

# ISPI 2003 Conference

## Performance-Based Knowledge Management Systems

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Prepared for:  
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\* Original version developed with Brian Blecke in 2002

*leveraging know-how for performance!*



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# Why KM and KMS?

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What business rationale is there for considering and implementing KMS?

- ▶ **Protect** –guide *process performance* and compliance
- ▶ **Improve** –guide/streamline *process performance* using

KMS – to protect and improve the enterprise



# Top 10 KMS Mistakes

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1. Unclear business rationale
2. No consequences for contributing content to system
3. No consequences for using the system
4. System is too complex/difficult to use
5. Not designed to address felt performance need
6. Not designed for the job environment
7. No plan for content maintenance
8. Not resourced adequately
9. Driven by staff, not line
10. Not integrated with related tools/systems/processes

**It's not about the tool, the storage, or the media—it's about protecting or improving the enterprise**



# Session Description

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This session will present

- ▶ KMS is a *business* decision first
  - Target key performances/audiences
  - Target key knowledge
  
- ▶ *Design* the system and the content
  - Target “push” delivery
  - Build to accommodate “pull” delivery
  - Design for . . .
  
- ▶ *Manage* the implementation
  - Test early and often
  - Install organization enablers and supporting processes

Target and deploy intellectual capital  
to both *protect and improve* the enterprise



# Session Objectives

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At the conclusion of this session, you will be able to

- ▶ Describe a Knowledge Management System (KMS), KM concepts, and misconceptions
- ▶ Identify characteristics of high-leverage performance opportunities
- ▶ Identify performance-based knowledge and environmental characteristics and their impact on KMS design decisions
- ▶ Begin planning a KMS application for your organization by identifying high-leverage opportunities and initial design direction



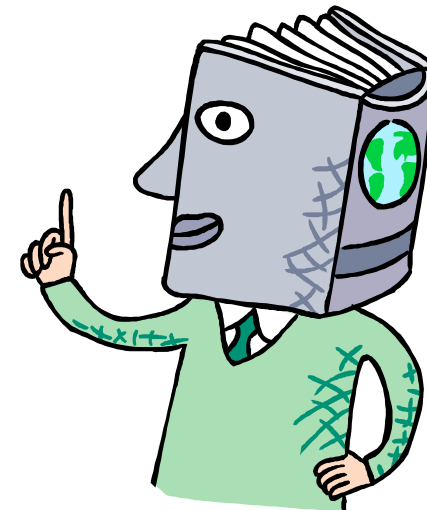
# What is Knowledge?

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Useful patterns of thinking/behaving that can be repeated and/or transmitted\*

For Example . . .

- ▶ Facts
- ▶ Rules
- ▶ Concepts/ideas
- ▶ Processes
- ▶ Relationships
- ▶ Skills
- ▶ Competencies



*\* Not the American Heritage Standard definition*



# What are the Two Types of Knowledge?

There are two primary “types” of knowledge

- ▶ **Explicit** knowledge: documented knowledge
- ▶ **Tacit** knowledge: nonrecorded or nonexchanged knowledge

Explicit
<ul style="list-style-type: none"><li>• Policies</li><li>• Procedures</li><li>• Copyrights</li><li>• Patents</li><li>• Databases</li><li>• Etc.</li></ul>

Tacit
<ul style="list-style-type: none"><li>• Tricks of the trade</li><li>• Insights</li><li>• Lessons learned</li><li>• Etc.</li></ul>

Explicit knowledge is easier to capture for knowledge product development/deployment



# What is KM?

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While Knowledge Management has many definitions, most definitions include

- ▶ Knowledge as **intellectual capital**
- ▶ The **creation, capture, storage, dissemination, and maintenance of knowledge**

*For our purposes here*  
KM is targeting and exploiting intellectual capital  
to both protect and improve the enterprise





# What is a KMS?

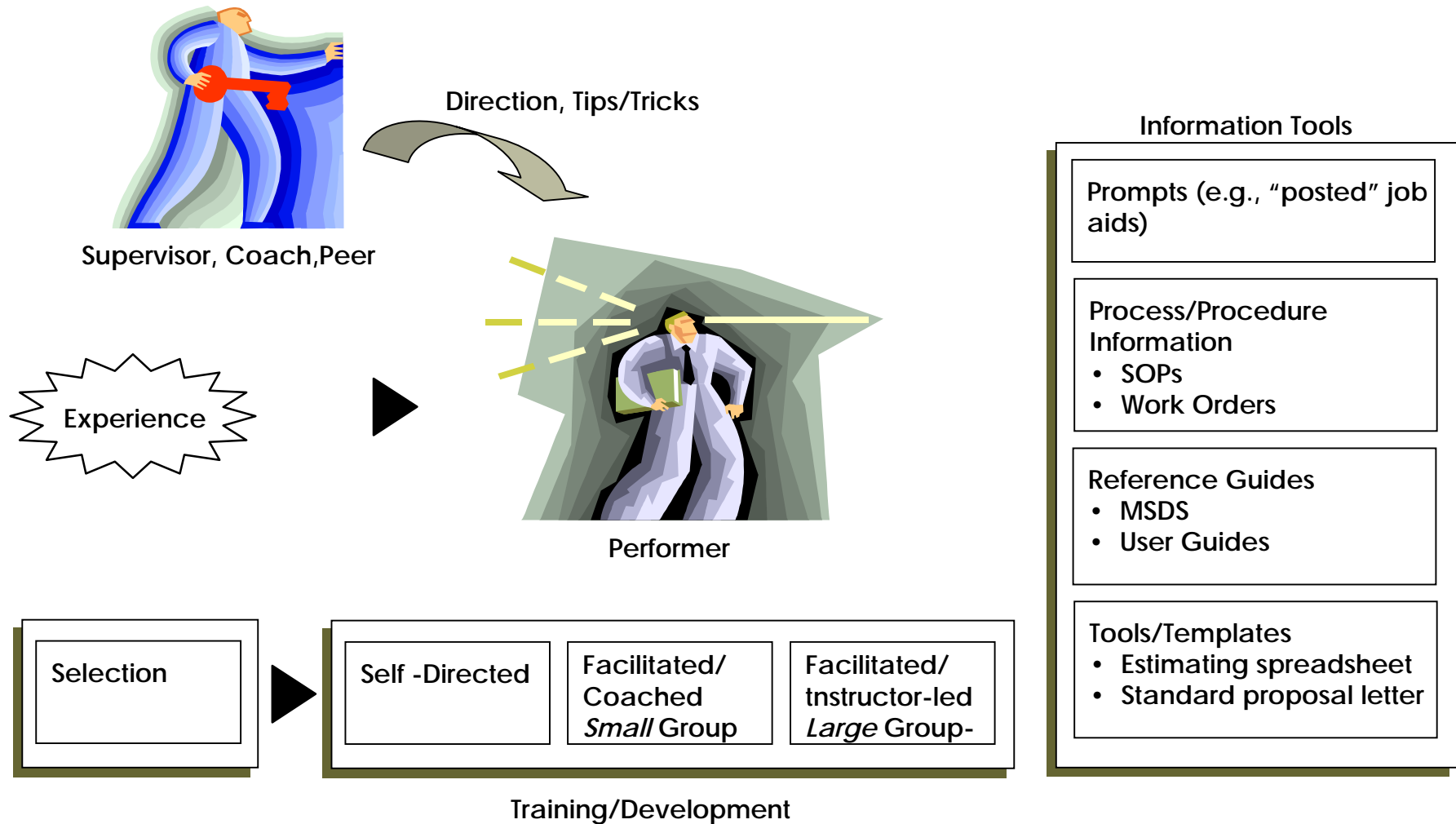
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KMS is a **system** for the **creation, capture, storage, maintenance, and dissemination of knowledge**

- ▶ A knowledge-sharing culture
- ▶ Reinforcing consequences (positive and negative)
- ▶ KM policies, procedures, processes, and clear performer roles
- ▶ Staff and infrastructure
- ▶ A knowledge product repository and distribution mechanism
  - Usually an **electronic warehouse and intranet-Internet accessibility**



# The Performance System





***Target the System(s),  
Audience(s), and Performance(s)***



# KMS Return on Effort/Investment

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What are the potential returns for a performance-based KMS?

Returns can come from

▶ **Reduced costs**

- Less experienced performers are supported by tools
- Fewer “lessons learned” the hard (expensive) way
- Less time wasted looking for information
- Reduced content maintenance and distribution costs

▶ **Increased revenues**

- Access to ideas, intellectual assets, and opportunities
- Increase business process throughput
- Fast adaptation to change

**In short: better, faster, cheaper, and new**



# Identifying High-value Target Performances/Audiences

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Target audience/performance candidates will have the following necessary characteristics:

- ▶ Leverage on costs/revenue
- ▶ Risk exposure
- ▶ Customer satisfaction
- ▶ On strategic, critical path
- ▶ Variability in performance
- ▶ High level of skill/knowledge required for performance (versus high automation)





# For Example . . .

## Call Center Agents

▶ High turnover

▶ Sales/revenue

▶ Customer satisfaction

▶ Regulatory exposure



## Underwriters

▶ Low turnover

▶ Exposure to risk

▶ Revenue (pricing decisions)

[Worksheet...](#)



***Analyze the Performance***



# Determining the Nature of Target Audience Performance

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Different performances have different needs for knowledge and knowledge support systems

- ▶ Facts/rules/information versus ideas/wisdom
- ▶ Volatile versus stable content
- ▶ Reference versus application
- ▶ Solo versus team
- ▶ Real-time versus "stop-time" performance
- ▶ Connectivity
- ▶ Repeated process versus "one-offs"
- ▶ Etc.







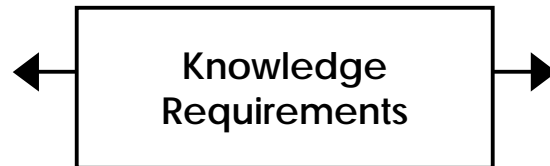
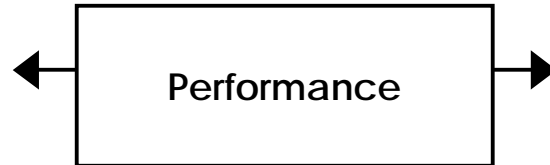
# For Example . . .

## Call Center Agents

▶ Transaction

- ▶ Product
- ▶ Regulatory
- ▶ Process
- ▶ Technical
- ▶ Systems

- ▶ Managers
- ▶ Customer Service



## Underwriters

▶ Transaction/  
relationship

- ▶ Systems
- ▶ Finance
- ▶ Industry-specific
- ▶ Liability law
- ▶ Etc.

- ▶ Claims
- ▶ Actuaries

*Worksheet...*



***Define the KMS  
Features/Requirements***



# Performance-based KMS

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Performance-based KMS aligns the knowledge capture and distribution strategies to protect and improve *performance*

- ▶ Critical/targeted
- ▶ “Need to know” content is “pushed”
- ▶ Available when/where needed in performance/work process
- ▶ “Consumable”

This is where our ISD and HPT methodologies become part of the KMS effort

KMS – to protect and improve the enterprise



## Push-Pull

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A marketing concept where “products” are *deliberately pushed* to certain target audiences, while other audiences are *enabled to pull* content from the product distribution system

### Push examples

- Nonrequested credit cards in the mail
- Free trial magazine subscriptions

### Pull examples

- Credit card applications at your bank
- Magazines available at stores



# System Design Philosophies

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Point	Counterpoint
Design the system	Let the system evolve—you can't predict what users need
Create a "data/content" warehouse	Create a "yellow pages" for the enterprise
Centralize the system for access everywhere	Localize the system for maximum customization to user needs
Use "gatekeepers" for content	Let the "content market" decide
Coordinate related efforts (e.g., T&D, technical publications, etc.)	Let each organization/process seek its own market



# KMS Components

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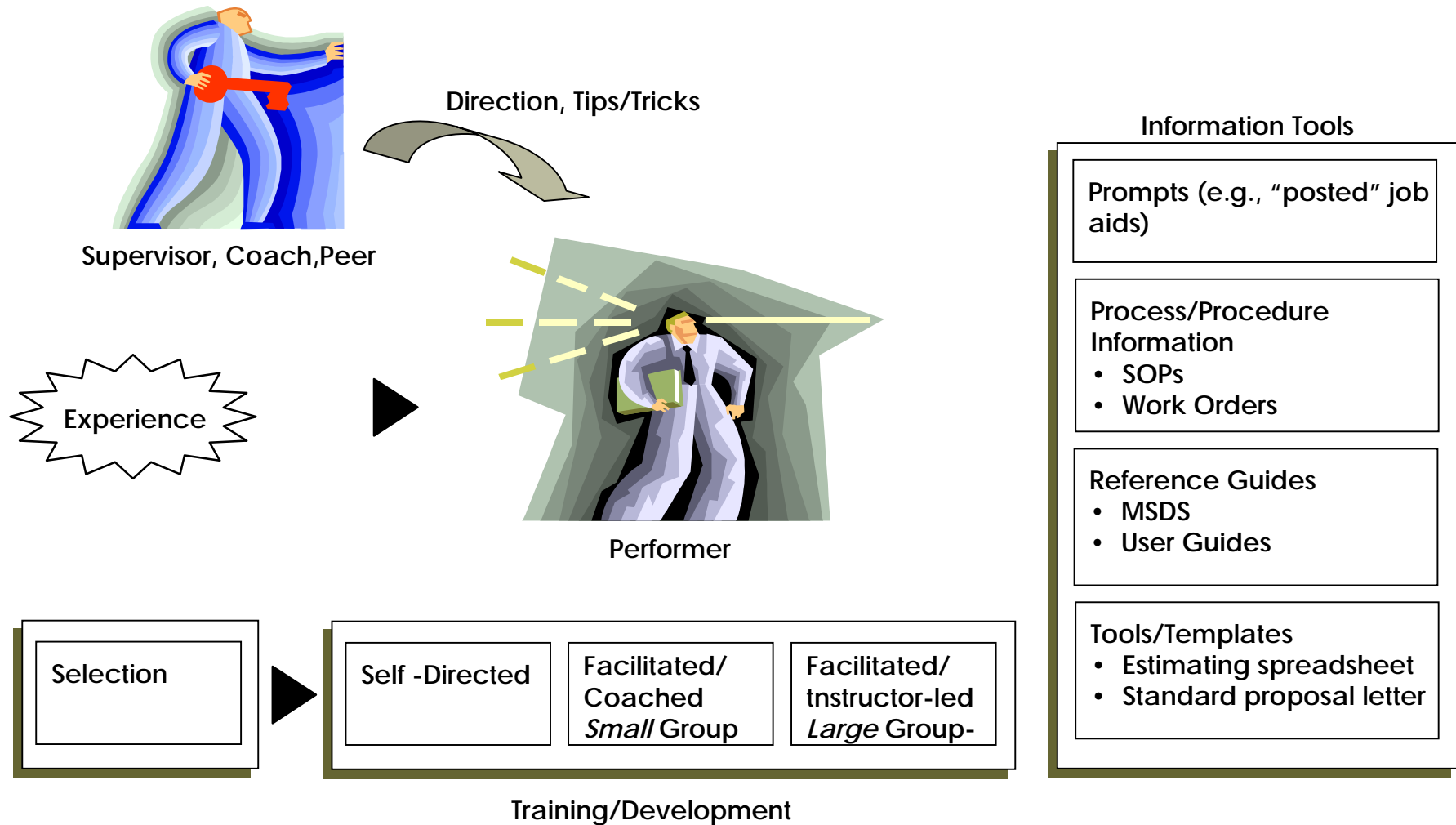
Like any other system, a KMS has multiple components that must work together to deliver an integrated functionality

- ▶ Content
- ▶ Business processes
- ▶ Management (rewards/expectations)
- ▶ Data management and distribution technology

**Greatest leverage for HPT and ISD practitioners  
is on the content inventory for explicit knowledge**



# The Performance System





# Content Characteristics Implications for KMS

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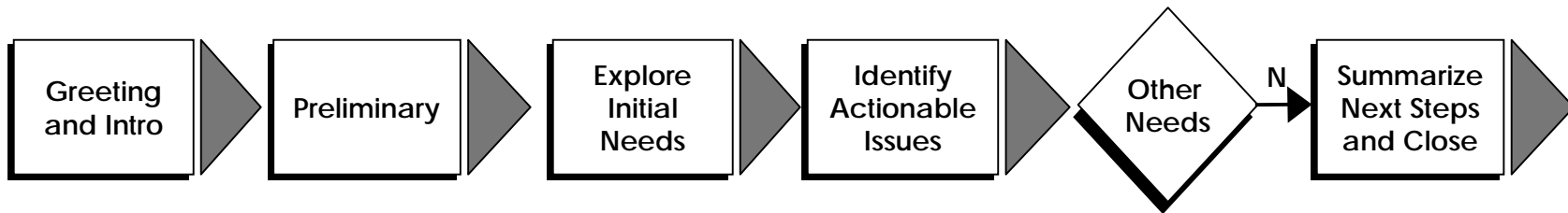
Characteristic	Implications for KMS
Reusability	"Chunk" appropriately
Shareability	Manage access
Volatility (shelf life)	Plan for maintenance and discontinuance
Transferable	Select appropriate deployment methods
Individual	"Push" when needed



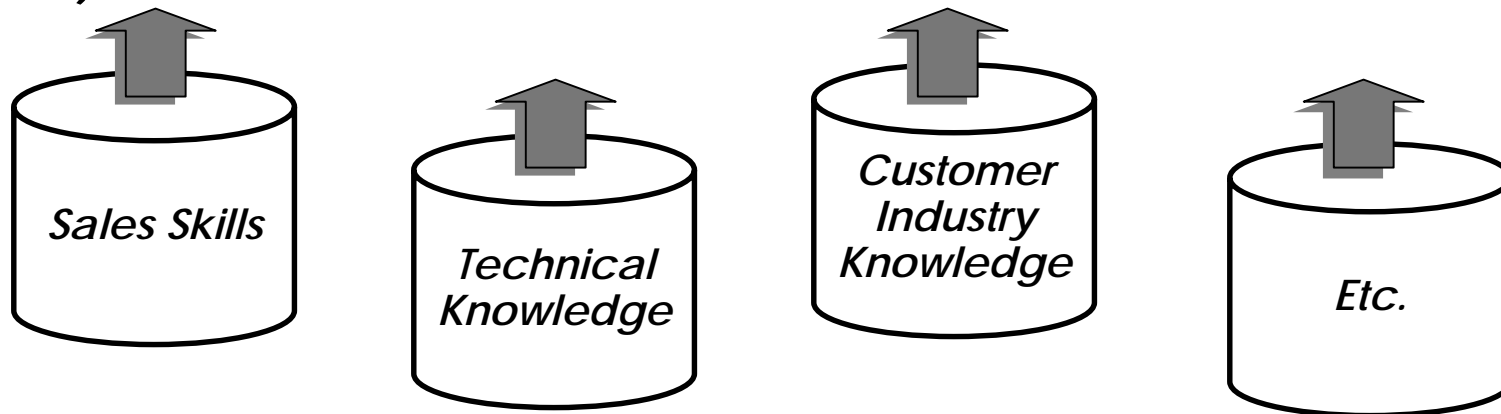


# Performance vs. Enablers

All information describing *performance*, including outputs, tasks, and measures can be categorized as “the work.”



In addition, there are “*enabling* knowledge/skills/attributes/values” (what you need in your behavioral repertoire to do the work).





# Content Specification Form

Defines an initial "chunk"—becomes object or "activity"

Front

**Module #:**  
Modules in this tab are in numeric order

**Learning Environment**  
Group-paced — Two or more learners and a trainer  
Self-paced — Individual learner  
Coached — One-on-one instruction; learner and coach/trainer

**T&D Paths**  
Identifies the roles/paths that this module includes

TMC Stores Training Resources <small>CURRICULUM ARCHITECTURE DESIGN</small>		T&D Module Specification Sheet	
Module #	Module Title	Availability Status	
3-133-0101	TMC Inventory Control Systems User Skills	<input checked="" type="radio"/> Fully Available <input type="radio"/> Partially Available <input type="radio"/> Not Available <input type="radio"/> Needs to be developed	
Predominant Delivery Strategy		Volatility	
Depth of Coverage <input type="checkbox"/> Awareness <input type="checkbox"/> Knowledge <input checked="" type="checkbox"/> Skill		<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	
Learning Environment		Estimated Length (±25%)	Make/Buy
<input checked="" type="checkbox"/> Group-paced <input type="checkbox"/> Self-paced <input type="checkbox"/> Coached		Hours 2	<input type="checkbox"/> Buy-Use As Is <input type="checkbox"/> Buy-Modify
Deployment Platform(s)		Implementation Priority	
<input type="checkbox"/> S-OJT* (A) - Coach <input type="checkbox"/> S-OJT* (B) - Certified Coach <input type="checkbox"/> GP Instructor-led <input checked="" type="checkbox"/> GP-L Instructor-led Lab <input type="checkbox"/> SP Readings		<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	
<input type="checkbox"/> Videotape <input type="checkbox"/> Audiotape <input type="checkbox"/> Satellite/Distance Learning <input type="checkbox"/> CBT <input type="checkbox"/> Performance Aid <input type="checkbox"/> Other _____		Preliminary Content Listing (Not All-inclusive)	
T&D Paths <input type="checkbox"/> 1. District Manager <input type="checkbox"/> 2. Store Manager <input type="checkbox"/> 3. Assistant Manager <input type="checkbox"/> 4. Clerk		• Overview • System components • Menu structure • User conventions (e.g., "function" keys) • Sources for help • Basic functions • Receiving goods • Adjusting for damage	
<input type="checkbox"/> Continued on next page			
Notes			
<input type="checkbox"/> Continued on next page			

**Availability Status**  
 = Fully available  
 = Some source material is available or one of several existing courses needs to be selected  
 = Needs to be developed

**Deployment Platform(s)**  
 S-OJT(A) — Structured, on-the-job training  
 S-OJT(B) — Structured, on-the-job training with certified coach  
 GP Instructor-led — Self-explanatory  
 GP-L Instructor-led lab — Same as above but requires special equipment  
 SP Readings — Self-explanatory  
 Videotape — Self-explanatory  
 Audiotape — Self-explanatory  
 Satellite/Distance Learning — Self-explanatory  
 CBT — Computer-based training  
 Performance Aid — A paper or electronic guide or aid providing performance materials, decision support, etc.

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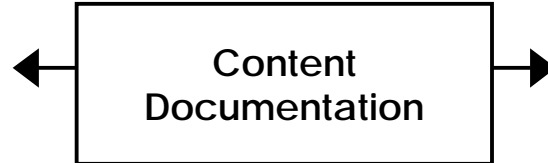


# For Example . . .

Worksheet...

## Call Center Agents

- ▶ Master performers
- ▶ SMEs
- ▶ "Bottom up" modules
- ▶ Prioritization
  
- ▶ Tariffs/regulatory
- ▶ Products
- ▶ Process/procedures
  
- ▶ Group-paced classroom
- ▶ Coached (SOJT)
- ▶ Intranet (self-paced)
  
- ▶ Legal/regulatory driven
- ▶ Methods and procedures



## Underwriters

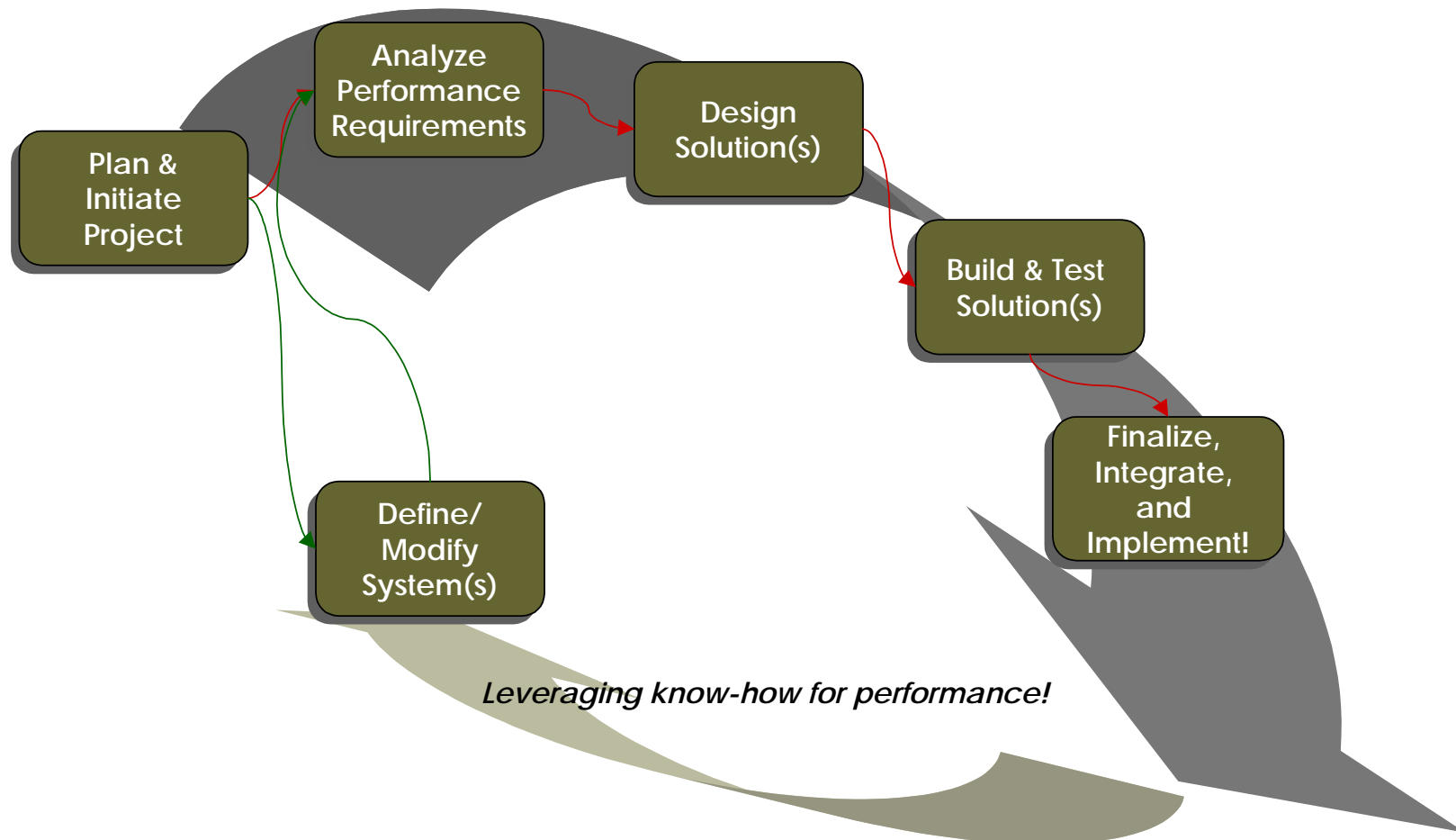
- ▶ Master performers
- ▶ SMEs
- ▶ "Bottom up" modules
- ▶ Prioritization
  
- ▶ Case library
- ▶ Spreadsheet tools
- ▶ Process/procedure
  
- ▶ Group-paced classroom
- ▶ Coached (SOJT)
- ▶ Intranet (self-paced)
  
- ▶ Legal/regulatory driven
- ▶ Underwriter's committee



***Implementation***



# System Design Process





# Organizational Issues

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- ▶ Create alignment around business priorities, and communicate targeted/high-priority audiences, processes, and content
  
- ▶ Divide up the turf
  - T&D
  - Documentation
  - Corporate library
  - Functions
  - Etc.
  
- ▶ Establish overall governance and advisory structure to oversee the effort (i.e., set priorities, allocate resources, “referee” between functions)



## Organizational Issues *(continued)*

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- ▶ Define roles/responsibilities (and provide training) for consistent content development and ongoing maintenance
  - Chief content architect/engineer
  - Content developers
  - Master performers (“voice of the customer”)
  
- ▶ Create and institute necessary supporting business processes
  - Chartering and managing content development projects
  - Review/audits of existing content
  - Monitoring usage and effectiveness



# Design and Development Issues

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- ▶ Establishing the content deployment platforms and standards
- ▶ Using six-phase analysis and design process to define content
- ▶ Incorporate existing content/convert existing content
- ▶ Managing multiple streams of development
- ▶ Test
  - Fit with performance
  - Functionality
  - Usability
  - Accuracy







# Summary

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- ▶ KMS is a *business* decision first
  - Target key performances/audiences
  - Target key knowledge
  
- ▶ *Design* the system
  - Target “push” delivery
  - Build to accommodate “pull” delivery
  - Design for . . .
  
- ▶ *Manage* the implementation
  - Test early and often
  - Install organization enablers and supporting processes

Target and deploy intellectual capital  
to both *protect and improve* the enterprise



## For More Information . . .

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### See Also

#### Articles available

- ▶ "Systems That Help People Get Work Done"
- ▶ "Concurrent Design of Products and Information Support Systems"

*Other topics also available in the "Library" section of [www.prhconsulting.com](http://www.prhconsulting.com)*

