



MANAGING KNOWLEDGE IN JKR:

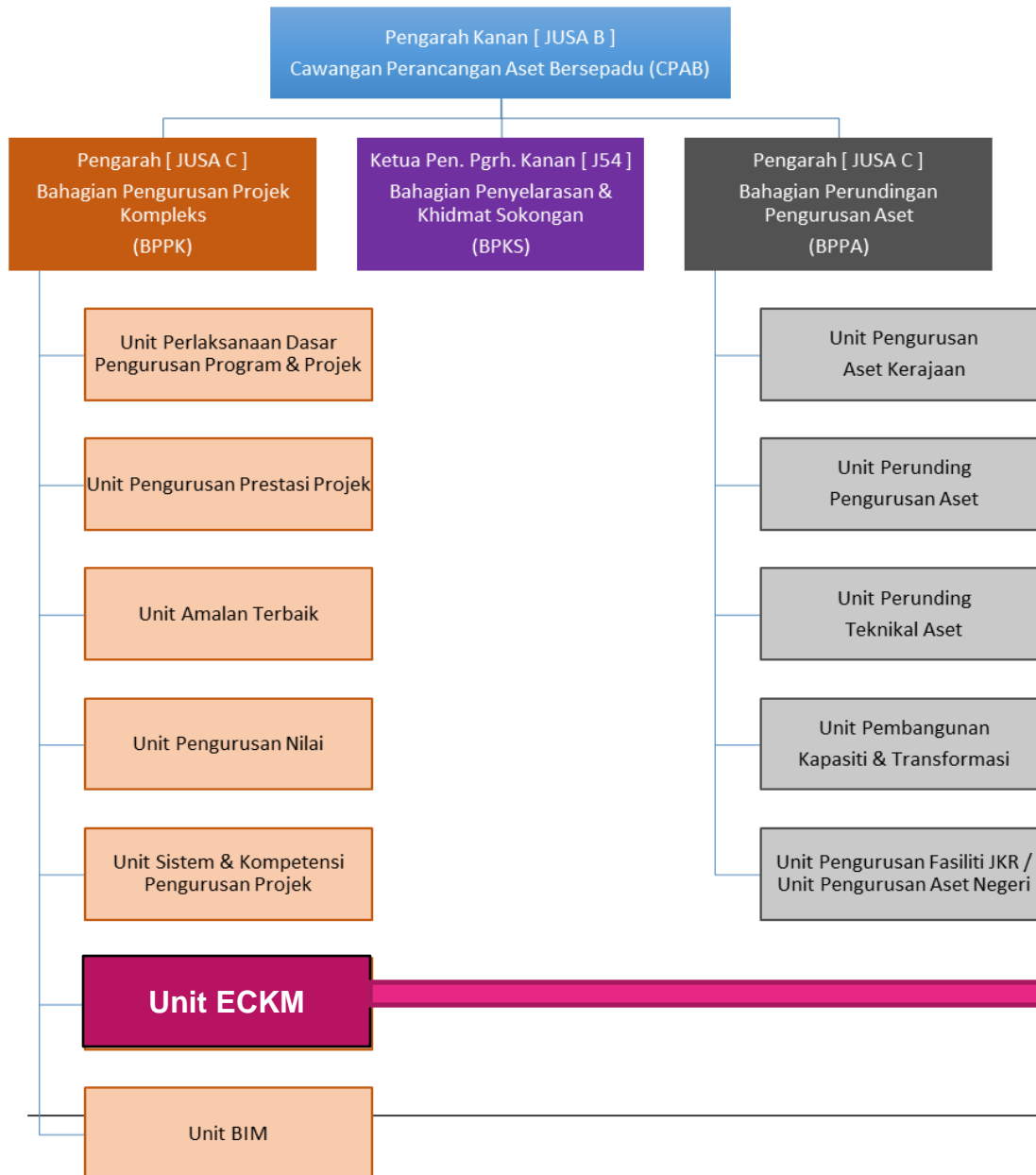
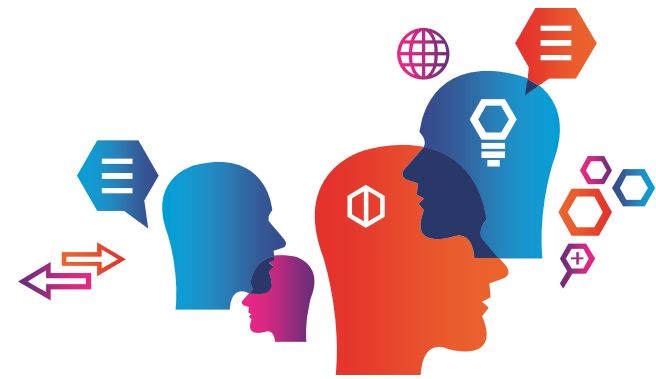
IMPLEMENTATION INSIGHTS

Sr ROZNITA BT OTHMAN

**MATRADE KM CHANGE MANAGEMENT
Workshop**
8 Disember 2016



Introduction



Sr. Roznita Othman
Pengarah Kejuruteraan (Komunikasi)
Juruukur Bahan

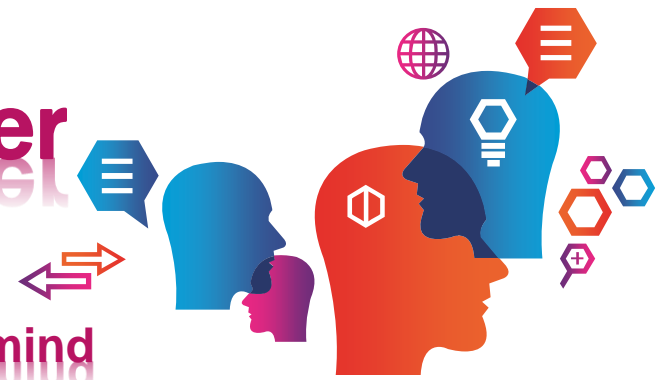
J48 (JUB)
Khairil Hizar Md. Khuzaimah

J41 (Awam)
Norparzila Abd. Ghaffar

J29 (Awam)
Safira Aiza Ahmad

What I will cover

Begin with the end in mind



How KM improves our
performance

Our knowledge Assets

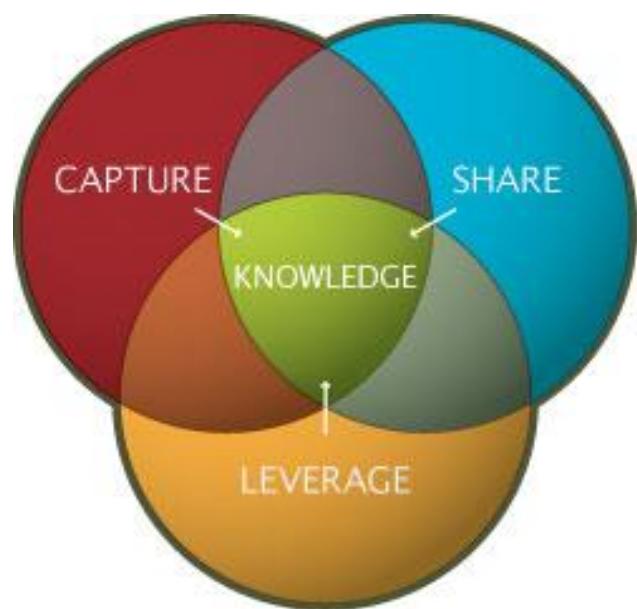
JKR KM Agenda & Journey

ECKM Products

Lessons Learned



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

Our Knowledge Assets

Relationships

- know-who
- Social relationship
- *eg with experts, stakeholders*

Methods

Procedures, processes,
workflows

Not all are documented

eg best practices, checklists, templates

Natural Talent

- Inherent
- Cannot be constructed/replicated
- *e.g art, design*

Experience

- Able to identify trends and make sense
- *e.g forecasting, negotiations, risk planning*

Skills

- Competent in performing tasks
- Acquired through learning and doing
- *e.g project scheduling,*

Documents/Data

- Explicit knowledge
- *e.g Manuals, SOPs, databases, training kit*

Adapted from Dave Snowden,
'The ASHEN model: an enabler
of action' *Knowledge Management*
vol.3 issue 7 2000

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 Enterprise Content & Knowledge Management Program



KM Tools and Techniques



Story Telling



After Action Review



Knowledge Café



Exit Interview



e-Learning



Fishbowl



Peer Assist



K Audit



CoP

JKR KM VISION

To become a first-class knowledge centre that provides the optimum in performance support via optimization based on trust, partnerships and a mutual win-win mentality

JKR KM MISSION

To improve our performance by getting the BEST knowledge to the right people at just the right time

Knowledge managers in HQ and JKR States

Quarterly Mesyuarat JKPPPI



Knowledge Fairs

PERSADA MINDA

WACANA ILMU

WADAH ILMU

SEMARAK ILMU

LIGA ILMU

KARNIVAL PEMBUDAYAAN ILMU



KM Initiatives & Products



KM JOURNEY IN JKR FROM 2008 - 2016

Create The Buzz

- **June - Dec**
ECKM Briefing to ECKM team; Introduction to KM course for ECKM team; ECKM Handbook

Getting Others Involved

- **Jan - June**
Set up J/K Pelaksanaan dan Pemantauan Pembudayaan Ilmu & Appoint Knowledge Managers; K-Visits; Knowledge Audit CKUB
- **Jul - Dec**
Launched e-PSMG; Briefing at Mesyuarat Pengarah-pengarah and Mesyuarat Jurutera Daerah; Avillon Knowledge Café; Karnival Pembudayaan Ilmu

More Initiatives

- **Jan - June**
KM Seminar for top management; JPedia Lessons Learned Process; J-10 Requirements Specs for ECKM Initiatives, Sepang Knowledge Café
- **Jul - Dec**
Content management governance; KM Training; KM Seminar for J48 and above; Semarak Ilmu

Inculcating Knowledge Sharing Culture

- **Jan - June**
JPedia & JCoP Roadshows A'Famosa Knowledge Café K-Visits, K-Managers Meeting HKL Project Lessons Learned Workshop; SUKMA Project Lessons Learned Workshop; Exit interviews
- **Jul - Dec**
Workshops on Sustaining CoPs Wacana Ilmu; JCoP v.2; JCoP survey

Shared Learnings

- **Jan - June**
PLL Workshops PLL Guide K-Connect Seminar CoP Health Check
- **Jul - Dec**
JCoP / JPEDIA Roadshow KM Audit Persada Minda Seminar CoP JKR

2008

2009

2010

2011

2012

2013

2014

2015

2016

Quick Wins to Get Buy In

- **Jan - June**
Talks; KM workshops
- **Jul - Dec**
Pilot online knowledge repository (e-PSMG); Developed ECKM Framework; ECKM Roadmap and Taxonomy

Sell, Sell, Sell

- **Jan - June**
Workshops to enhance e-PSMG content; ECKM Roadshows; Present Papers at International Conferences; K-Visits; K managers meeting
- **Jul - Dec**
KM Readiness Assessment; Genting Knowledge Café

Retaining & Transferring Tacit Knowledge

- **Feb - June**
Cultivate CoPs; JPedia Roadshows; UPMN Lessons Learned Workshop; Story telling Workshop; K-Visits; K managers meeting; Gambang knowledge Café
- **Jul - Dec**
JCoP portal; Wadah Ilmu; CoP Launching and Seminar; Exit interview

Communicate and Collaborate

- **Jan - June**
JCoP Newsletter; Seminar CoP for Top Management; Publish CoP guides; K-Visit; Penang K-Café; K managers meeting; JCoP Roadshows; Exit Interviews, JCoP Moderators Workshop; KM Prog. for cadre officers; JCoP day
- **Jul - Dec**
Persada Minda; JPedia workshop

KM is a KEY component in JKR Strategic Framework 2016-2020



**OUTSTANDING
PROJECT
DELIVERY**



**CO-CREATIVE
CUSTOMER
EXPERIENCE**



**CENTRE OF
TECHNICAL
EXCELLENCE**



**LEADING
SUSTAINABILITY**



**INNOVATIVE
ORGANIZATION**



K M Initiatives

**T1.3 Develop PM
Competency**

- JCoP as platform for sharing knowledge
- Lessons Learned documentation

**T2.3 Develop
Customer
Centric
Workforce**

- Knowledge Sharing competency development

**T3.4 Identity and
Develop Experts**

- SME Profile Page

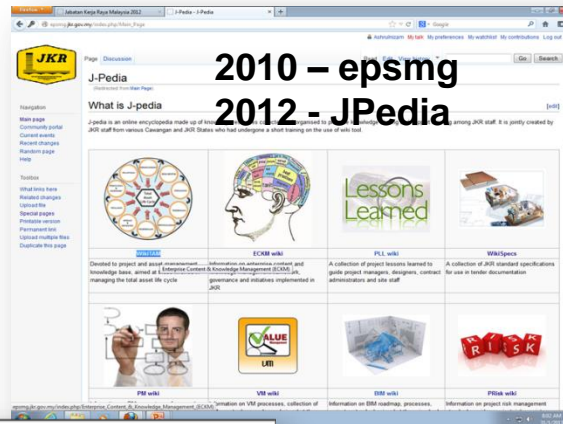
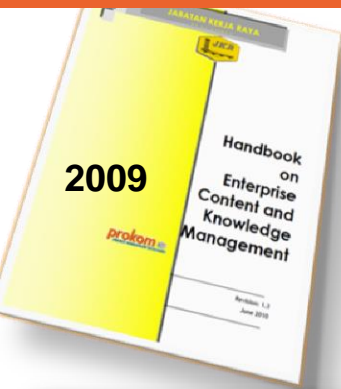
**T4.4 Develop
Sustainable
Champion**

- WikiGreen and WikiTAM in Jpedia

**T5.3 Enrich
Organisational
Knowledge Base
&
T5.4 Develop
Innovative
Centric
Workforce**

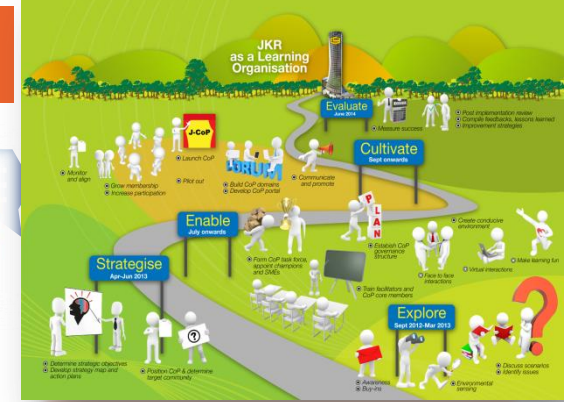
- Enhance ECKM,, Governance, e-Learning, CoP Sustenance,

ECKM products



2013

2011 – KM readiness assessment

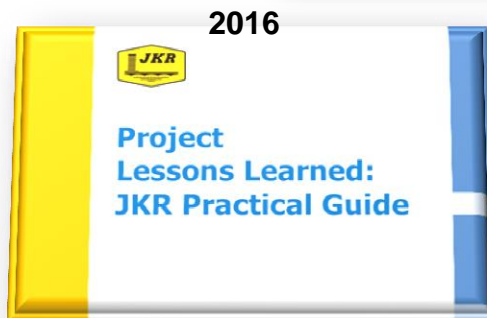
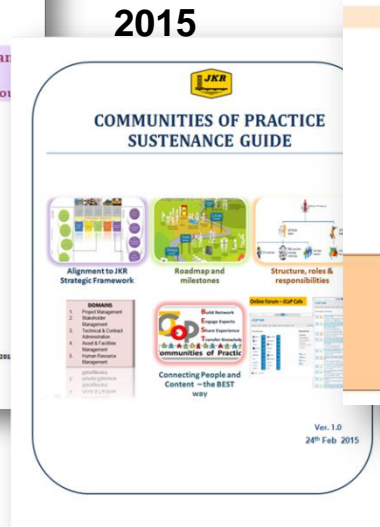
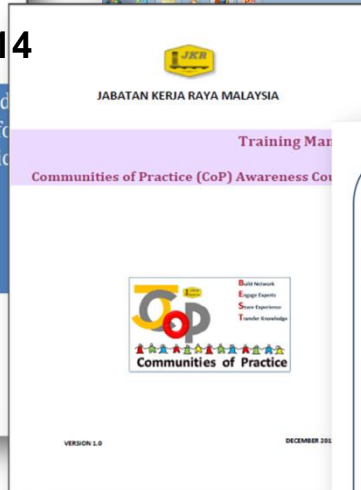
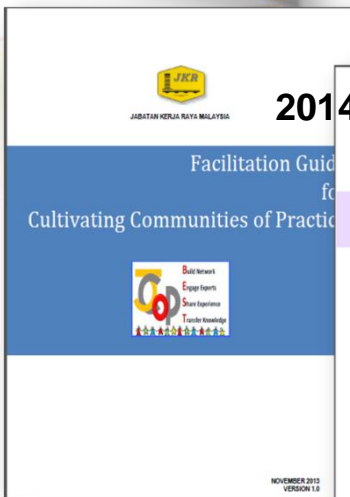
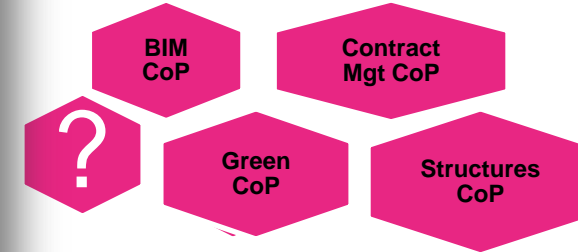


JKR CoP Domains

2013



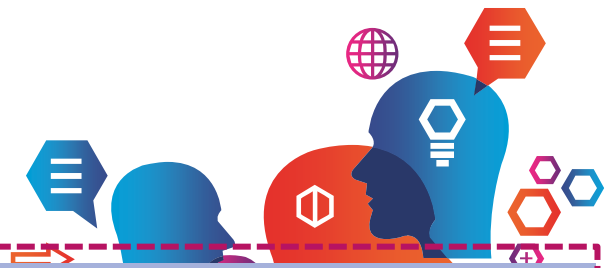
2016



2016



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

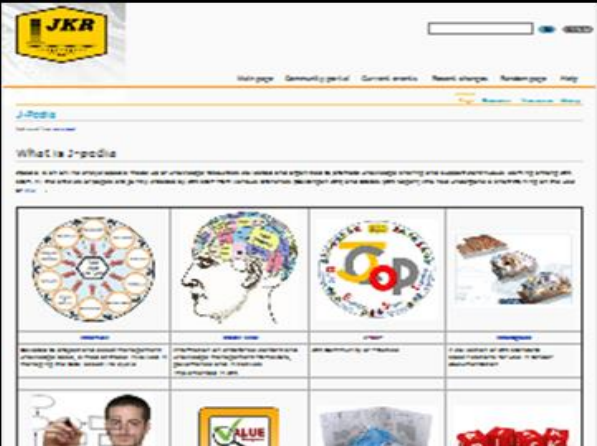
JCoP

Virtual Communities of Practice

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



Connect People to People



JPedia

JCoP

Connecting People – The **BEST** Way

Build Network
Engage Experts



- 1) SURVEY W
- 2) SOIL INVE
- In-situ Test
 - Borehol
 - JKR Prc
 - Hand A
 - Trial Pli
 - Cone Pi
 - Vane Si
 - Plate B
- Site Labor
 - Sieve A
 - Moistur
 - Modifie



Struktur tangga baru dibuat untuk menghubungkan (structural connection) antara tangga lama dan tangga baru. Enck Harjit.

Struktur tangga baru 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 stiffner dan sediakan dowel bar. Perbetulkan kembali construction joint.

Sekadar pandangan saya. Terima kasih.



Structurally independent

in sememangnya tidak bersambung dan dijelaskan oleh Enck Harjit.

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 INFILL (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	0.22 0.36 0.74	N/A 0.5 1.0	N/A 0.25 0.5
C. Areas where people may congregate	(vi) 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	(vii) Restaurants and Bars	1.5	1.5	1.5
C3. Areas without obstacles for moving people & not susceptible to overcrowding	(viii) Stairs, Landings, Corridors, Ramps (ix) External balconies and edges of roofs, footways and pavements within building cartilage adjacent to basements/bunker areas	0.74 0.74	1.0 1.0	0.5 0.5
CS. Areas susceptible to overcrowding	(x) Theatres, cinemas, discotheques, bars, auditoria, shopping malls, assembly areas, studio. Footways or pavements greater than 3m wide adjacent to parking areas	3.0	1.5	1.5
D. Retail areas	(xii) All retail areas including public areas of banks/building societies or betting shops. For areas where overcrowding may occur, see CS	1.5	1.5	1.5
F/G Vehicular	(xiv) Pedestrian areas in car parks including stairs, landings, ramps, edges or internal floors, footways, edges of roofs (xv) Horizontal loads imposed by vehicles	1.5 See clause 11	1.5 1.5	1.5 1.5



Jpedia (formerly called e-psmg)



- Started as an experiment to see what works in JKR environment
- An online knowledge repository - focused on knowledge needs of site supervisory staff (online site management guide)
- Used open source software, Mediawiki
 - flexible and easy-to-use tool
 - minimum learning curve
 - minimal cost

Jpedia content size and users as on 8 December 2016



Page statistics	
Content pages	829
Pages (All pages in the wiki, including talk pages, redirects, etc.)	8,876
Uploaded files	7,013
Edit statistics	
Page edits since J-Pedia was set up	29,156
Average edits per page	3.28
User statistics	
Registered users	2,309

JCoP















- Focus on sharing of experiential knowledge
- An online communities of practice – platform to ask and discuss
- Used open source software, Stack Overflow
 - gamification element
 - users profile

JCoP users and postings as on 8 December 2016



Top scoring users

	farijal	₹ 30,000		Isma_Ashraf	₹ 9,630
	Mohd Fairuz	₹ 24,420		NikAinun	₹ 9,180
	nikmanan	₹ 20,240		abubakarms	₹ 8,990
	MeorSLizam	₹ 19,700		SarumZA	₹ 8,830
	Muham Zaini Hamzah	₹ 19,260		haris	₹ 8,360
	aidzil	₹ 17,390		khudri	₹ 7,610
	hizar	₹ 13,140		mfairuz	₹ 7,290
	noorazmanr	₹ 11,790		Rosli	₹ 6,990
	SaifulFazli	₹ 11,530		harjit	₹ 6,450
	szshah	₹ 11,140		abrahmans	₹ 6,200

Most popular tags

stakeholder project-
management facilities-asset-
management risk-management
stakeholder-management time-management asset
communication-management competency integration
bim human design cost-management electrical myspata
pengurusan-aset-fasiliti project-planning time project

1,023
QUESTIONS

1,988
ANSWERS

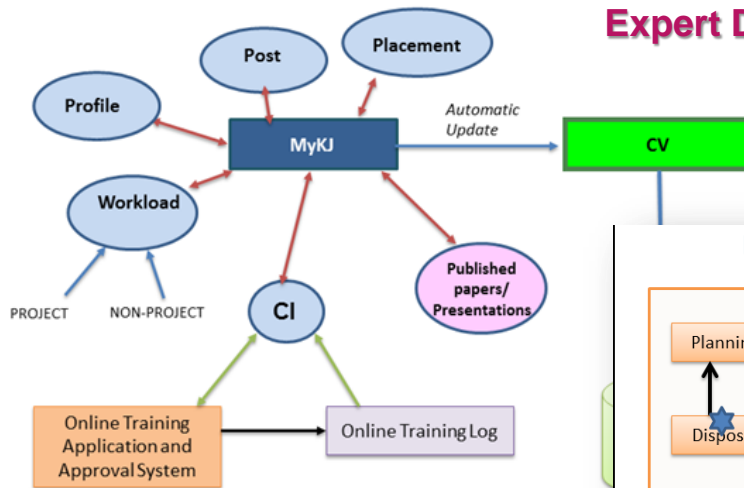
663
COMMENTS

1,968
USERS

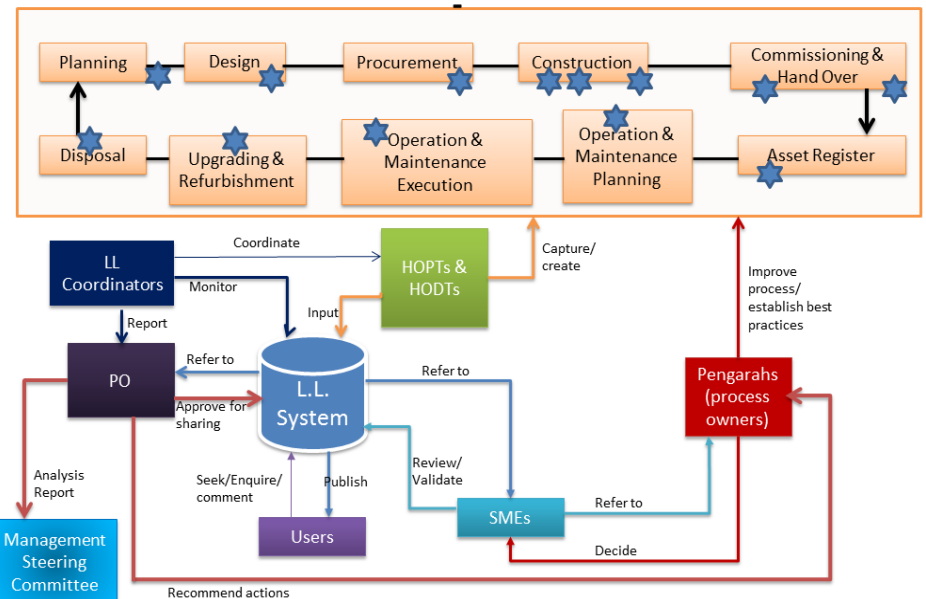
E-Learning



Expert Directory

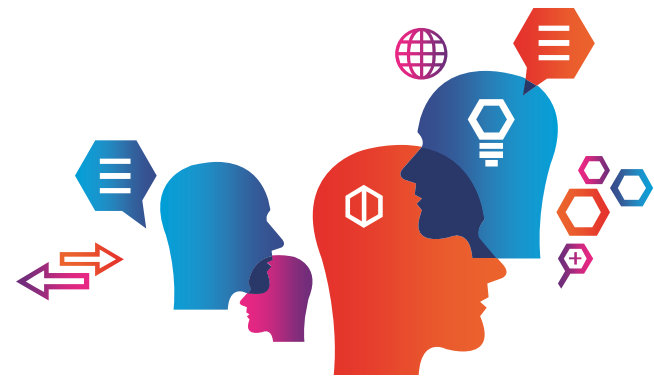


PROJECT LESSONS LEARNED MANAGEMENT SYSTEM



Systems under development

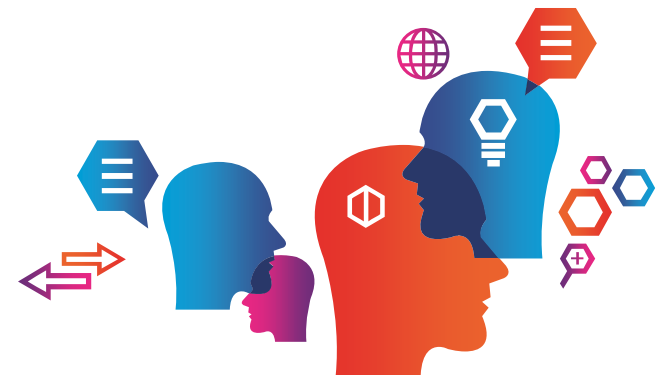




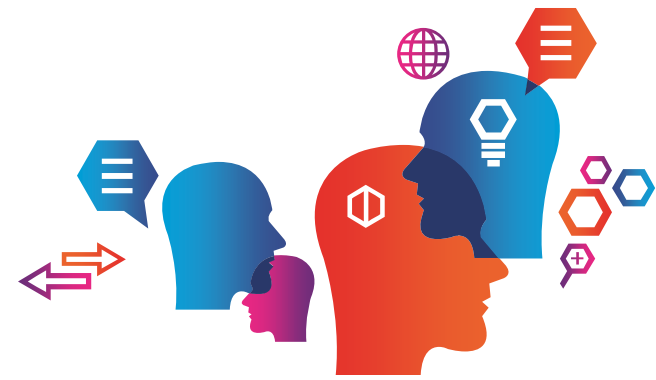
LESSONS LEARNED in IMPLEMENTING KM

You may have heard what I've done,
but not what I've been through

Why is Change Management critical for Knowledge Management?

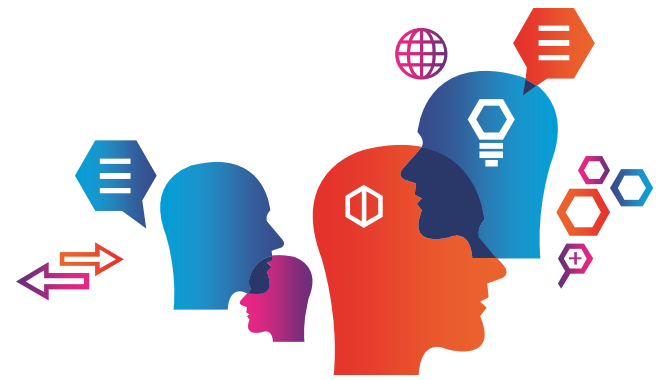


Lack of a strong change management strategy is one of the top five reasons for having a failed knowledge management implementation.



- Change is all about people..
- Change is not predictable and does not follow a set pattern.

An effective change management strategy should address the individual's behavioral aspects to motivate them to adopt change



Can we change people's behaviour?

What if people just aren't interested?
Do threats work? Do incentives work?



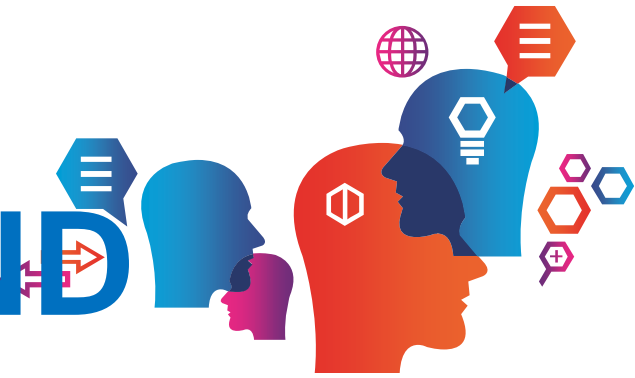
LEADERSHIP AND CHAMPIONS

Identify people who are willing to spend time sharing knowledge;

Get support from friends;

Create enabling environment and provide opportunities for people to become inspired by what their peers have achieved

FOCUS AROUND ACTUAL BUSINESS NEEDS AND OBJECTIVES



Know the pain points, gaps, critical knowledge;
Align to business strategy

START SMALL AND SIMPLE, THEN BUILD FROM THERE



Figure out how to create solutions that answer their real needs. get to know your audience and work with them to innovate solutions

Quick wins, pilots

Incremental approach



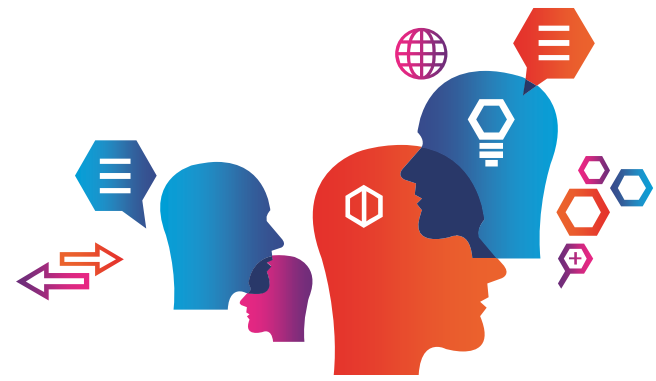
RIGHT COMBINATION OF PEOPLE, PROCESS AND TECHNOLOGY

Focus on people;

Embed knowledge capture and sharing in work process;

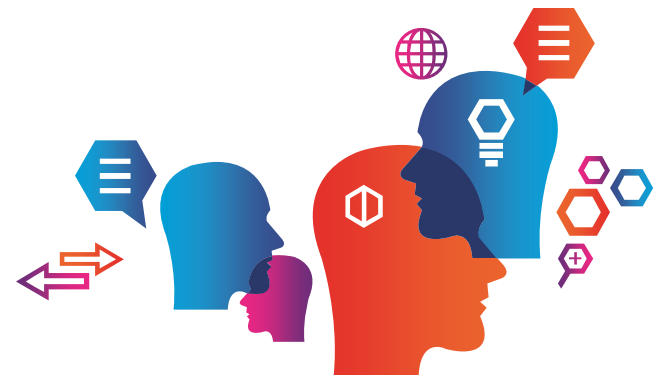
Technology as enabler and tool

Incentives for knowledge sharing



SELL, SELL, SELL!

Use appropriate marketing strategies and tools;
Broadcast, promote, update via social media

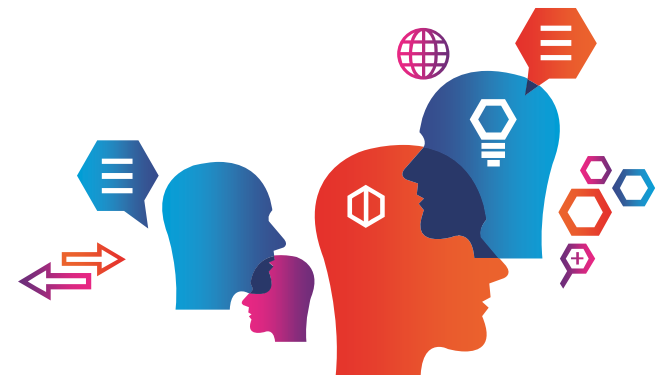


SOLICIT FEEDBACK!

Listen to users' expectations, preference, suggestions

Analyse users behavior

Monitor targets achievement



Thank you!