

***NORTHROP GRUMMAN***

DEFINING THE FUTURE

# Knowledge Management – Implementation Decisions and Lessons

PMI KXF – Reston Virginia

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October 24, 2006

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# Knowledge Management Elements

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- **KM Topics Discussed**
  - **Communities of Practice**
  - **Knowledge Repositories and Collaborative Workspaces**
  - **Knowledge Asset Storage and Retrieval**

# Knowledge Management Implementation

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- **Decisions and Lessons Learned from the following KM elements**
  - Forming and operating Communities of Practice (CoPs)
  - Building Knowledge Repositories
  - Establishing Knowledge Storage and Retrieval approaches

# Community of Practice Decisions

- **Which CoP structure did we use?**
  - Formal – Strategic, Corporate Sponsorship, Sr. Management Led, specific business goals and defined deliverables (E.g. Risk Management)
  - Informal – Grassroots, Individual sponsorship, voluntary membership, common interests and shared experiences (E.g. Data Engineering)
- **What level of governance is appropriate for our CoPs?**
  - Hierarchical control and rule-based
  - Facilitated group with team leads and open membership

- **Formal CoPs have a strong business case and responsibility to deliver key products. A more structured form of governance is required**
- **A balance must be struck in governing the CoPs**
  - **Too much governance can stifle knowledge sharing and participation**
  - **Too little may create chaos and limit knowledge value**

# Knowledge Repositories/Collaboration Decisions

- **Many KM applications; which one met our needs?**
  - Feature sets – collaboration tools such as LiveLink<sup>1</sup>, SharePoint<sup>2</sup>, and eRoom<sup>3</sup> vary in features and functional strengths
- **How did we build repositories and set up the collaborative environment?**
  - Asked users and identified priority needs
  - Assessed applications
  - Piloted the environment, held KM forums, established KM Councils and Action teams

- **Too much complexity in the environment will increase confusion, reduce participation, and increase training costs**
  - **Install what is necessary to foster collaboration and enhance functionality later**
- **Repositories and Collaborative Environment must be easily accessible, easy to use, secure, and visible**

<sup>1</sup> Livelink ECM is a product of OpenText Corporation

<sup>2</sup> Windows Sharpoint is a product of Microsoft Corporation

<sup>4</sup> <sup>3</sup> eRoom is a product of Documentum

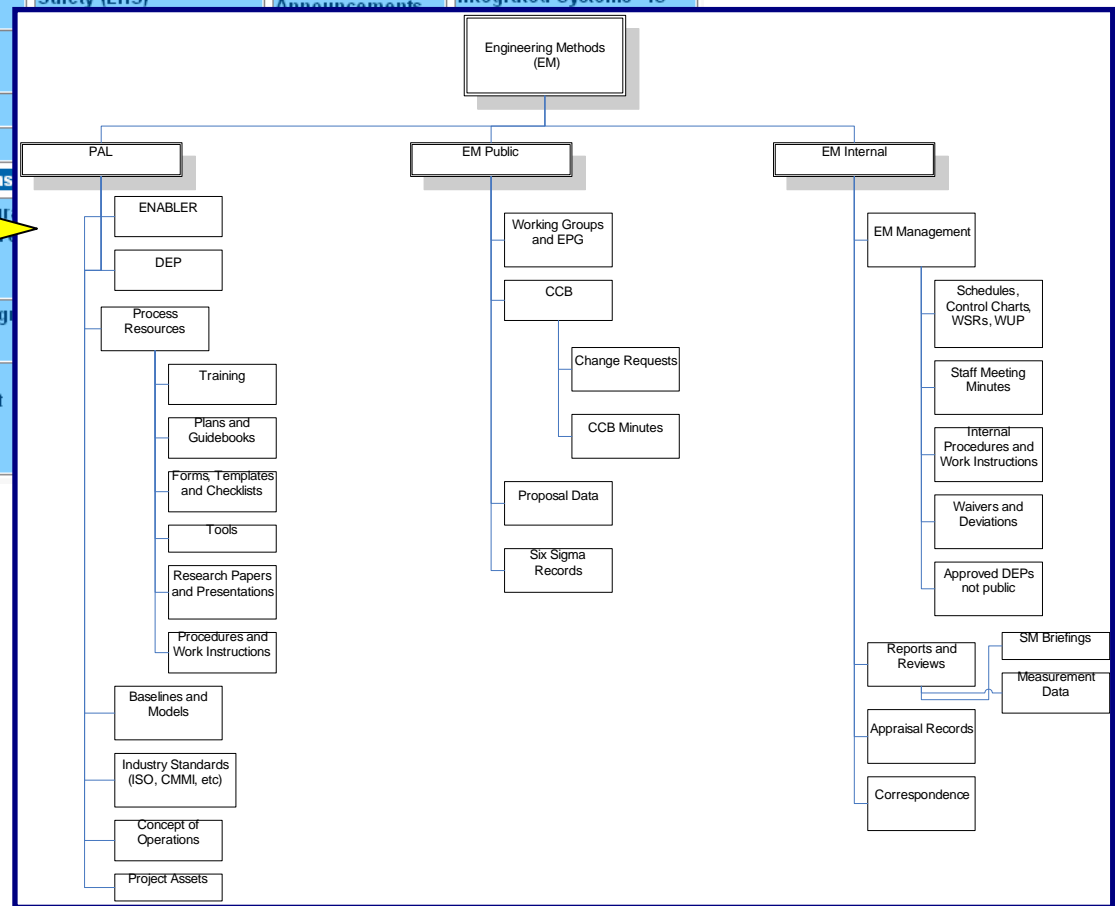
# Knowledge Storage and Retrieval Decisions

- **How do we collect, control and store our knowledge assets?**
  - Use categories and taxonomy
  - Allow CoPs to determine free flow or screening of data submission into the taxonomy
  - Establish Control, Security, and Permission levels
- **How do we retrieve our knowledge assets?**
  - Category – Metadata Search
  - Keyword/Phrase Search
  - Logical folder taxonomy and physical layouts

- **Assure data security, integrity, and access control through a strong access (passwords, challenges, etc.) and permission function**
- **People see and think about information differently and for retrieval one size does not fit all**
  - **Need to establish several methods for retrieving your information**

# Taxonomy Structure

Business Development	Customers, Partners & Suppliers	Employee Services	Enterprise Management	News & Communications	Organizations
Business Acquisition Process (BAP)	Corporate Lead Executives (CLE)	Employee Products & Purchasing	Business Management	Marketing Communications	Communities & Councils
Competitive & Market Analysis		Ethics & Standards of Business Conduct	Business Operations		Corporate
Opportunity & Pipeline Management	Customer Organizations	Human Resources & Administration	Competitive Excellence (CE)	News Releases & Announcements	Electronic Systems - ES
Proposal Operations & Support	Partners & Suppliers	Learning & Development	Environmental Health & Safety (EHS)		Information Technology - IT
Staff & Administrative Strategies & Plans		Self-Service Tools			Integrated Systems - IS
		Travel			
Processes & Quality	Products & Services	Programs			
Integrated Engineering Process	Products & Systems	Internal Staff			
Northrop Grumman Accepted Business Processes	Services	External Programs			
Quality Improvement Methodologies	Technical/Solution Capability Fact Sheets	Program Management			
Quality Management System					



# Storage & Retrieval Metadata

Engineering Knowledge Base	Process Asset Library, Standards, Guides, Templates, Lessons Learned, Checklists, Model				Analyses, Assessments/Evaluations, Briefings, Checklists, Conference Papers, Examples, Forms, Guides, Metrics, Other, Plans, Policies, Procedures, Proposal Resource, Records, Reviews, Reports, Schedules, Standards, Specification, Templates, Tools, Training, WBS, Website
Project Information	Status of Projects, Project Plans, Pro Contact Informati Lessons Learned.	<b>Asset Type</b>	Drop Down		Air Force, All, Army, Coast Guard, Internal
Capabilities Database	Technical Asset Repository, Points Contact, Solutions Intellectual Proper	<b>Customer</b>	Drop Down		NGC
Contracts Information	All Contracts with Win/Loss Info, Contract Negotiat Models, Terms, Lessons Learned, Reason for Loss,	<b>ISO?</b>	Checkbox	Yes/	
		<b>Proven Practice?</b>	Checkbox	Yes/	
		<b>Lesson Learned?</b>	Checkbox	Yes/	
Lessons Learned Info	Lessons Learned for Proposals, Projects, Programs, Applications, Processes, Cross Sector Communications	<b>Policy Compliant?</b>	Checkbox	Yes/	
		<b>Program Type</b>	Drop Down	Engi	All
Expertise Locator	Names, Contact Information, Projects worked on, Expertise, Training Completed, Education, Necessary Domain Experts				

The screenshot shows a web browser window with the title 'Livelihood - Categories - Microsoft Internet Explorer provided by Northrop Grumman Corporation'. The page content is titled 'Edit Categories: New Document' and features a form with the following fields:

- CMMI Process Areas: <None>
- Enabler SPP/SOP: <None>
- Asset Type: <None>
- Customer: <None>
- ISO?:
- Proven Practice?:
- Lesson Learned?:
- Policy Compliant?:
- Program Type: <None>
- Asset Author: [Text Input]
- Documentation Expiration Date: [Date Picker]

Buttons at the bottom include 'Done', 'Apply', 'Reset', and 'Remove'.