# What's Required in Knowledge Technologies — A Practical View

#### Reid Smith

Vice President, Knowledge Management

Schlumberger Limited

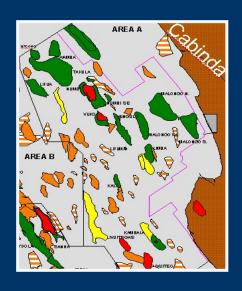
# Knowledge Management

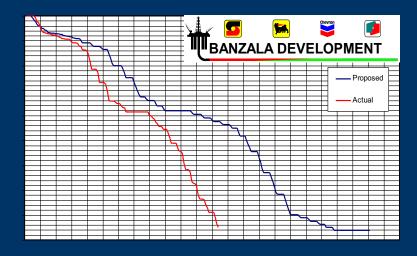
... Improving organizational capability

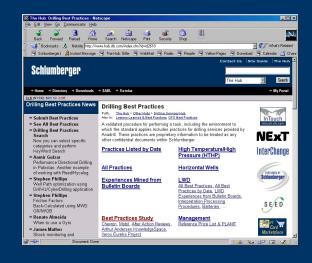
Create a new working environment where knowledge and experience can easily be shared

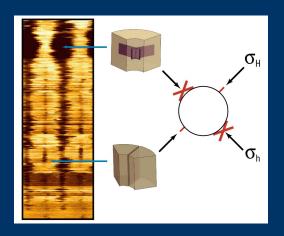
Enable information and knowledge to emerge and flow to the right people at the right time so they can act more efficiently and effectively

### Apply everywhere what you learn anywhere









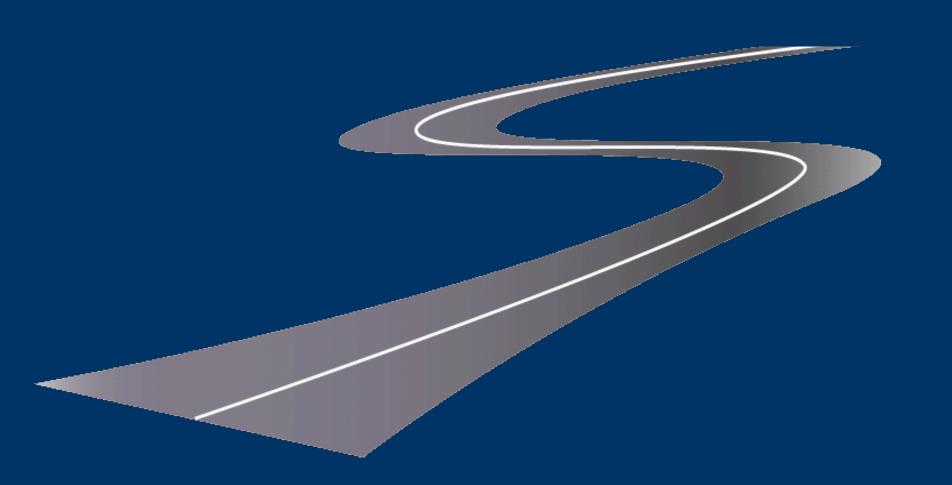
### Apply everywhere what you learn anywhere

#### Connecting



#### Collaborating

# Knowledge Technologies - Present and Future







Communities of Practice

# **Enterprise Information Portal**

# All important information from both inside and outside the company delivered to the desktop

- unstructured & structured data
- thin client → web browser
- Search & Browsing
- Services
  - Presentation Visualization
  - Collaboration
  - Publishing & Distribution
  - Data Feeds
- Trends
  - Finding → Doing

- Subscription Notification
- Personalization
- Data Feeds
- Security

Multi-Purpose Information



#### Infrastructure

e-business

**XML** 

**Wireless Devices** 

### **Knowledge Representation**

**Transparent Interfaces** 

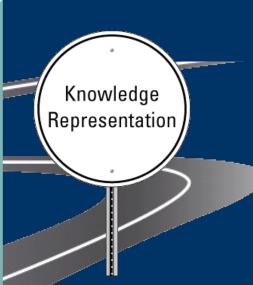
**Workflow Capture** 

**Expertise** 

Incomplete, Ephemeral Knowledge

Integration

**Standards** 



# One-Stop Search / Case-Based Reasoning

Speed, Precision, Recall Natural Language Integration / Interaction Multilanguage Multiple Media



JIT Knowledge Delivery

## **JIT Knowledge Delivery**

Agents
Help Wizards
e-learning

Knowledge Powered Enterprise

#### **Knowledge Powered Enterprise**

Real-Time Knowledge Management

- Everyone Contributes
- KM Embedded in Workflow

**Seamless Information Space** 

Integrated Simulation / Decision Support

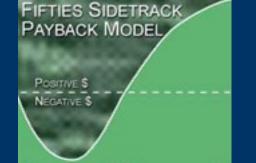
Data Mining / Knowledge Discovery

#### Decisions ... in Real Time



OilCo Well Engineer: We're planning to sidetrack

well B23 in the Fifties field and are hoping you'll buy in. For \$10 million you can become a full 1-percent partner. A 96-hour shut-in test ended a few minutes ago. It indicates additional reserves of 750,000 barrels of oil and an initial sand-free production rate of 4,300 barrels per day.... We could do this tomorrow.



15 Days

#### Investor, consulting his Knowledge Hub: I see

that a sidetrack can double my rate of return, with a payback time of 30 days for 1-percent interest.... Count me in.

# **Knowledge Creation / Innovation**

**Continuous Learning** 





Agents
Help Wizards
e-learning

#### **First Wave KM**

#### **Technology**

Portals, Collaboration, Document Management, Little Integration

#### **Process**

Best Practices, Validation

#### **People**

Communities of Practice

### One-Stop Search / Case-Based Reasoning

Speed, Precision, Recall Natural Language Integration / Interaction Multilanguage Multimedia

#### **Knowledge Representation**

Transparent Interfaces
Workflow Capture
Expertise
Incomplete, Ephemeral Knowledge
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Standards

#### Infrastructure

e-business XML Wireless Devices

#### **Knowledge Powered Enterprise**

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#### **Knowledge Creation / Innovation**

Continuous Learning

**Today** 

**Long Term** 

