

What I will cover



Begin with the end in mind

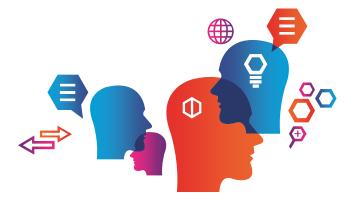
Why ECKM matters to us

JKR KM Agenda and Journey

ECKM Products

ECKM Activities





WHY DO YOU WANT TO IMPLEMENT KNOWLEDGE MANAGEMENT?



Why ECKM matters to JKR

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









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

SILOS 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

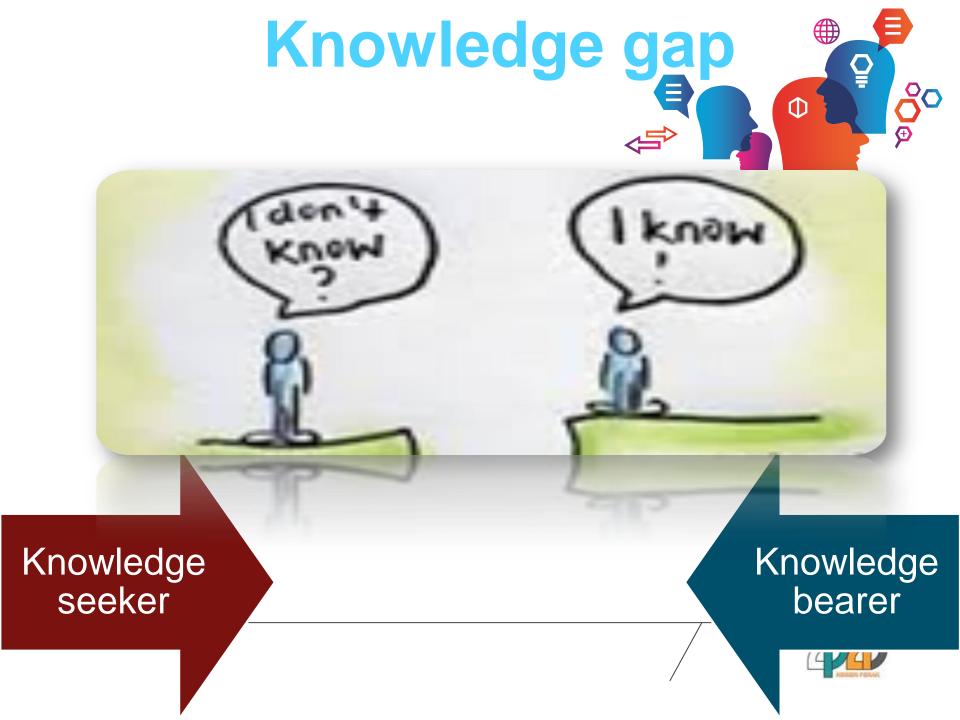
Across diverse groups (e.g., gender, ethic, nationality



Geographic

Across regions and locality

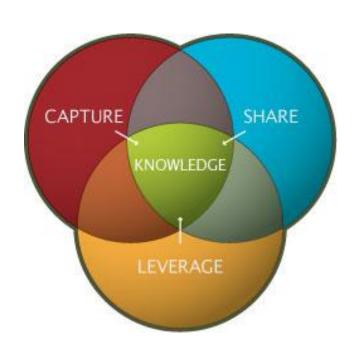
http://www.chrisernst.org/w hy-boundary-spanningnetworks/activate-the-



How KM can improve the







Easy to find experienced individuals

Enterprise wide knowledge at our finger tips

Improve productivity by reusing "what we know

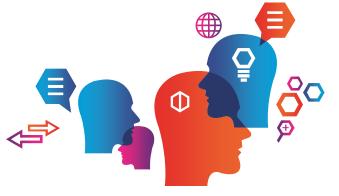
Improve communication and break down silos

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





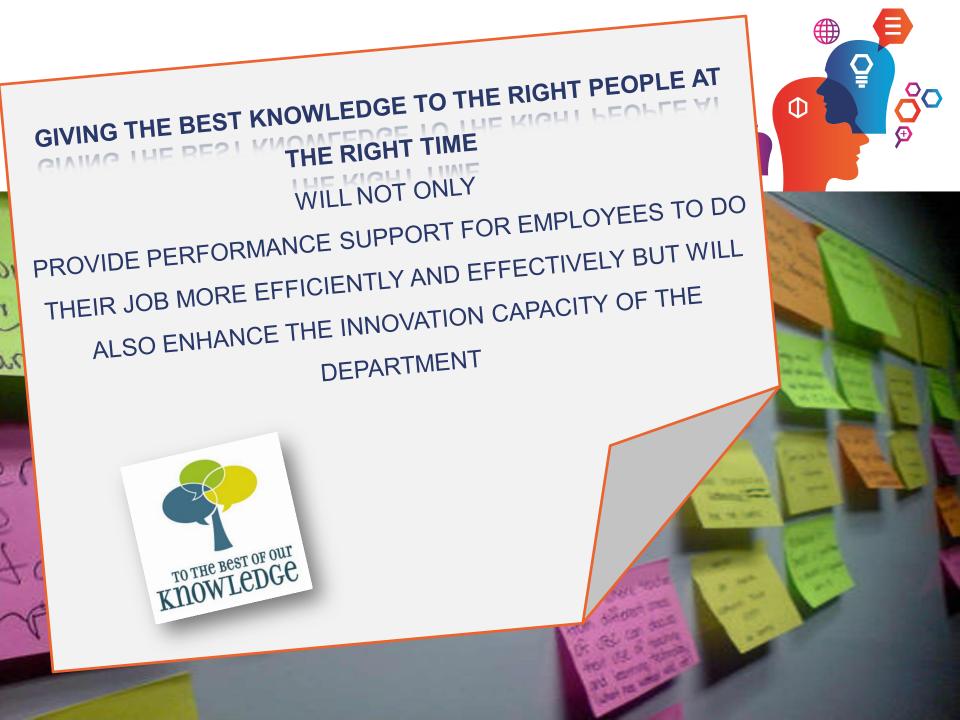
ISO 9001:2015 - Clause 7.1.6

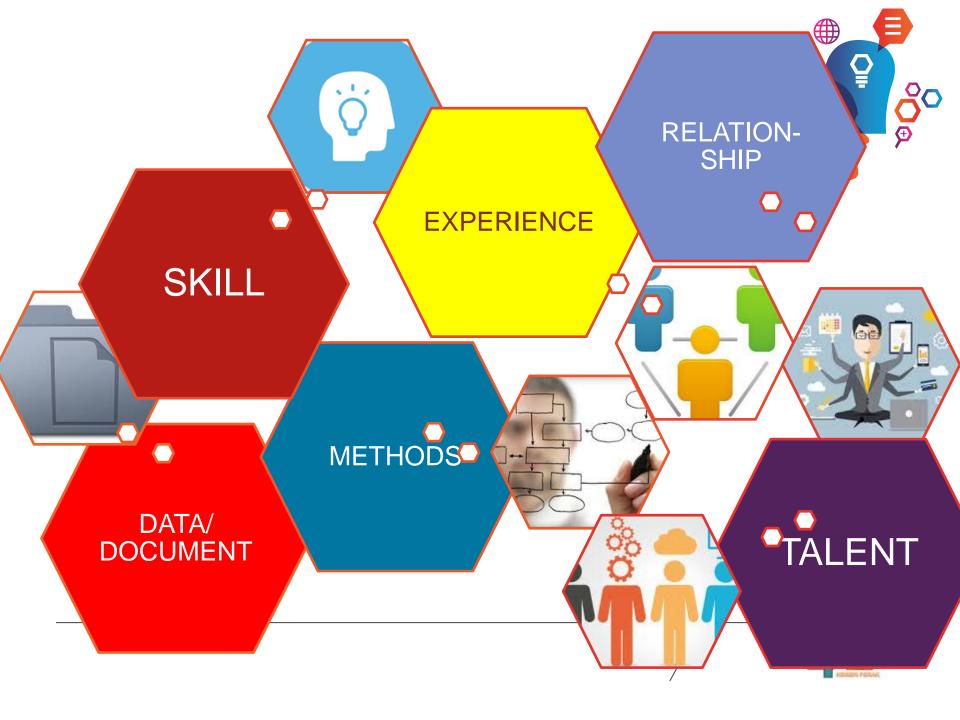


9001:2015

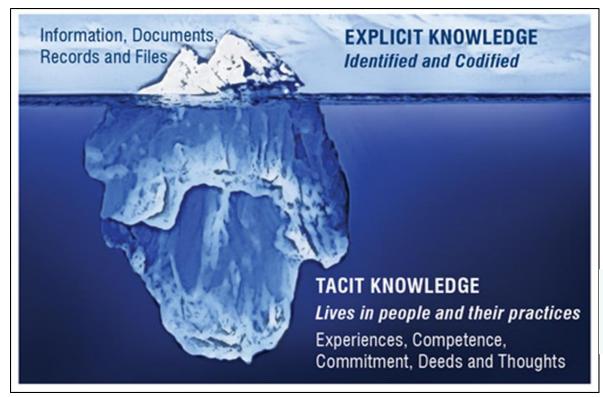
Organisations need to determine and manage its knowledge to ensure the operation of its processes and that it can achieve **conformity of products and services**







Types of Knowledge





80%



KNOWLEDGE AUDIT









ACCESSIBILITY

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 limu
 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

Knowledge Café

Jan - June
 KM Seminar for top management;
 JPedia Lessons Learned Process;
 J-10 Requirements Specs
 for ECKM initiatives, Sepang

 Jul - Dec Content management governance; KM Training; KM Seminar for J48 and above; Semarak limu

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



2009

2010

9

2011

2012

2013

2014

2015

Oo

2016



2008









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 care

Retaining & Transferring Tacit Knowledge

· Feb - June

Cultivate CoPs; JPedia Roadshows; UPNM 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

ECKM Office Team

Cawangan Perancangan Aset Bersepadu (CPAB)

Pengarah [JUSA C] Bahagian Pengurusan Projek Kompleks (BPPK)

> Unit Perlaksanaan Dasar Pengurusan Program & Projek

Unit Pengurusan Prestasi Projek

Unit Amalan Terbaik

Unit Pengurusan Nilai

Unit Sistem & Kompetensi

Pengurusan Projek

Ketua Pen. Pgrh. Kanan [J54] Bahagian Penyelarasan & Khidmat Sokongan (BPKS)

Pengarah [JUSA C] Bahagian Perundingan Pengurusan Aset (BPPA)

> Unit Pengurusan Aset Kerajaan

Unit Perunding Pengurusan Aset

Unit Perunding Teknikal Aset

Unit Pembangunan Kapasiti & Transformasi

Unit Pengurusan Fasiliti JKR / Unit Pengurusan Aset Negeri



THE ECKM TEAM IN CPAB

Sr. Roznita Othman

Pengarah Kejuruteraan (Komunikasi) Juruukur Bahan

Unit ECKM

 $\frac{4}{8}$ Khuzaimah

© Norparzila Norparzila Abd. Ghaffa Abd. Ghaffar

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(E Safira Aiza ⊗ Shmad **J**29

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Unit BIM



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)

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

- Project Lessons Learned
 System to share key project
 learnings
- JKR Yellow Pages to locate experts within the department

5

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

7

E-Learning to provide 24 x 7 learning environment

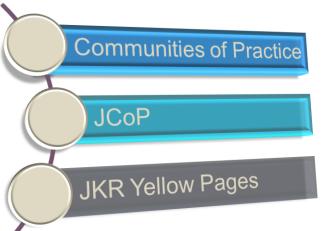


JKR Knowledge Transfer Strategies and Initiatives



Personalisation Strategy

Uses technology to providinformation of "Connecting Connecting People to People People People Teans.



Codification Strategy

knowledge by connecting article Connecting Connecting Content People to Content Peop

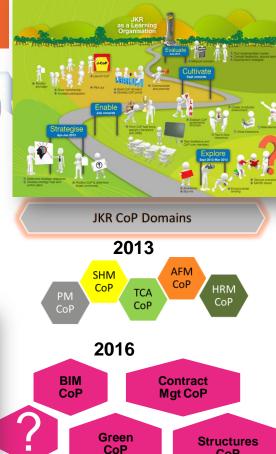
JPedia

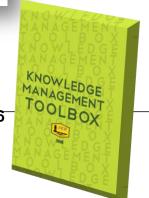
E-Learning

Project Lessons Learned

ECKM products









CoP

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E-Learning to provide 24 x 7 learning environment

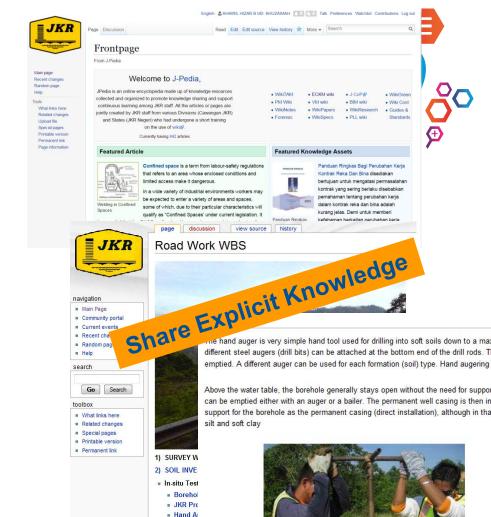


JKR KM Online Tools

JPedia Online Knowledge Repository

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

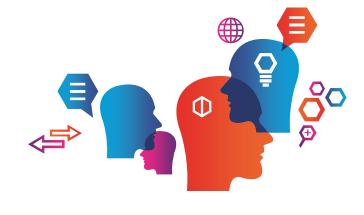




Trial Pit
Cone Potential
Vane Site Labor
Site Labor
Moisture
Modifie









9,522
PAGES



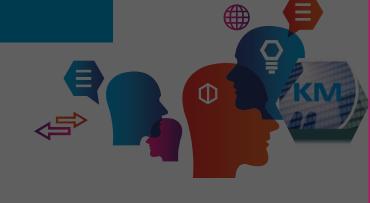


7,518
UPLOADED FILES



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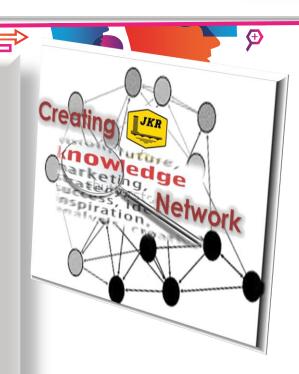
JKR CoPs

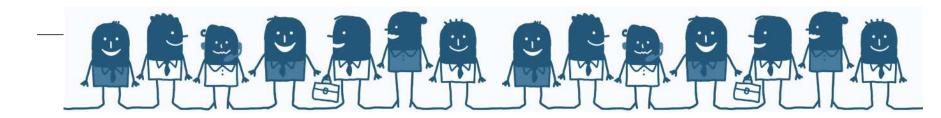


Peer networks of practitioners within JKR who help each other to perform better by sharing knowledge and experience.

Through this collaborative environment, new knowledge is

created and will help spark innovation







The CoP journey

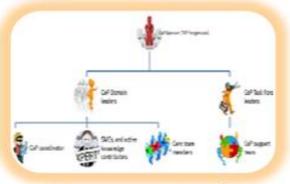




Aligning to JKR Strategic Framework



Roadmap and milestones



Structure, roles & responsibilities

DOMAINS

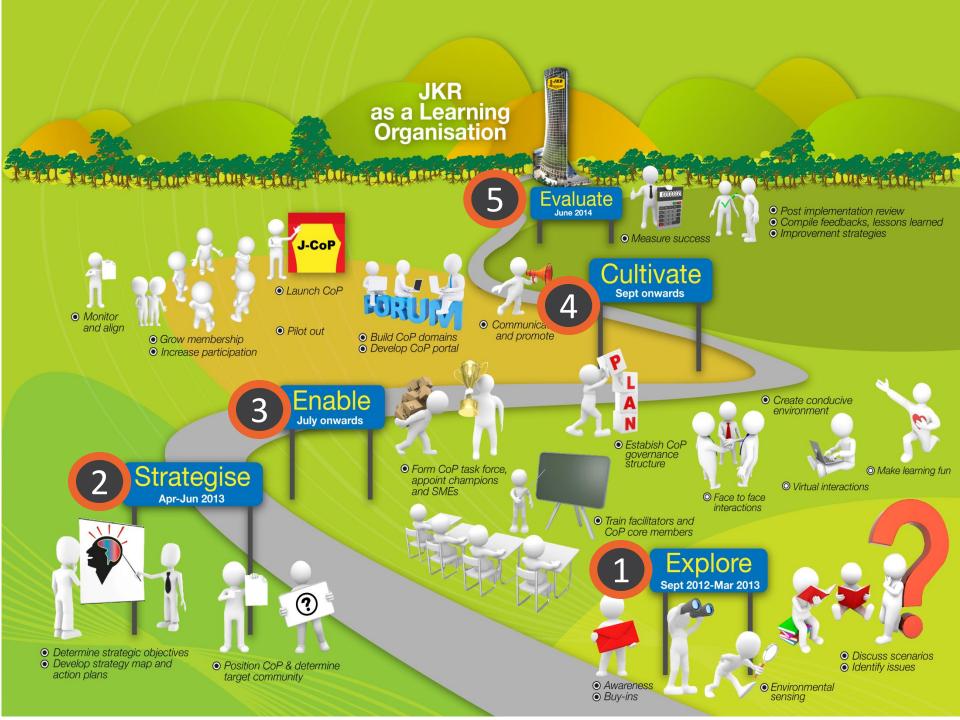
- Project Management
- Stakeholder Management
- Technical & Contract Administration
- 4. Asset & Facilities Management
- 5. Human Resource Management
- 6 BIM
- Green
- 8. Contract Mgt
- Structures
- Structures
- 8. Contract Mgt
- 7. Green



Connecting People and Content – the BEST way







CoP Domains @ JKR

Stakeholder Management Structure Contract Management

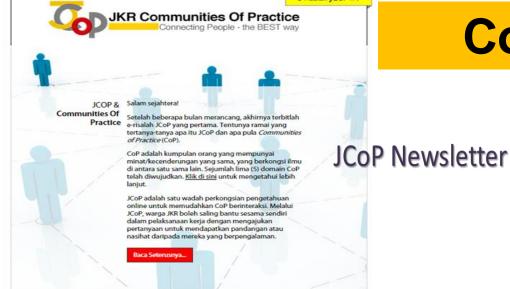
Project Management

Assets and Facilities
Management

Human Resource Management Technical and Contract Administration

BIM

Green



CoP Publications







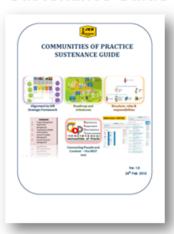
CoP Facilitation Guide



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





Seminar CoP JKR 2016

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





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JKR KM Online Tools

JCoP Virual 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



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.

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

Dinding untuk koridor perlukan stiffner dan dowel bar. Begitu juga dinding tangga baru dengan blok sekolah. Jika tidak disediakan stiffner + 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 in tipoleh dirujuk dalam Table 4 BS6399.

Stuktur tangga barudi (structurali Share Tacit Knowledge Menbung Share Tacit Knowledge)

rusnya dibuat kepada semua sambungan antara slab tangga mgan lantai koridor pada setiap tingkat. Kemungkinan ada yang retak banyak dan ada juga sedikit pada sambungan antara tangga baru dan blok sekolah Dikhautiri 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.

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/M²)	A UNIFORMLY DISTRIBUTED LOAD APPLIED TO THE INFILL (kN/M²)	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 ix)	0.36	0.50	0.25
	(ii) Other residential, (but also C)	0.74	1.0	0.5
B and E Offices and work areas not included elsewhere including storage areas	(iii) Light access stairs and gangways not more than 600mm wide	0.22	N/A	N/A
	(iv) Light pedestrian traffic routes in industrial and storage buildings except designated escape routes	0.36	0.5	0.25
	(v) Areas not susceptible to overcrowding in office and institutional buildings also industrial and storage buildings except as given above	0.74	1.0	0.5
C Areas where people may congregate C1/C2 Areas with tables or fixed seating	(vi) Areas having fixed seating within \$30mm of the barrier, balustrade or parapet	15	1.5	1.5
	(vii) Restaurants and Bars	15	1.5	1.5
C3 Areas without obstacles for moving people & not susceptible to overcrowding	(viii) Stairs, Landings, Corridors, Ramps	0.74	1.0	0.5
	(ix) External balconies and edges of roofs. Footways and pavements within building cartilage adjacent to basement/sunken areas	0.74	1.0	0.5
C5 Areas susceptible to overcrowding	(xi) Theatres, cinemas, discotheques, bars, auditoria, shopping mails, assembly areas, studio. Foctways or pavements greater than 3m wide adjacent to sunken areas	3.0	1.5	15
D Retail areas	(xiii) All retail areas including public areas of banks/building societies or betting shops. For areas where overcrowding may occur, see CS	15	1.5	1.5
F/G Vehicular	(xiv) Pedestrian areas in car parks including stairs, landings, ramps, edges or internal floors, footways,	15	1.5	1.5



emangnya tidak bersambung askan oleh Encik Harjit.





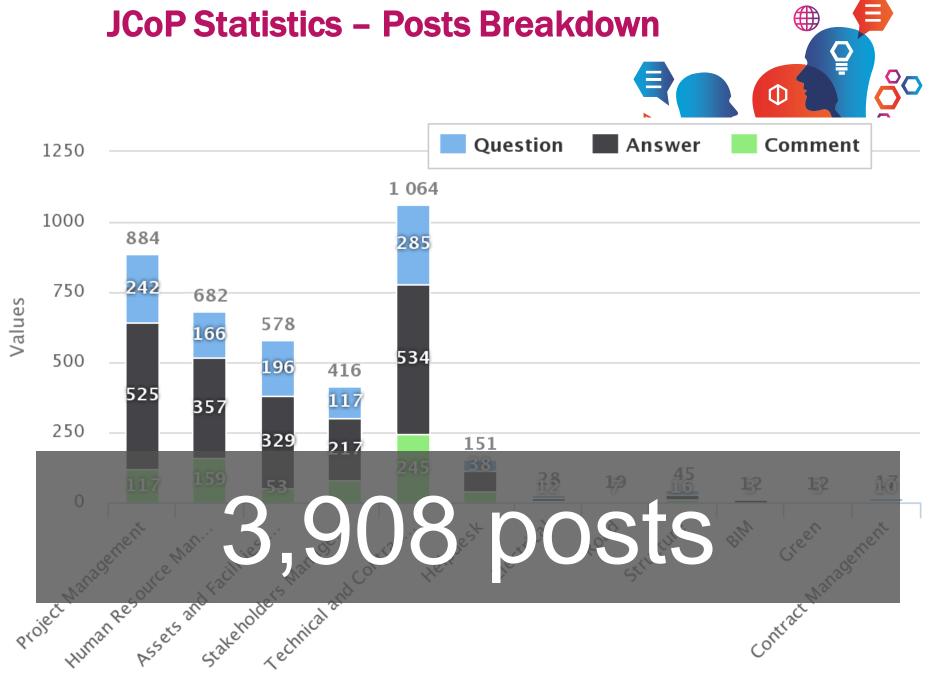
Connecting People and Content – The BEST Way!

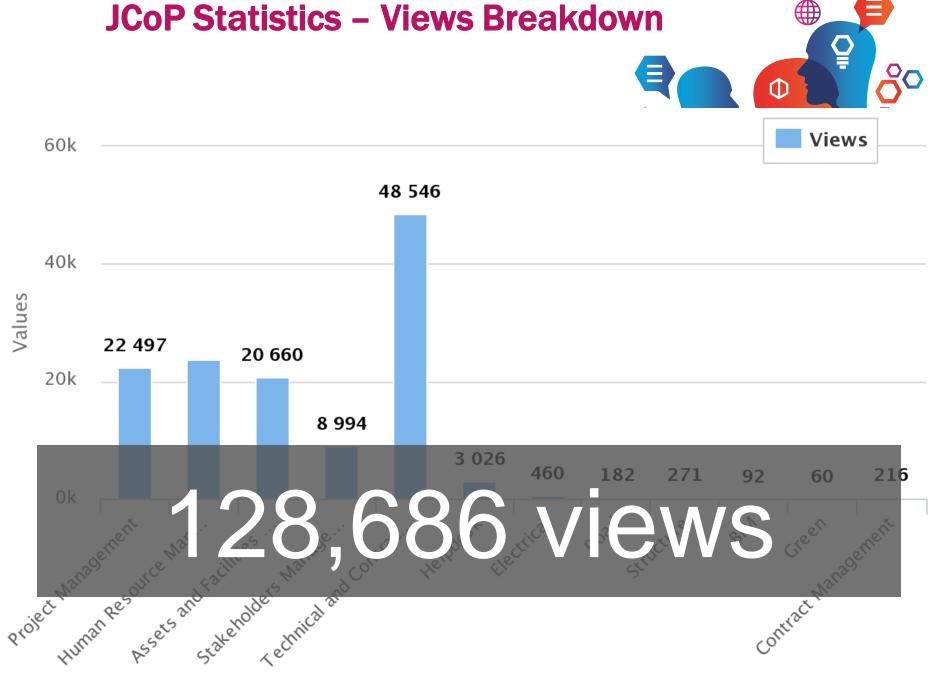


- collaborative tool
 enables people to share
 data, information and
 knowledge in real time
- facilitate exchange of ideas and solutions as well as track members'
 participation









JCoP Statistics - Quick Stats



1,095

QUESTIONS



2,092
ANSWERS





2,258



REGISTERED USERS



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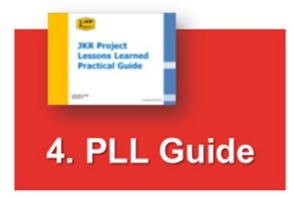


Project Lessons Learned















PLL ACTIVITIES Document Store in Verify and central and compile repository validate Identify (at any point during the asset life cycle) Disseminate/ Capture, Reuse, distribute **Project** Learnings: **Apply** Solicit 10 feedback Archive with supporting data and relevant Identify documents Actions Incorporate in Update related work process documents



ROLES AND RESPONSIBILITIES







Project Team

Identify and capture PLL



Project Office at Branches and State Offices

 Facilitate and coordinate preparation of PLL



Portfolio Office (CPAB)

- Verify with SME
- Approve PLL
- Upload PLL to JPedia
- Analyse PLL
- Escalate critical issues to top management for decision if necessary



SME

- Verify PLL
- Review existing procedures/processes and recommend improvements if necessary
- Refer to process owners for decision



Users

- Give feedback
- Send queries



Process Owners

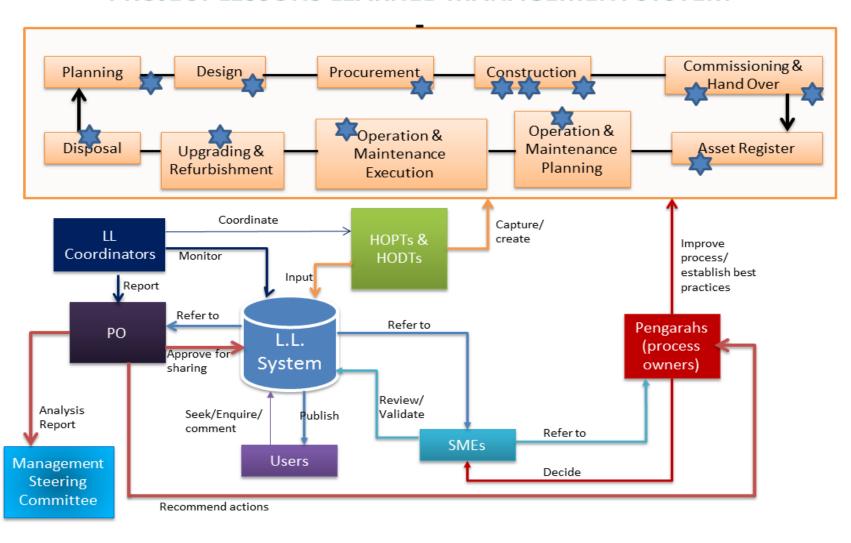
Decide whether existing documents need to be revised







PROJECT LESSONS LEARNED MANAGEMENT SYSTEM



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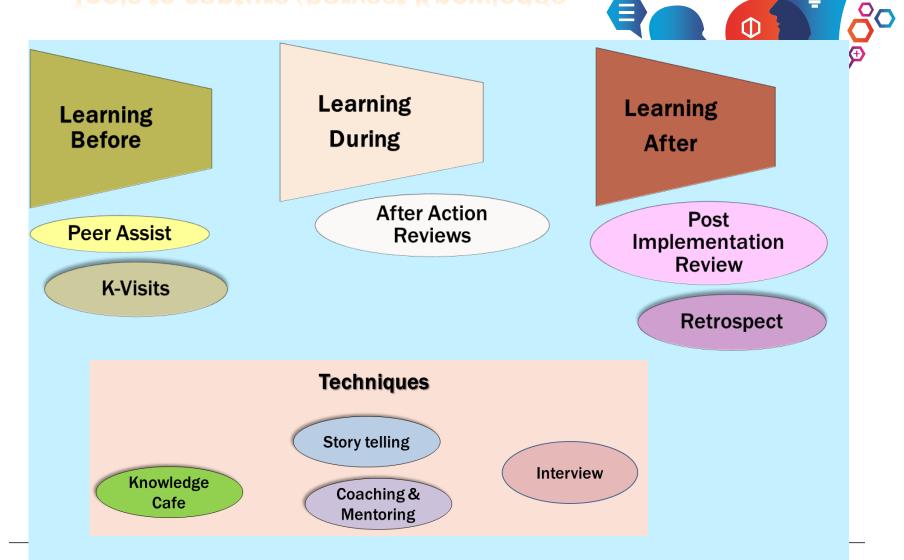
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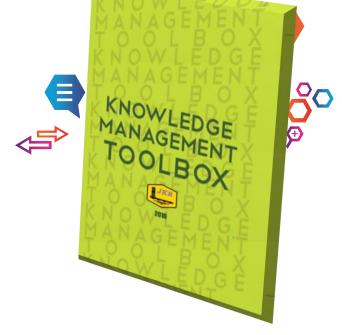


Tools to capture/harvest Knowledge





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

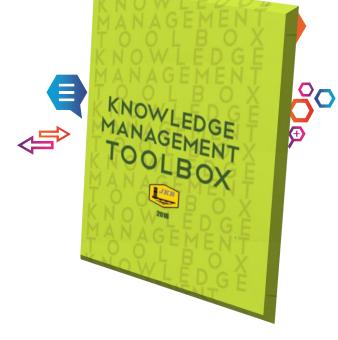




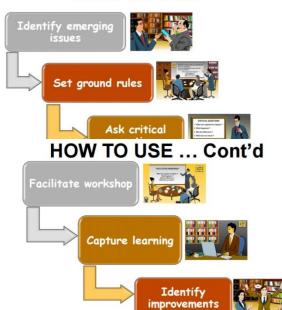
Step 8: Select the best solution



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.



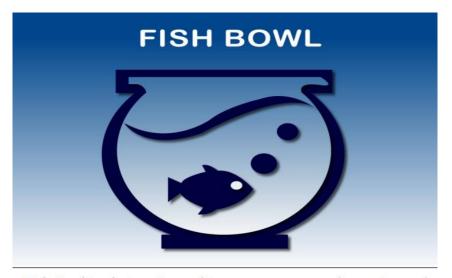
HOW TO USE



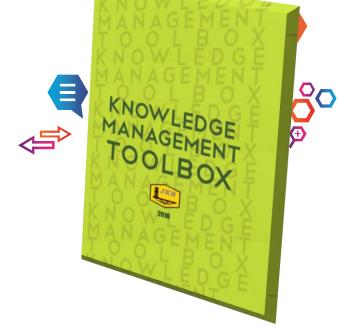




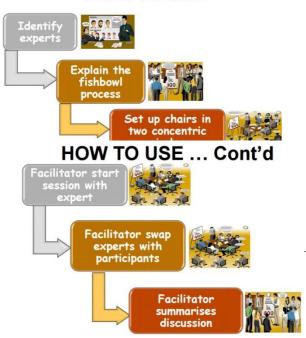
Step 2: Set ground rules



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





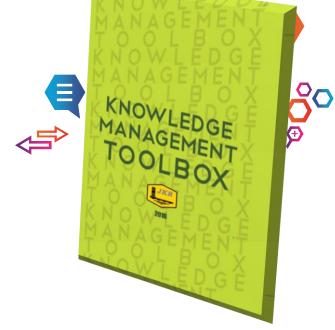
Contact and the second of the

Step 3: Set up chairs in concentric circles

Step 6: Facilitator summarise the discussion



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

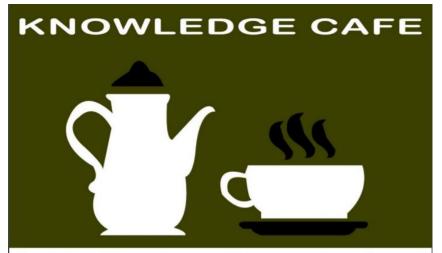




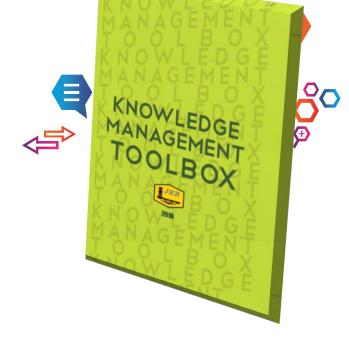


Step 2: Discuss approach and review documents

Step 6: Share recommendations for improvement



Knowledge 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.





Members switch tables except table

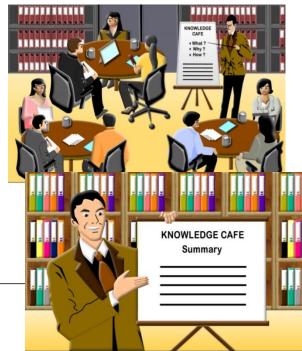


HOW TO USE ... Cont'd





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

E-Learning to provide 24 x 7 learning environment



JKR Yellow Pages - Who's Who





J-CoP

W

Who's Who

Senarai Moderator JC Jalan 2. Ir Johari Bir Salleh Rekabentuk J Pengkhususan 1. Da

Senarai Mod

Kejuruteraan J

Bil.	Nama
1.	Ir Razia
2.	ir Joha
3.	Ir Othm
4.	Ir Ab R

Senibina

Bil.	Nama	
1.	Datin Ar. Hjh. Mariani Noor Su Ar. Rosila Mohamed Ar. Ibrahim Isa	hud Ala
2.	Dr. Nor Shahrene Mohd	
3.	En. Shahrum Zainal Abid Ar. Yong Razidah Rashid Dr. Azlina Aziz	
4.	En. Saiful Fazli Ramli Ar. Suzana Amat Dr. Mohd Sabere Sulaim	
5.	Ar. Rosila Mohamed	Ke
6.	Hj. Abd Gaffar Abu Aidzil Adzahar Ahmad	
7.	Pn. Lydiana Damyati	Ke

ancaman yang boleh menghalang kejayaan sesebuah projek. Dengan perancangan ke atas sebarang insiden yang tidak dijang

Alam Sekitar & Kecekapan Tenaga

Bidang Pengkhususan

- Healthcare Facilities

Building Design Specialisation

Bil.	Nama	Bidang Pengkhususan
1.	En. Razman Bin Abdul Rashid	SPAS
2.	Pn. Samsiah Binti Omar	SPT
3.	Pn. Norazlina Binti Mohamad Abu	PH/MyCREST
4.	Pn. Norinayah Bukhary Binti Ismail Bukhary	WikiGreen
5.	Pn. Rafidah Binti Ismail	Penyelaras cawangan

*Maklumat dikemaskini sehingga 04 Ogos 2016

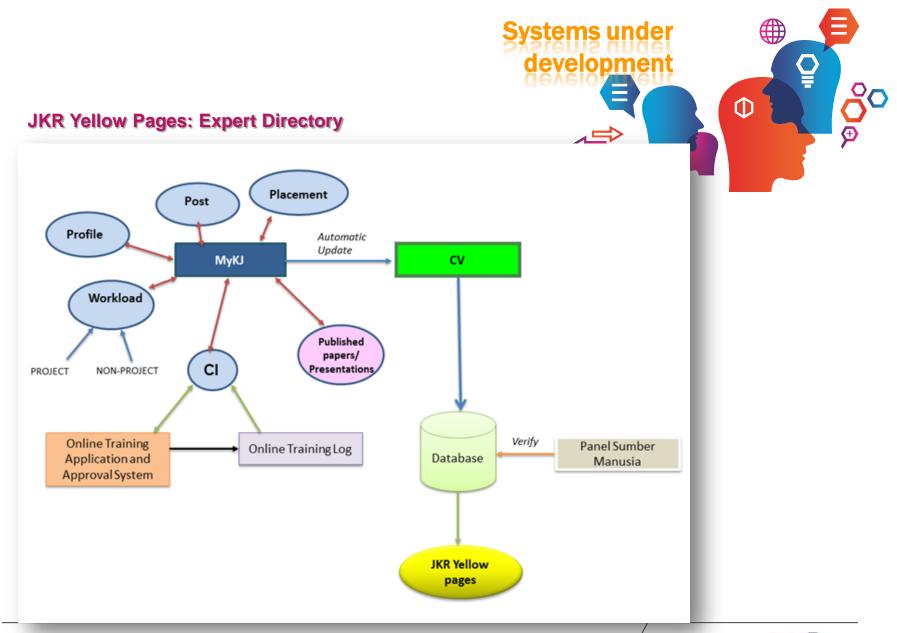
Kejuruteraan Cerun

Bil.	Nama	Bidang Pengkhususan
1.	Suhaimi bin Jamaluddin	Slope Monitoring
2.	Kamal Bahrin Bin Jaafar	Slope Forensic

*Maklumat dikemaskini sehingga 27 Julai 2016

Kejuruteraan Mekanikal

Bil.	Nama	Bidang Pengkhususan
1.	Ir. Malek Bin Hisham	Perkhidmatan Workshop
2.	Ir Mamat Rohizan Abdullah	Perkhidmatan Rekabentuk
3.	Ir Gopal Narian Kutty	Perkhidmatan Rekabentuk
4.	Ir Rokiah Salim	Perkhidmatan Kepakaran
5.	Ir Zulkifli Rashad	Perkhidmatan Kepakaran





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 Pedia**, an online repository to share knowledge-in-context)
- 2 Communities of Practice to share domains of knowledge

JCoP, an online platform to ask and discuss

- Project Lessons Learned
 System to share key project
 learnings
- JKR Yellow Pages to locate experts within the department

- KM Toolbox, set of tools and techniques to capture and share insights and ideas
 - **E-Learning** to provide 24 x 7 learning environment





Knowledge Components 70% People Technology Attitudes, Sharing, Data stores & formats Innovation, Skills Networks, Internet, Team work, Data Mining & Analysis, Motivation, Decision toos, Organisation, Automation Vision/Objectives, Standards 10% LEARNING Communities Standards Process KM Maps n% = 20% Work flows, effort Integration, required Best Practices, Business Intelligence Standards © Dilip Bhatt, 2000 © Dilip Bhatt, 2000



Knowledge Audit

Objectives

- 1. create a baseline inventory of knowledge assets
- 2. pinpoint knowledge availability and accessibility issues
- 3. identify knowledge asset gaps and KM barriers
- 4. make recommendations on areas for improvement









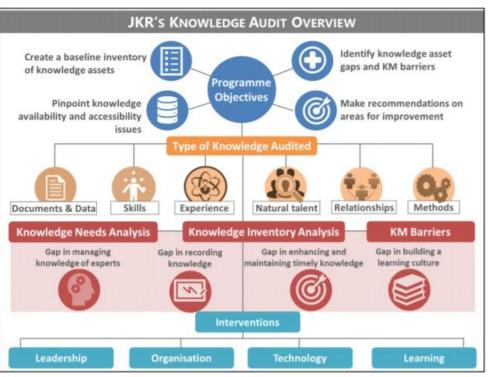


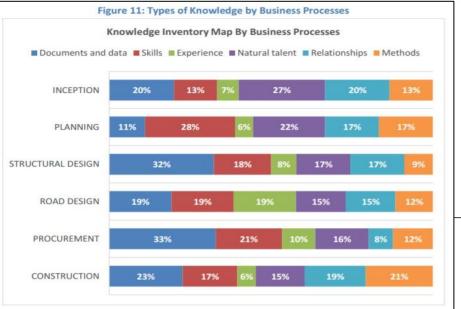
Outputs:

- 1. **Knowledge Needs Analysis** knowledge required to meet JKR's current business process activities.
- 2. **Knowledge Inventory Analysis** stock-taking exercise to identify and locate knowledge assets and resources in JKR.
- 3. **KM Barriers** common knowledge issues across the organisation.

Knowledge gaps identified

- 1. Gap in managing knowledge of experts
- 2. Gap in recoding knowledge
- 3. Gap in enhancing and maintaining timely knowledge
- 4. Gap in building a learning culture





KM Audit Workshop 13 – 14 Feb 2017



Bengkel & Mesyuarat Project Lessons Learned







Mesyuarat JKPPPI







Seminar KConnect 2017











1. Get Buy-in

"People aren't going to consider anything until they are convinced there is a problem that truly needs to be addressed"- John Kotter

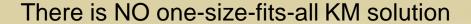


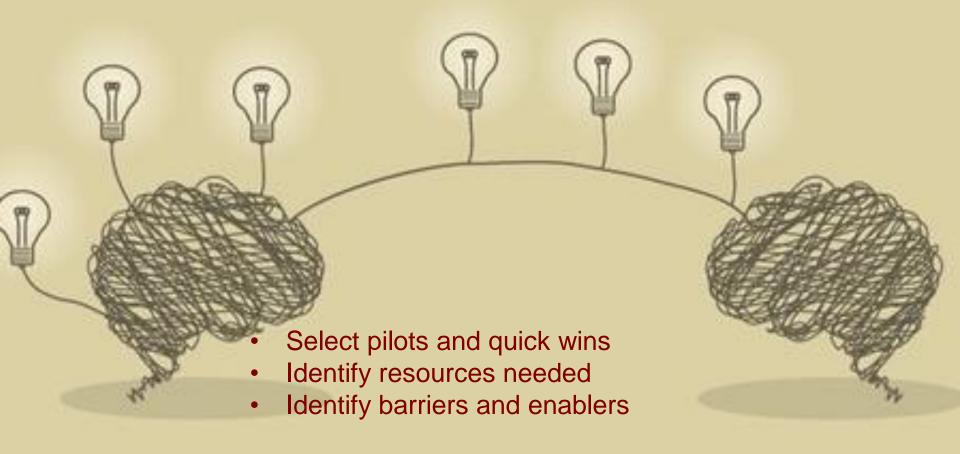
2. Envision an inspiring future

"The best way to predict the future is to create it" - Peter Drucker



3. Start small





4. Involve management and others

Support from the management and staff is crucial



5. Measure

