

# **BASIC COURSE IN KNOWLEDGE MANAGEMENT**

**10-11 APRIL 2017**

## Objective 1

- Understand concepts and models relevant to acquisition, development and dissemination of knowledge



## Objective 2

- How to apply the tools and techniques of knowledge sharing and transfer

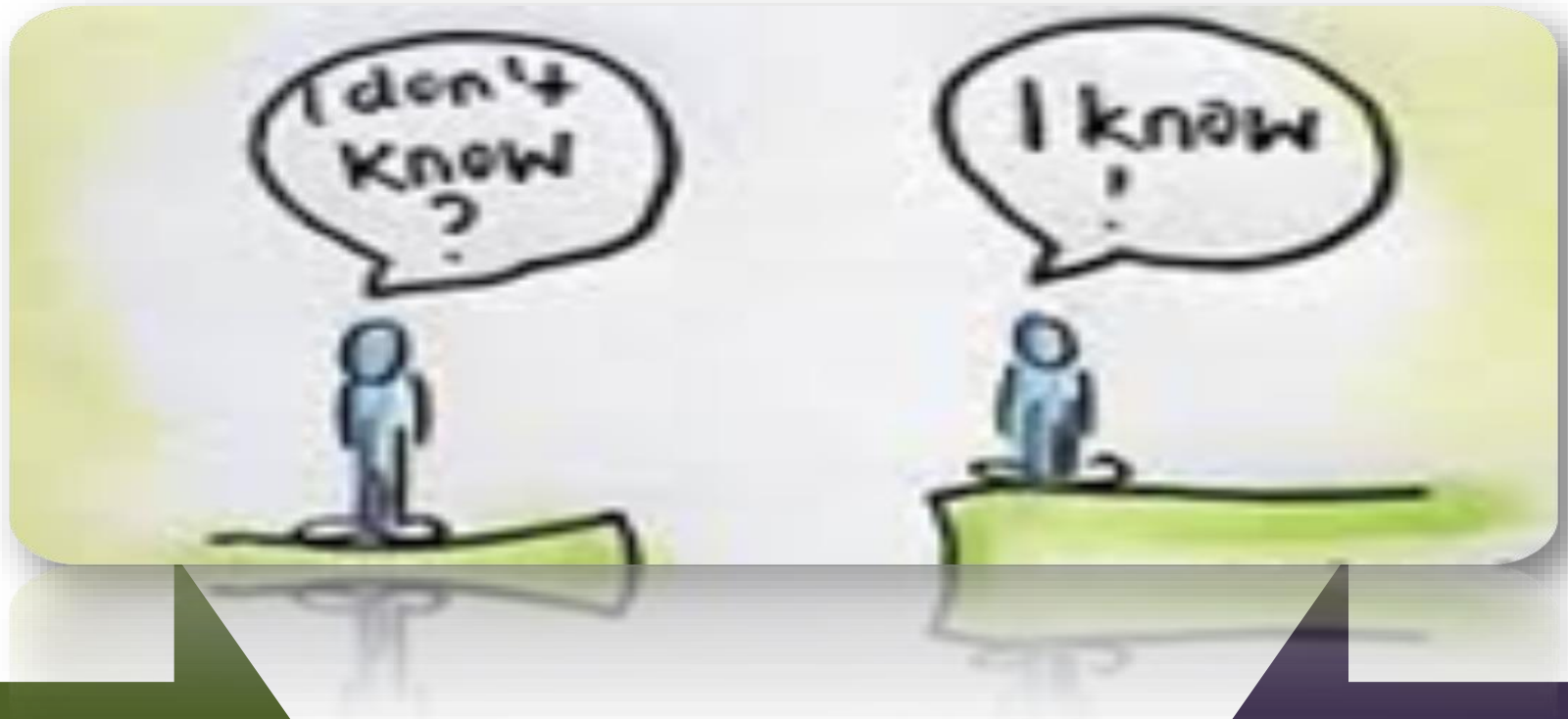
# Learning Outcomes

understand different types of knowledge assets

design strategies to leverage on the knowledge assets

Identify and apply suitable KM tools and techniques to transfer knowledge

# ICE BREAKING session



Knowledge  
seeker

Knowledge  
bearer



# RESULTS

## BEST KNOWLEDGE SEEKER

- **Pn. Marrion Waynor (15)**
- Pn. Nor Hayati Yahya (12)
- En. Mahalil Makhtar (11)
- En. Muhammad Izzat Ishak (11)
- Pn. Zainon Hj. Tohid (11)

## BEST KNOWLEDGE CONTRIBUTOR

- **Pn. Anis Hanum Hamzah (13 ; 33<sub>pts</sub>)**
- Pn. Nor Hayati Yahya (12 ; 33<sub>pts</sub>)
- En. Muhammad Faris Anuar (12 ; 31<sub>pts</sub>)
- En. Muhammad Izzat Ishak (12 ; 31<sub>pts</sub>)
- Pn. Zainon Hj. Tohid (11 ; 30<sub>pts</sub>)

# Why ECKM matters to us

- 1 Our most critical technical knowledge remains siloed in the organisation – or worse, is heading out the door



- 2 Our people work at different locations and are geographically dispersed. Knowledge sharing across the department becomes more challenging. People are not learning from each other and are reinventing the wheel



result in

lack of trust, limited communication and isolation



### **Vertical**

Across levels and hierarchy



### **Horizontal**

Across functions and expertise



### **Stakeholder**

Beyond boundaries of the company with external partners



### **Demographic**

Across diverse groups (e.g., gender, ethnic, nationality)

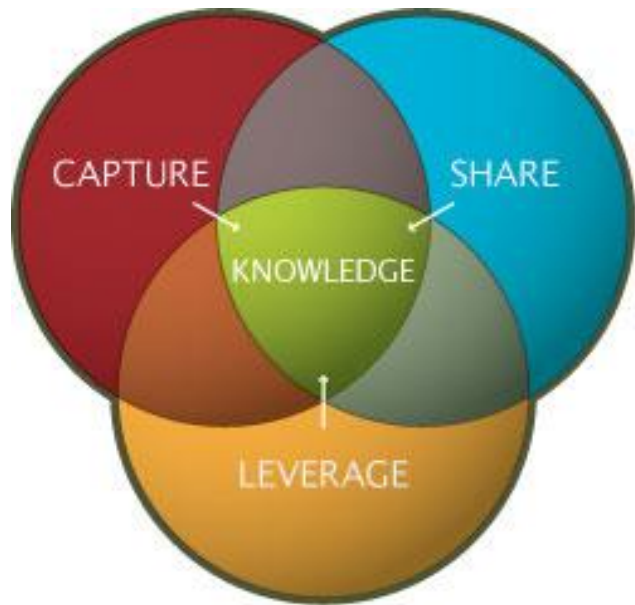


### **Geographic**

Across regions and locality

<http://www.chrisernst.org/why-boundary-spanning-networks/activate-the-network/>

# How KM can improve the organisational performance



Easy to find experienced individuals

Enterprise wide knowledge at our finger tips

Improve productivity by reusing “what we know

Improve communication and break down silos

Generate new ideas that can be incorporated into innovative products and processes

# ISO 9001:2015 - Clause 7.1.6



Organisations need to determine and manage its knowledge to ensure the operation of its processes and that it can achieve **conformity of products and services**

**GIVING THE BEST KNOWLEDGE TO THE RIGHT PEOPLE AT THE RIGHT TIME**  
WILL NOT ONLY

PROVIDE PERFORMANCE SUPPORT FOR EMPLOYEES TO DO THEIR JOB  
MORE EFFICIENTLY AND EFFECTIVELY BUT WILL ALSO ENHANCE THE  
INNOVATION CAPACITY OF THE DEPARTMENT



# KNOWLEDGE ASSETS



**WHAT** ARE YOUR KNOWLEDGE ASSETS?

**WHERE** ARE THEY LOCATED?

ARE THEY  
**EASILY ACCESSIBLE?**



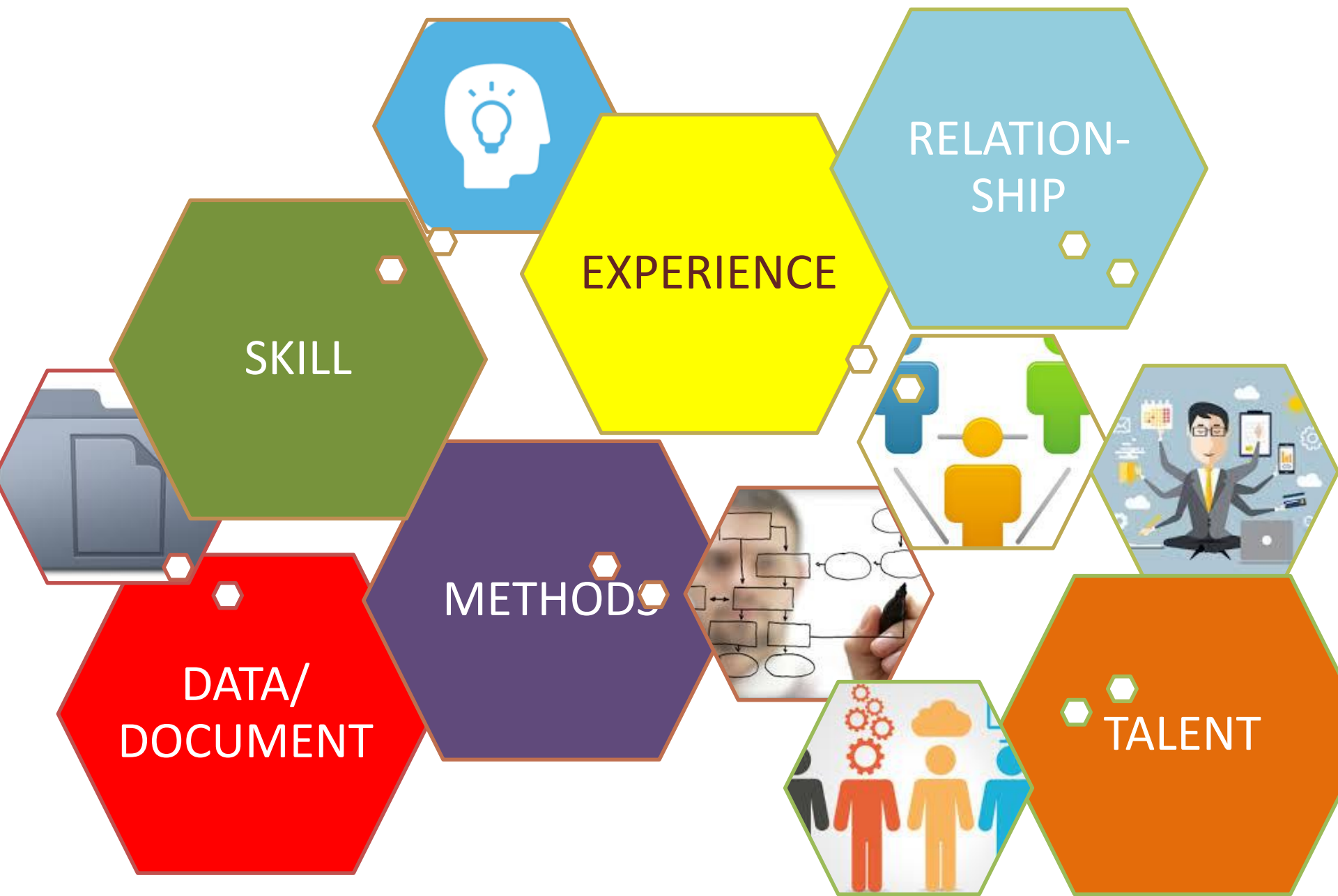


# WHO ARE THE KNOWLEDGEABLE PERSONS?

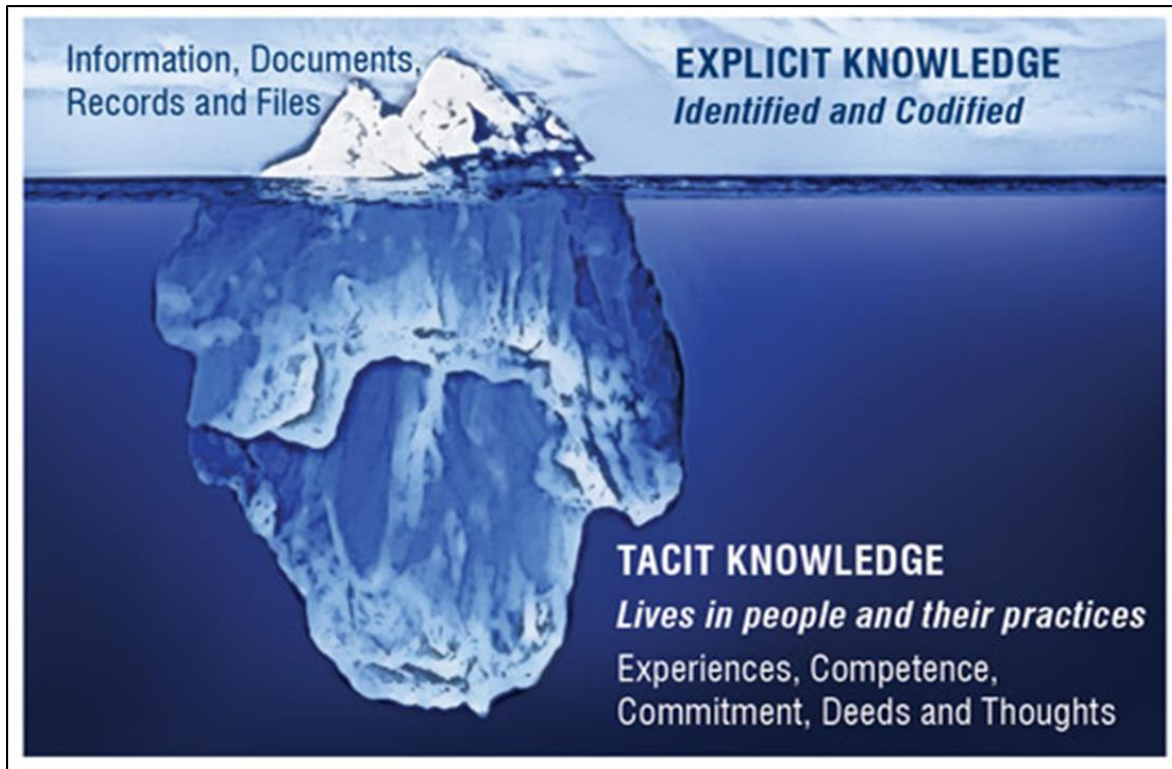
HOW MANY OF THEM WILL BE

# RETIRING/LEAVING

THE  
DEPARTMENT?



# Types of Knowledge



**20%**

**USE IT OR  
LOSE IT**

**80%**

# KNOWLEDGE AUDIT

ANALYSIS

RISK

ACCESSIBILITY

GAP



# GROUP WORK:

WHAT ARE THE KNOWLEDGE ASSETS THAT YOU  
NEED?



# IDENTIFY THE KNOWLEDGE ASSETS TO HELP YOU

- 1. MANAGE PROJECTS  
EFFECTIVELY**
- 2. NEGOTIATE A CONTRACT**
- 3. FINALISE ACCOUNT**
- 4. DESIGN A ROAD**

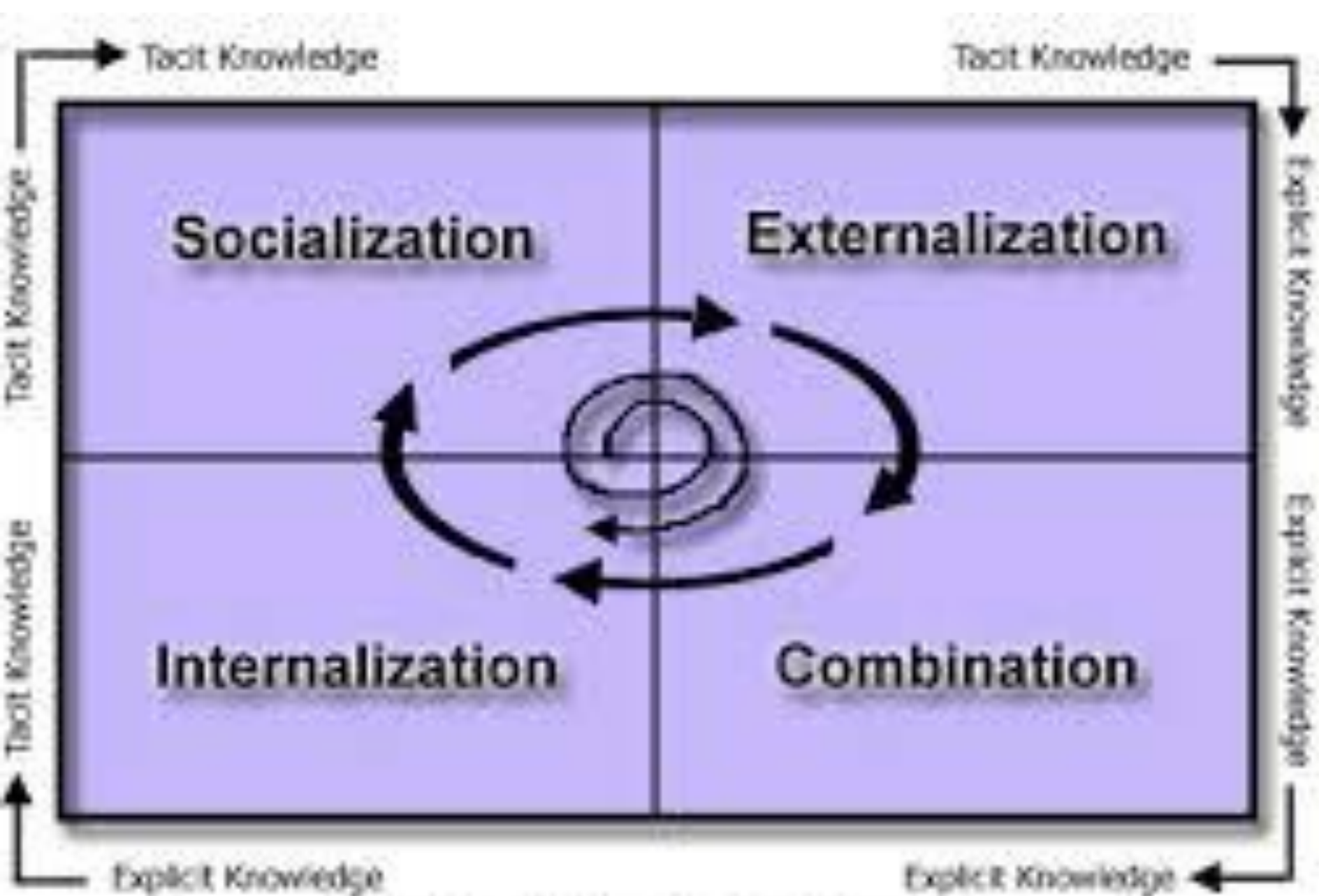
## EXAMPLE

[illegible]

# **EXPLICIT vs TACIT KNOWLEDGE**

**How to create and transfer  
explicit and tacit Knowledge?**

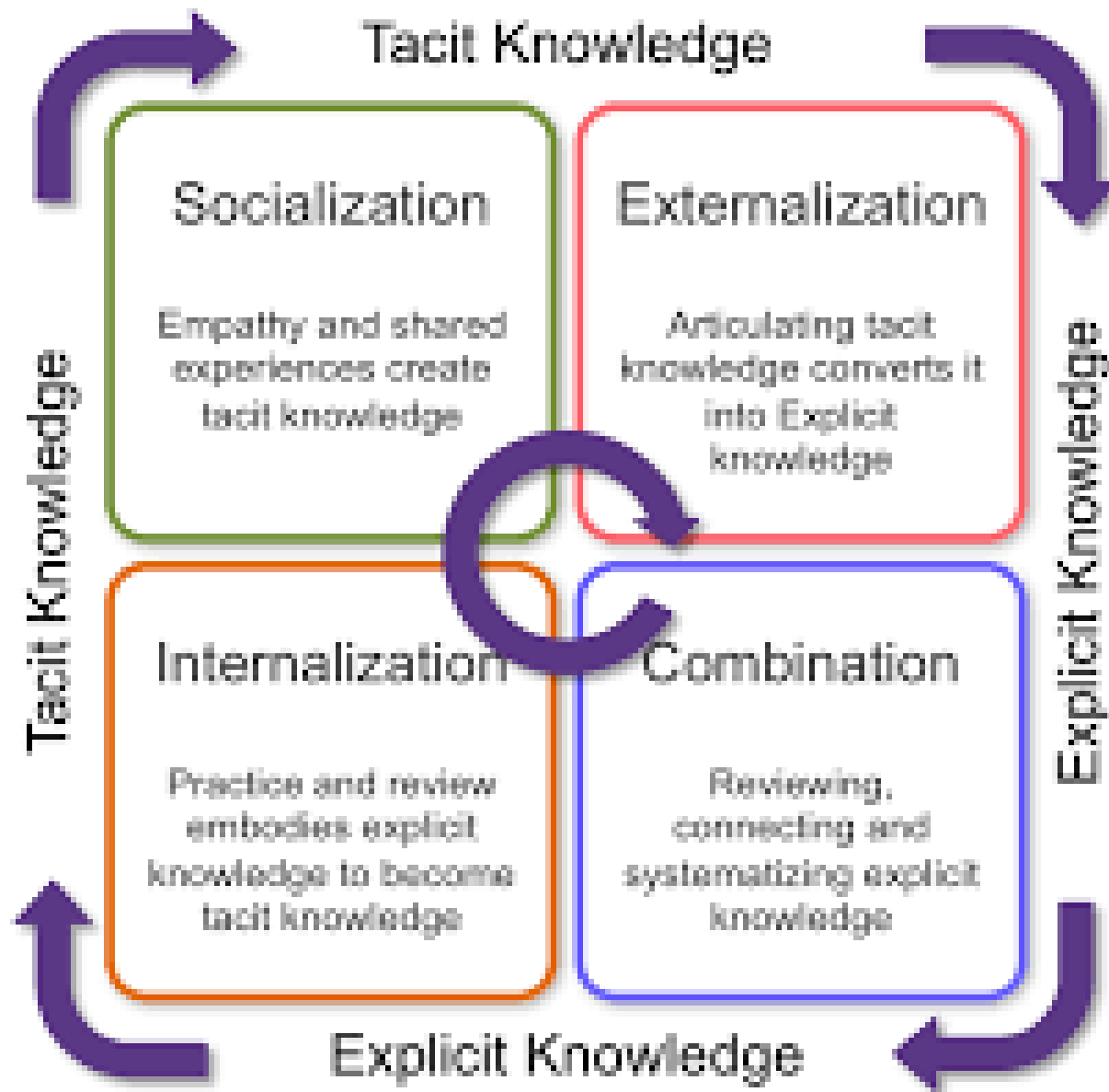




**Spiral of Knowledge Creation**  
by Nonaka & Takeuchi (1995)

# The SECI Model

Ikujiro Nonaka & Hirotaka Takeuchi



# KNOWLEDGE CAFÉ SESSION

**FOR EACH QUADRANT, SUGGEST TOOLS/  
APPROACHES THAT CAN BE USED TO CREATE  
AND TRANSFER KNOWLEDGE**




# Knowledge Managers Roles & Responsibilities



Accountable for improving the circulation of knowledge throughout the organization.



Responsible for applying new knowledge to improve behaviors.



Responsible for creating awareness and conducting at least five knowledge sharing sessions per year.




Act as resources to help manage/leverage knowledge content



Implement and monitor KM strategy and activities



Promote awareness and understanding of KM



Improve processes and practices for collection, safekeeping, disseminating and sharing of knowledge assets to ensure their quality and availability



Reports to J/K Pelaksanaan dan Pemantauan Pembudayaan Ilmu on knowledge and learning activities conducted at the Branch/State level

# The KM Agenda

*To cultivate **knowledge sharing and learning culture** across department through the use of proven **effective knowledge sharing tools***



## MAJOR KM INITIATIVES (since 2008)

1

**JPedia**, an online repository to share knowledge-in-context)

2

**Communities of Practice** to share domains of knowledge

3

**JCoP**, an online platform to ask and discuss

4

**Project Lessons Learned System** to share key project learnings

5

**KM Toolbox**, set of tools and techniques to capture and share insights and ideas

6

**JKR Yellow Pages** to locate experts within the department

7

**E-Learning** to provide 24 x 7 learning environment

# JKR Knowledge Transfer Strategies and Initiatives

## Personalisation Strategy

Uses technology to provide information of "what, when, where, who, how" means.

Connecting  
People to People

Communities of Practice

JCoP

JKR Yellow Pages

## Codification Strategy

Detaches knowledge from context and codifies it into explicit knowledge by articulating it into articles, manuals, guides, etc.

Connecting  
People to Content

JPedia

E-Learning

Project Lessons Learned

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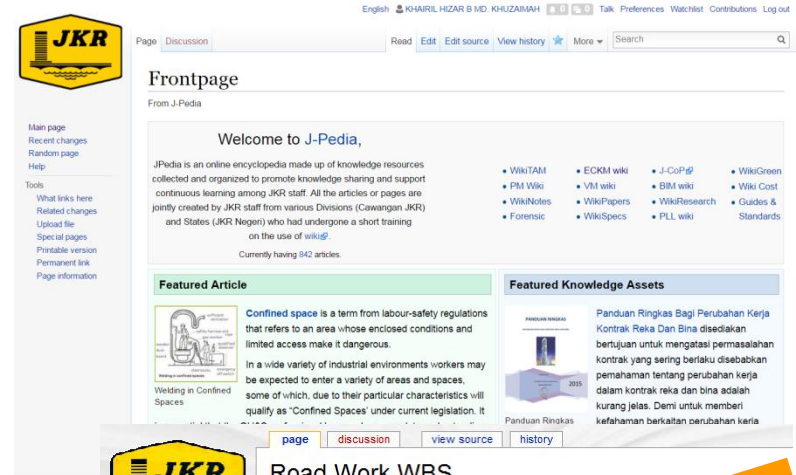
# JKR KM Online Tools

## JPedia

### Online Knowledge Repository

- Best Practices
- PM Competency Framework
- Project Lessons Learned
- Technical References and Guides
- Presentations
- Conference Papers

Connect People to Content



English KHARIL HIZAR B MD KHUZAIMAH Talk Preferences Watchlist Contributions Log out

Page Discussion Read Edit Edit source View history More Search

## Frontpage

From J-Pedia

Welcome to J-Pedia,

J-Pedia is an online encyclopedia made up of knowledge resources collected and organized to promote knowledge sharing and support continuous learning among JKR staff. All the articles or pages are jointly created by JKR staff from various Divisions (Cawangan JKR) and States (JKR Negeri) who had undergone a short training on the use of wiki@.

Currently having 842 articles.

- WikITAM
- ECKM wiki
- J-CoP@
- WikiGreen
- PM Wiki
- VM wiki
- BIM wiki
- Wiki Cost
- WikiNotes
- WikiPapers
- WikiResearch
- Guides & Standards
- Forensic
- WikiSpecs
- PLL wiki

### Featured Article

**Confined space** is a term from labour-safety regulations that refers to an area whose enclosed conditions and limited access make it dangerous.

In a wide variety of industrial environments workers may be expected to enter a variety of areas and spaces, some of which, due to their particular characteristics will qualify as "Confined Spaces" under current legislation. It

### Featured Knowledge Assets

**Panduan Ringkas Bagi Perubahan Kerja Kontrak Reka Dan Bina** disediakan bertujuan untuk mengatasi permasalahan kontrak yang sering berlaku disebabkan pemahaman tentang perubahan kerja dalam kontrak reka dan bina adalah kurang jelas. Demi untuk memberi kefahaman berkaitan perubahan kerja



## Road Work WBS

The hand auger is very simple hand tool used for drilling into soft soils down to a maximum depth of 1.5m. Different steel augers (drill bits) can be attached at the bottom end of the drill rods. The auger is used to drill the borehole and is then emptied. A different auger can be used for each formation (soil) type. Hand augering

Above the water table, the borehole generally stays open without the need for support. Below the water table, the borehole will collapse and the permanent casing is then installed. The permanent casing is then installed in support for the borehole as the permanent casing (direct installation), although in the case of silt and soft clay

### 1) SURVEY WORK

### 2) SOIL INVESTIGATION

- In-situ Test
  - Borehole
  - JKR Prc
  - Hand Auger
  - Trial Pit
  - Cone Penetration Test
  - Vane Shear Test
  - Plate Bearing Test
- Site Laboratory Test
  - Sieve Analysis
  - Moisture Content
  - Modified Proctor



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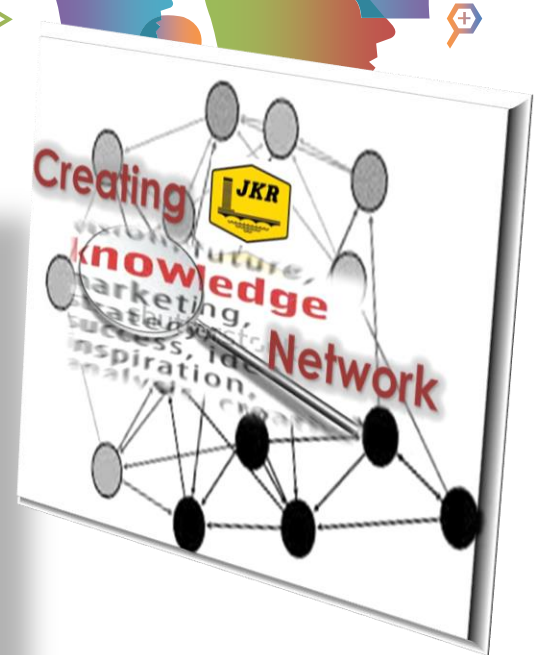
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**Peer networks** of practitioners **within JKR** who help each other to **perform better** by **sharing knowledge and experience**.  
Through this collaborative environment, **new knowledge** is created and will help **spark innovation**



# CoP Domains @ JKR

Project Management

Assets and Facilities  
Management

Stakeholder  
Management

Human Resource  
Management

Technical and Contract  
Administration

Structure

BIM

Green

Contract Management

**JCoP & Communities Of Practice**

Salam sejahtera!

Setelah beberapa bulan merancang, akhirnya terbitlah e-risalah JCoP yang pertama. Tentunya ramai yang bertanya-tanya apa itu JCoP dan apa pula *Communities of Practice* (CoP).

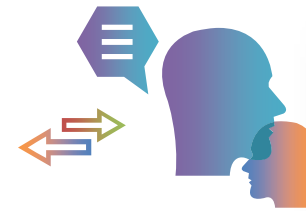
CoP adalah kumpulan orang yang mempunyai minat/kecenderungan yang sama, yang berkongsi ilmu di antara satu sama lain. Sejumlah lima (5) domain CoP telah diwujudkan. [Klik di sini](#) untuk mengetahui lebih lanjut.

JCoP adalah satu wadah perkongsian pengetahuan online untuk memudahkan CoP berinteraksi. Melalui JCoP, warga JKR boleh saling bantu sesama sendiri dalam pelaksanaan kerja dengan mengajukan pertanyaan untuk mendapatkan pandangan atau nasihat daripada mereka yang berpengalaman.

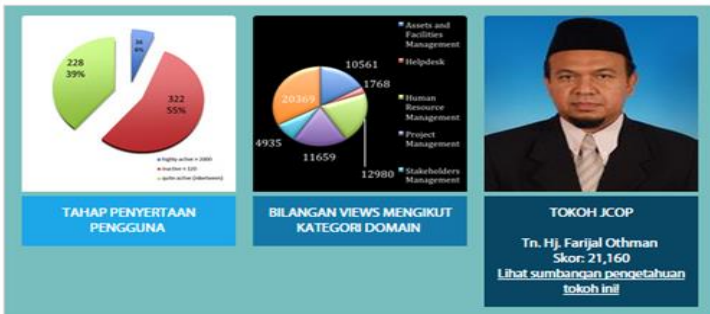
**Baca Seterusnya...**

## JCoP Newsletter

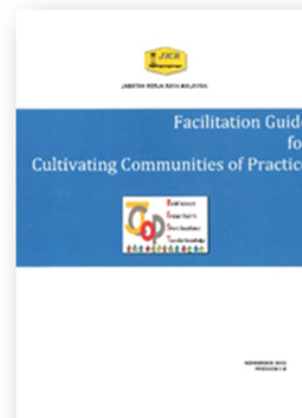
# CoP Publications



## CoP Starter Kit



## CoP Facilitation Guide



## CoP Awareness Training Manual



## CoP Sustenance Guide





## Seminar on CoP for Top Management and Pengarah JKR and CoP Launch on 25 November 2013



### Seminar KConnect 2016

17/5/2016 @ Sasana Kijang, Bank Negara



## Seminar Communities of Practice JKR 2015

24 Februari



### Seminar CoP JKR 2016

6/9/2016 @ PPAS, Shah Alam, Selangor



# JKR KM Online Tools

## JCoP

### Virtual Communities of Practice

- CoP Domains
- Subject Matter Experts Profile
- Ask and Discuss Online Platform



Connect People to People

## Connecting People – The BEST Way

### Keretakan tembok

+5  
votes

asked Mar 25, 2014 In Structure by Mastura (170 points)

Bangunan asal sekolah ini empat tingkat dan hanya satu tangga disediakan. Kemudian, tangga tambahan dibuat pada bangunan tersebut. Sekarang, ada keretakan diantara bangunan asal dengan tangga tambahan tersebut.

Bagaimana?

commented Apr 1, 2014 by Rosli (4,750 points)

Dinding untuk koridor perlukan stiffener dan dowel bar. Begitu juga dinding tangga baru dengan blok sekolah. Jika tidak disediakan stiffener + dowel bar, bermaksud dinding tersebut bergantung harap kepada sambungan mortar dan berat sendiri (self weight) dan berisiko kepada horizontal loading.. i.e pelajar / murid sekolah bertolak-tolakan (bergurau) antara satu sama lain pada dinding tersebut. Untuk info, minimum requirement bagi horizontal loading ini boleh dirujuk dalam Table 4 BS6399.

Share Tacit Knowledge

Struktur tangga baru dan bangunan asal (structural) dan Encik Harjit.

keretakan dibuat kepada semua sambungan antara slab tangga dengan lantai koridor pada setiap tingkat. Kemungkinan ada yang retak banyak dan ada juga sedikit pada sambungan antara tangga baru dan blok sekolah. Dikhuatiri pecahan mortar yang jatuh boleh mencederakan kepala pelajar / murid yang melalui di kawasan tangga baru tersebut.

Punca kenapa berlaku "gap" tersebut perlulah diketahui supaya pembaikan dibuat tidak berulang. Sekiranya atas desakan PPD / Pengetua / Guru Besar supaya ambil tindakan segera bagi elak persepsi kurang baik dari ibu bapa / masyarakat setempat, dinding dipecahkan sebahagian kecil sahaja yang berhampiran blok sekolah. Drill rasuk dan masukkan rebar sebagai stiffener dan sediakan dowel bar. Perbetulkan kembali construction joint.

Sekadar pandangan saya. Terima kasih.

Table 4 – Minimum Horizontal Imposed Loads For Parapets, Barriers and Balustrades, etc

TYPE OF ACTIVITY/OCCUPANCY FOR PART OF THE BUILDING OR STRUCTURE	EXAMPLES OF SPECIFIC USE	HORIZONTAL UNIFORMLY DISTRIBUTED LINE LOAD (kN/m)	A UNIFORMLY DISTRIBUTED LOAD APPLIED TO THE RUFILL (kN/m)	A POINT LOAD APPLIED TO PART OF THE INFILL (kN)
A Domestic and residential activities	(i) All areas within or serving exclusively one dwelling including stairs, landings etc. But excluding external balconies and edges of roofs (see C3.1a)	0.36	0.50	0.25
B and E Offices and work areas not included elsewhere including storage areas	(i) Light access stairs and gangways not more than 600mm wide (ii) Light pedestrian traffic routes in industrial and storage buildings except designated escape routes (iii) Areas not susceptible to overcrowding in office and institutional buildings also industrial and storage buildings except as given above	0.74 0.22 0.36 0.74	1.0 N/A 0.5 1.0	0.5 N/A 0.25 0.5
C Areas where people may congregate	(i) Areas having fixed seating within 500mm of the barrier, balustrade or parapet	1.5	1.5	1.5
C1/C2 Areas with tables or fixed seating	(ii) Restaurants and Bars	1.5	1.5	1.5
C3 Areas without obstacles for moving people & not susceptible to overcrowding	(iii) Stairs, Landings, Corridors, Ramps (iv) External balconies and edges of roofs. Footways and pavements within building carriages adjacent to basements/unken areas	0.74 0.74	1.0 1.0	0.5 0.5
C5 Areas susceptible to overcrowding	(v) Theatres, cinemas, discotheques, bars, auditoria, shopping malls, assembly areas, studio. Footways or pavements greater than 3m wide adjacent to sunken areas	3.0	1.5	1.5
D Retail areas	(vi) All retail areas including public areas of banks/building societies or betting shops. For areas where overcrowding may occur, see C5	1.5	1.5	1.5
F/O Vehicular	(vii) Pedestrian areas in car parks including stairs, landings, ramps, edges or internal floors, footways, edges of roofs (viii) Horizontal loads imposed by vehicles	1.5 See clause 11	1.5	1.5



semanganya tidak bersambung  
askan oleh Encik Harjit.



# Connecting People and Content – The **BEST** Way!



- collaborative tool  
enables people to share data, information and knowledge in real time
- facilitate exchange of ideas and solutions as well as track members' participation





# The KM Agenda

*To cultivate **knowledge sharing and learning culture** across department through the use of proven **effective knowledge sharing tools***



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# Project Lessons Learned

## 1. KPI



## 2. Awareness Workshops



## 3. PLL Workshops



## 4. PLL Guide



## 5. PLL Compilation

# Project Lessons Learned Reports



# PROSES PLL



*Kenalpasti (at any point during the asset life cycle)*



*Dokumen dan kumpul*



*Simpan dalam repositori pusat*



*Tentusah dan analisis*



*Sebar/kongsi*



*Dapatkan maklumbalas*



*Kenalpasti tindakan*



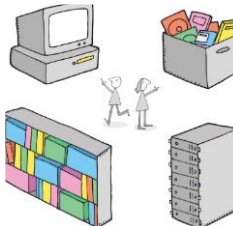
*Buat Susulan*



*Terapkan dalam amalan kerja dan prosedur*



*Kemaskini dokumen berkaitan*



*Arkib bersama-sama data sokongan dan dokumentasi lain yang relevan*

# TANGGUNGJAWAB PIHAK YANG TERLIBAT

## Pasukan Projek

- Kenalpasti dan capture PLL



## Pejabat PO (CPAB Cawangan dan Negeri)

- Koordinasi penyediaan PLL
- Mudahcara bengkel PLL



## Pejabat Portfolio (CPAB)

- Semak dengan SME bagi menentusah PLL
- Analisis trend/pattern PLL
- Angkat naik isu kritikal ke mesyuarat JPP untuk keputusan

## SME

- Semak (verify) PLL
- Kenalpasti penambahbaikan proses/prosedur sediaada
- Rujuk kepada pemilik proses



## Pengguna

- Beri maklumbalas
- Aju pertanyaan



## Pemilik Proses

- Putuskan samada dokumen/ proses/ prosedur sediaada perlu dipinda/tambahbaik

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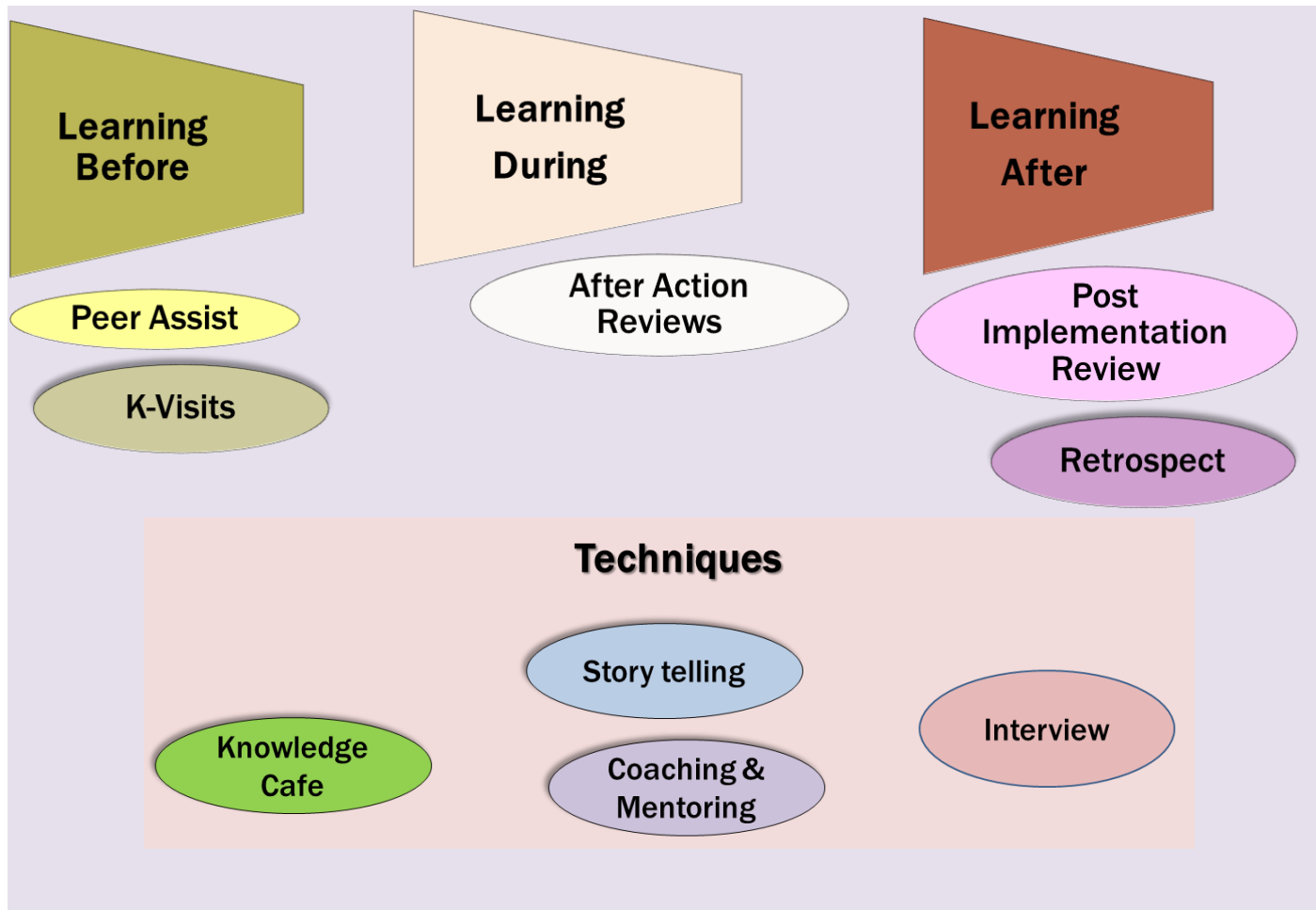
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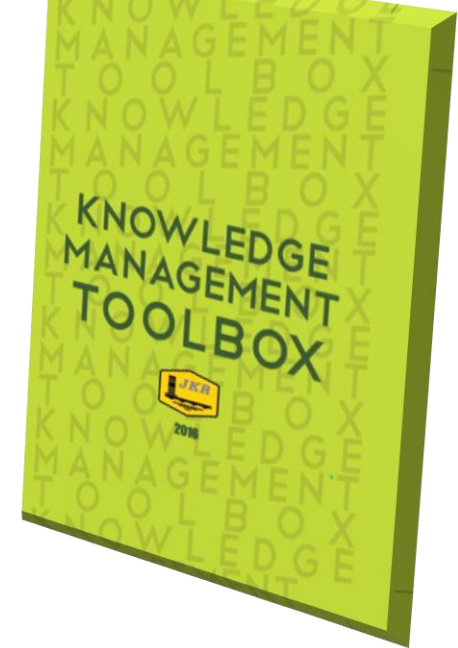
# Tools to capture/harvest Knowledge







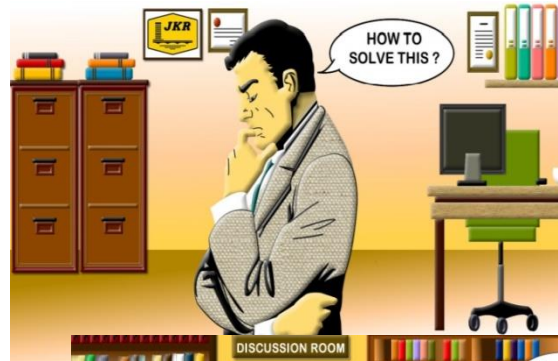
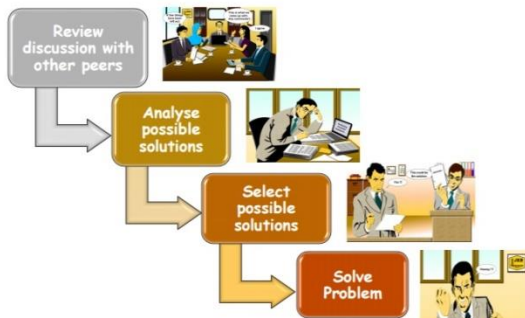
Peer Assist brings together a group of colleagues to elicit feedback on a problem, project, or activity, and draw lessons from the participants' knowledge and experience to support 'learning before doing' process



## HOW TO USE



## HOW TO USE ... Cont'd



Step 3: Discuss problem with facilitator

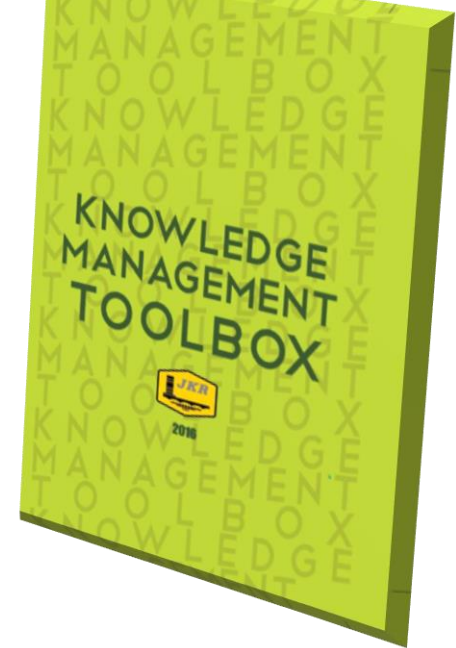


Step 8: Select the best solution

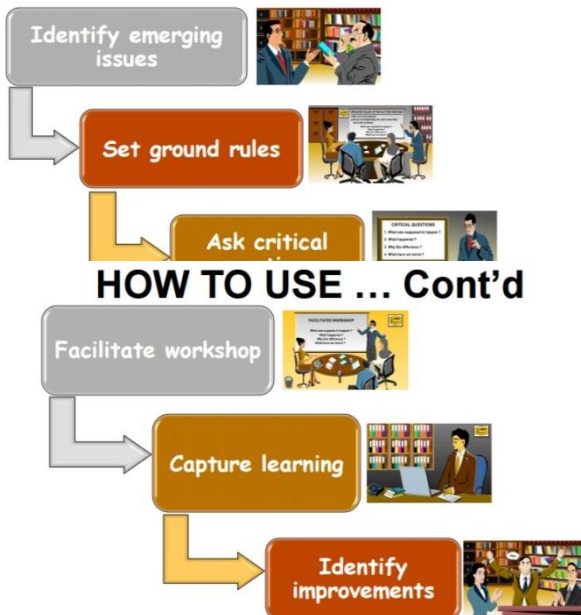




After Action Review is a structured review or de-brief process for analysing what happened, why it happened and how it can be done better, by the participants and those responsible for the project or event.



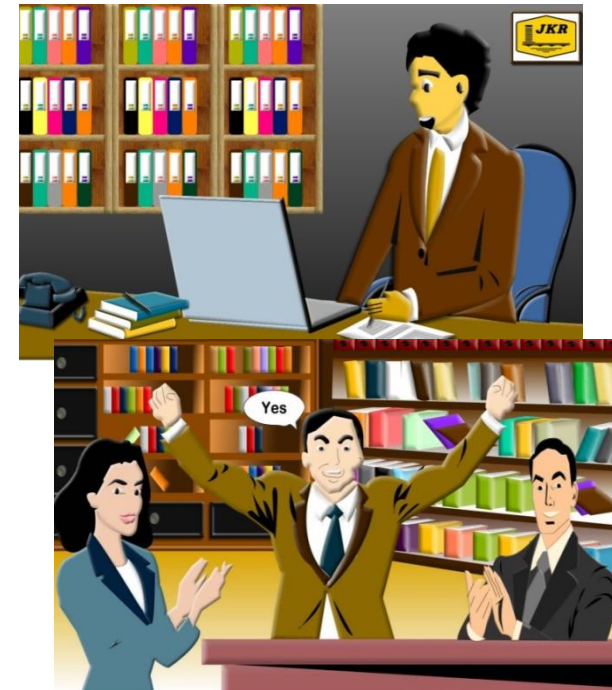
## HOW TO USE



## HOW TO USE ... Cont'd



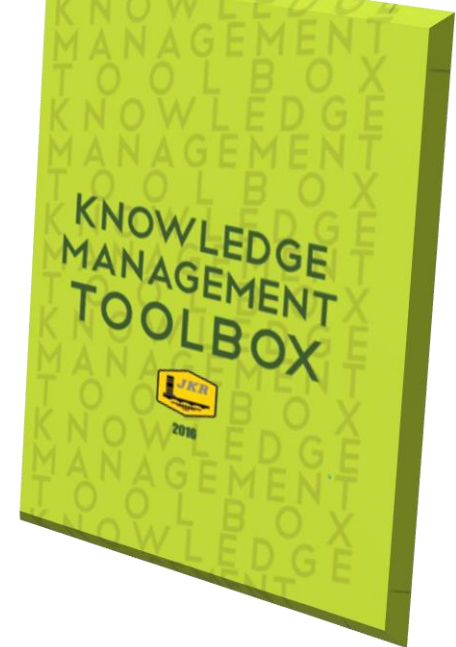
Step 2: Set ground rules



Step 6: Identify improvements



Fish Bowl technique is used to manage a group discussion and involve a small group of people seated in circle and having conversation in full view of a large group of listeners.



## HOW TO USE

Identify experts



Explain the fishbowl process



Set up chairs in two concentric



## HOW TO USE ... Cont'd

Facilitator start session with expert



Facilitator swap experts with participants



Facilitator summarises discussion



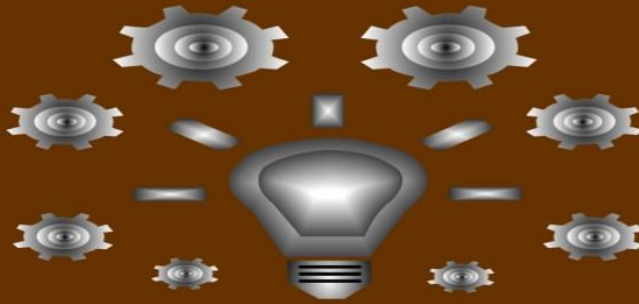
Step 3: Set up chairs in concentric circles



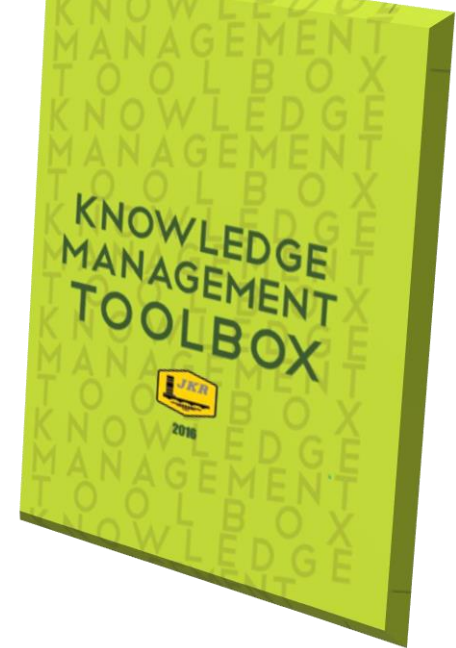
Step 6: Facilitator summarise the discussion



# POST IMPLEMENTATION REVIEW



Post Implementation Review evaluates whether the project's objectives were met, how the project was run and to learn lessons for the future to ensure the greatest possible benefit is derived from similar projects.



## HOW TO USE



## HOW TO USE ... Cont'd



Step 2: Discuss approach and review documents

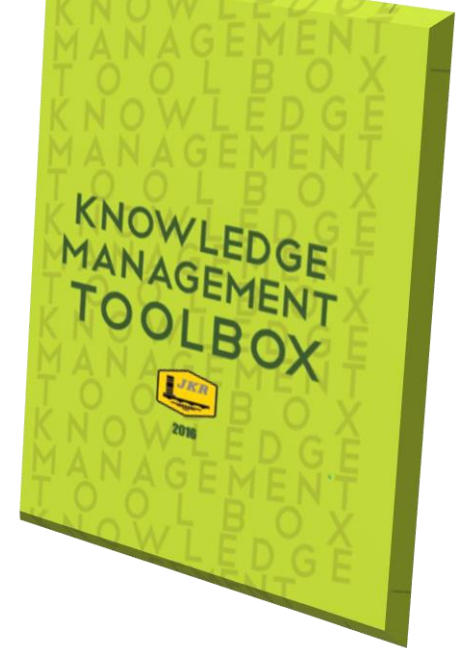


Step 6: Share recommendations for improvement

# KNOWLEDGE CAFE



Knowledge café is used as a creative conversation technique in which a group of people share ideas and gain a deeper collective understanding of the subject and the issues involved.



## HOW TO USE

Explain concept



Initiate conversation



Members switch tables except table host



## HOW TO USE ... Cont'd

Continue process as instructed by facilitator



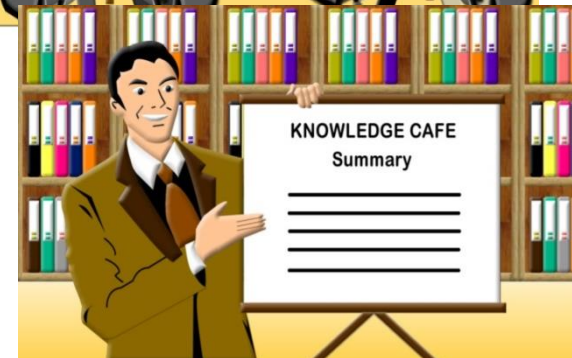
Synthesise ideas



Summarise and present



Step 2: Initiate conversation in groups around key question



Step 6: Summarise findings and present

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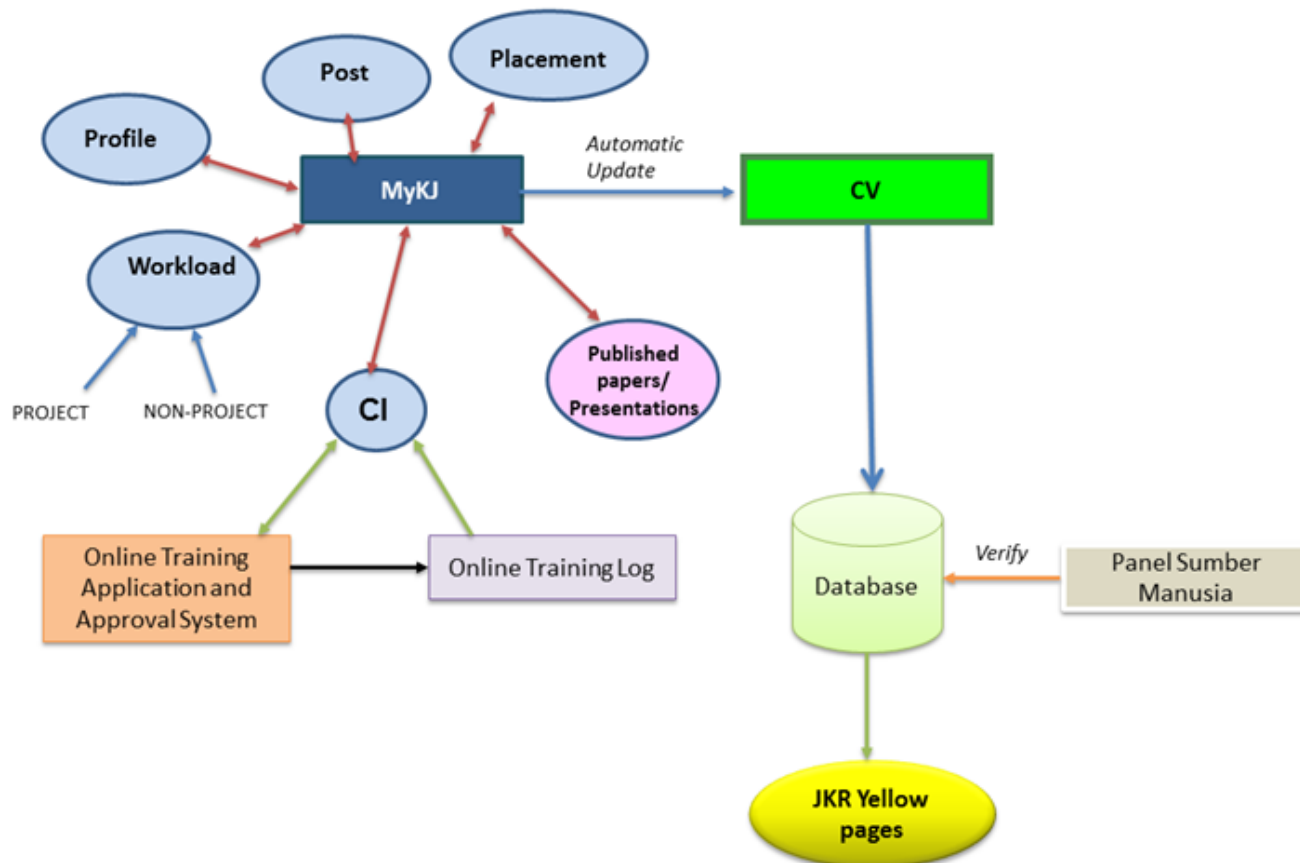
**JKR Yellow Pages** to locate experts within the department

7

**E-Learning** to provide 24 x 7 learning environment



## JKR Yellow Pages: Expert Directory



# The KM Agenda

*To cultivate **knowledge sharing and learning culture** across department through the use of proven **effective knowledge sharing tools***



## MAJOR KM INITIATIVES (since 2008)

1

**JPedia**, an online repository to share knowledge-in-context)

2

**Communities of Practice** to share domains of knowledge

3

**JCoP**, an online platform to ask and discuss

4

**Project Lessons Learned System** to share key project learnings

5

**KM Toolbox**, set of tools and techniques to capture and share insights and ideas

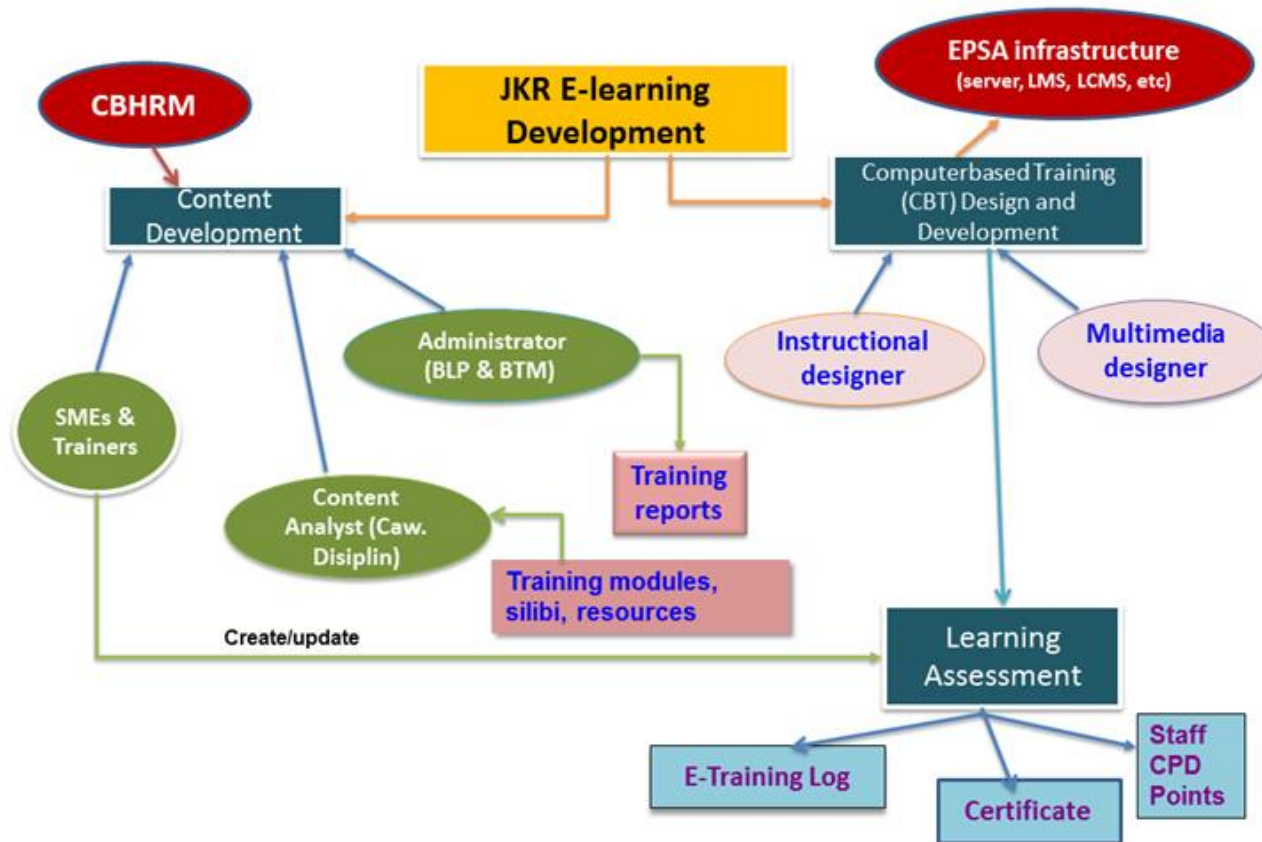
6

**JKR Yellow Pages** to locate experts within the department

7

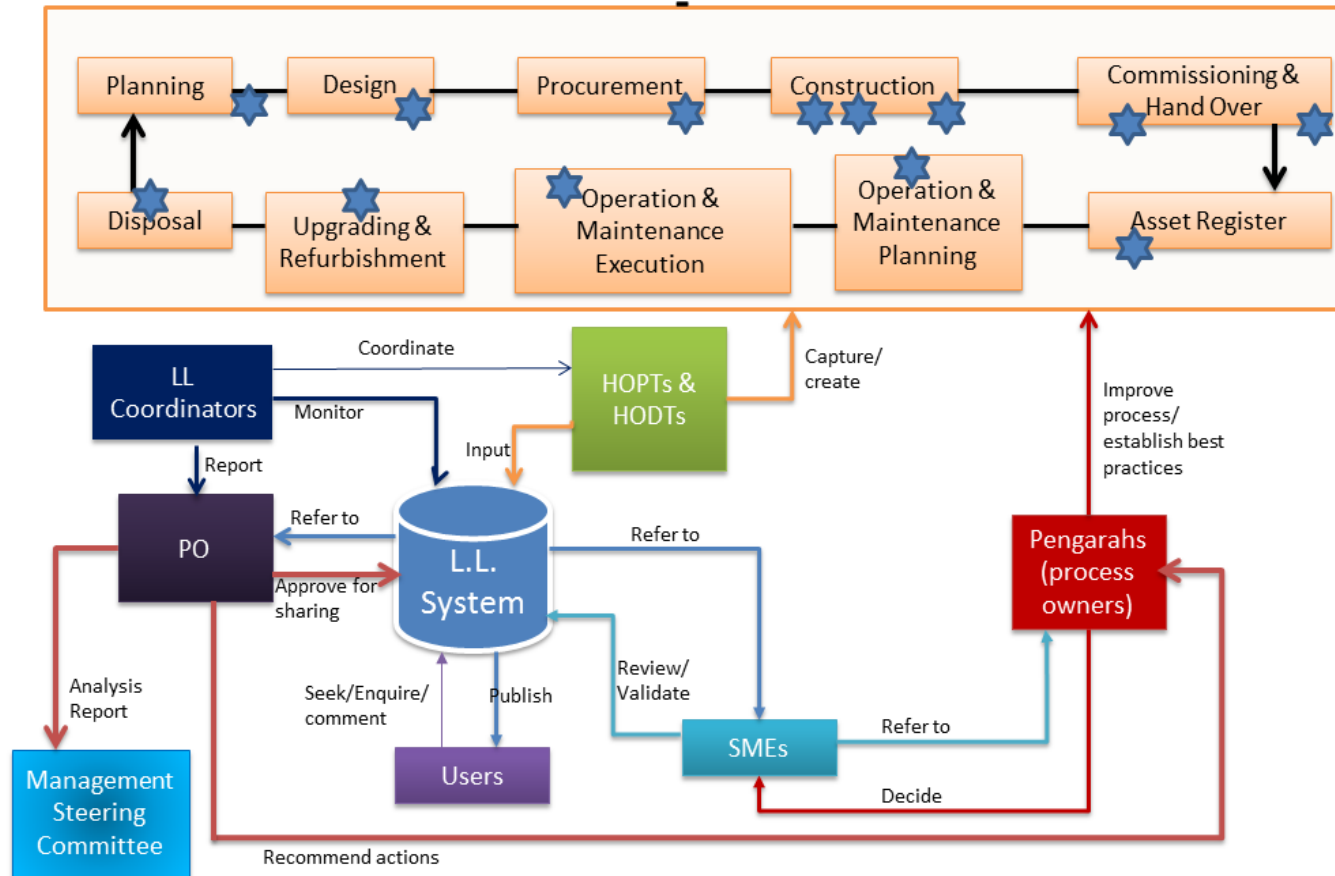
**E-Learning** to provide 24 x 7 learning environment

## E-Learning

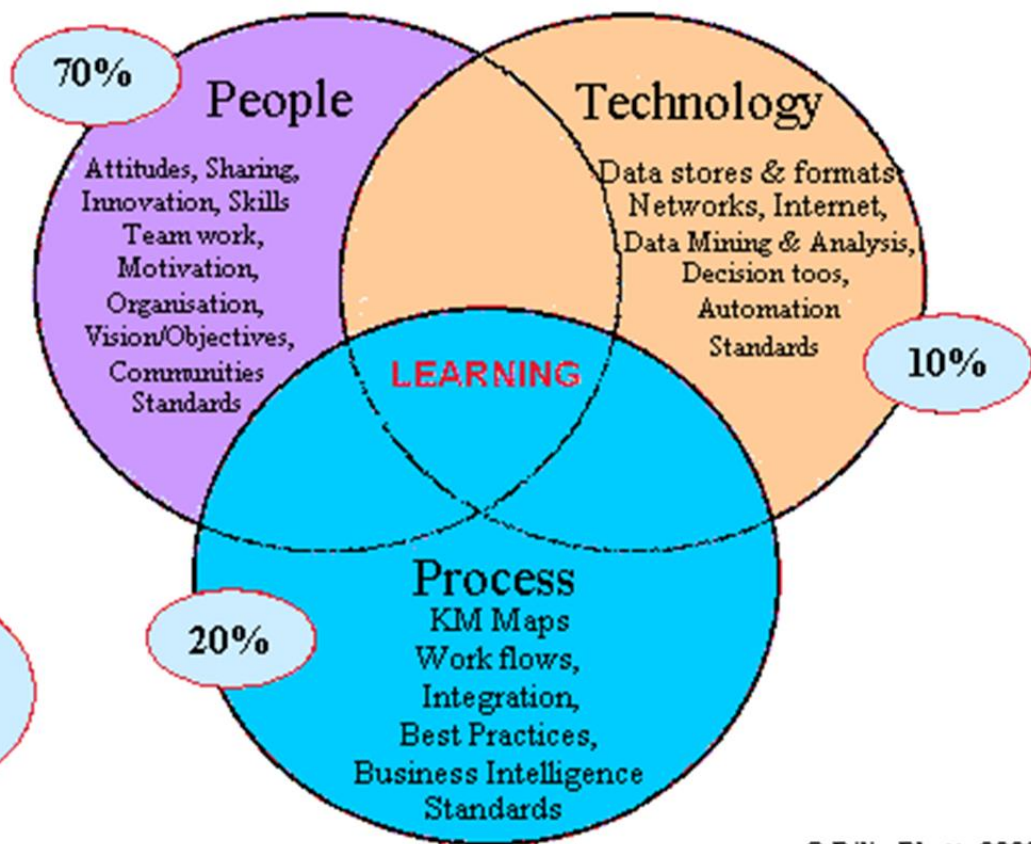




## PROJECT LESSONS LEARNED MANAGEMENT SYSTEM



# Knowledge Components



n% =  
effort  
required

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# KM Events & Activities

KM Audit Workshop 13 – 14 Feb 2017

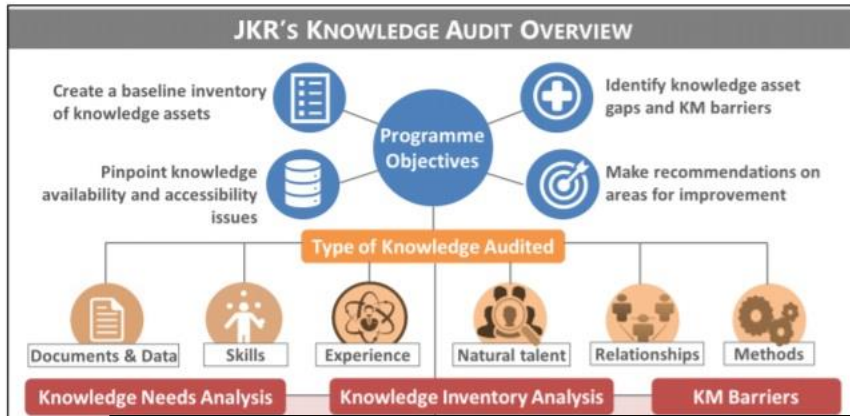
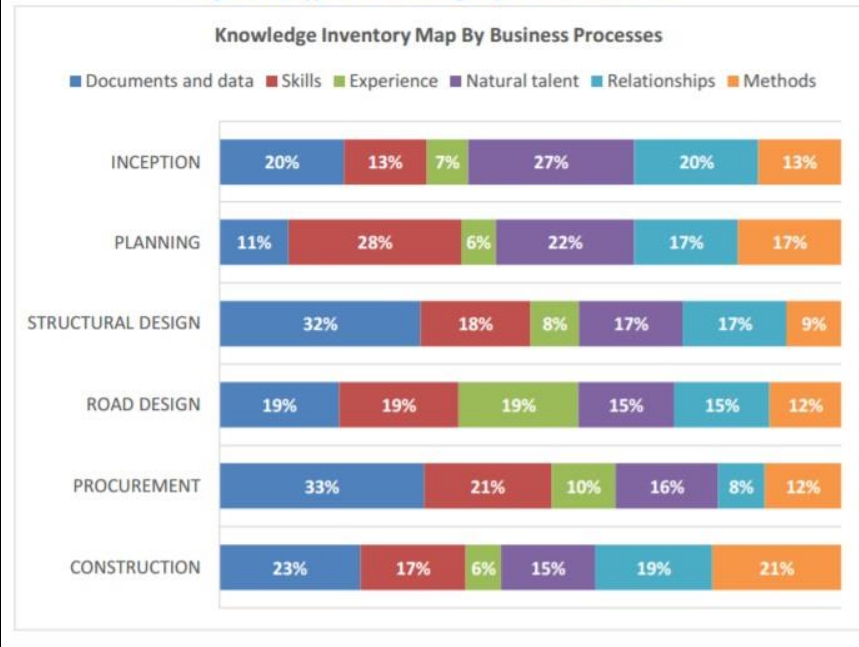


Figure 11: Types of Knowledge by Business Processes





# KM Events & Activities

## Bengkel & Mesyuarat Project Lessons Learned



# KM Events & Activities

## Mesyuarat JKPPPI





# KM Events & Activities

## Program K-Visit



# KM Events & Activities

## Program Persada Minda JKR



# Thank you for your attention

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