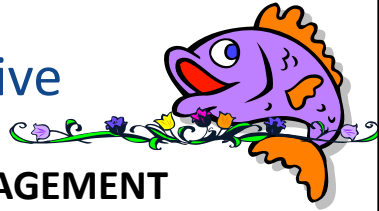
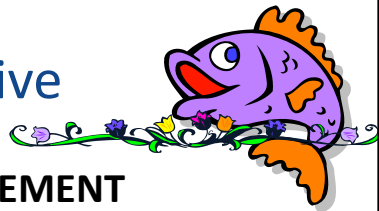


## Course Objective



- **PRINCIPLES OF KNOWLEDGE MANAGEMENT**
- *Define relevant terms and elements associated with Knowledge Management*
- *Differentiate between data, information and knowledge*
- *Benefits of Knowledge Management*

## Course Objective



- **PROCESS OF KNOWLEDGE MANAGEMENT**
- *Recognize and differentiate different knowledge management processes*
- **PEOPLE ISSUES IN KNOWLEDGE MANAGEMENT**
- *Identify requirements to successfully implement knowledge management programs*

## Course Outline: Day One

1. Introduction to Knowledge Management terminology
2. Importance of knowledge management
3. Benefits of knowledge management
4. Types of knowledge

## Course Outline: Day 2

1. Knowledge management processes
2. Knowledge sharing techniques
3. Requirements for successful implementation of knowledge management programs
4. Exercise to identify key issues relating to knowledge management to improve overall performance

# *Introduction to Knowledge Management Terms*

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What is it ??

Why do we need it??

## KNOWLEDGE MANAGEMENT



How to do it ??

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## Definition of Knowledge



The understanding of *relations* and *causalities*, and is therefore essential in *making operations effective*, building *business processes*, or *predicting the outcome* of business models

Source: Knowledge  
Unplugged; McKinsey

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## Definition of Knowledge



*Familiarity* with someone or something, that can include specific details, information or skills acquired from experience or learning

Knowledge may be *tacit knowledge* (skills and experience) or clear and unambiguous *explicit knowledge* (theoretical understanding about things)

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## Definition of Knowledge



Fluid mix of framed *experiences, values, contextual information, and intuition* that provides an *environment and framework* for evaluating and incorporating new experiences and information

It *originates in individual minds* but is often *embedded* in organizational routines, processes, practices, systems, software and norms

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Source: Knowledge  
Management Toolkit;  
Amrit Tiwana

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## Knowledge – Familiarity towards.....



**POSSIBILITIES**



**PEOPLE**

What if ??

**PURPOSE**

What??

**PROCESS**

How ?

Who ?

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## Characteristics of Knowledge



Subjective



Transferable



Embedded

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## Characteristics of Knowledge



Perishable



Spontaneous



Self-reinforcing

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# Characteristics of Knowledge



- **Subjective**
- The interpretation of knowledge is heavily dependent on individual's background and the context in which it is used



- **Transferable**
- Knowledge can be extracted from one context and profitably applied in a new one

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# Characteristics of Knowledge



- **Embedded**
- Knowledge invariably resides in a static and often buried form that cannot easily be moved or reformulated



- **Self-reinforcing**
- Knowledge does not lose its value when shared, indeed its value grows when widely distributed

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# Characteristics of Knowledge

- **Perishable**
- Over time, knowledge becomes outdated , especially for an individual organization, due to unpredictable volatility
- **Spontaneous**
- Knowledge can develop unpredictably in a process that cannot always be controlled



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# Definition of Management



Management is conscious and systematic decision making about the *best use of scarce resources under uncertainty* to achieve *lasting improvements in organizations performance*

Source: Knowledge  
Unplugged; McKinsey

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## Definition of Knowledge Management



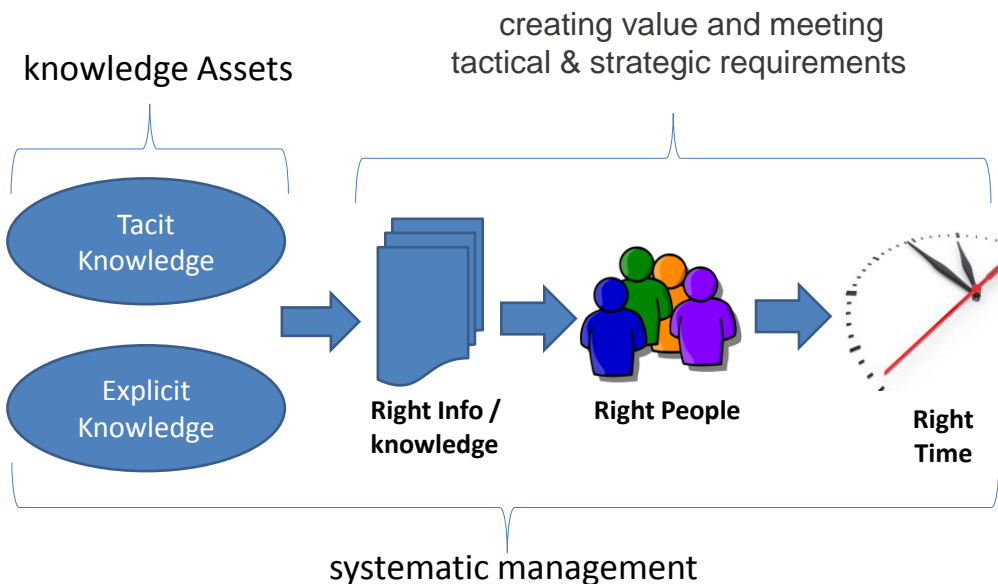
The management of all processes that involve the *development, sharing* and *application* knowledge effectively within an organization to achieve organization objectives.

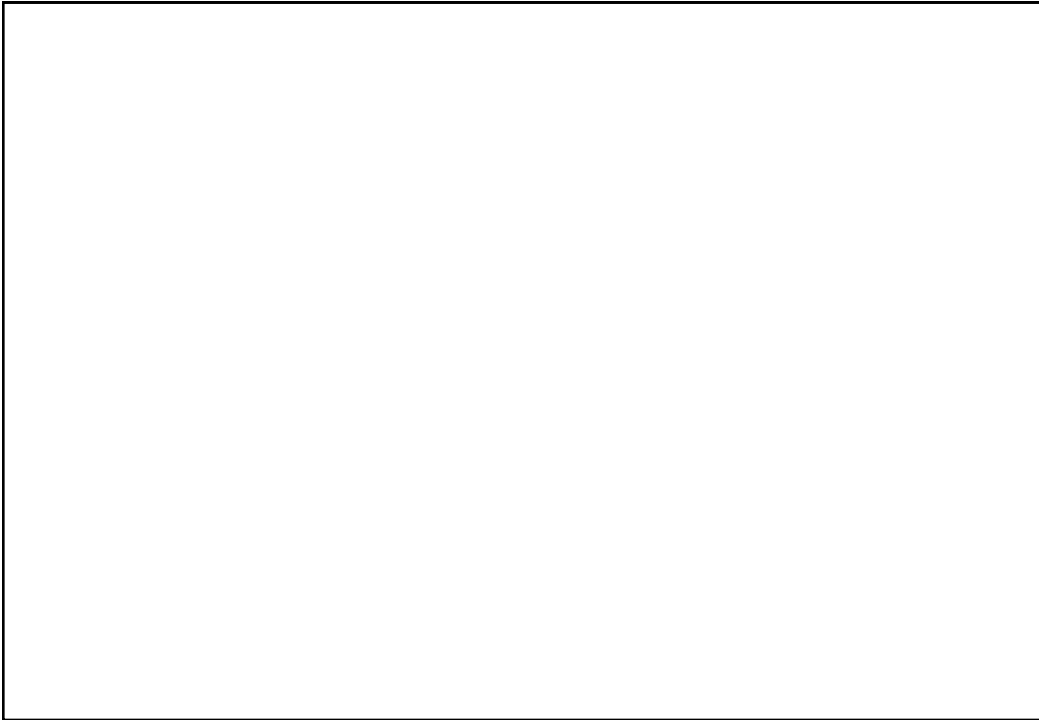
It ensures that necessary knowledge to do something exist at the *time, place, form* and to the person requiring the knowledge in question

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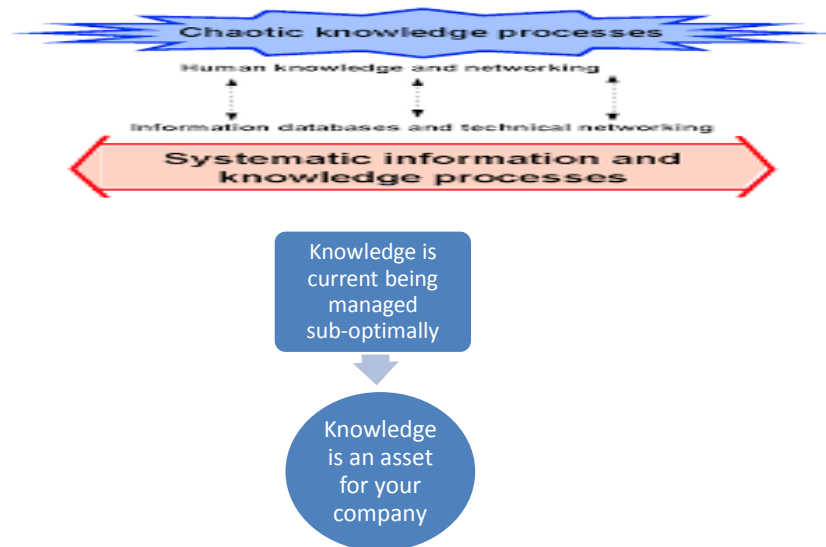
## What is KM?





## Why do we need KM?

### Knowledge Processes

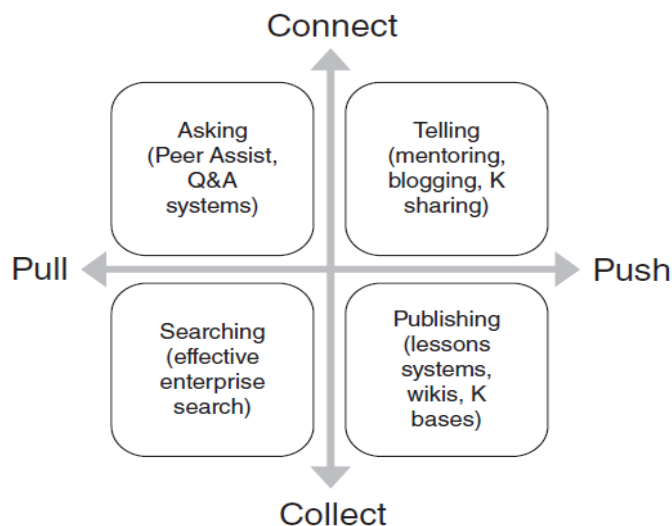


## Evidence of Knowledge Managed Sub-Optimally

- *Why do we keep having to relearn this?*
- *How do I know where to find this knowledge*
- *I'm sure I heard someone mention that to me the other day, now who was it?*
- *Someone must have done this before—but who?*
- *When that guy left, he took all that knowledge with him*
- *It was pure luck that I met John — he/she had just the answer I was looking for*
- *That went very well—how do we repeat that success?*
- *We made this mistake in our other office too*

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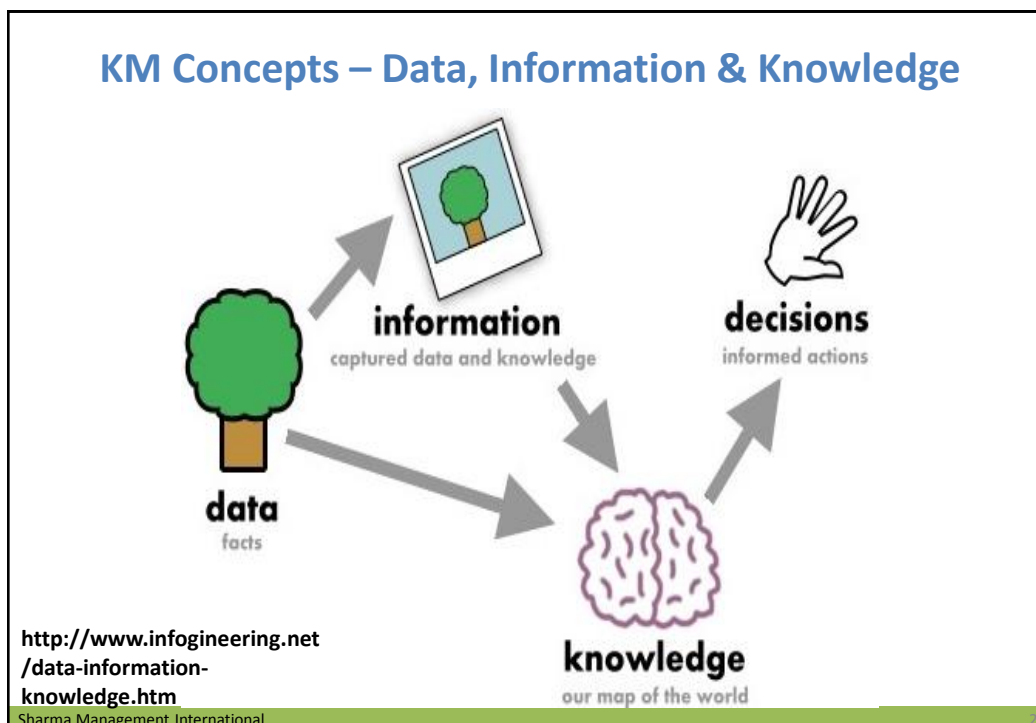
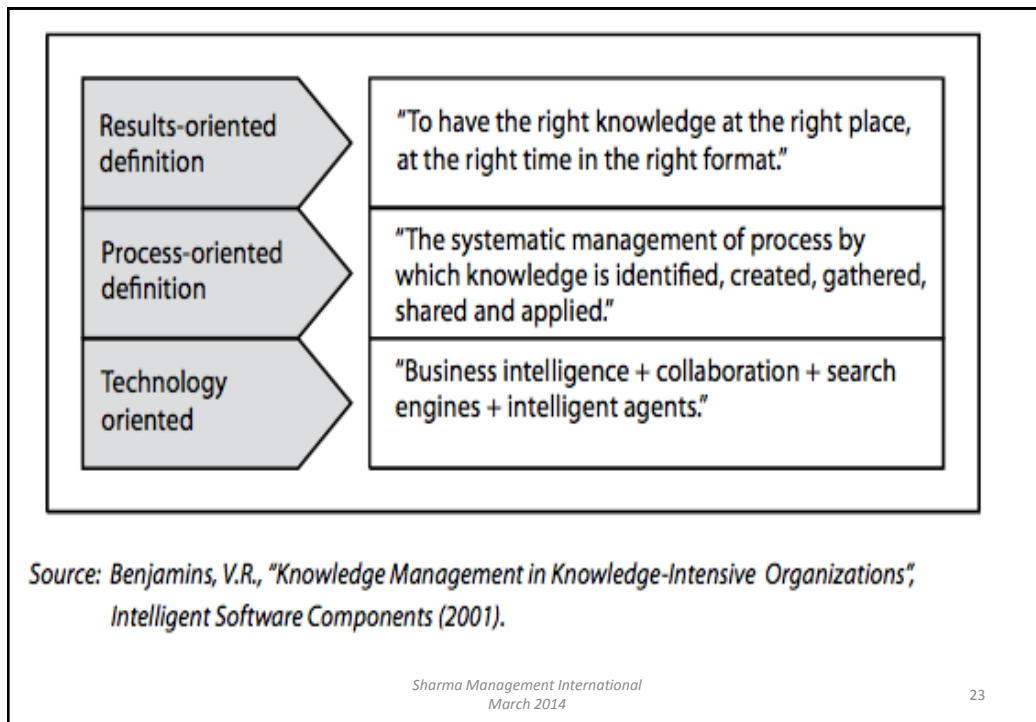
## 4 Quadrants of KM



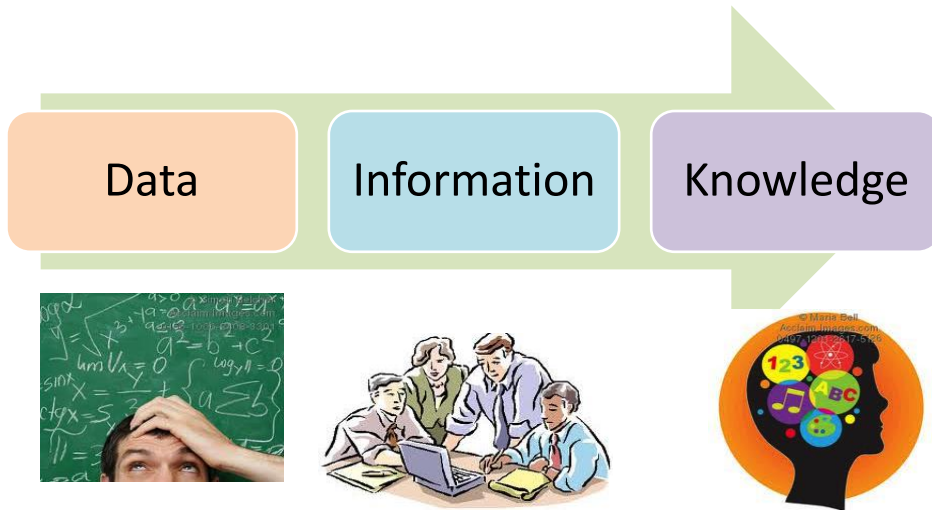
Barnes, S., & Milton, N. (2015)



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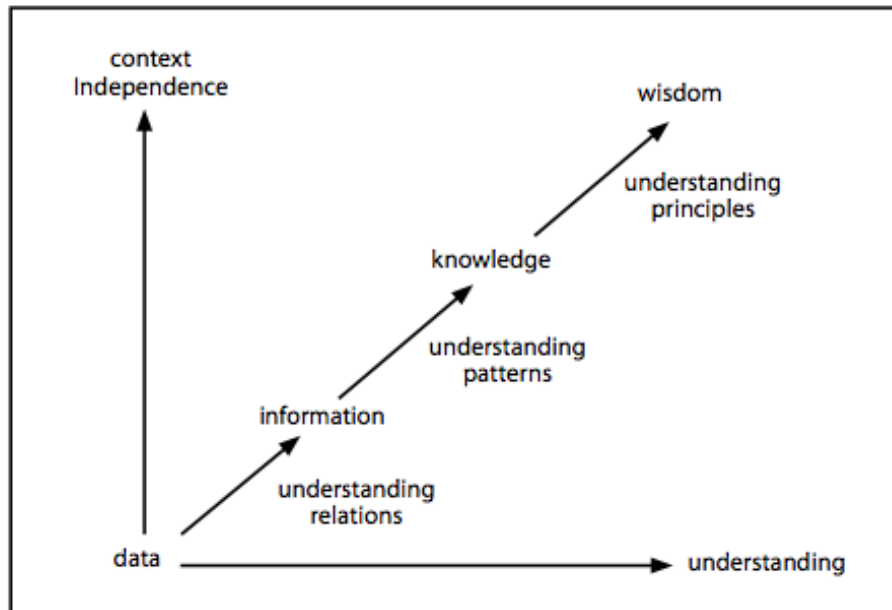


# Data, Information and Knowledge



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## Data, Information and Knowledge

- Data or information received is in accordance with a particular specific context or have a relationship with something specific.
- Without information, knowledge does not exist.
- To gain knowledge, information is required

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## Data, Information and Knowledge



Knowledge is the accumulation of information that is concise and meaningful to the recipient of such knowledge

The addition of knowledge occurs when information received may be linked to knowledge and experience that already exists

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# Information and Knowledge

## Information

- Information is the result of a data that is processed. Conveying information depends on how data processed is interpreted between two parties.



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## Knowledge

- Knowledge is meaningful information that can be applied  
Knowledge exists when a particular pattern of information can be identified



# Information and Knowledge

	INFORMATION	KNOWLEDGE
Element	Data that is processed	Meaningful information that makes sense
Use	Meaning of the information depends on how the data is arranged / presented	Involves style and analysis of the information provided
Desired result	Useful knowledge	Basis for action

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## Characteristics of Knowledge Management

- It is the result of continuous learning
- It is something that is practical, based on the action and produce results
- It is NOT dependent on information technology

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## Characteristics of Knowledge Management

- It's success depends on the human mind and NOT on technology
- It is process-oriented
- The experience of the past and the creation of new ways how to use, distribution, and production of knowledge is ever increasing

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## Primary Aim

To give the *Best Knowledge* to the *Right Person* at the *Right Time (Format)* to solve a problem, make a decision or complete a task.

By Developing a Knowledge portal that *Connects and Collects* people and knowledge bases

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## Primary Aim



Connect People



Knowledge Base

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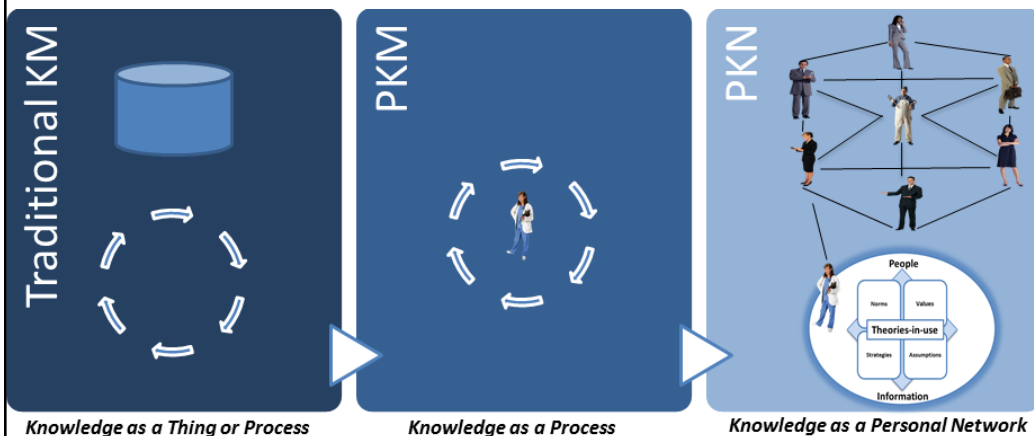
# Personal and Group Knowledge Management



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## Traditional and Personal KM



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## Meaning of Personal KM

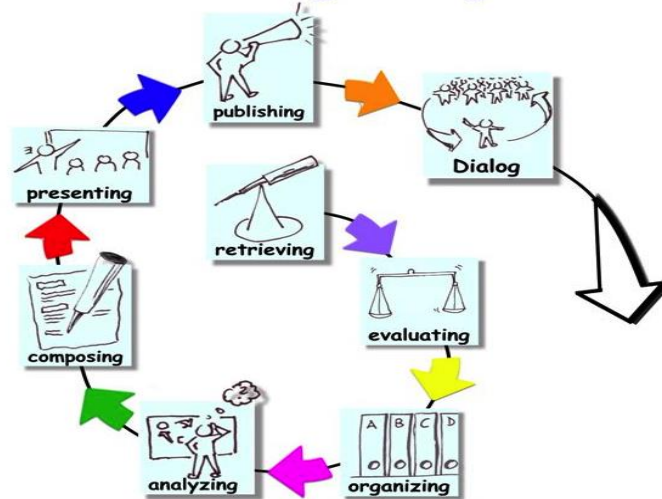
- A collection of processes that a person uses to gather, classify, store, search, retrieve, and share **knowledge** in his or her daily activities) and the way in which these processes support work activities to improve ones **personal knowledge quotient**

## Personal Knowledge Quotient

$$\text{Personal Knowledge Quotient} = \frac{\text{What you know}}{\text{What is known}}$$

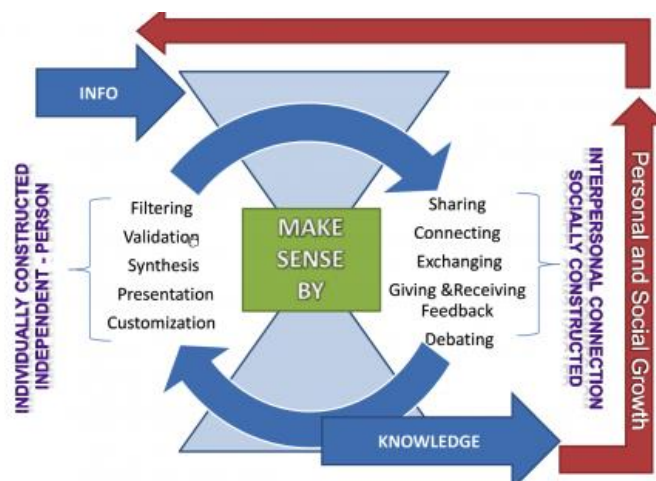
# Stages in Personal Knowledge Management

## Personal Knowledge Management 2.0



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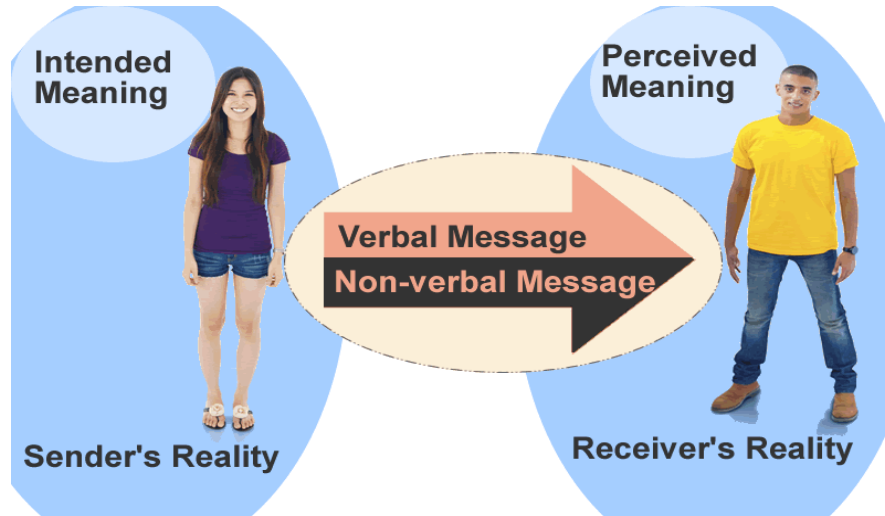
# Personal Knowledge Management



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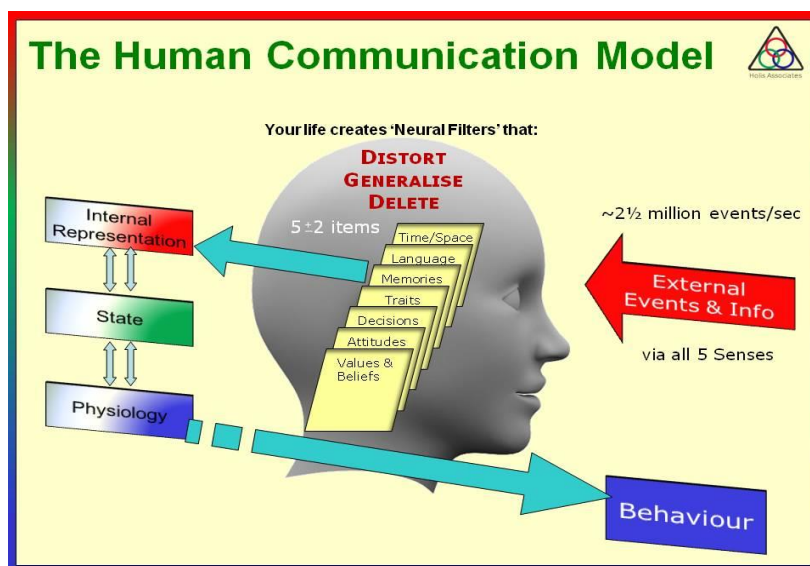
# Intended and Perceived Meaning



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# Individual Information Processing



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## Awareness



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## Personal Knowledge Management

# Awareness

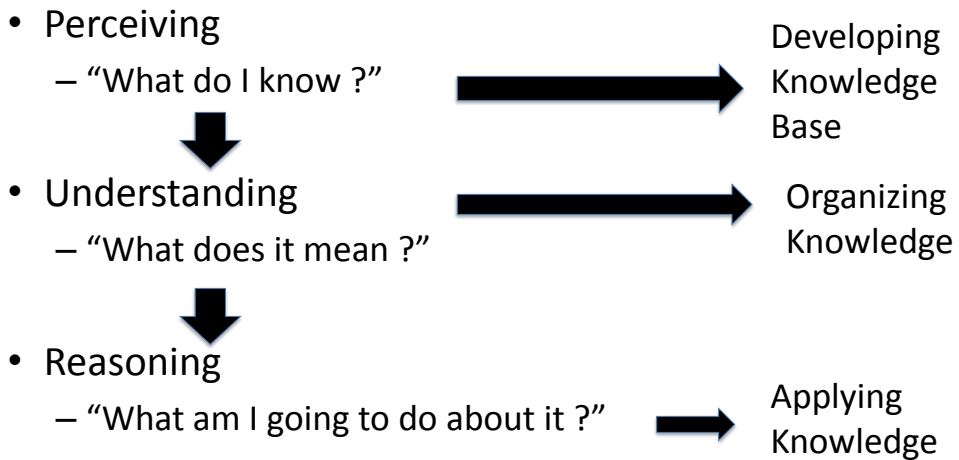
# Adaptability

# Action

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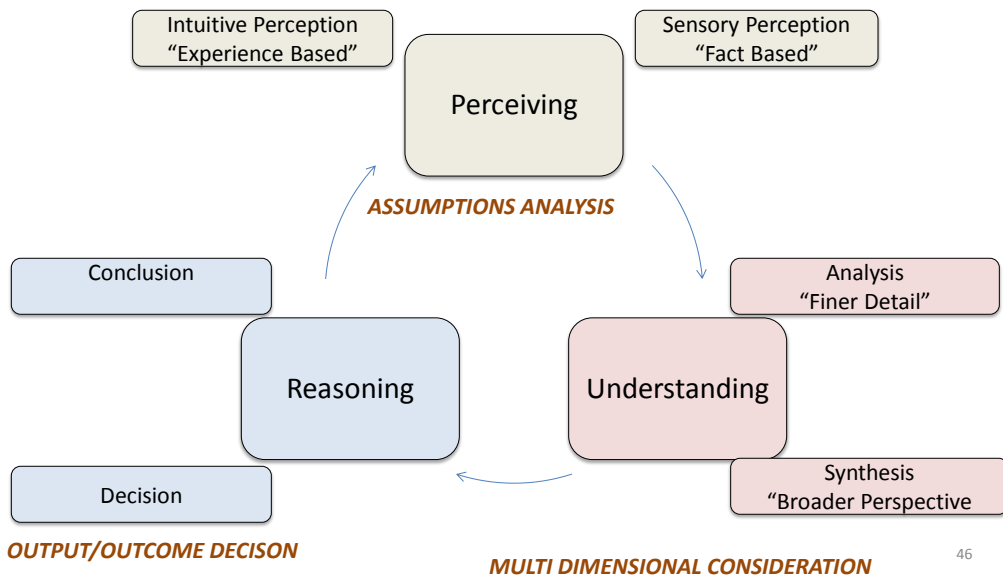
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## Three phases of Thinking



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## Thinking Cycle



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# Personal Knowledge Management



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## Critical thinking

Analysing and Evaluating thinking with a view to improving it by uncovering and checking our assumptions

Involves three stages:

1. Discovering assumptions that guide our decisions
2. Checking accuracy of the assumptions
3. Taking informed decisions based on assumptions
4. Implementing decisions made

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# Requirements for critical thinking



CAREFUL,  
INTENTIONAL  
THINKING



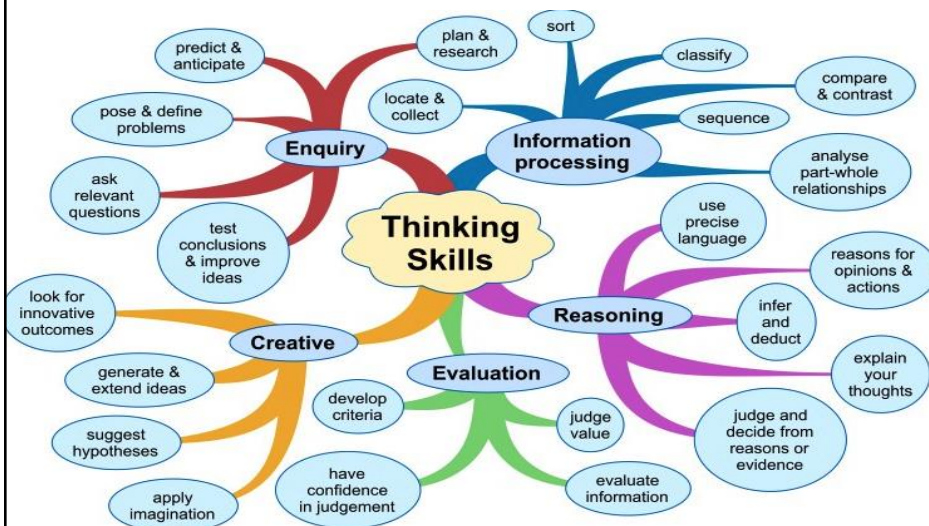
USE OF REASON OR  
LOGIC



APPLICABLE TO REAL  
LIFE ISSUES

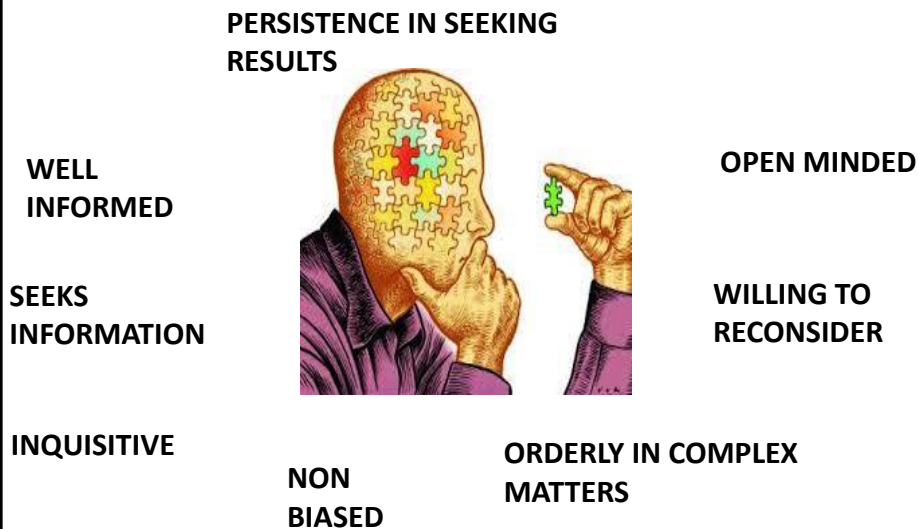
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# CRITICAL THINKING SKILLS

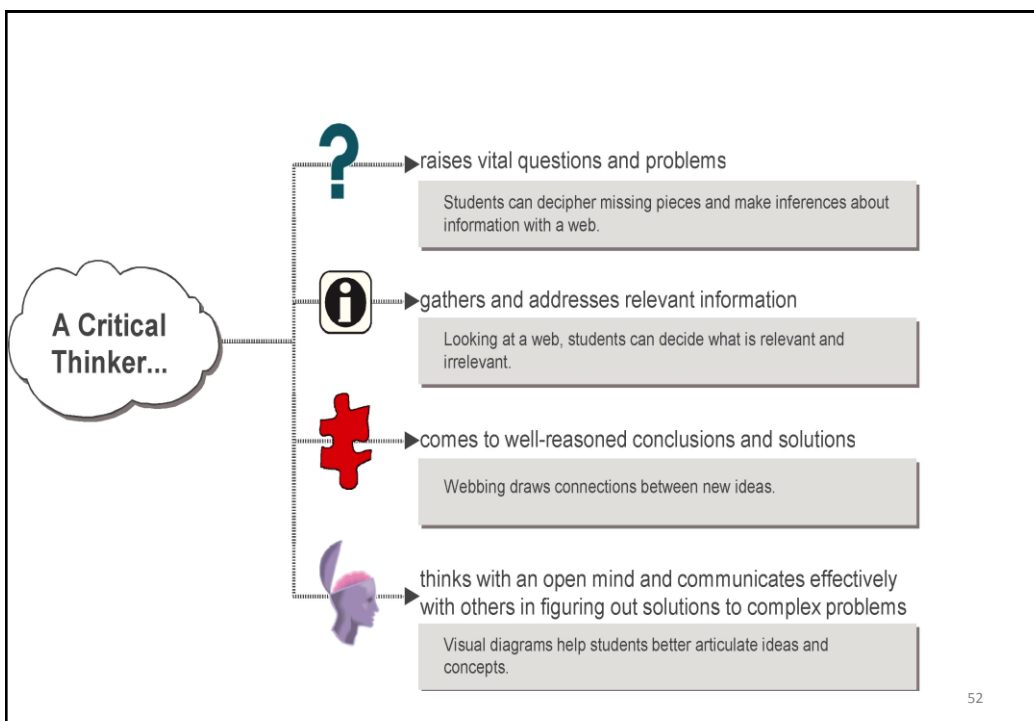


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# Characteristics of a Critical Thinker



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# THINKING CRITICALLY



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## How to Practice PKM

**Seek > Sense > Share**

### Seeking Knowledge

- Ask
- Desire
- Read
- Listen
- Observe

—Morgan

### Knowledge Filters

- Naïve
- Expert
- Network
- Heuristic
- Algorithmic

—Kastelle

### Curating Knowledge

- Comparing
- Finding related items
- Illustrating/Visualizing
- Evaluating
- Crediting and Attributing

—Good

### Acquiring Knowledge

- Practice
- Get it from Yourself
- Walk Around It
- Experiment

—Manga

### Adding Value

- Filtering
- Validation
- Synthesis
- Presentation
- Customization

—Dawson

### Sharing Knowledge

- Put in Order
- Define
- Teach
- Write
- Reason

—Morgan

### Helping Seekers

- Answers
- Meta Knowledge
- Problem Reformulation
- Validation
- Legitimizing

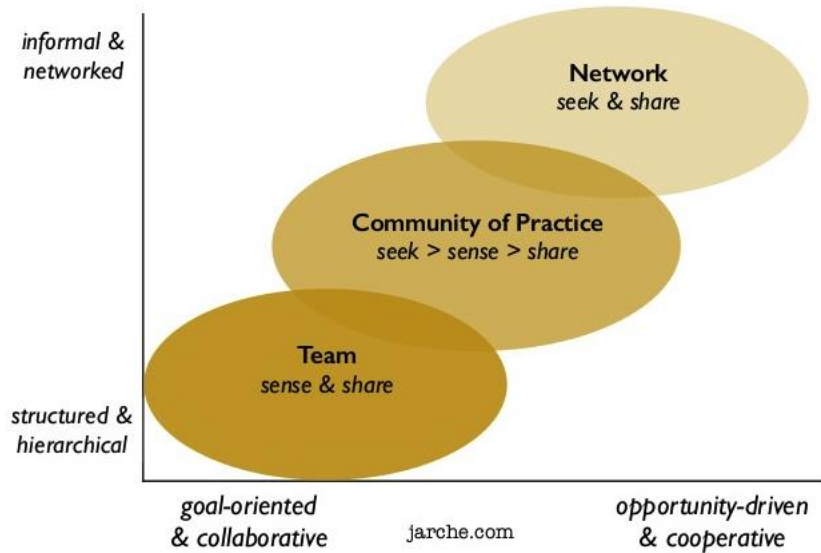
—Dixon

jarche.com

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PKM = continuous seeking, sense-making & sharing



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## Group KM



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# *Benefits of Knowledge Management*

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## Benefits of Knowledge Management



*Know what is needed and  
in control of the business  
environment*



*Do not know what is  
needed and under the  
control of the business  
environment*

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## Benefits of Knowledge Management



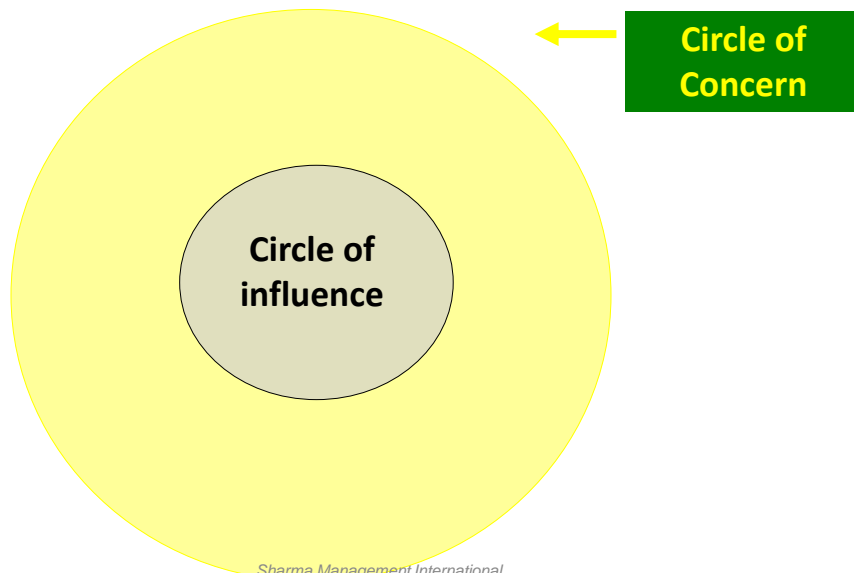
Individual efforts  
based on *individual*  
knowledge

Team based efforts  
based on *collective*  
knowledge

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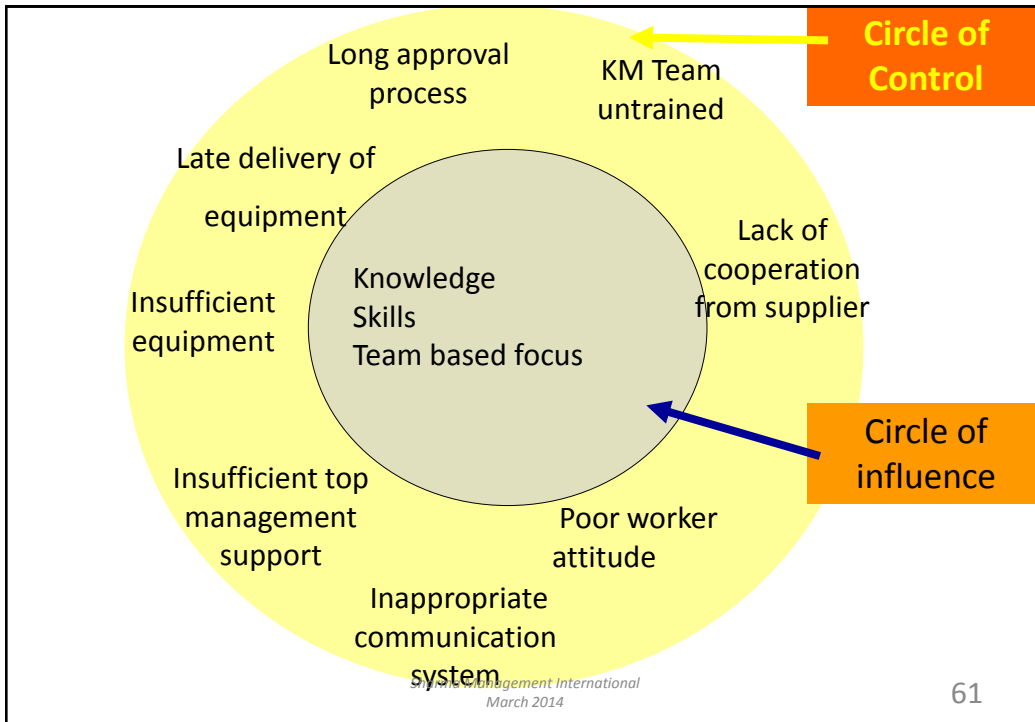
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## Circle of influence and circle of control

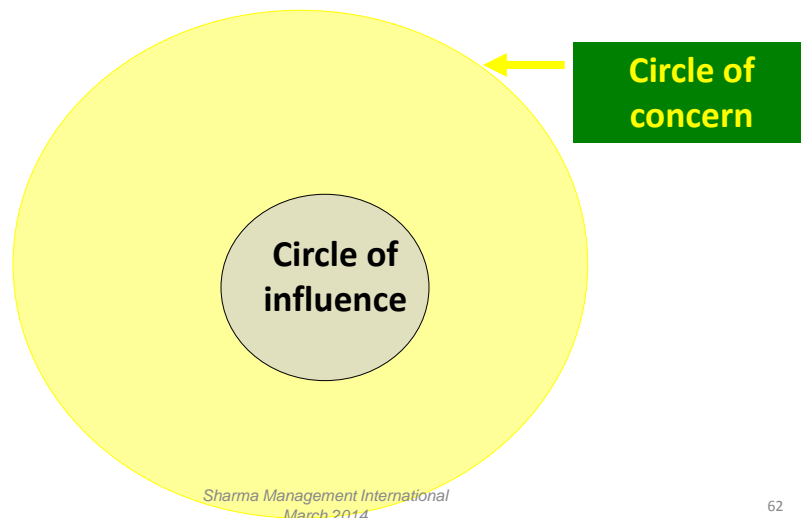


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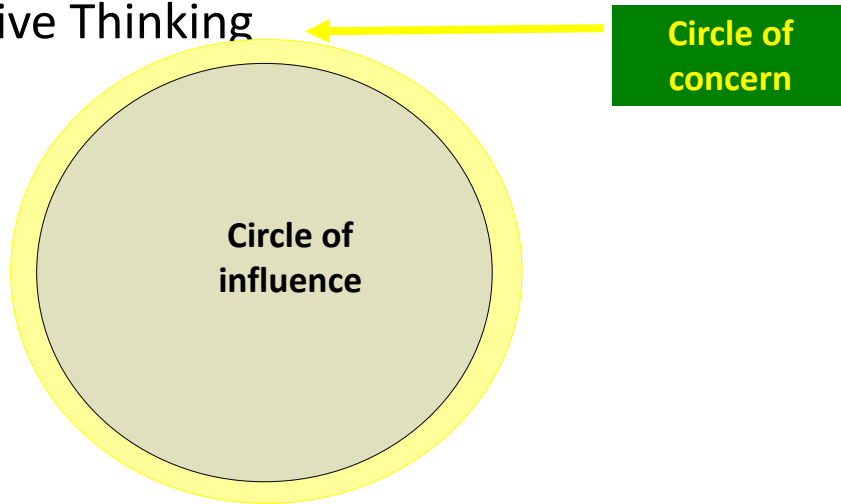


## Focus on the circle of concern leading to Reactive Thinking



Focus on the circle of influence leading to

Proactive Thinking



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# Types of Knowledge

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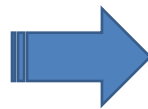


## KM Concepts – Tacit & Explicit Knowledge



### **Tacit Knowledge**

Undocumented & Unarticulated knowledge



**Codification  
of  
knowledge**



### **Explicit Knowledge**

- Codified knowledge

# Knowledge Types



## Explicit Knowledge

- Can be coded
- Can be documented



## Implicit Knowledge

- Cannot be coded
- Cannot be documented

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# Knowledge Types



## Structured Knowledge

- Has a structure that is predetermined
- Can be easily accessed and makes sense



## Unstructured Knowledge

- In highly unstructured in content and form
- Difficult to access and may not make sense

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## Explicit Knowledge

- Knowledge of this type is formal and can be encoded, sometimes known as "know what".
- May be identified, stored and issued
- Can be managed easily by knowledge management system, which is able to ensure storage, retrieval and modification of documents containing knowledge

## Explicit Knowledge

- Exist, particularly in certain documents
- It involves the "know what" and "know why"
- Can be seen and easily transferred
- A fraction of the knowledge that exists in any organization is in the form of explicit knowledge

## Explicit Knowledge

- The challenge is ensuring that those who need to know are given the necessary knowledge at the time of need.
- Knowledge should be stored in appropriate conditions for easy access or retrieval

## Implicit Knowledge

- Tacit knowledge exists only in the human brain.
- It involves the "know how" and "know why"
- It is invisible and hard to move
- The bulk of existing knowledge is tacit knowledge
- To be changed to Explicit knowledge so that it can be known by others

# Implicit Knowledge

- Reduced focus on tacit knowledge reduces efforts for continuous innovation and competition
- Tacit knowledge includes beliefs, values, attitudes, way of thinking and so on in addition to knowledge and skills that are specific to a person.

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## Forms of Knowledge



Descriptive



Procedural



Reasoning

## Descriptive Knowledge

- Describes some state or aspect of the world
- Outcome depends on viewpoint of the recipient, quality and interpretation of data
- May be acquired if non existent
- May get access to it if it is known
- Tools
  - Information that makes sense to the recipient

## Procedural Knowledge

- Reflect how something is done or how to do something
- Involves step by step procedure for tasks or explaining things
- Used in stable situations that are simple, predictable and static
- Tools
  - Cookbook
  - Procedure manual

## Reasoning Knowledge

- Considers outcomes, cause and effect situations to determine actions to be taken in a given context
- Used when complexity, uncertainty or frequent changes overcomes the ability to proceduralize something
- Tools used:
  - Logic
  - Correlation analysis
  - Analogy
  - Causality

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## knowledge management tools and techniques:

helping you access the  
**right knowledge**  
at the right time

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## Tools and Techniques for .....

- Connecting People to Information and Knowledge
- Connecting People to People
- Organizational Improvement

## connecting people to information and knowledge



case study



rapid evidence review (RER)



knowledge banks



IDeA knowledge



---

## connecting people to people



communities of practice (CoP)



peer assist



knowledge café



knowledge marketplace

---

## organisation improvement



gone well/not gone well



after action review (AAR)



retrospective review



knowledge exchange

### Portfolio of KM tools, techniques and resources

connecting people to information and knowledge



case study



rapid evidence review (RER)



knowledge banks



IDeA knowledge

### connecting people to people



communities of practice (CoP)



peer assist



knowledge café



knowledge marketplace

### organisation improvement



gone well/not gone well



after action review (AAR)



retrospective review



knowledge exchange

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## Community of Practice

### what is a community of practice (CoP)?

A community of practice is a network of individuals with common problems or interests who get together to:

- explore ways of working
- identify common solutions
- share good practice and ideas

Typically, they pool resources related to a specific area of knowledge.

Informal communities exist in some form in every organisation. The challenge is to support them so they can create and share organisational knowledge.

Communities of practice are organic and self-organising, and should ideally emerge naturally. They usually evolve from the recognition of a specific need or problem.

### why should you use a community of practice?

A CoP provides an environment (virtual and or face-to-face) that connects people and encourages the development and sharing of new ideas and strategies.

This environment supports faster problem solving, cuts down on duplication of effort, and provides potentially unlimited access to expertise.

Technology now allows people to network, share and develop practice entirely online. Virtual communities overcome the challenges of geographical boundaries. They encourage the flow of knowledge across local government and enable sustainable self-improvement.

# Knowledge Café

## knowledge café



### what is a knowledge café?

A knowledge café brings people together to have open, creative conversation on topics of mutual interest.

It can be organised in a meeting or workshop format, but the emphasis should be on flowing dialogue that allows people to share ideas and learn from each other.

It encourages people to explore issues that require discussion in order to build a consensus around an issue.

### who should use a knowledge café?

Working in complex and changeable environments is common in local government. Thus it can be hard to keep informed of issues and the ideas and perspectives of colleagues and peers.

The knowledge café brings to the surface, in an informal environment, all the understanding we have in an area.

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# Gone well/Not gone well

## gone well/not gone well



### what is a gone well/not gone well?

A gone well/not gone well is a quick and useful tool to get candid feedback at the end of an event or activity. It allows all participants to say which aspects of an event or activity worked and which didn't in an open and accepting atmosphere.

### why should you use a gone well/not gone well?

This tool is a useful way to close a session and provides an opportunity to discuss the event. It is especially useful in getting people to express more critical comments in a relaxed way.

It helps facilitators and organisers of events to gather information that will help them do better next time.

### how to run a gone well/not gone well

This is a facilitated session to get feedback and requires a flipchart to record the information. The flip chart is divided down the middle into two columns: 'Gone well' and 'Not gone well'.

The facilitator asks the group to comment on anything to do with the event that went well or not so well. This could include content, delivery style, catering, room layout, discussion topics, materials used, plus whatever people want to raise in relation to the day.

All positive and negative comments are written into the respective columns on the flipchart.

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# After Action Review

## after action review (AAR)



### what is an after action review?

An after action review (AAR) is a tool to evaluate and capture lessons learned. It takes the form of a quick and informal discussion at the end of a project or at a key stage within a project or activity. It enables the individuals involved to:

- review what has happened
- summarise new knowledge
- decide what action should be taken next

This discussion should cover:

- what happened and why
- what went well
- what needs improvement
- what lessons can be learned from the experience

### why use an after action review?

In local government, much work results in the creation of new knowledge. By formalising the way this knowledge is extracted and recorded, it can readily be made available to colleagues and other organisations facing similar challenges.

An AAR provides a quick way of making an informed decision about how to approach the next action.

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## PROCESS OF KNOWLEDGE MANAGEMENT



# Knowledge Management Processes

- Knowledge Development
- Knowledge Sharing
- Knowledge Application



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Knowledge  
Development



Knowledge  
Sharing



Knowledge  
Application



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### Figure 4.1 Knowledge Capture and Sharing

```
graph TD; CT([Capture Tools  
(programs, books,  
articles, experts)]) --> KC[Knowledge Capture  
(creation)]; IG([Intelligence  
Gathering]) --> KC; KC <--> DB1[(Databases  
Explicit Knowledge)]; KC --> KD[Knowledge Codification]; KD --> TD[Testing and  
Deployment]; ST([Shells, Tables,  
Tools, Frames,  
Maps, Rules]) --> TD; LT([Logical Testing,  
User Acceptance  
Testing, Training]) --> TD; TD --> KS[Knowledge  
Sharing]; KI[Knowledge  
Innovation] --> KS; KS --> G[Goal]; KS --> KT[Knowledge  
Transfer]; DB2[(Databases)] --> KT; KB[(Knowledge  
Base)]; I([Insight]) --> KB; KT --> WBS([Web Browser,  
Web Pages,  
Distributed Systems]); KT --> CTS([Collaborative Tools,  
Networks,  
Intranets]);
```

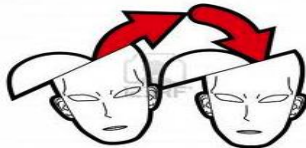
Source: Awad, E. M. and Ghaziri, H. M., Knowledge Management, Pearson Education International (2003).

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## Knowledge Development

Knowledge production can occur from the formation of new knowledge based on experience in a field of work.

The production of this knowledge can be used with other knowledge in other fields that can be distributed and used in different applications.



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## Knowledge Sharing



- The sharing of knowledge must happen quickly and be sent to those who need it at that point in time
- Knowledge shared should be used to ensure that the process is successful and has a positive impact

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# Knowledge Application



- Knowledge can only be used effectively if there is a general understanding of a subject
- The application of knowledge in a particular context depends on the level at which knowledge can be shared

# Knowledge Application



- When the transfer of knowledge to produce new knowledge that can prevail, this creates a situation where the new knowledge produced
- Speed of knowledge sharing is necessary because knowledge has a certain life span



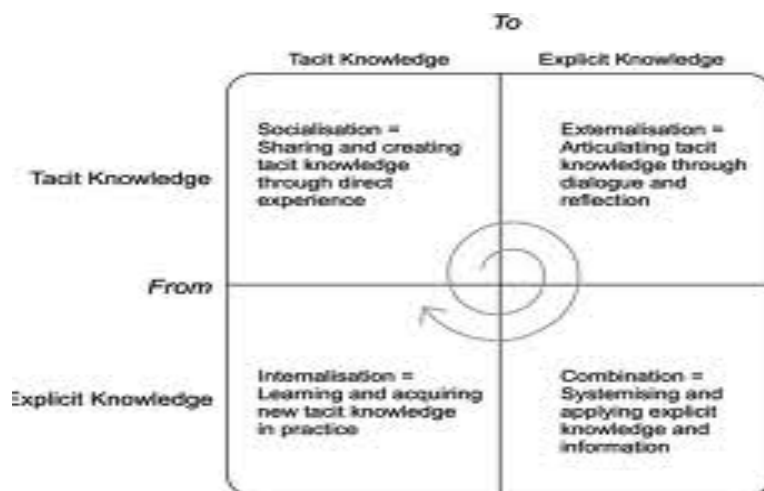
# Knowledge Conversion Process

- Focus on changes in form of clear and distinct, explicit knowledge to tacit knowledge patterns when the knowledge produced

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# The Spiral of Knowledge Exchange



Source: Fong (2005)

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## Socialization



Coming from shared experience, through a network of relationships that provided for sharing of experiences. It can also occur by interaction with suppliers and customers

## Combination



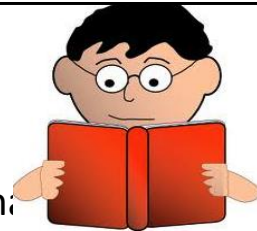
- The conversion of knowledge in an explicit form to another explicit form
- Existing knowledge in a specific document may be changed into other documents so easily the knowledge is easily accessed and used.

## Externalization



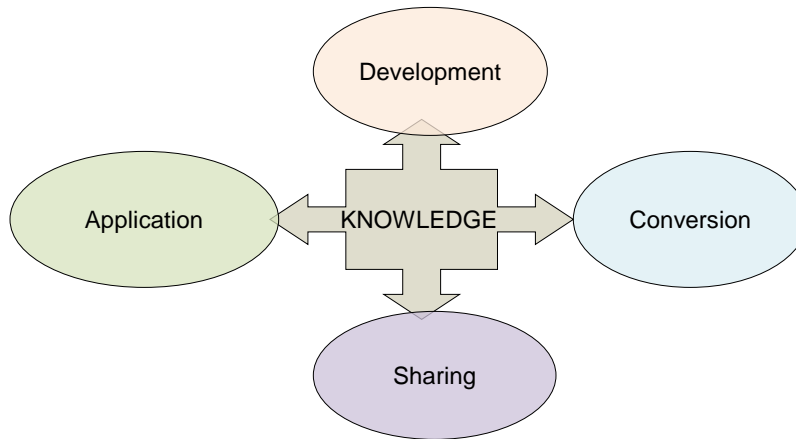
- The process of converting knowledge from tacit to explicit
- Information is considered "frozen" when it is knowledge stored in tacit form
- What the learned is shared in the form of concepts, diagrams, hypothesis easily which is an example of explicit knowledge that has been converted from tacit knowledge that exists in the mind

## Internalization



- The process of converting knowledge that explicitly exists into implicit knowledge in a person's brain.
- The conversion process of internalization occurs when one tries to understand the concepts that are taught either by doing it or when told by others.

## Knowledge Management Process



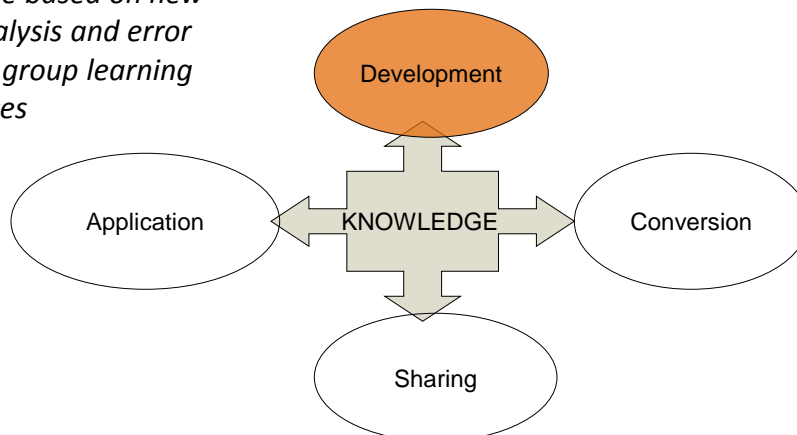
Continual process that requires support from all parties

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## Knowledge Management Process

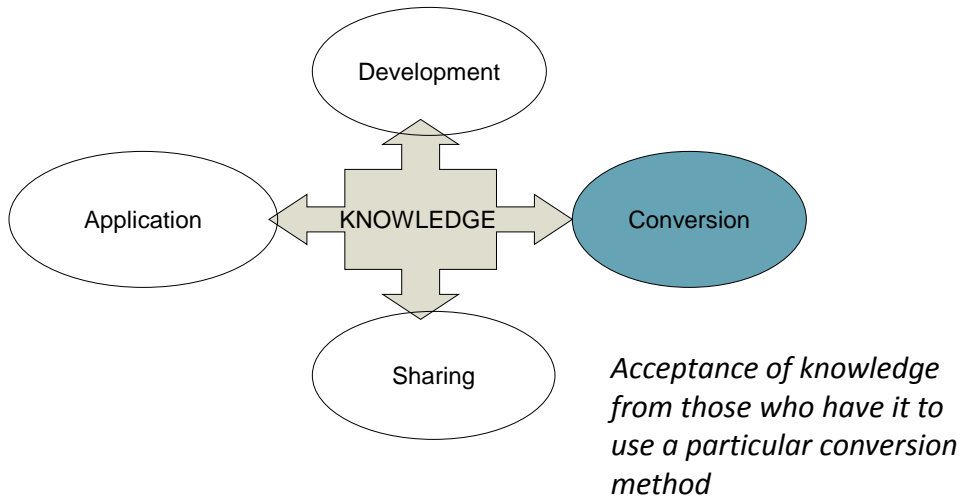
*Generation of new knowledge based on new ideas, analysis and error daily and group learning experiences*



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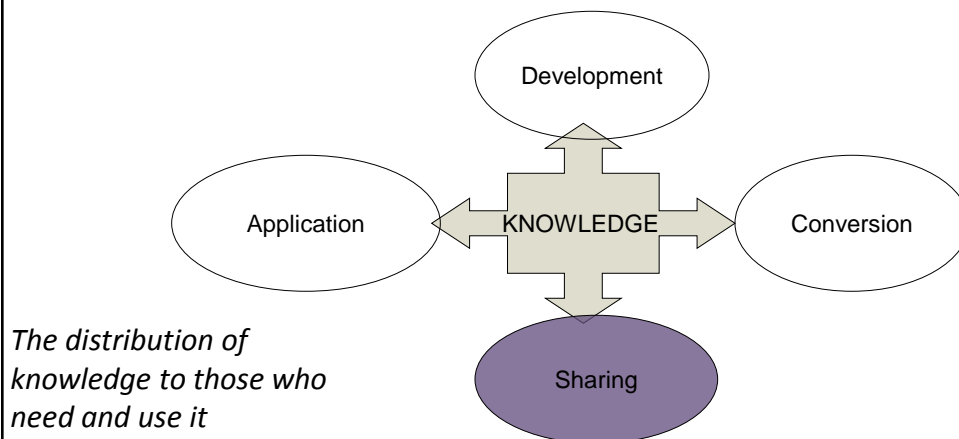
## Knowledge Management Process



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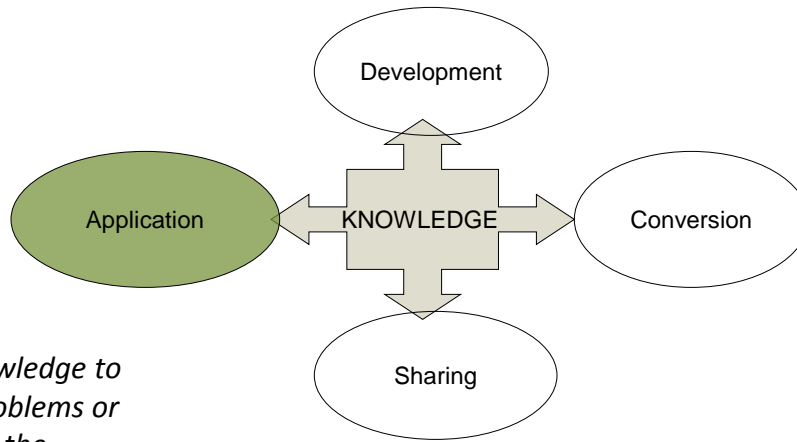
## Knowledge Management Process



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## Knowledge Management Process

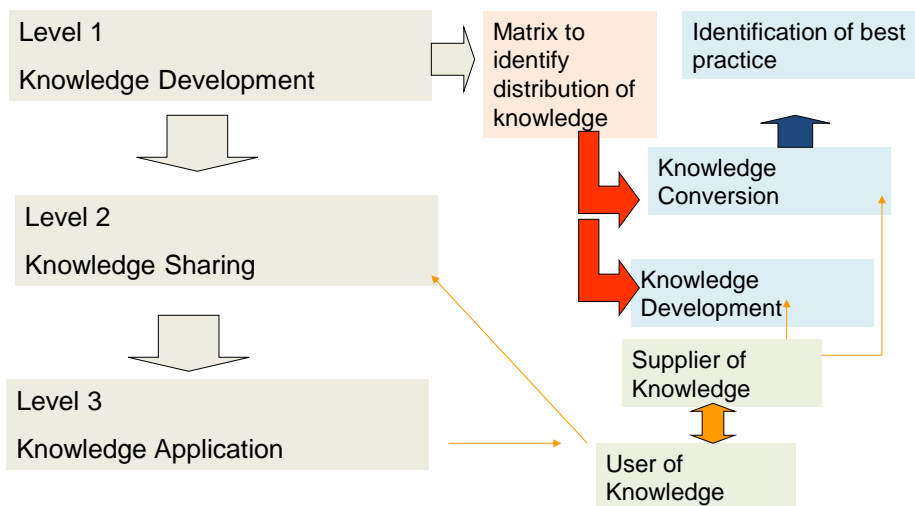


*Use knowledge to solve problems or improve the performance of the organization*

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## Overall Process



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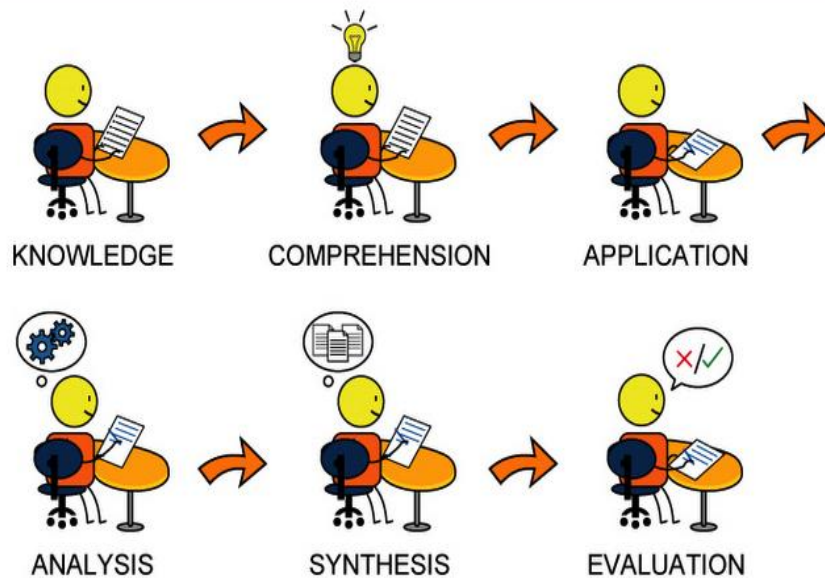
108



# ***Knowledge Taxonomy***

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## Meaning of Taxonomy

- A collection of controlled vocabulary terms organized in a hierarchical structure
- It consists of
  - Main Term
  - Top Term
  - Broader Term
  - Narrower Term

## Characteristics of a Good Taxonomy

- Used to organize knowledge
- User can immediately understand overall structure of knowledge domain
- Comprehensive, predictable and easy to navigate
- Can anticipate resources needed and where they may be found
- Semantic – describes relationships between terms



## Why organize knowledge

- Needed to manage knowledge effectively
- Taxonomies play an integral role in organizing knowledge

## What do taxonomies do?

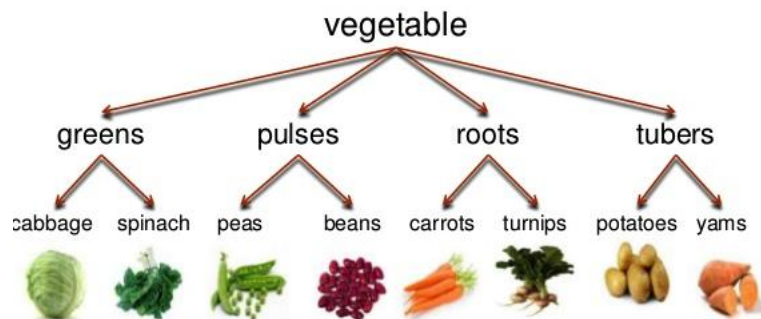
- Structure and Organize
  - Taxonomies organize knowledge and information as well as work and resources
- Span boundaries between groups
  - Taxonomies serve as boundary objects if they form common frame of reference for two distinct communities
- Help in sense making
  - Taxonomies draw our attention to important, actionable and relevant things

## Attributes of Taxonomies for KM

- For the purpose of knowledge management, an effective taxonomy has three key attributes
  - A classification scheme
  - Semantic
  - Knowledge Map

## Semantics- Example

### **Example of Taxonomy:**



# Classification - Example



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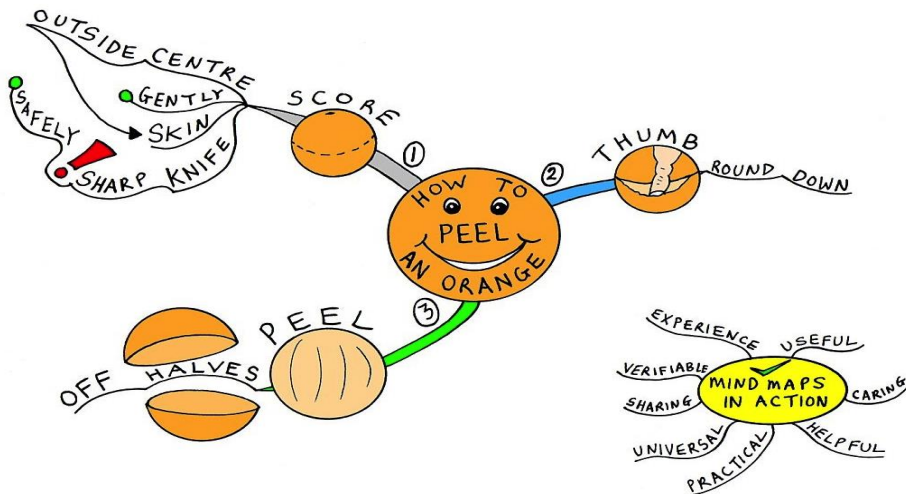
117

# Classification- Template

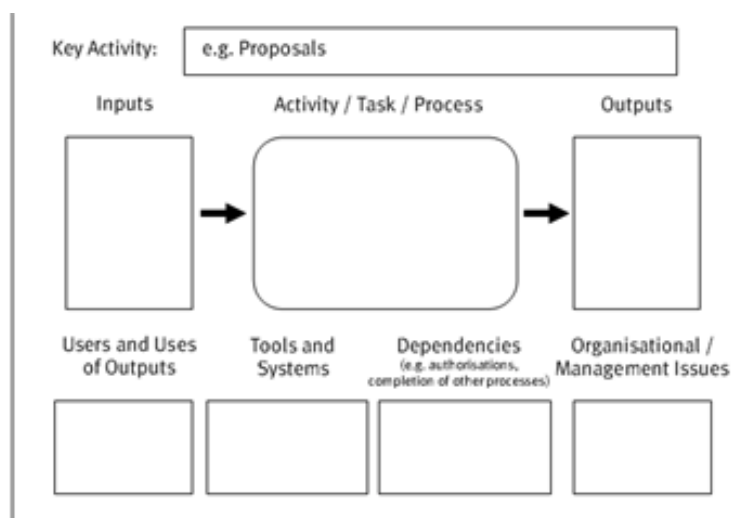
		Organization Charts file.
Team	Team Name	The name of the Team the file is referencing.
Event	Event Name	The name of the Event the file is referencing.
Area	Area Name	The name of the Area the file is referencing.
Title	25 Characters Maximum	The Title given to the file.
Date Created	mm-dd-yyyy	The Date the file was Uploaded (not necessarily made).

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# Knowledge Map- Example



# Knowledge Map- Template



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## Knowledge Map-Template

Activity OR process step	What knowledge is needed?	Who has it? (Sources)	Who needs it? (Recipients)	Where is it?	What format is it in?	Gap (high, med, low)	Comments
A							
B							
C							

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## Classification Scheme

- Designed to group related things together so that finding one thing within a category enables other related things to be found
- Can be informal or ad hoc

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## Semantic

- Provide a fixed vocabulary to describe their knowledge and information assets
- Express relationship between terms in a taxonomy
- Labels may be arranged in alphabetical order

## Knowledge Map

- Provides a user with an immediate grasps of the overall structure of the knowledge domain, and the ability to accurately anticipate what resources might be found
- Should be comprehensive, predictable and easy to navigate

# Taxonomy Forms

- Lists
  - Most basic form and the foundation for more complex ways of representing taxonomies
- Trees
  - Command structure that represents the transition from general to specific
- Hierarchies
  - Very specific kind of tree structure that is consistent and predictable

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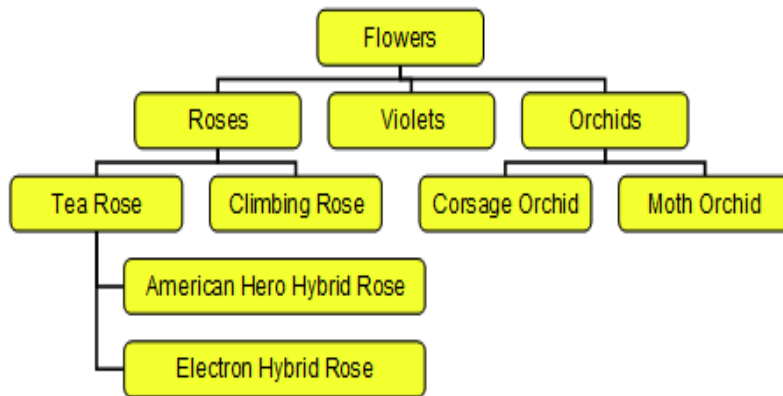
## Taxonomy - Lists

Remember	Understand	Apply	Analyze	Evaluate	Create
name	predict	solve	examine	choose	create
tell	explain	show	compare	decide	invent
list	outline	illustrate	contrast	recommend	compose
describe	discuss	complete	investigate	assess	plan
relate	restate	examine	categorize	justify	construct
write	translate	use	identify	rate	design
find	compare	classify	explain	prioritize	imagine

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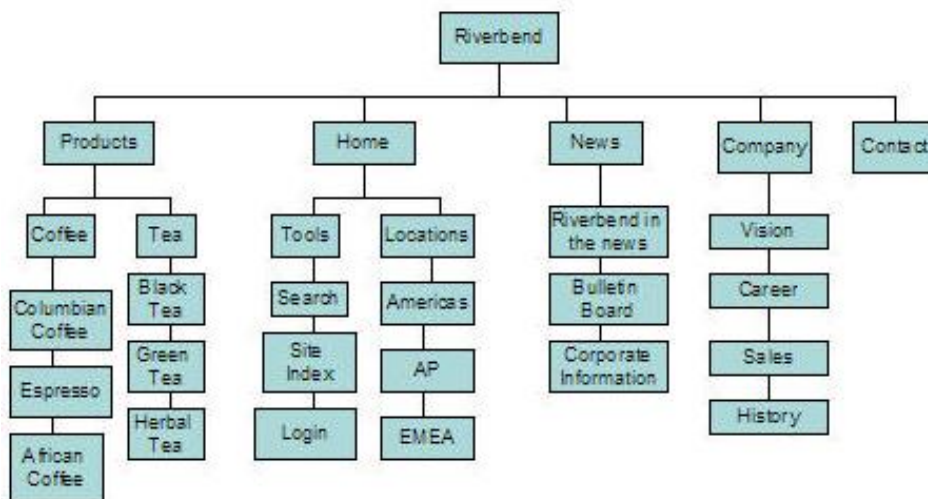
## Taxonomy - Tree



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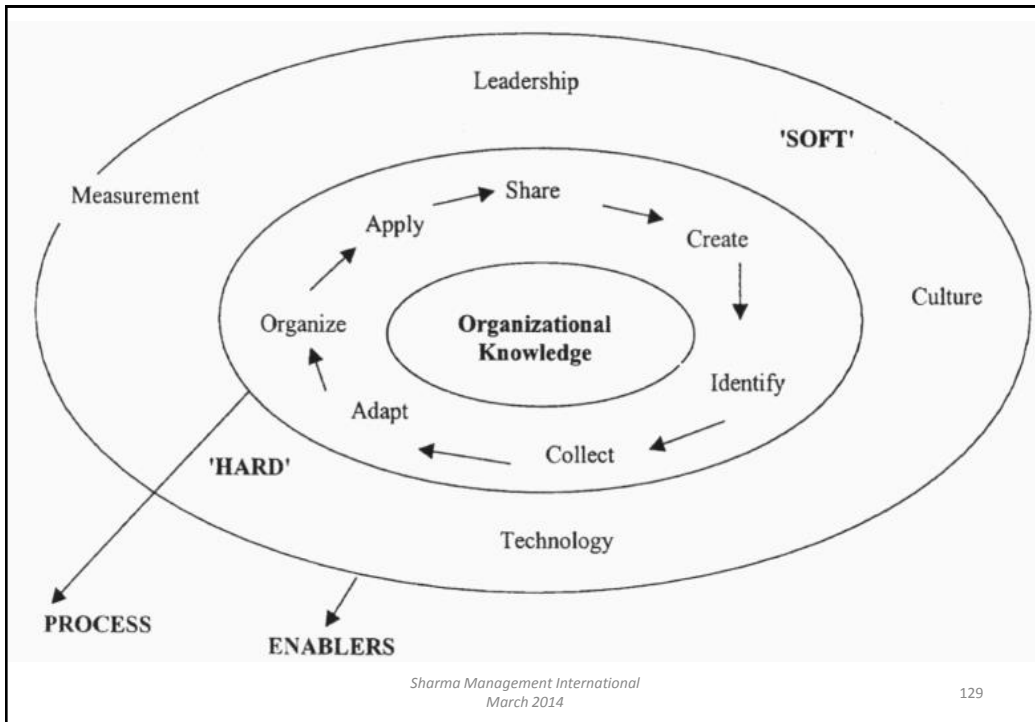
## Taxonomy - Hierarchy



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## Developing KM Based Taxonomies

- Start with what is known
- Build from there
- Use the literature, your data
- Use lists you already have internally
- Build in continuous review throughout the process
- Use
  - KM Manager
  - Subject Matter Experts
  - Users

## Exercise

- Identify in your work area, what knowledge is :
  - Critical
  - Important
  - Useful

For a Specific situation/ purpose and develop a knowledge Taxonomy for this knowledge base

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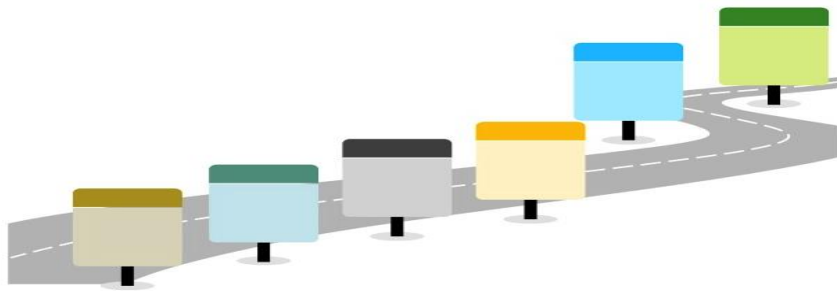
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## Knowledge Taxonomy

CRITICAL	IMPORTANT	USEFUL

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# ***Road Map for Knowledge Management***

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## Road Map for Knowledge Management

Infrastructure Evaluation

*Do we have  
what it takes ?*

KM System Analysis Design and Evaluation

*Really ?*

Deployment

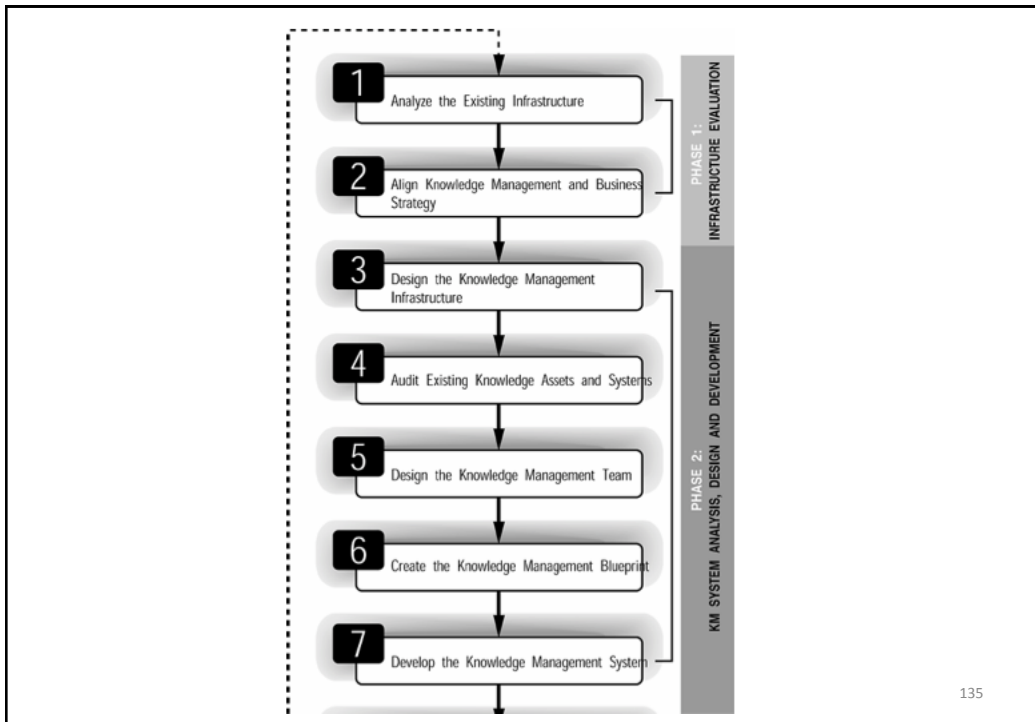
*Lets do it*

Evaluation

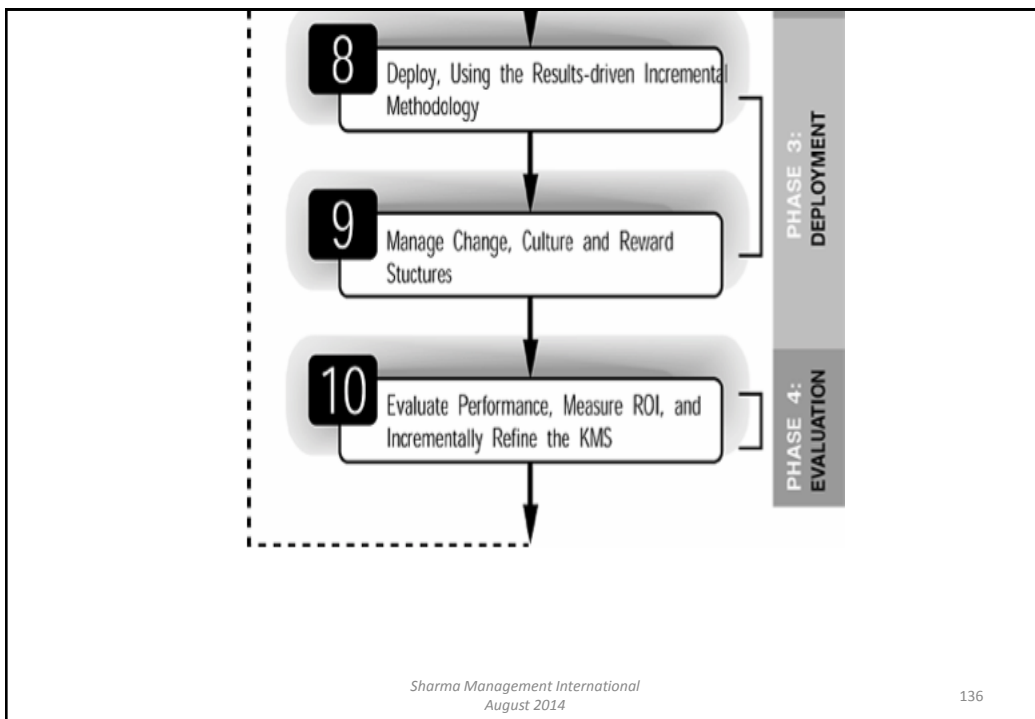
*Lets check it*

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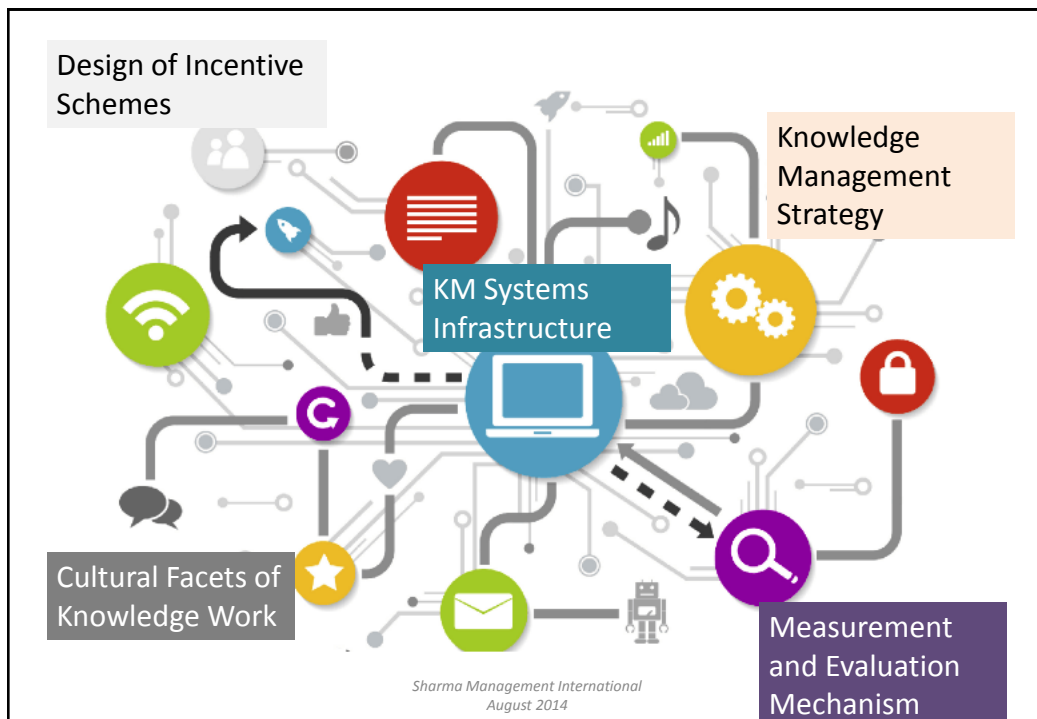
136

# KM Systems and KM Platform

- The KM system infrastructure refers to the *knowledge component* of what facilitates *integration, application and management* of knowledge
- The KM platform includes the *KM system infrastructure, knowledge management strategy, cultural facets of knowledge work, design of incentive schemes and a measurement and evaluation mechanism in plan*

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# Infrastructure Evaluation

Design of  
Incentive Schemes

Cultural Facets of  
Knowledge Work

KM Systems  
Infrastructure

Measurement  
and Evaluation  
Mechanism

ANALYZE EXISTING INFRASTRUCTURE



ALIGN KNOWLEDGE MANAGEMENT AND BUSINESS STRATEGY

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# KM System Analysis and Evaluation



KM Architecture Design and  
Component Selection

*What do we  
really need ?*



Knowledge Audit and Analysis

*Do we have it ?*

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# KM System Analysis and Evaluation



Knowledge Management Team Design

*Who are the best people for the job?*



Creation of a KM blueprint

*How should it be done?*

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## Deployment



Pilot Testing and Deployment

*Lets test it out on a small scale*



Leadership and Reward Structures

*What leadership style and reward structures are required ?*

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## Metrics for Evaluation



Measuring Return on Investment,  
ROI

*Was it worth the money and time  
spent ?*

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## ***Aligning KM Initiatives with Business Strategy***

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# Strategic visioning

- Issues to think about
  - What is the industry context in which your business operates ?
  - What is the level and nature of turbulence within it?
  - How profound is the uncertainty in your business?

 **HIGH**

 **MEDIUM**

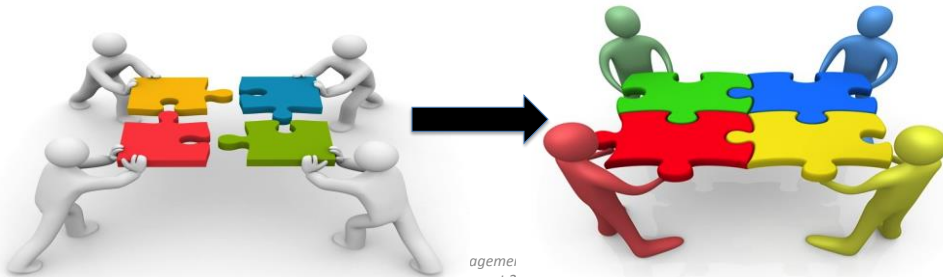
 **LOW**

 **NORMAL**

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## Knowledge Transfer and Knowledge Integration



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# Knowledge Transfer

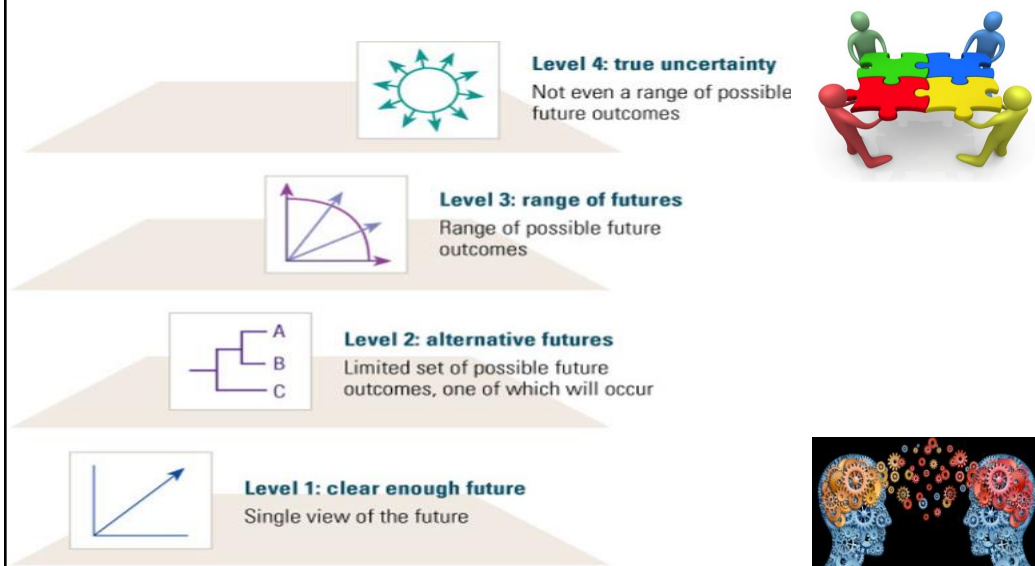


- Two transacting individuals possess certain shared knowledge in order to effectively communicate
- Sufficient time is available to engage in such transfer
- Knowledge that is transferred remains valid by the time the transfer is complete

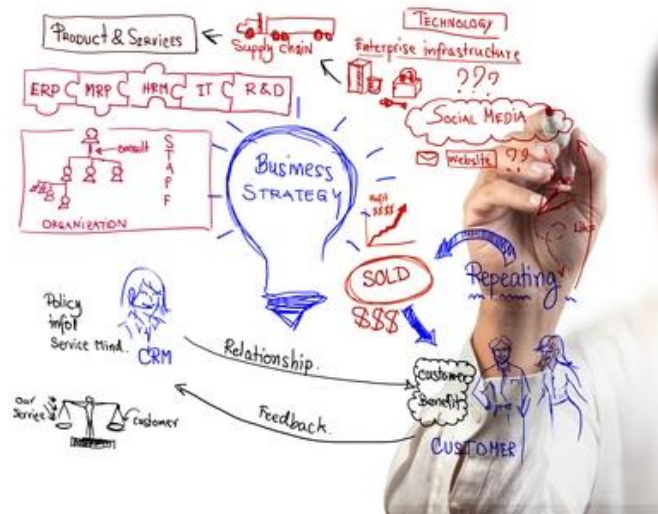


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## Levels of Uncertainty



# Business Models and Enabling IT



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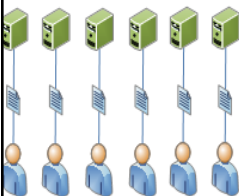
## Codification and Personalization KM Strategies



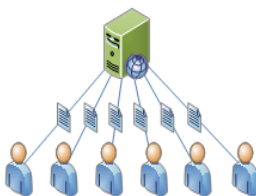
*More focused on connecting knowledge workers through networks and depends more on tacit knowledge*

### PERSONALIZATION STRATEGY

Before Knowledge Base Manager Pro



Using Knowledge Base Manager Pro



*More focused on technology that enables storage, indexing, retrieval and reuse of explicit knowledge*

### CODIFICATION STRATEGY

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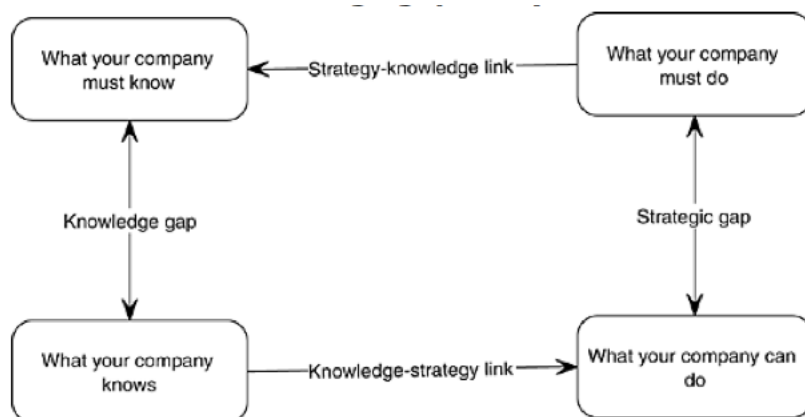
## Strategy Knowledge Link

- To articulate the strategy knowledge link, a company must
  - Define its strategic intent  
*What is our strategy ?*
  - Identify knowledge needed to achieve the strategy  
*What do know that will help us achieve the strategy ?*
  - Reveal strategy strategic knowledge gaps  
*What more do we need to know to achieve the strategy ?*
  - Establish how this gaps may be reduced  
*What do we have to do so that we have all the knowledge required?*

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## Strategic Knowledge Gap Analysis



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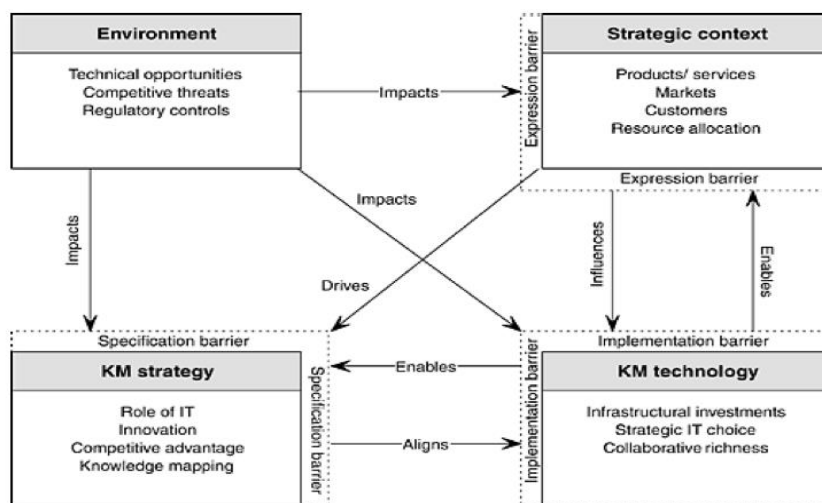
# Knowledge Levels

- Core knowledge
  - Basic level of knowledge required to *play the game*
- Advanced knowledge
  - What makes your company *competitively viable*
- Innovative knowledge
  - Allows the company to *lead the entire industry*

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## Aligning Knowledge and Business Strategy



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# ***Knowledge Audit and Analysis***

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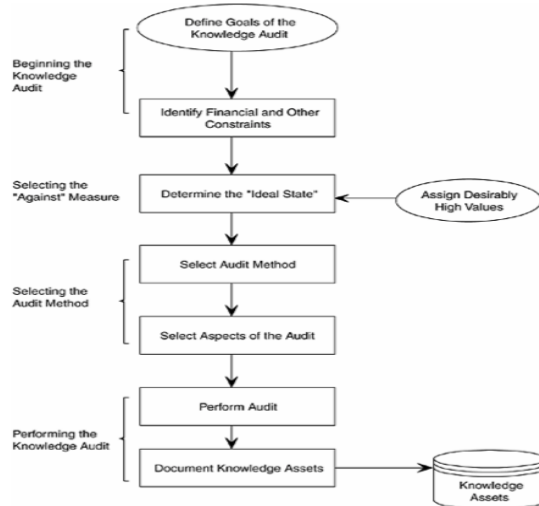
## **KM Audit**

- Aims to identifying existing intangible assets, including rituals, processes, structure and people
- Done to enable the company to invest in areas with the most potential for strategic advantage
- It helps company *“know what it does not know and needs to know”*

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# Knowledge Audit Process



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# Measuring Knowledge Growth

**Table 8-1. Bohn's Stages of Knowledge Growth**

Stage	Name	Comment	Typical Form of Knowledge
1	Complete ignorance	Nothing known.	Does not exist anywhere.
2	Awareness	Resembles pure art.	Knowledge is primarily tacit.
3	Measure	It's pretechnological.	Knowledge is primarily written.
4	Control of the mean	A scientific method is feasible.	Written and embodied in hardware.
5	Process capability	A local recipe exists	Hardware and operating manuals.
6	Process characterization	Tradeoffs to reduce costs are known.	Empirical equations (quantitative).
7	Know why	Takes on the form of science.	Procedures, methodologies, scientific formulas, and algorithms.

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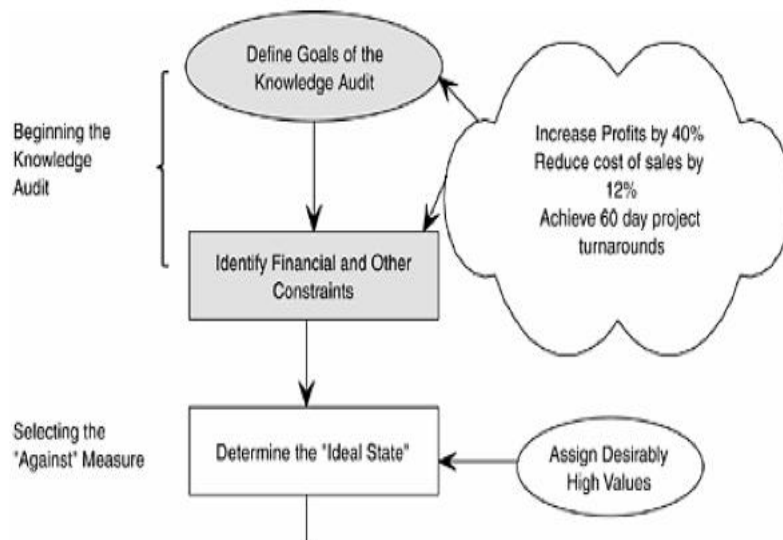
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# The Knowledge Audit Team



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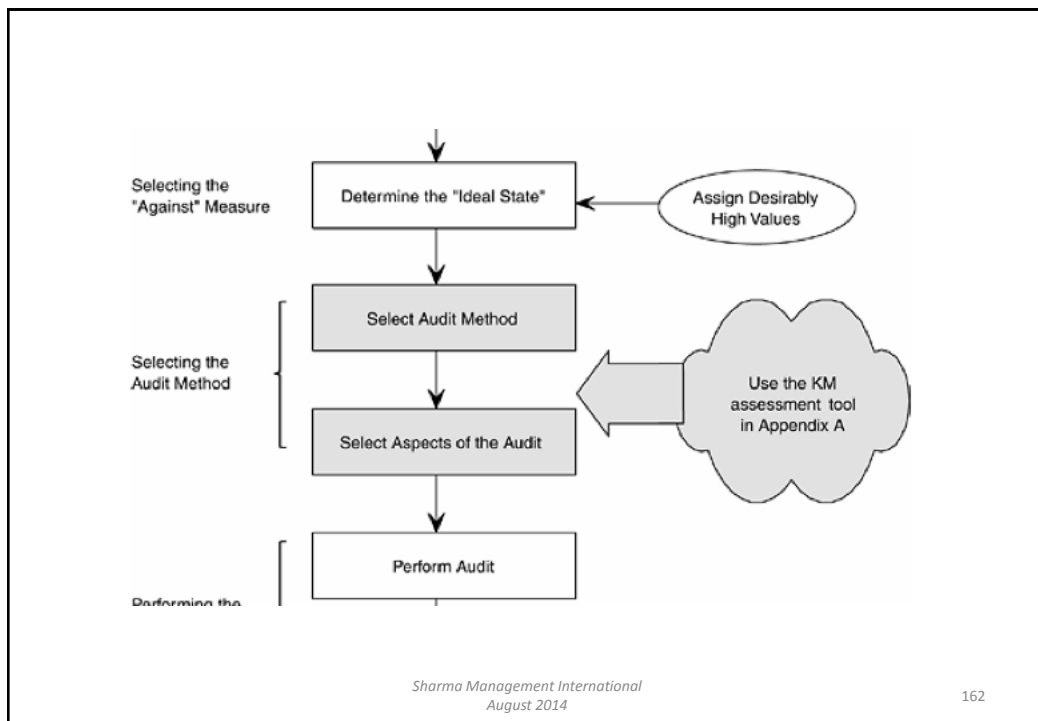
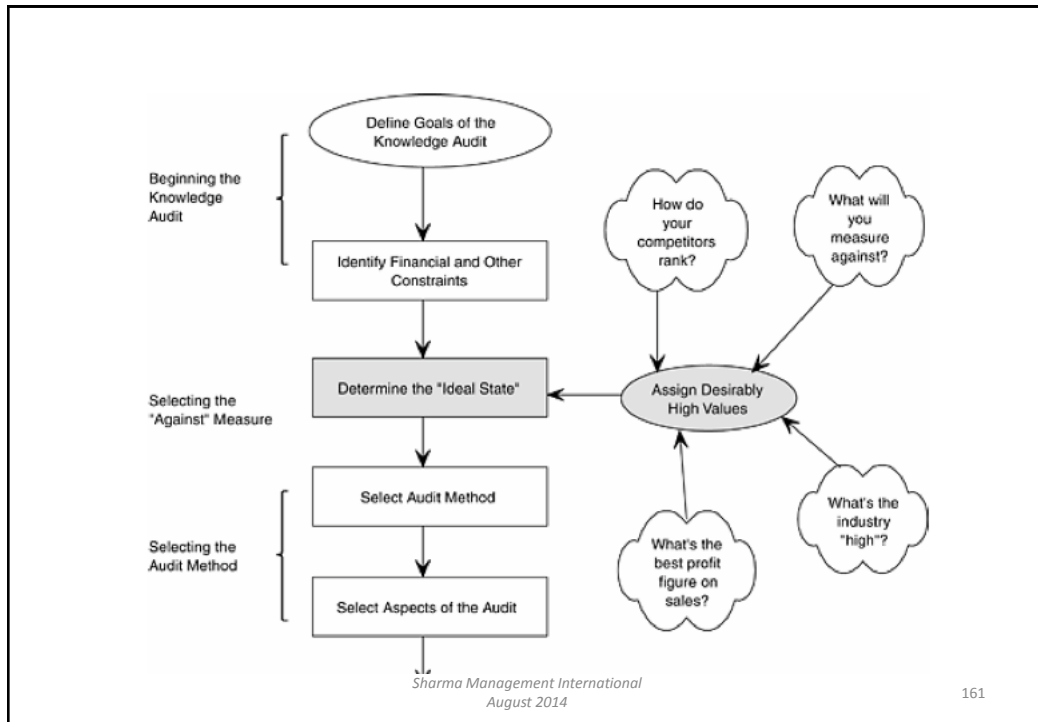
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# KNOWLEDGE FLOW SESSIONS

Appropriate Culture

KNOWLEDGE FLOW

Believing in Progress

To learn to process all that critical pieces of information?

To build a strategy of that great idea?

To see personally learning and growing

To know what's important of our

E Pluribus

## Knowledge Flow

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Knowledge Flow

Business Process

Organization Structure

Data

Nervous System

Blood System

Skeleton

Body Parts

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## Definition of Knowledge Flow



A *knowledge flow* is a passing of knowledge between people or through machinery.

It has three crucial attributes:

- *direction* (sender and receiver),
- *carrier* (medium) and
- *content* (shareable).

Good knowledge flow enables intelligent participants (people, roles and devices) to cooperate effectively.

Source: Amrit Tiwana, *The Knowledge Management Toolkit*

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## Effective Knowledge Flow

Effective knowledge flow will avoid redundant knowledge passing between team members, recognizing that different members may be given different kinds of tasks and need different kinds of knowledge.

Knowledge flows can be used to transfer capability and expertise in an orderly and effective way.

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# Knowledge Carriers

The diagram illustrates three knowledge carriers. At the top left, a blue globe with a network of lines is connected to a computer mouse, labeled 'Internet'. At the top right, a laptop with three blue curved lines above it is labeled 'Wireless networks'. At the bottom center, a green circuit board with a black antenna, two chips, and a USB connector is labeled 'Sensor networks'. A grey curved line connects the mouse to the sensor network board. A small copyright notice is visible below the mouse: '©MillsArt • illustrationsOf.com/90127'.

Internet

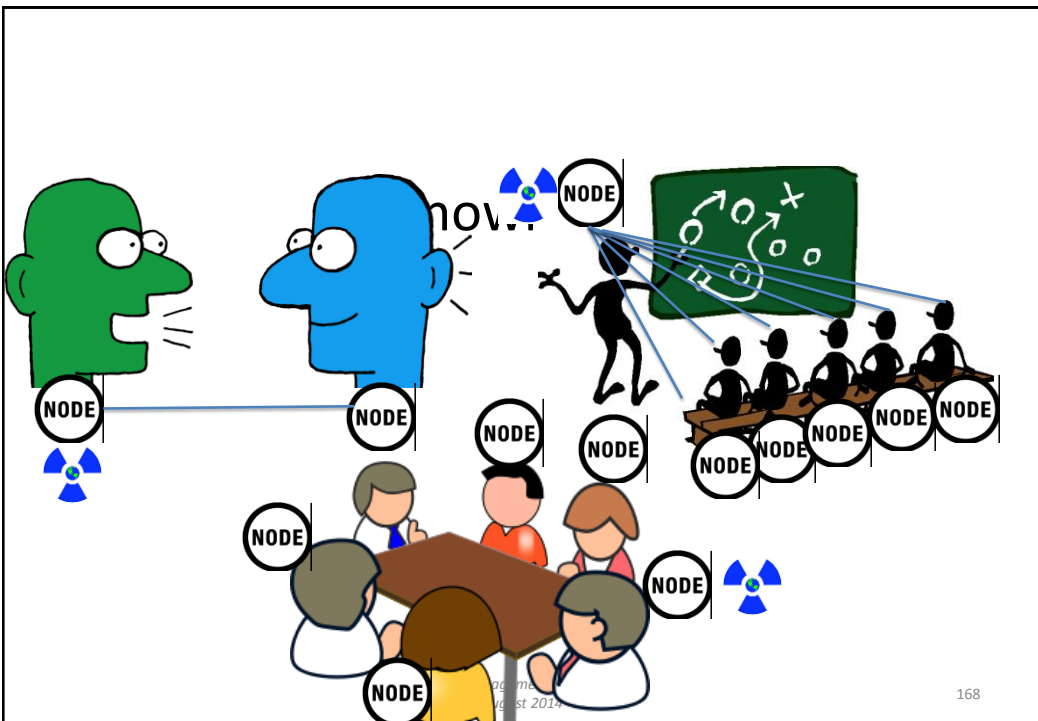
Wireless networks

Sensor networks

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# Knowledge Flow Networks



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## Knowledge Management - Overview of Concept & Theories - Overview of KM Strategy & Implementation Plan

Presented by Mr. Sanath Sukumaran

Holiday Inn, Melaka  
28<sup>th</sup> Oct. 2015

# Agenda

- **KM Concepts & Theories**
- **BREAK 😊**
- **KM Strategy & Implementation Plan**

## My KM Background

- **Certified Knowledge Manager, KM Institute, USA**
- **Editor, Knowledge Manager Professional Society (KMPro), Houston, USA**
- **PHD Knowledge Managemnt (ongoing)**
- **Consultation & Training Experience:**

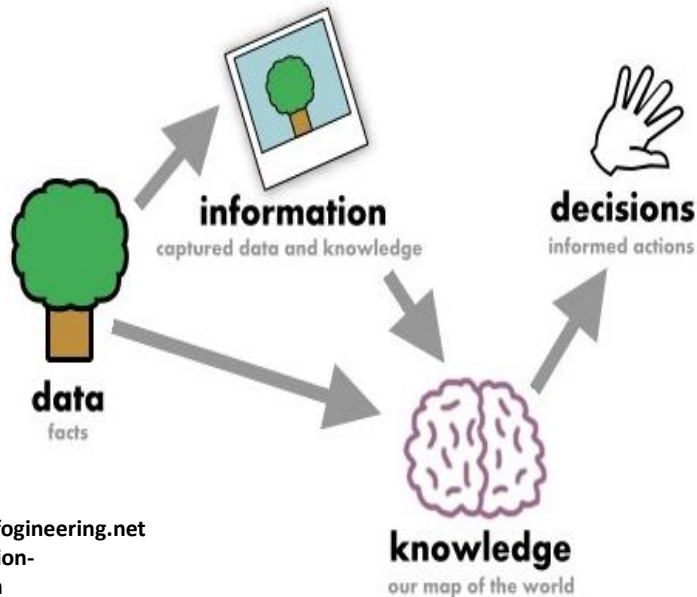


# KM Concepts & Theories

Knowle

Manageme

## KM Concepts – Data, Information & Knowledge

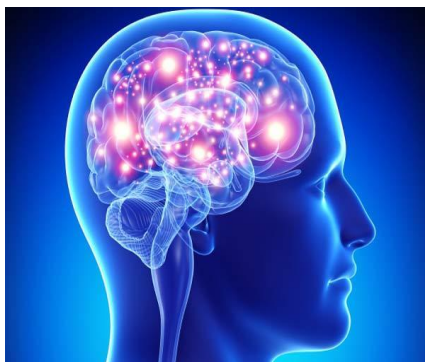


<http://www.infogineering.net/data-information-knowledge.htm>

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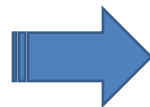
173

## KM Concepts – Tacit & Explicit Knowledge



### **Tacit Knowledge**

Undocumented & Unarticulated knowledge



**Codification of knowledge**



### **Explicit Knowledge**

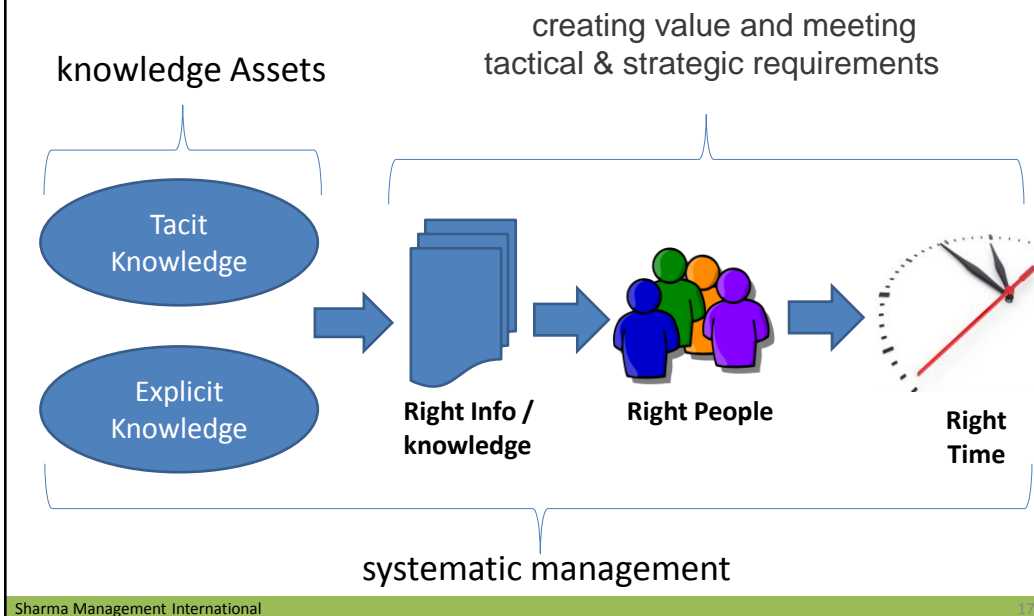
- Codified knowledge

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# What is KM?

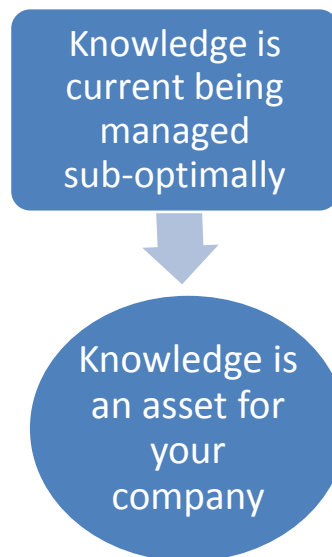


*“If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle”*

- Sun Tzu, The Art of War



## Why do we need KM?



## Evidence of Knowledge Managed Sub- Optimally

- *Why do we keep having to relearn this?*
- *How do I know where to find this knowledge*
- *I'm sure I heard someone mention that to me the other day, now who was it?*
- *Someone must have done this before—but who?*
- *When that guy left, he took all that knowledge with him*
- *It was pure luck that I met John — he/she had just the answer I was looking for*
- *That went very well—how do we repeat that success?*
- *We made this mistake in our other office too*

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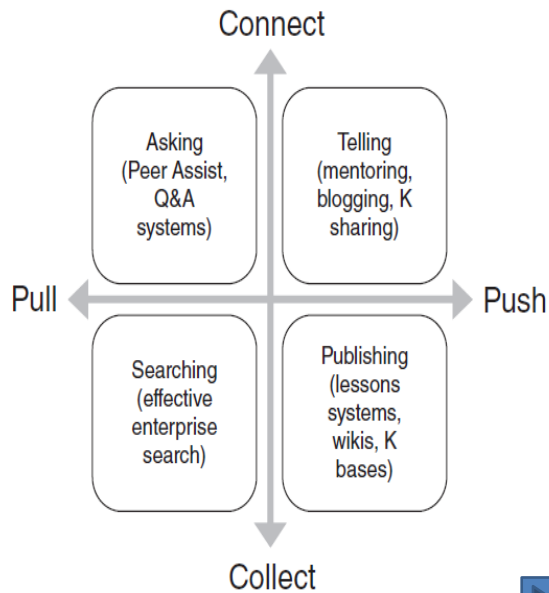
## KM – The End Game



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## 4 Quadrants



Barnes, S., & Milton, N. (2015)



## Why is KM Needed Now?



- Learning at the Speed of Change



Staff turnover



Information Overload

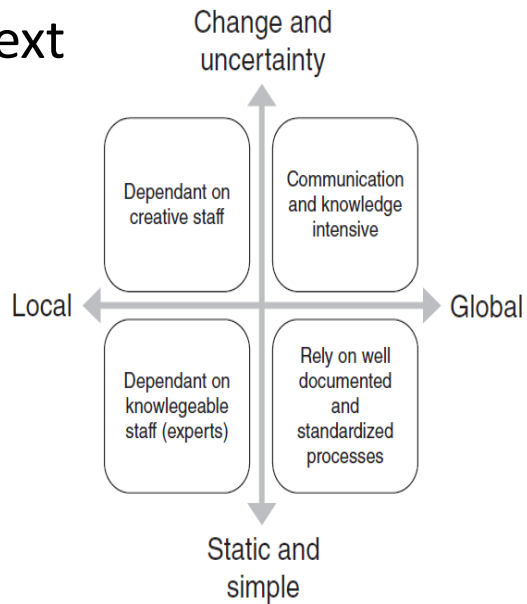


Leveraging on Best Practices



Staying Competitive

## Organisation Context for KM



Barnes, S., & Milton, N. (2015)

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## Elements of KM (1)

- Soft Aspects:
  - People & Processes
- Hard Aspects:
  - Technology & Governance



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## Elements of KM (2)



People



Process



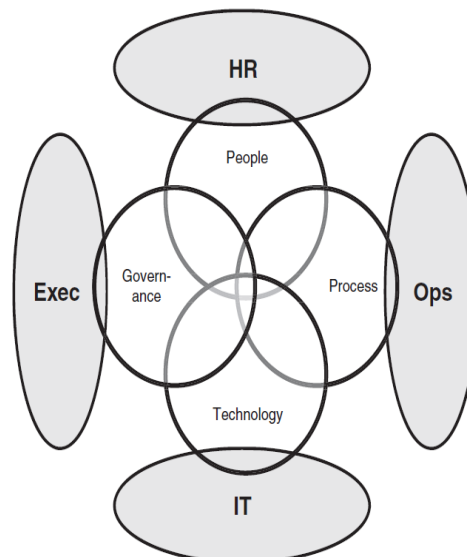
Governance



Technology



## Key Department of KM



- Barnes, S., & Milton, N. (2015)

## Elements of KM - Technology (KM Tools)



- Knowledge Worker

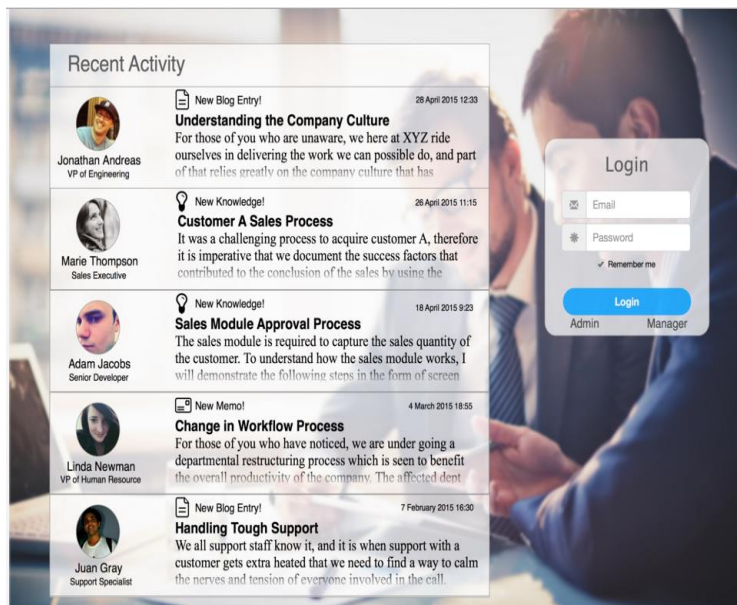


Knowledge Manager

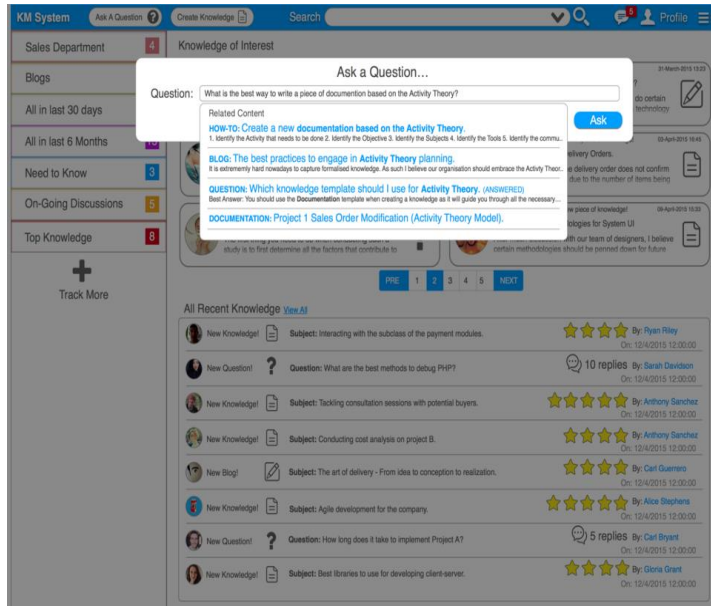


- Admin

## Knowledge Worker, Managers & Admin

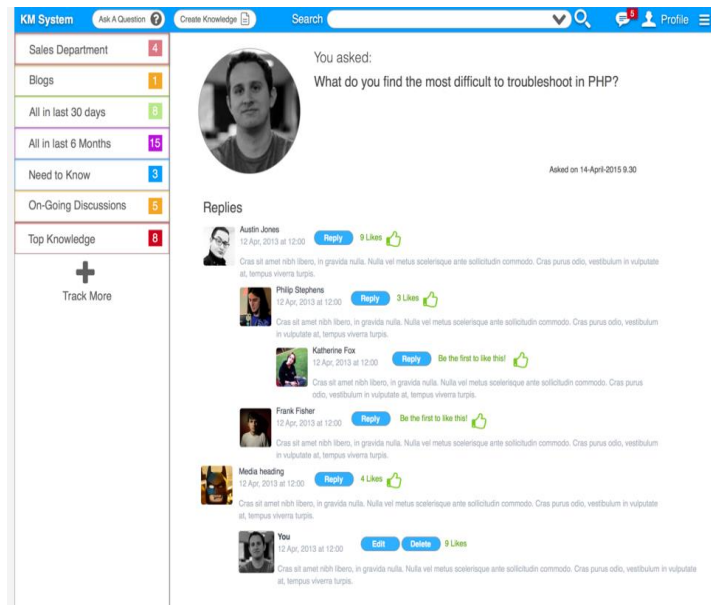


## Knowledge Worker, Managers – Asking Questions



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## Knowledge Worker, Managers & Admin – Telling



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## Knowledge Worker, Managers – Searching

The screenshot shows the 'KM System' search interface. On the left, there's a sidebar with filters: Sales Department (4), Blogs (1), All in last 30 days (8), All in last 6 Months (16), Need to Know (3), On-Going Discussions (5), and Top Knowledge (8). The main area has search filters: Knowledge Type (All), Time Frame (12/4/2015 to 12/4/2015), Keywords (Clearing Sales), Tags (Activity Theory, Clearing Sales, Documentatio), Projects (Project 1, Project 2, Project 3), Department(s) (Sales Department, Production Department), Group(s) (Management Team, Sales Executives), Author(s) (Gregory Sandval), and Status (All). A search button is at the bottom right. Below the filters, there's a list of 'All Recent Knowledge' items, each with a title, subject, rating, and author.

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## Knowledge Worker, Managers – Publishing Materials

The screenshot shows the 'KM System' publishing interface. A modal dialog titled 'What kind of Knowledge you want to add?' is open. It has a 'Select Template' button and a list of templates: Blog Entry, Flow Chart, Solutions, How-Tos, and Documentation. The 'Blog Entry' template is selected, showing a preview of a blog post with a title, content, and a description. The background shows the same search results as the previous screenshot.

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## Knowledge Worker, Managers – Publishing Materials(cont.)

KM System [Ask A Question](#) [Create Knowledge](#)  [Profile](#)

### Add New Blog

Assign Manager(s):  Visibility: ☐ Everyone ☒ Sales Executives

Tag People/Group:    Impact:


Tags:  Project (s):

#### Font Settings


Font Family:  Typeface:  Size:  Decoration:     Alignment:     Lists:

#### Images

[+ Add Image](#)




### Sample Title



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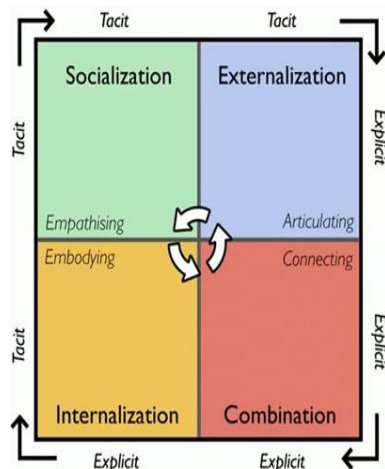
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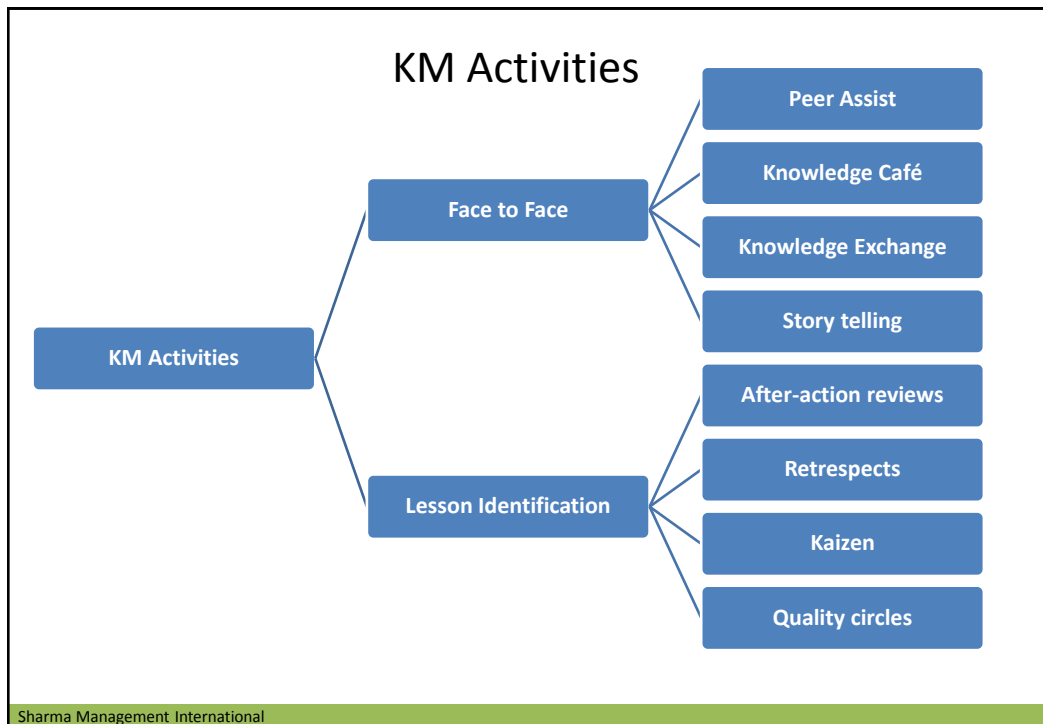
## Knowledge Flow – SECI Model



Nonaka & Takeuchi (1995)

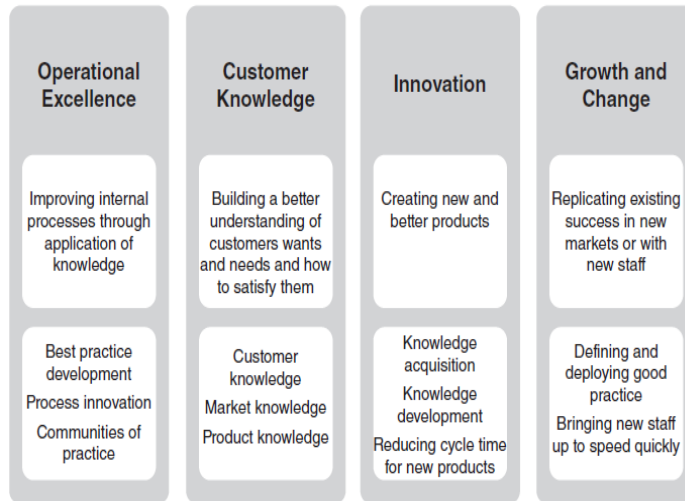
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## KM Strategy & Implementation Plan

## KM Business Focus Areas



Barnes, S., & Milton, N. (2015)

## KM Business Focus Areas

Demographic	Operational excellence	Customer knowledge	Innovation	Growth and Change
Aging workforce	Retention of operational knowledge to protect core operational capability	Retention of customer knowledge to protect core sales and relationships	Retention of innovative capability	Retention and deployment of operational and customer knowledge to protect core operational capability and sales relationships
Balanced workforce	Development and deployment of internal best practices and processes	Development and deployment of best knowledge of customers, market and product	Embedding Innovation processes, and creating diversity in teams	Development and deployment of internal best practices and processes as well as customer, market and product knowledge
Young workforce	Provision of basic and advanced operational knowledge to new and developing staff	Provision of basic and advanced product and customer knowledge to new and developing staff	Training in innovation, innovation processes, and creating as much diversity as possible in teams	Provision of basic and advanced operational, customer, and product knowledge to new and developing staff

Barnes, S., & Milton, N. (2015)

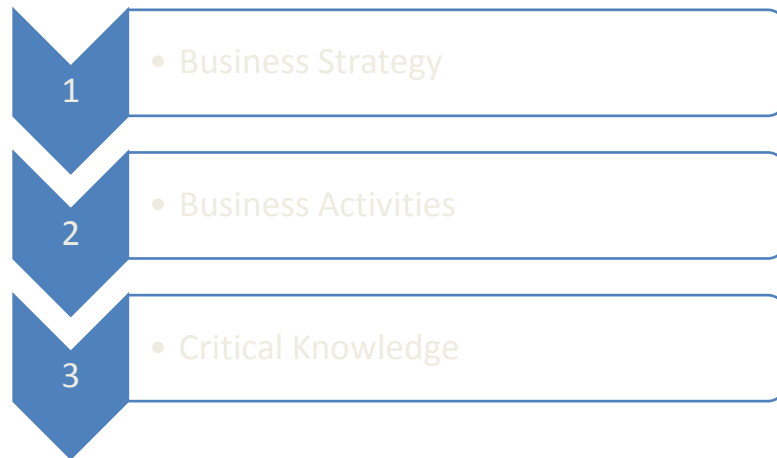
## 10 KM Strategic Principles

1. Implementation must be Organisation-Led
2. KM has to focus where critical knowledge lies & high value decisions are made
3. Implementation must be treated as behaviour change program
4. Introduce Complete Management Framework
5. Framework embedded to organisation structures

## 10 KM Strategic Principles

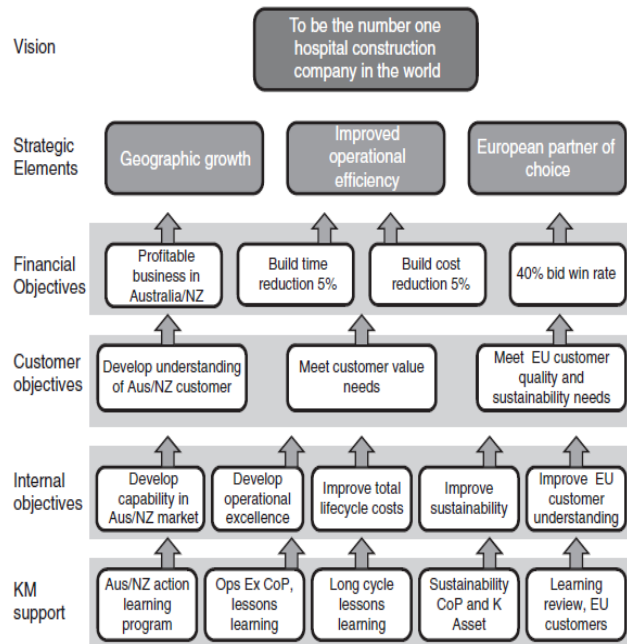
6. Framework has to include governance (for sustainability)
7. Framework must be structured
8. Implementation must be a staged process
9. Implementation must have a pilot run
10. Implementation must be treated as a project

# KM Strategy



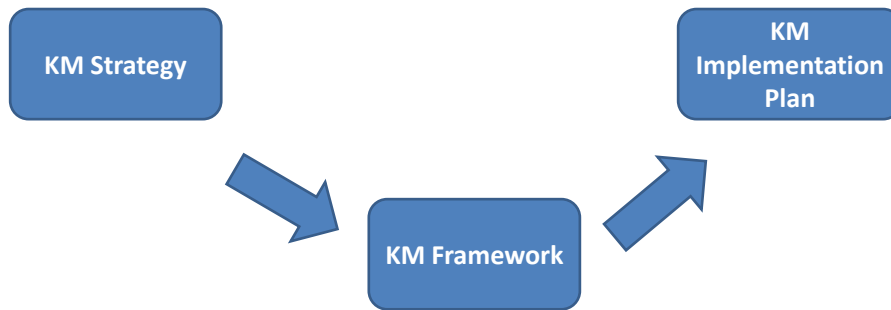
• Barnes, S., & Milton, N. (2015)

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## KM Strategy, KM Framework & KM Implementation Plan



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## Building your own KM Strategy

1. What's your vision or goals?
2. Make a study on your processes
3. Stick to identified best practices found
4. Start Small first
5. Involve KM Experts



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# Atlas Vending KM Roadmap



## Lessons Learnt in KM Implementation

1. Lack of or NO KM Strategy in place.
2. KM Framework not customised for organisations strategic needs
3. No Core Team to promote capture and knowledge sharing
4. Resistance to change – change management not adopted leading to poor KM adoption.
5. KM tools does not support KM Strategy





## Latest Development in KM

As part of the resource base of an organization, the revised **ISO 9001** emphasizes the importance of knowledge management in a new clause.

In **ISO 9001:2015, clause 7.1.5**, the organization is asked to identify, manage and make available all knowledge necessary to ensure process results which are in line with quality and conformity requirements. In addition, the accrued knowledge base should be taken into account if changes or trends occur (such as adjustments in customers requirements), and new or additional knowledge should be acquired.

Q &  
A

## Reference

1. Gillingham, H., & Roberts, B. (2006). Implementing knowledge management: a practical approach. *Journal of Knowledge Management Practice*, 7(1).
2. Vestal, B. (2002). Measuring Knowledge Management. *Symposium A Quarterly Journal In Modern Foreign Literatures*
3. Barnes, S., Milton, N. (2015) Designing a successful KM strategy : A Guide for the Knowledge Management Professional

## Gurteen Knowledge Café

- People come together to have an *open, creative* conversation on a topic of mutual interest
- Done to *surface their collective knowledge*, to *share ideas* and to *gain a deeper understanding* of the issues involved.
- Ultimately the conversation *should lead to action* in the form of better decision-making and innovation.

## How to conduct a Knowledge Café

- The facilitator takes 10-20 minutes (depending on whether the participants have experienced a café before or not) to introduce the café, making its purpose clear and posing the question
- A guest speaker can be used to introduce the theme of the café and pose the question, but their speaking time must be strictly limited

## How to conduct a Knowledge Café

- Participants form into small groups of 4 or 5 to discuss the question for 30-60 minutes
- At the request of the facilitator, participants change groups normally three times so they
- have 3 conversations each about 10 – 20 minutes long
- After the small group conversations the whole group re-assembles in a circle to exchange
- ideas for 15-30 minutes

## What is needed for a Knowledge Café

- A venue where people can be comfortable and relaxed, with tables and chairs to seat 4 or 5 people per table, preferably with refreshments
- A group of people – 16 to 32 people works best
- A facilitator to introduce and oversee the café a powerful question to spark the conversation
- Time - allow 1.5 to 2 hours
- No flip charts in the room ?

## Value of Open, Creative Conversation

- Open, creative conversation *embraces dialogue* rather than debate.
- Rather than defending a position, strive for mutual understanding through a frank exchange of ideas or views. In particular:
  - suspend assumptions, do not judge
  - observe and listen to one another
  - welcome differences and explore them
  - allow taboo subjects to be raised safely
  - listen to your inner voice
  - slow the discussion
  - search for the underlying meaning

## Facilitators Role

- Encourage full participation
- Don't take a lead in the discussions, rather wander around and listen into the groups
- Listen out for problems and remind people gently of the rules of 'dialogue'

## Powerful Questions

- Construction
  - Why, How, What
  - Who, When, Where
  - Which, Yes/No Question
- Scope
  - Tailor and clarify scope of the question precisely as possible to keep it within the boundary and needs of the situation
- Assumptions
  - Minimize any assumptions that go with the way the question is formulated – “What we did wrong” vs “What went wrong”

