

Demystifying Knowledge Mapping: How to develop a Knowledge Map for a CoP

Paige Kane & Melissa O'Neill

Pfizer Global Supply

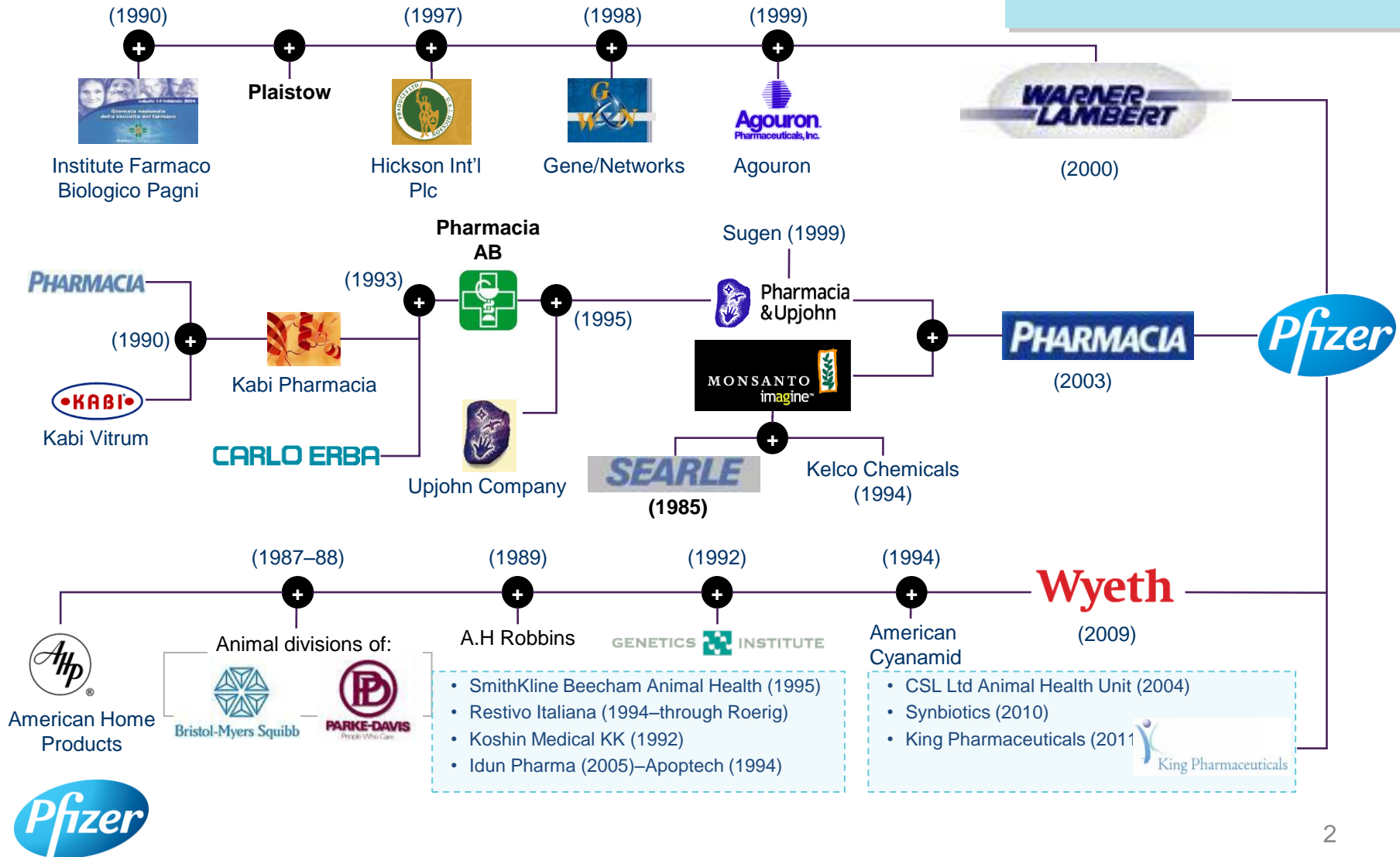
Operational Excellence – Knowledge Management



Our Network

- 87 sites
- 170 distribution centers
- 1,000+ supply partners
- 30,000+ colleagues

An Aggregation of 25+ Companies!



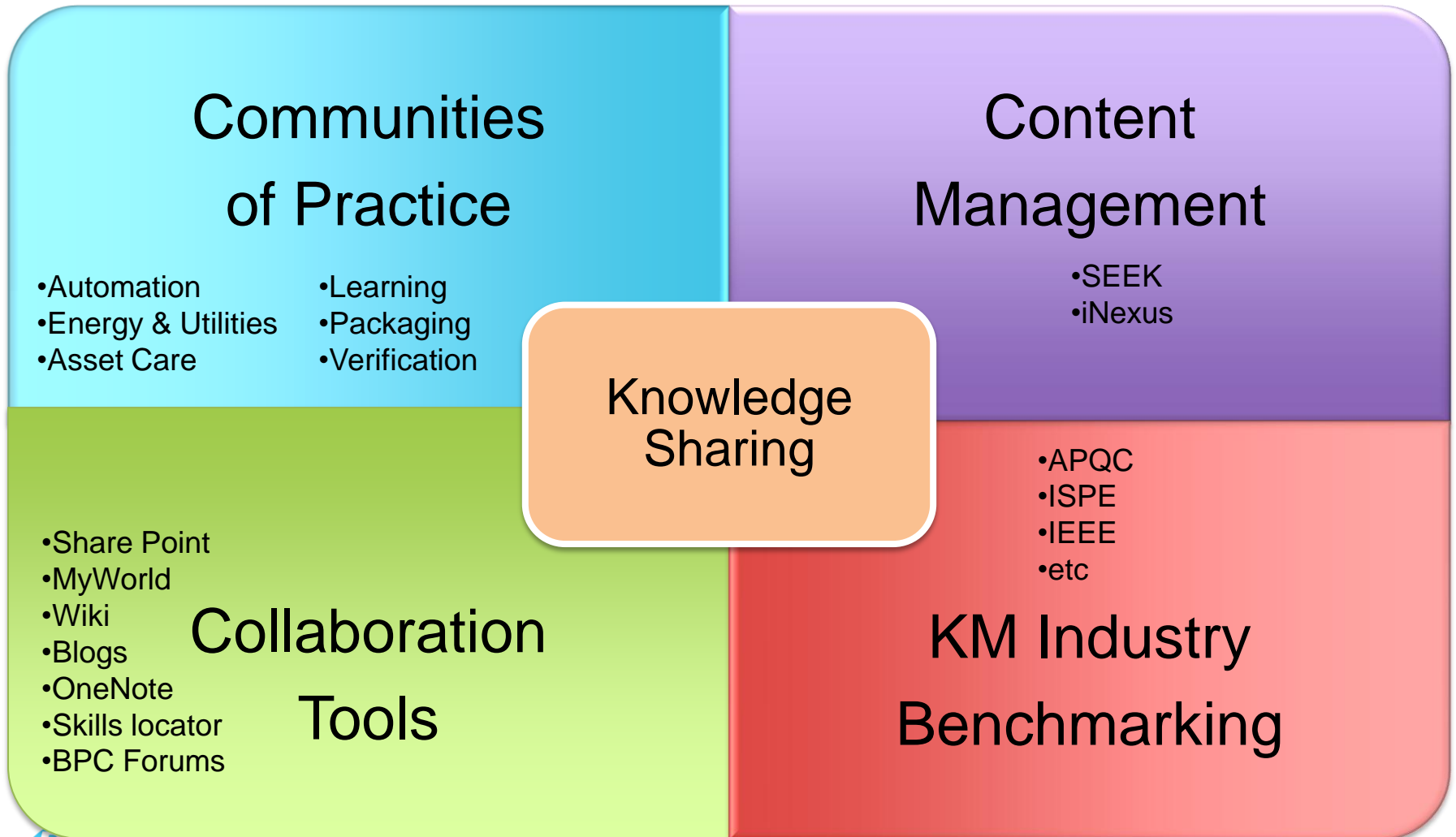
PGS Knowledge Management Philosophy

- **The PGS KM philosophy is to identify KM Activities that embrace our existing processes and, where needed, develop new ways of sharing knowledge that add value to business.**
 - e.g. iNexus, SEEK, SharePoint, Networks, Communities of Practice
- **The PGS KM philosophy is not focused on building new IT systems. We will partner as with Business Technology, as necessary, however there are multiple elements to a successful KM Program**

- People
- Processes
- Content
- Technology

{ KM Strategy

What is the PGS KM Portfolio?



Teams, CoPs, Networks?

	Purpose	Membership	Boundaries
Formal Departments	To deliver a product or service	Everyone who reports to the group's manager	Clear
Operational Teams	To take care of an ongoing operation or process	Membership assigned by management	Clear
Project Teams	To accomplish a specified task	People who have a direct role in accomplishing the task	Clear
Communities of Practice (formal)	To create, expand, and exchange knowledge, and to develop individual capabilities	Recruited based upon expertise or passion for a topic	Clear
Communities of Practice (informal)	To be informed Share Mentor	Self-selection based upon expertise or passion for a topic	Unclear
Informal Networks	To receive and pass on information, to know who is who	Friends and business acquaintances	Undefined

Open membership

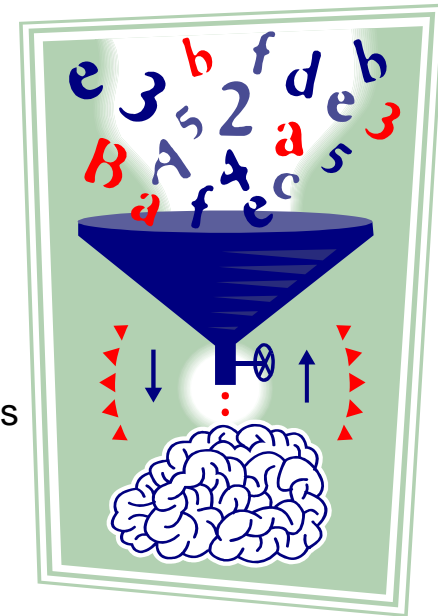


Clear objectives & deliverables

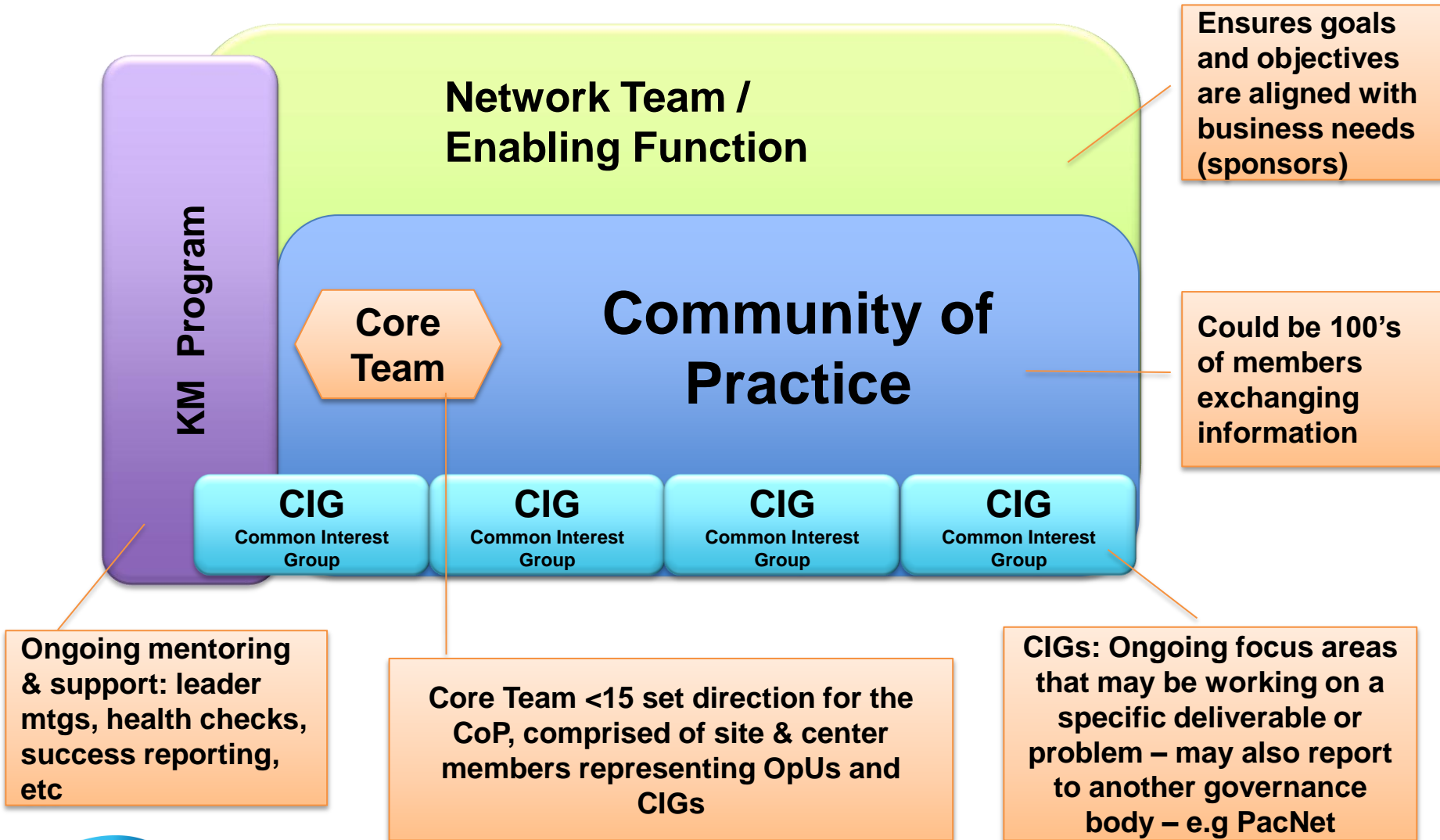
In PGS, also self selection w/specific recruitment but if very active role needs to be in personal objectives or IDP

PGS Community Program Terminology

- Any collaboration group may be considered a “community” or “Community of Practice” (CoP); however **open membership is the key**
 - If membership is not open other terminology (committee/network/team/etc) is more appropriate
- Not all communities will receive **formal program support** (design team facilitation, mentoring, etc) but all have access to CoP materials for “self study”
- **Common Interest Group (CIG)**: A subset of the larger community. CIGs are a network of individuals who share a mutual interest in a specific subject and have agreed to share their own experiences. CIGs normally have a lifespan of multiple years.
- **Limited Duration Teams/Project Teams**: CoPs/CIGs may be augmented to meet specific urgent project/business requirements (any LDT effort can tap into CoP expertise)
- **CoP Program**: Programmatic support/oversight provided by the KM Group to ensure that CoPs are healthy and keep the “pulse” on all PGS collaboration groups

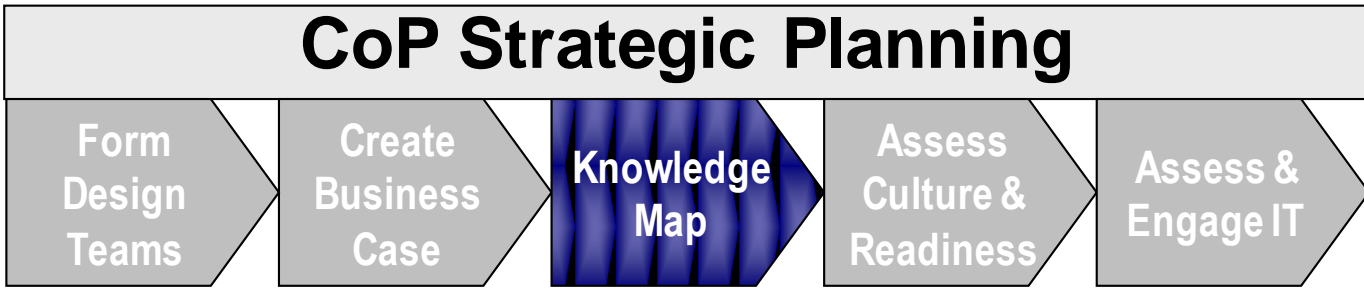


CoP Program Structure





Knowledge Mapping



About Pfizer Global Supply (PGS) CoPs

- **Wyeth/Pfizer licensed the APQC CoP methodology in 2007**
- **Have used this to launch ~ 20 CoPs**
 - CoPs ebb & flow with the business needs
 - Currently have 6 Program supported CoPs
- **Each CoP develops a Knowledge Map as a part of the design workshop**
 - 2 Day face to face workshop as well as pre work, a pre-workshop virtual meeting to set expectations
 - Design team workshops typically have 10-15 participants that are a combination of site and “center” colleagues





Why Knowledge Mapping?

- **APQC has found through their research and benchmarking it is on the of the “Top 10” Community Best Practices**
- **We have found it sets the structure for our CoP Knowledge Base and CoP Structure in many instances**
 - Gives us information about the top areas of the practice
- **Knowledge Mapping sets the base for the discussion on:**
 - What knowledge we have
 - What knowledge we need (or wish we had)
 - What knowledge should be shared and who with?
 - How will be manage the knowledge flow process for our community

More on Knowledge Mapping...

- **Our #1 tenant we have taken from Darcy & Cindy at APQC?**

“No empty store fronts...”

- **Use the knowledge map to design our “store front” before our CoP is formally launched**
- **After experience we developed an affinity mapping technique**
 - Suited our needs, our CoPs are not process oriented and after a few trials and errors we have a new mapping process that works for our communities

Key Questions

- What knowledge/content is needed?
- What knowledge/content do we have?
- **Who has this knowledge (sources or experts)*?**
 - Who can validate this knowledge* or “own” it?
- **Who needs this knowledge to be more effective* (recipients)?**
- **Where does this knowledge reside* (repository, person, content object)?**
- **What format is this knowledge in* (is it readily available or does it need to be transferred person to person)?**

Now that you know all that....

Lets develop a knowledge map!



Our CoP: Knowledge Management

- **Brainstorm – “if I was in a CoP about KM, what knowledge would I want to know/ what knowledge would I want to find?”**
 - Part 1 :Write your items, 1 per post it note down... be open minded, this is brainstorming! (10 mins)
 - Part 2: At your table, look at all the post it notes and cull the duplicates, possibly group items (if there are naturally emerging “buckets” or groups keep that in mind for part 3) (10 mins)
 - Part 3: As a table, take your post its to the wall – we will then do one big group affinity map- nominate 1-2 people from your table to move the notes into the related groups... (15 mins)
 - Part 4: See what groups/buckets emerge from this exercise... could this be your common interest groups or the bones of a knowledge base structure? (5 mins)

What do you do with that?

A few examples...



CIGs were identified from further categorization

General CoP matters the core team will own

Example from Automation CoP

CIGs	Integration	Process Control Strategy (PCS)	Computer System Asset Mgt (CSAM)	Life Cycle	Core
Topics	Enterprise Systems	PCS	Alarm Mgmt	Common	COP Logistics
	Data	Recipe, S-88	Vendors/Suppliers	Implementation Life Cycle	People/experts
		PAT	Software	Operation Life Cycle	Standards (General)
		Process Optimization	Infrastructure		
			Inventories		



Categories that came from the map on the wall



Sample Knowledge Map- Live version

In the excel spreadsheet they were also able to set up a listing to determines where the gaps were located



CoP Knowledge Map

Control System Asset Management CIG

Infrastructure	URL	Content?
	Security, Virus	
	System Architecture	Yes
	Infrastructure Coordination	Yes
	Bus Technology	No
	Instrumentation	No
	Control Panels	Yes
	Grounding/Earth	No
<input type="checkbox"/> Add new item		

Inventories	URL	Content?
	Site System Inventories	Yes
	Site Spares Inventories	No
	Site Application Doc Packages	No
	Summaries and Metrics	No
	Spare Parts Exchange	Yes
<input type="checkbox"/> Add new item		

Software	URL	Content?
	DCS Programming Guidelines	Yes
	PLC Programming Guidelines	Yes
	HMI Guidelines	Yes
	SCADA Guidelines	No
<input type="checkbox"/> Add new item		

Vendors/Suppliers	URL	Content?
	Control System Vendor Agreements	Yes

Process Control CIG

Process Control Strategy	URL	Content?
	API	No
	Aseptic	No
	Biologics	No
	DP Solids	No
	Alarm Management	No
<input type="checkbox"/> Add new item		

Configuration Strategy	URL	Content?
	Recipe	No
	S-88	No
<input type="checkbox"/> Add new item		

Process Optimization	URL	Content?
	Advanced Process Control (APC)	No
	Process Analytical Technologies (PAT)	Yes
<input type="checkbox"/> Add new item		

Life Cycle CIG

Implementation Life Cycle	URL	Content?
	Verification	
	Automation GEPs	Yes
	Quality by Design	No
	Risk Management	No
	21 CFR Part 11	Yes
<input type="checkbox"/> Add new item		

Operation Life Cycle	URL	Content?
	Backup and Restore	No
	Business Continuity	No
	CAPA	No
	Change and Config Mgmt	No
	Managing Support Services	No
	Performance Monitoring	No
	Periodic Review	No
	Security Mgmt	No
<input type="checkbox"/> Add new item		

Common Life Cycle	URL	Content?
	Good Documentation Practices	No
<input type="checkbox"/> Add new link		

Integration CIG

Data	URL	Content?
	GE Historian Configuration Best Practice	Yes
	Reporting	No
	OSI PI Historian Configuration Best Practice	Yes
<input type="checkbox"/> Add new link		

Enterprise	URL	Content?
	Production Execution Systems (PES)	Yes
	EAMS	No
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Next steps

- **We will compile the map from the wall and provide to all participants**
- **Thank you for your participation!**
- **Questions?**

