring, transferring, or moving on.

Do YOU know what he knows? >> You should.
Where Are You Now?

1. Get Started
   - Have you created a rationale or a vision for exploring KM?

2. Develop Strategy
   - Have you identified pilots that can achieve demonstrable business results and enlisted executive sponsorship?

3. Design and Launch Initiatives
   - Have you launched pilots, Communities of Practice or a KM intranet site, with measures and indicators?

4. Expand and Support
   - Do you have compelling business results from the pilots and are you engaged in an expansion or replication strategy?

5. Institutionalize
   - Is knowledge sharing the norm?

KM Approaches

- Transfer of Best Practices
  - Facilitated sharing/transfer
  - Internal benchmarking
  - Validation
  - Knowledge desks

- CoPs
  - Groups that share, learn
  - Held together by common interest
  - Trade tools, templates, B.P.s
  - Solve business problems

- Self-Service+
  - Intranet
  - Portal to key info
  - Search
  - Expertise directory

Technology Changes Everything

“If you want to teach people a new way of thinking, don’t bother trying to lecture or instruct them. Instead, give them a tool, the use of which will lead them to new ways of thinking.”

— R. Buckminster Fuller
Situation: 28 wells drilled. Project suspended for further reservoir study and negotiation.

Problem: Six month gap; on project restart, new team needed to resume where first team left off.

Solution: Utilize best practices and lessons learned from first team and archived in InTouch knowledge base.

Result: New level of performance in drilling and production.

Phase I: Most wells produce below baseline.
Phase II: Most wells produce above baseline.

Information Overload?

Source: Steve Denning

InTouch for Knowledge Continuity
Schlumberger Field Engineer logging a well in Egypt experiences problems with a downhole tool string.

Operation continues without lost time.

InTouch engineer validates and logs Lesson Learned...

Knowledge Sharing in Real Time

1. Field Engineer places urgent call for help through InTouch, a global online Knowledge Desk.
2. Schlumberger Field Engineer logging a well in Egypt experiences problems with a downhole tool string.
3. Call is dispatched to Houston-based on-duty InTouch Engineer at midnight.
InTouch Engineer inspects Field software machine, consults with specialist, locates software patch and installs remotely on the engineer’s truck-mounted system while tool string is operational.
4. Operation continues without lost time.
5. InTouch engineer websites and logs Lesson Learned…

Other Results

<table>
<thead>
<tr>
<th>Company</th>
<th>Target Business Need</th>
<th>Approach</th>
<th>Technology</th>
<th>Results</th>
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<tr>
<td>BP</td>
<td>Operational excellence</td>
<td>CoPs</td>
<td>SharePoint</td>
<td>&gt;$200M/yr savings</td>
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<tr>
<td>Shell</td>
<td>Service delivery</td>
<td>SharePoint</td>
<td>SharePoint</td>
<td>50% less time to resolve queries</td>
</tr>
<tr>
<td>Cap Gemini Ernst &amp; Young</td>
<td>Operational excellence</td>
<td>CoPs</td>
<td>SharePoint</td>
<td>6x growth in revenue with fewer employees</td>
</tr>
<tr>
<td>Best Buy</td>
<td>Revenue growth</td>
<td>CoPs</td>
<td>SharePoint</td>
<td>Reduced customer request time</td>
</tr>
<tr>
<td>IBM Global Services</td>
<td>Service delivery</td>
<td>CoPs</td>
<td>SharePoint</td>
<td>400% increase in service revenue</td>
</tr>
</tbody>
</table>

Knowledge Management is a contact sport

Be part of the knowledge network! Not a spectator …
Identifying Potential Projects

- Start with the business strategy and the current state
- Identify big gain opportunities
- Identify the processes critical to achieving the strategy and suffering most from knowledge/information gaps
- Assess where there is valuable knowledge, but it is unused
- Build a value proposition for any project you propose

Knowledge Management Success

We know what we know … and what we need to know

Conversation between two project managers

André: In Paris, we just finished development of the new service for imaging fluid flow in horizontal wells. The insight of that new engineer who works for you in Houston was invaluable.

Martha: Glad to hear it. He saw on the intranet that your team was in need of assistance with computational fluid dynamics—and he has a Ph.D. in that area.

The Road Ahead

Knowledge Management Success

Apply everywhere what we learn anywhere

Conversation between two Solution Engineers

Eduardo: We just negotiated a data management contract in Chile. By learning from the work you did on the German contract, we saved time and reduced risk.

Silke: Good. Moreover, on the Knowledge Hub, we have access to the current portfolio of services with all details about available systems and products to sustain them.

Eduardo: And we can find the best experts for specific questions about those systems and products.
Communities of Practice

Best Practices
Lessons Learned

Knowledge Sharing Incentives & Recognition

Personal Motivation
- Reduced time / effort for job preparation
- Best performance → enhanced client relationship
- Reduced stress through better planning & execution
- Being on the leading edge

Community Recognition
- Visibility: Name in the News
- Leaving a Legacy

Management Recognition
- Objectives, Appraisal, Career Progression

Knowledge Sharing - Shares own knowledge, learns from others and applies knowledge in daily work. Open to new ideas and continuous learning.

Knowledge Sharing Barriers...

Does it hurt to share??

Critical Success Factors

Focus
- Link with a business need, opportunity, or core value

People
- Line Management: Recognize successes & ask questions
- Dedicate resources … Knowledge Desks, Expert Communities
- Align: Make part of daily work & standard performance appraisal process
- Change Management (business / organizational change) & Training

Process
- Help
- Sharing & Reuse … Capture, Validate, Classify, Disseminate, Use … Measure

Content
- High-quality, relevant & trusted … regular maintenance

Technology
- Essential enabler … secure, integrated, easy-to-use … regular maintenance
- Game changer … telegraph to e-mail to web … onboard knowledge
Power = Knowledge$^{Shared}$