

Mesyuarat Jurutera –
Jurutera Elektrik

4 Sept – 5 Sept
2013

JKR



ENTERPRISE CONTENT KNOWLEDGE MANAGEMENT (ECKM) Perspective CKE

CONTENT



ORGANISATION KNOWLEDGE

WHAT & WHY ECKM/KM

KM IMPLEMENTATION IN JKR

KM IN CAWANGAN KEJURUTERAAN
ELEKTRIK

ORGANISATION KNOWLEDGE

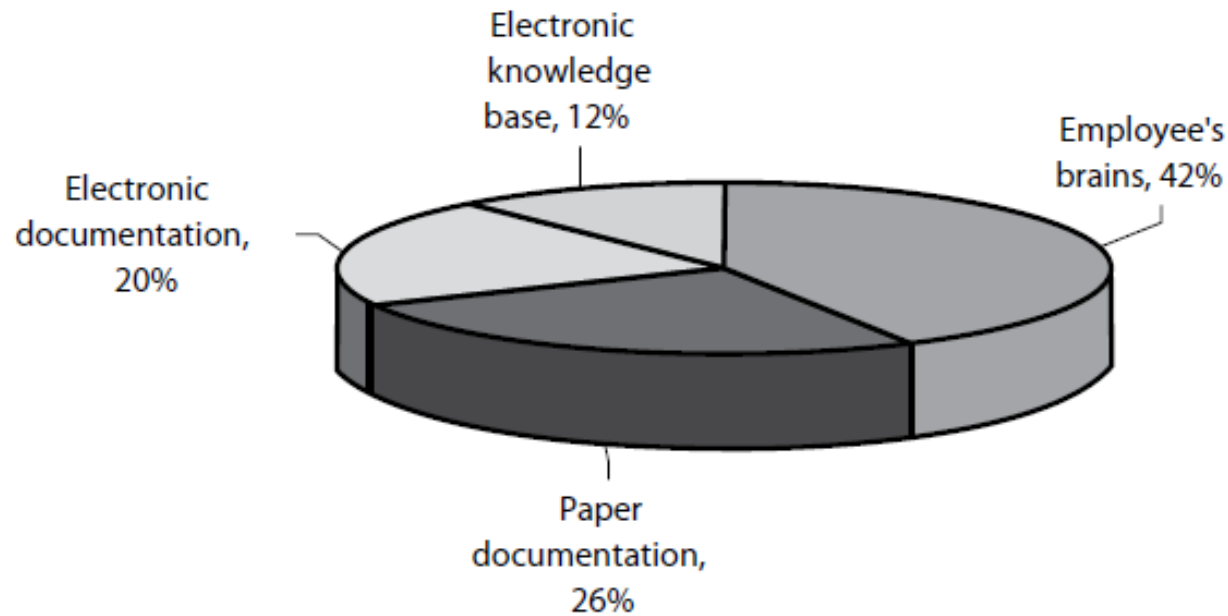
Type of Knowledge



- **Tacit knowledge** - resides in one's head, difficult to be expressed or explained.
- **Implicit knowledge** - can be transferred by the use of heuristics (set of rules) to achieve the same level of accuracy.
- **Explicit knowledge** - can be transferred easily in writing or verbally

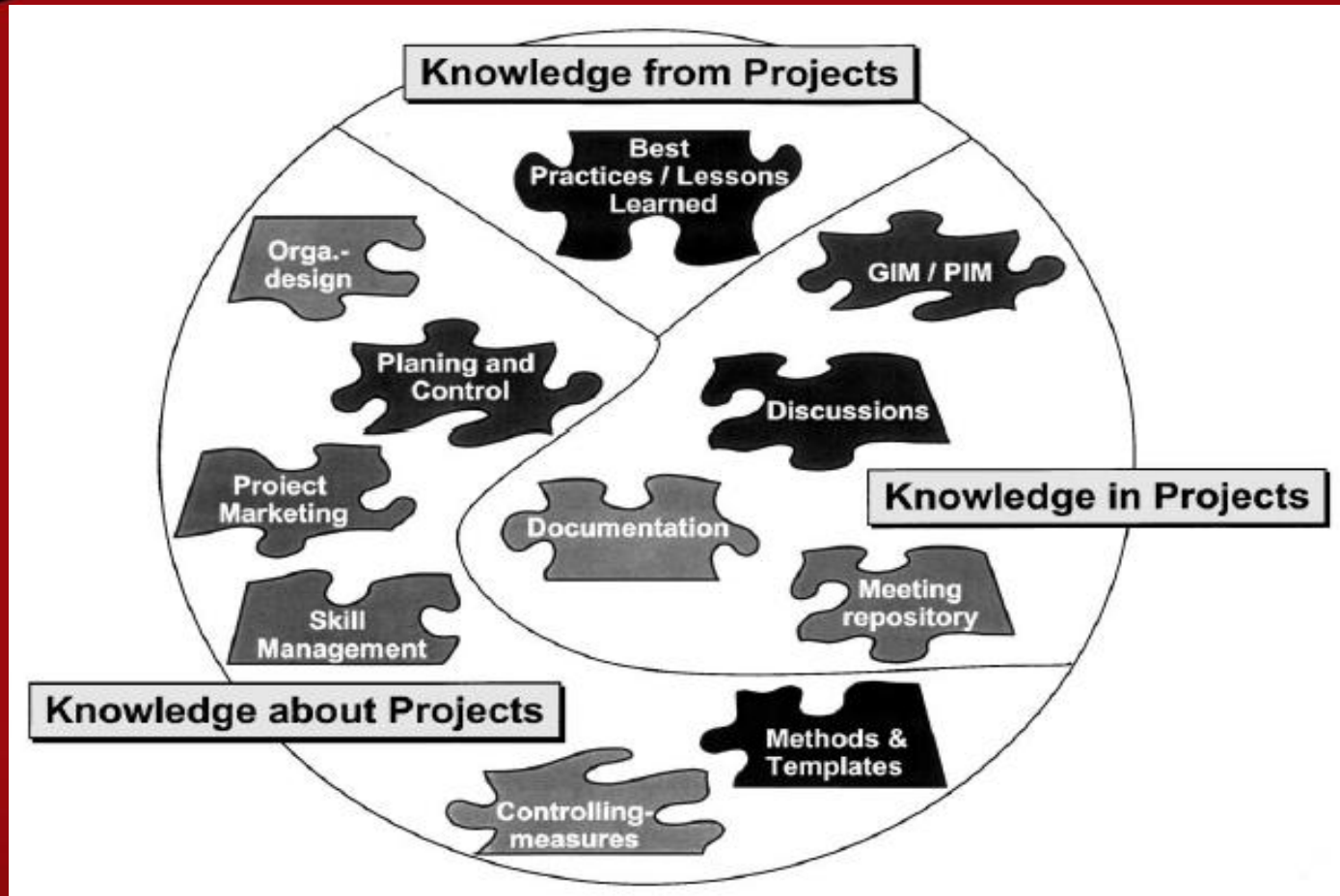
ORGANISATION KNOWLEDGE

Primary Repositories Of An Organisation's Knowledge



Source: The Delphi Group, Inc., (2000)

KNOWLEDGE PUZZLE



ECKM & KM



ECKM is a knowledge management system which manages data, information and knowledge

KM is A management **discipline** that focuses on **improving** the means by which **individual and collectively-held knowledge** is **produced** and **integrated** in organizations. As such, KM is practised at the level of **knowledge and innovation processes, policies, and technology support** - *Mark McElroy*

WHY ECKM & KM??

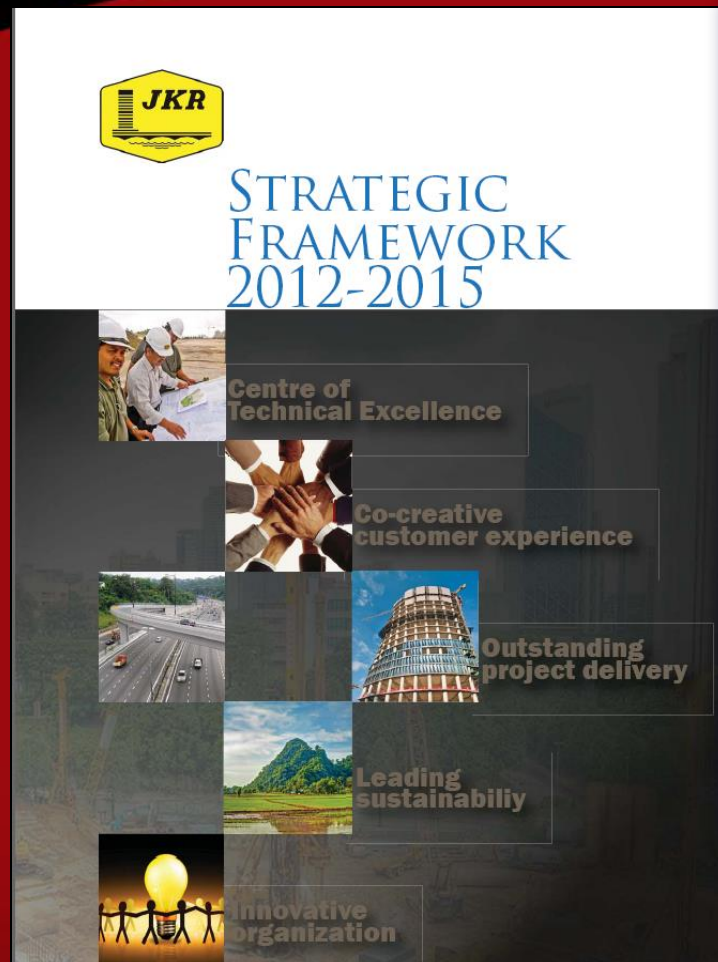


- ❖ Loss of knowledge
- ❖ More resources will be wasted by re-inventing knowledge
- ❖ Spending time locating knowledge and trying to understand and use the growing volumes of new knowledge flowing into and within our organization every day.



KM IMPLEMENTATION IN JKR

LINKING KM TO BUSINESS STRATEGY AND GOALS (JKR STRATEGIC FRAMEWORK 2012-2015)



LINKING KM TO BUSINESS STRATEGY AND GOALS (JKR STRATEGIC FRAMEWORK 2012- 2015)



KM AS A DRIVER OF TECHNICAL EXCELLENCE AND INNOVATION



**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**

THEME 3: CENTRE OF TECHNICAL EXCELLENCE



T3.1

JKR As A Technical
Reference Centre



1. Develop Systems to facilitate search for internal experts - JKR Yellow Pages



THEME 3: CENTRE OF TECHNICAL EXCELLENCE



T3.3

Strengthen Means
of Knowledge
Transfer



2. Promote proven
Knowledge sharing
techniques to facilitate
tacit knowledge transfer



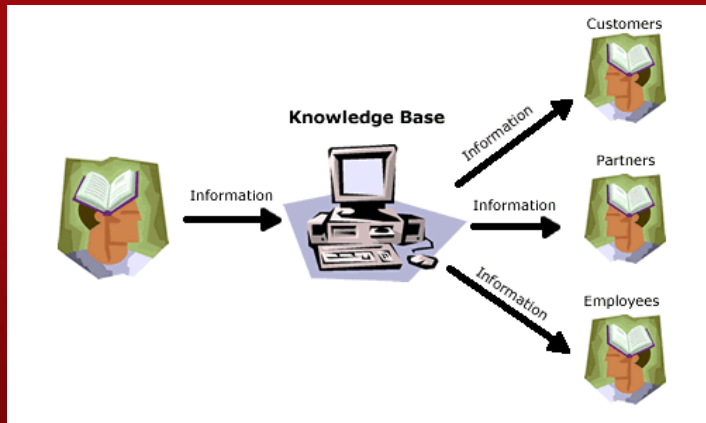
THEME 5: INNOVATIVE ORGANISATION



T5.3 Enrich Organisational Knowledge Base



- Develop Knowledge Management Practice
- Develop Online Knowledge Repository System (J-pedia)
- Develop Project Lessons Learned Management Guide
- Develop Systems To Support Continuous Learning (E-Learning)



THEME 5: INNOVATIVE ORGANISATION



T5.4
Develop Innovative-
centric Workforce



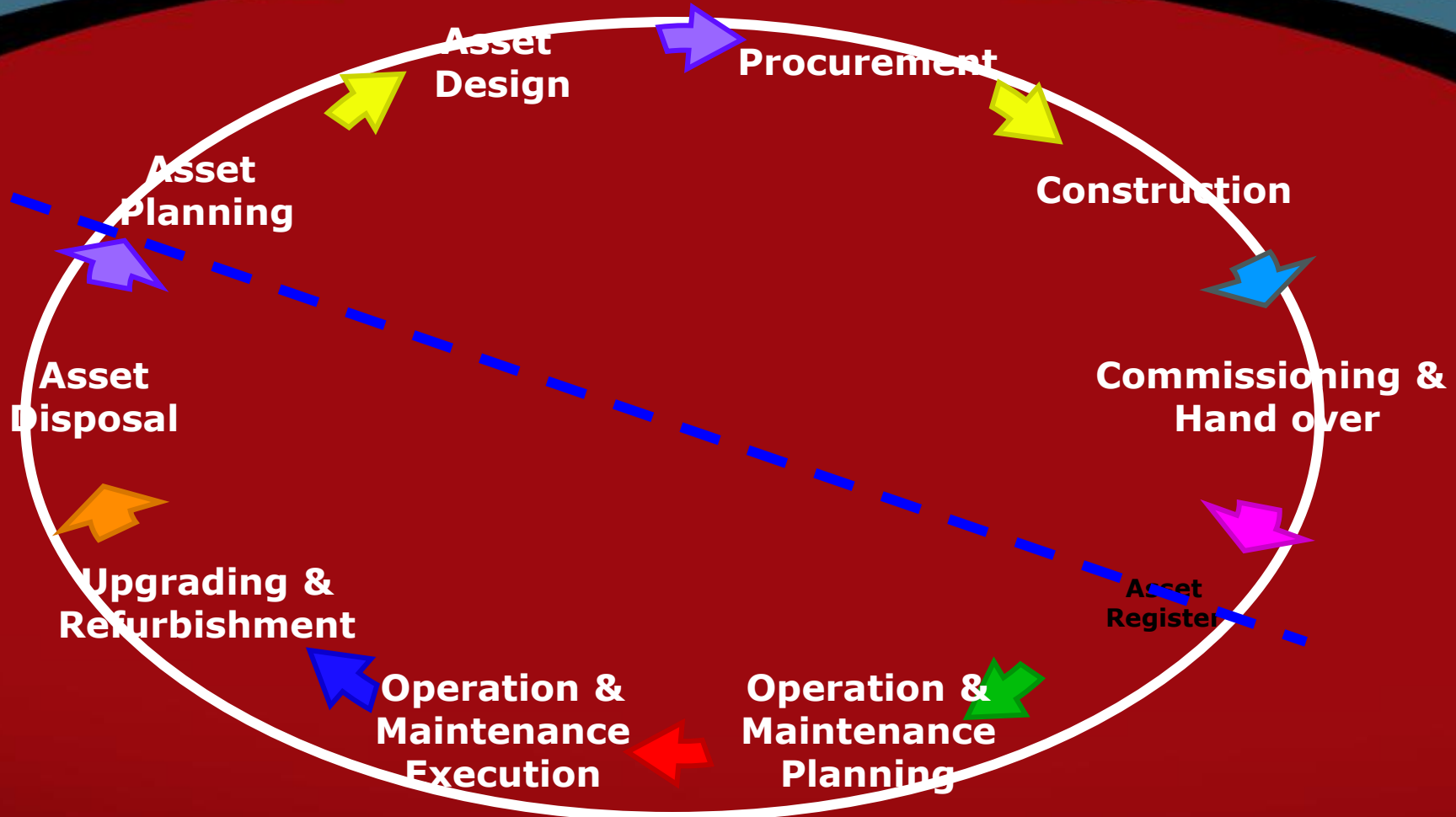
5. Build Communities of
Practice (CoP)



TOTAL ASSET LIFE CYCLE

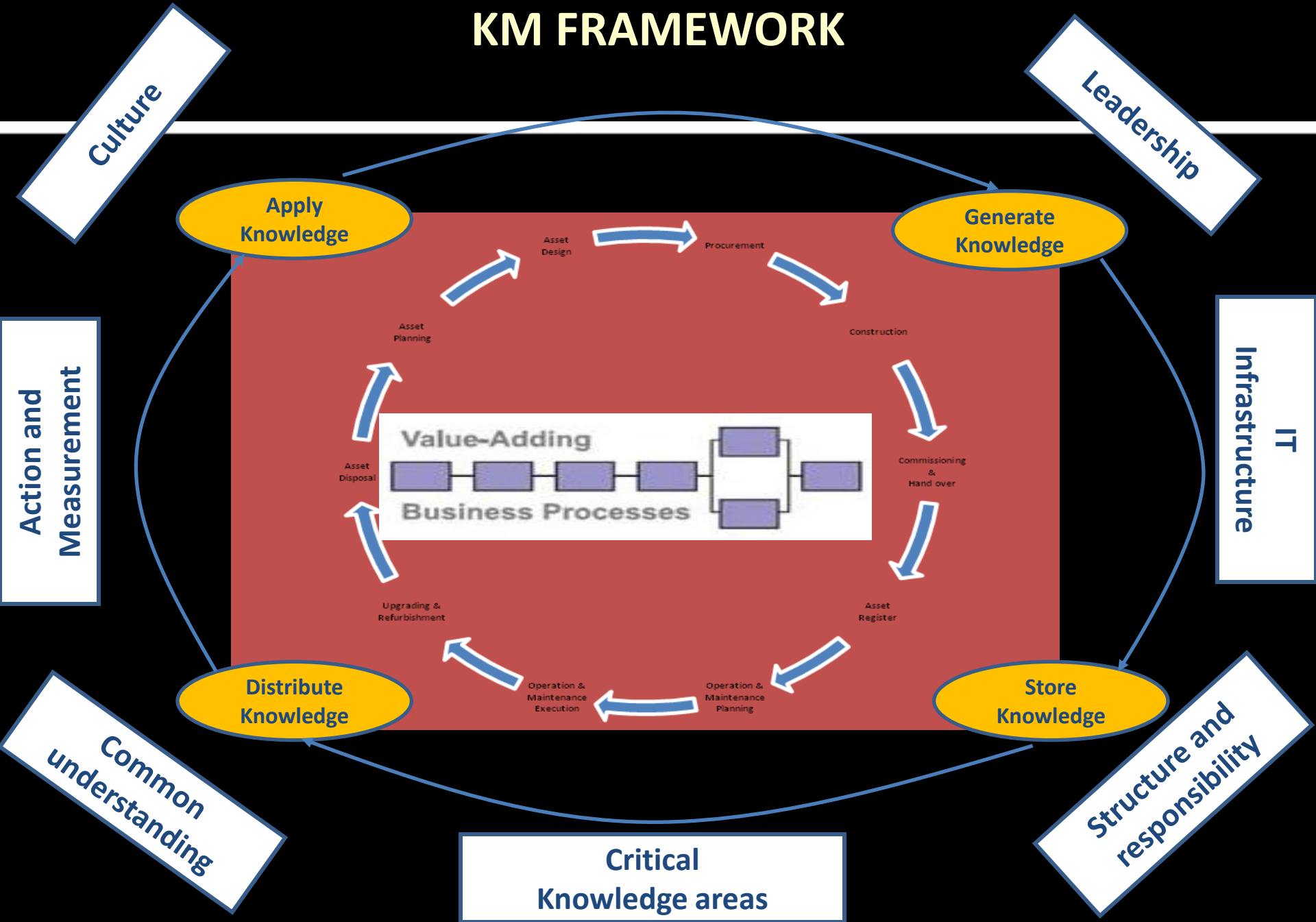


Asset Planning & Development Phase

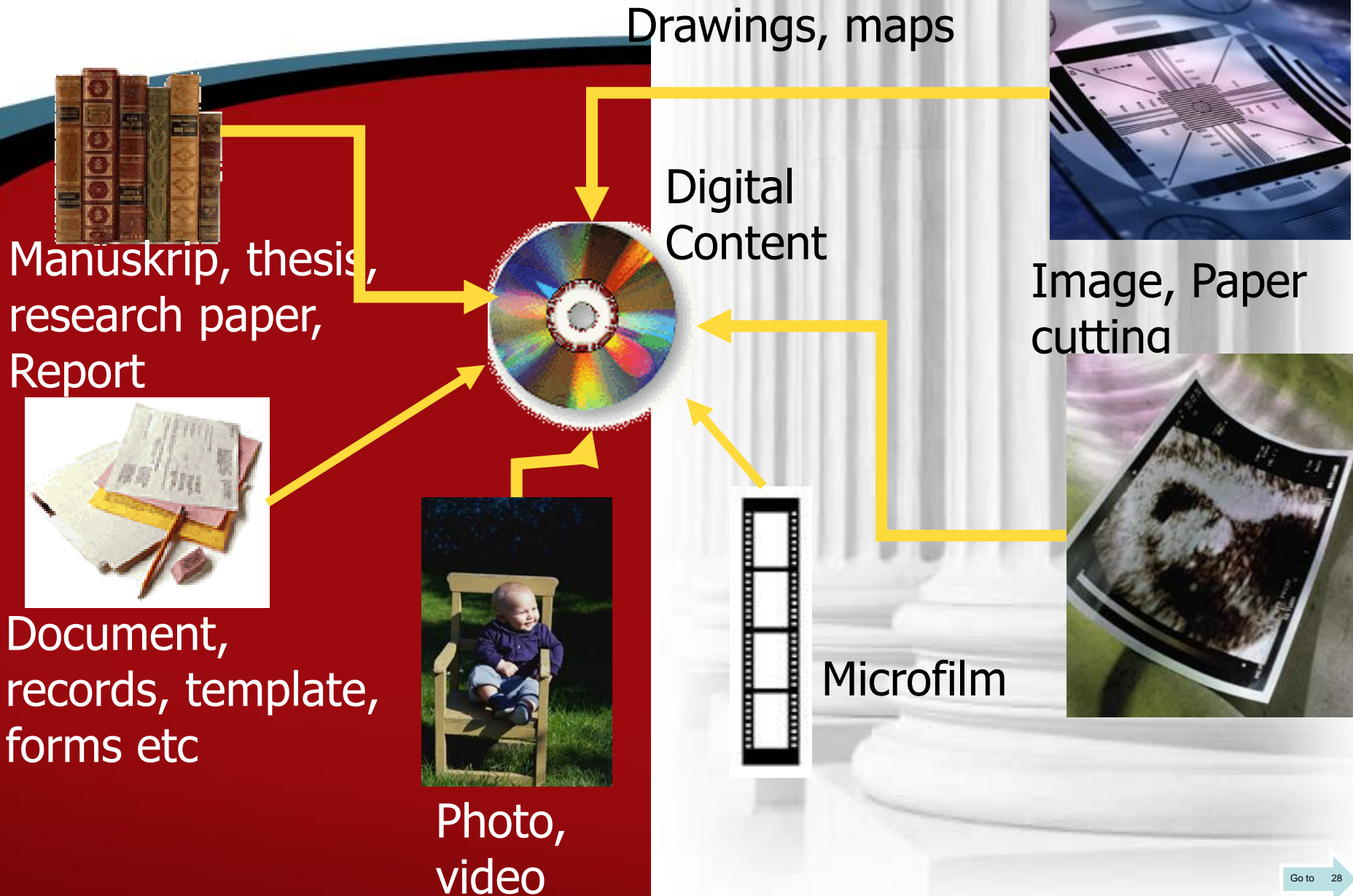


Asset Operation & Maintenance Phase

KM FRAMEWORK



KNOWLEDGE IN JKR

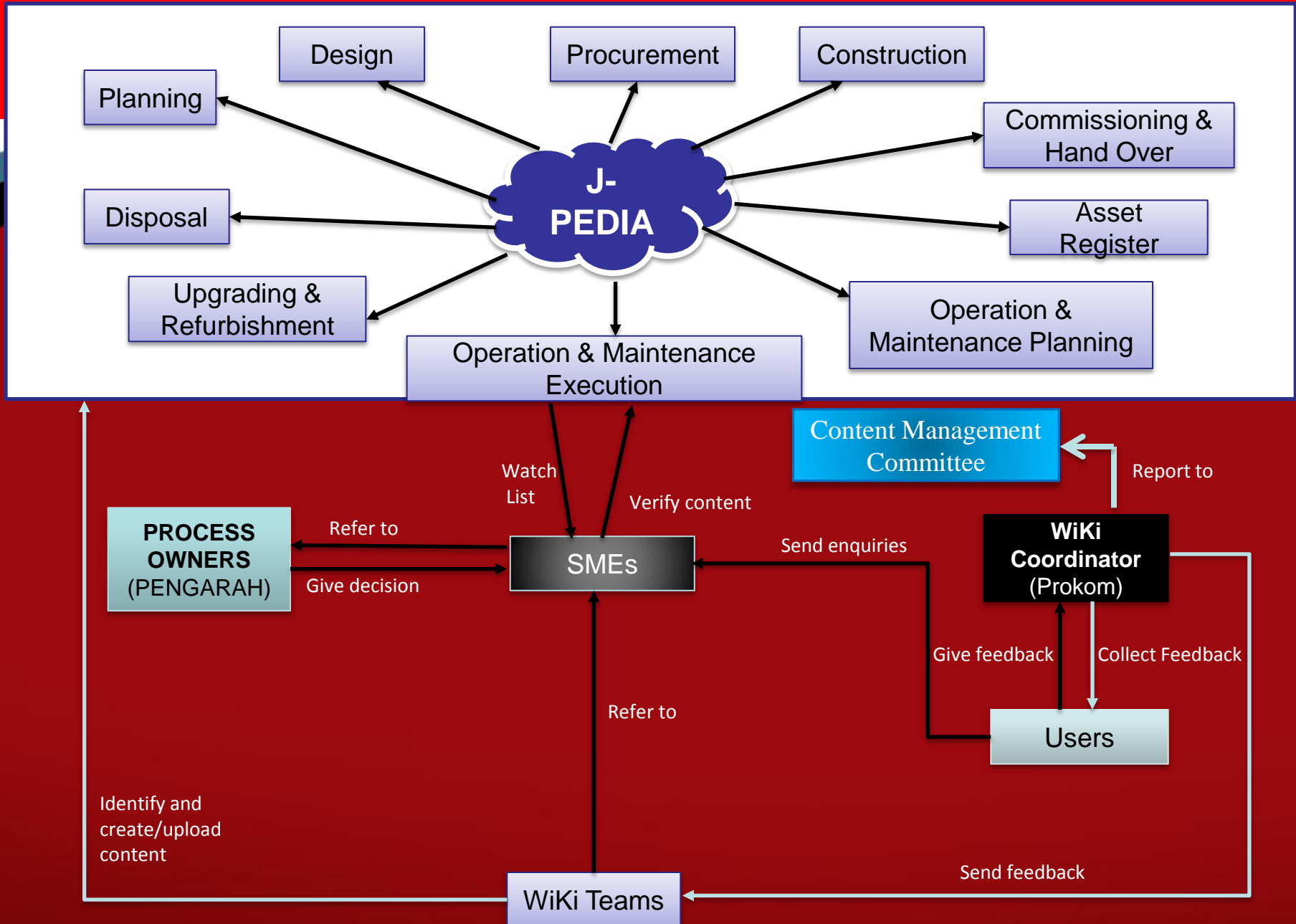


KNOWLEDGE REPOSITORY



- Web sites
- Shared folder
- Storage tools – CD, Pen drive, Hard drive
- J-library – As built drawings, Photos, paper cutting, video
- J-pedia – Knowledge Content

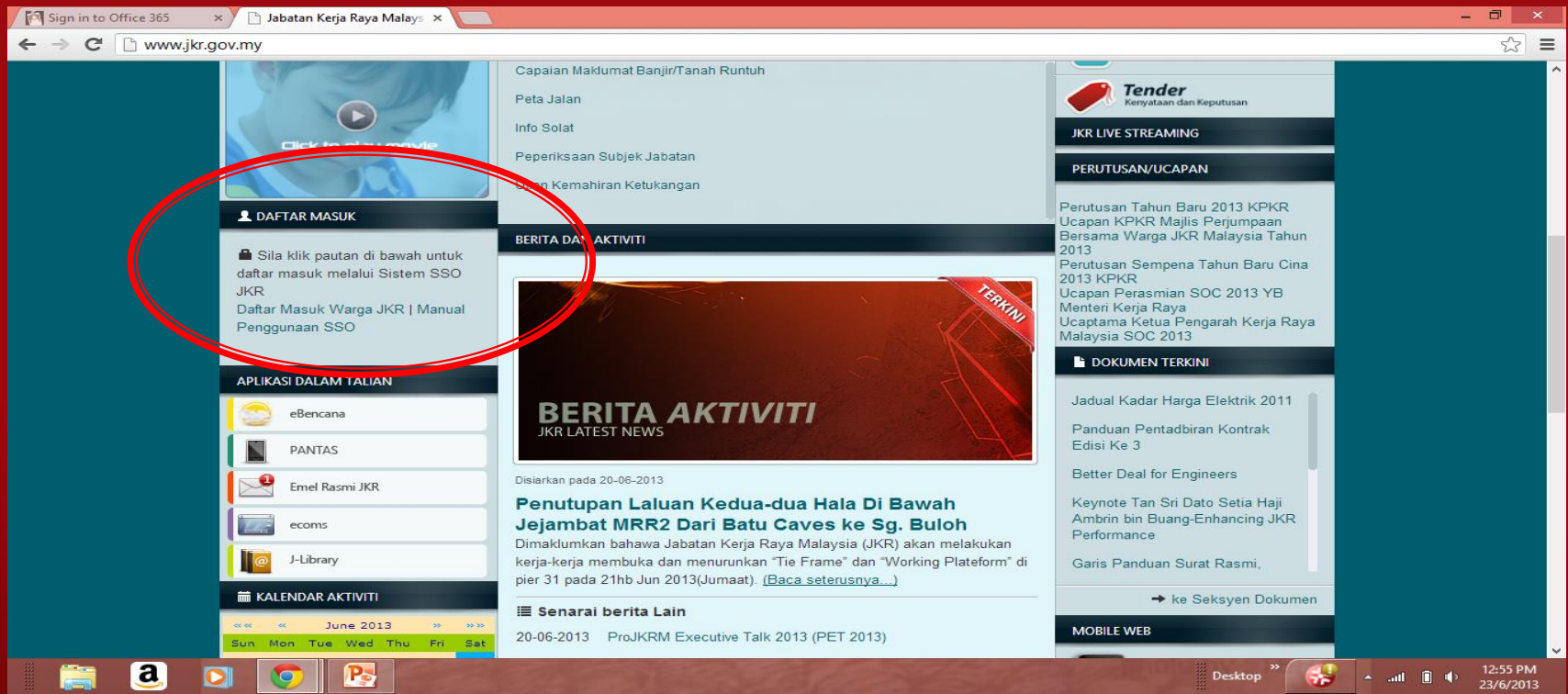
JKR WIKI (J-PEDIA)



ACCESS J-Pedia VIA WEB



- www.jkr.gov.my
- Login *Web Single Login/Sign-On (WebSSO)*
- Access with MyKJ user ID



ACCESS VIA WEB



Sign in to Office 365 x Jabatan Kerja Raya Malaysia x

www.jkr.gov.my/index.php

MENGENAI KAMI INTEGRITI PERKHIDMATAN INFO KONTRAK FASILITI RAKAN

ARTIKEL POPULAR

- Jadual Kadar Harga **108884 hits**
- Peta Jalan Raya JKR Semenanjung Malaysia **87808 hits**
- Arahan KPKR | Director General Instructions **68555 hits**

KINI SATU NOMBOR UNTUK SEMUA KEMENTERIAN
03-8000 8000
HUBUNGI 1Moccc
+603-8000 8000
+603-8000 8000
+603-8000 8001
800080000 | 1moccc.gov.my
facebook.com/myGovernment
twitter.com/myGovPortal
www.malaysia.gov.my

1Malaysia One Call Centre 03-8000 8000

Pause < > 1 2 3 4 5 6

PENGUMUMAN

Saluran Aduan Jabatan Kerja Raya
Sebarang aduan boleh dilaporkan melalui saluran yang disediakan. Klik untuk maklumat lanjut

1 2 3 4 5 6 7 8

PELAJAR

Permohonan Latihan Industri Untuk Institusi Pengajian

VIDEO PLAYER

Click to play movie

SELAMAT DATANG

STAF

- CADD
- SisMak
- Pautan Laman Web Cawangan/Bahagian
- Sistem Pengurusan Bersepadu
- JKR E-Newsletter
- J-Pedia
- Building Information Modelling
- Borang
- Sistem Pengurusan Kualiti

AWAM

- Jadual Penutupan Jalan
- Galeri Album
- Koleksi Video
- Maklumat Keselamatan Jalan Raya
- Carian Warga JKR
- Aduan/Pertanyaan
- Direktori Pegawai Kanan
- Capaian Maklumat Banjir/Tanah Runtuh

KONTRAKTOR

- eBidding
Kenyataan dan Keputusan
- Sebut Harga
Kenyataan dan Keputusan
- Tender
Kenyataan dan Keputusan
- JKR LIVE STREAMING
- PERUTUSAN/UCAPAN
- Perutusan Tahun Baru 2013 KPKR
Ucapan KPKR Majlis Perjumpaan Bersama Warga JKR Malaysia Tahun 2013

BERITA DAN AKTIVITI

Desktop 1:04 PM 23/6/2013

ACCESS VIA WEB



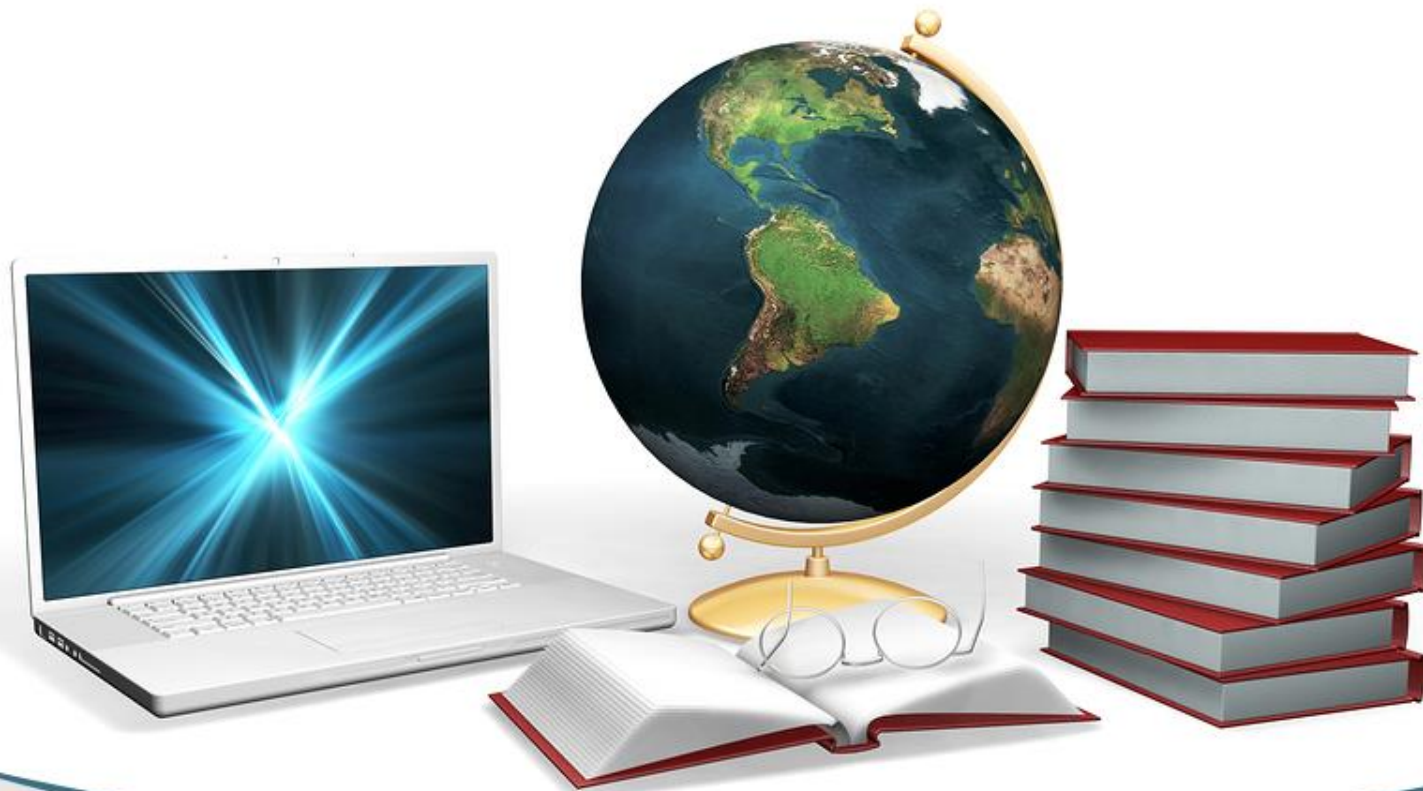
- ▶ Username: prokomjkr
- ▶ Password: epsmg2020

Authentication Required

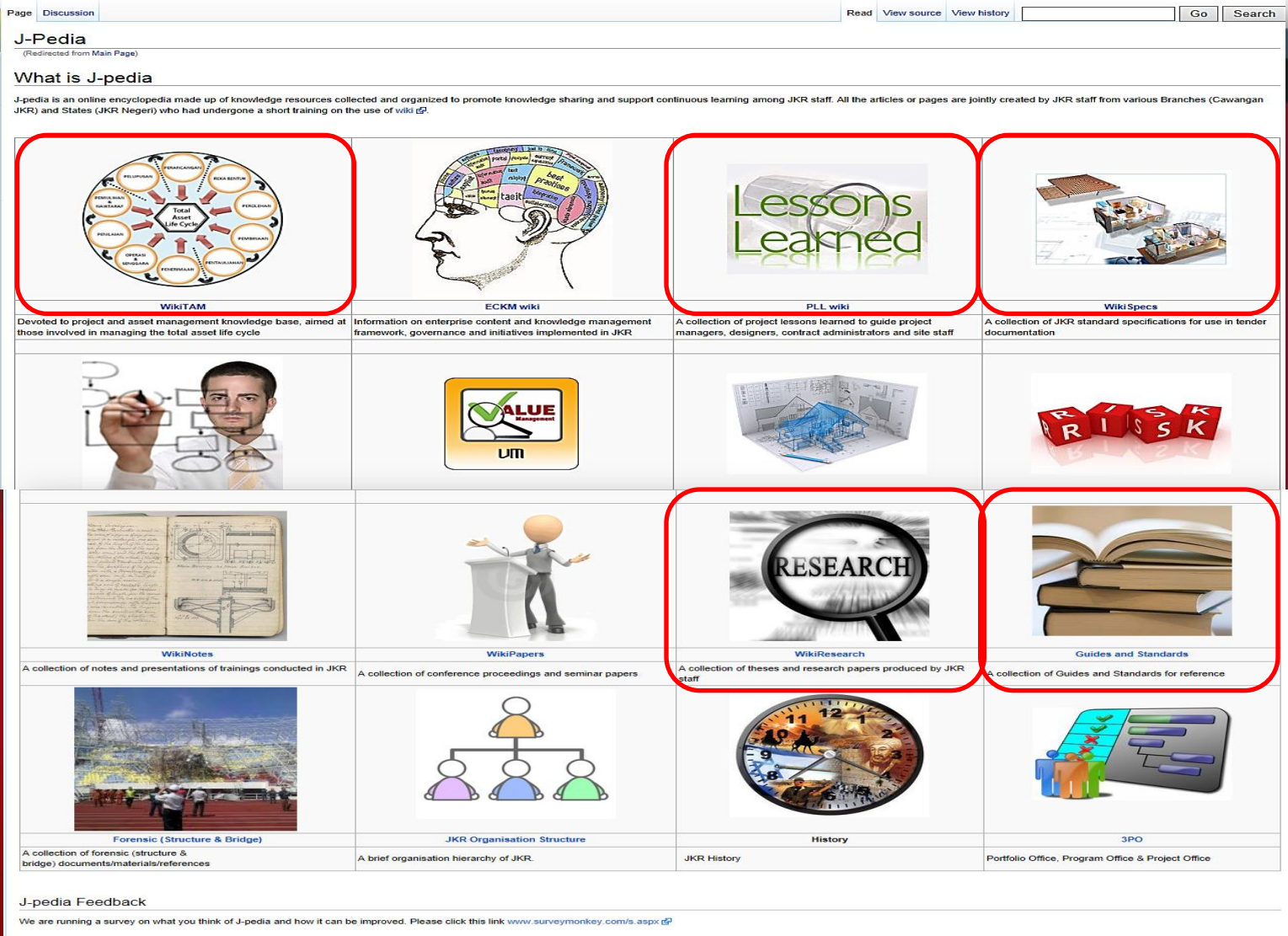
The server <http://epsmg.jkr.gov.my:80> requires a username and password. The server says: EPSMG INTRANET.

User Name:

Password:



KM IN CKE



KM in CKE - ePSMG



Focus on Asset Management



JKR Page Discussion Read View source View history

Online Practical Site Management Guide (e-PSMG)

Contents [hide]
1 Introduction
2 Mission
3 Expected Benefits
4 e-PSMG Information Framework

Introduction

E-PSMG is aimed at improving the quality of supervision in numerous quality-related problems and issues that surfaced in the delivery of our construction products had been brought to the attention of the management.

View Building Work WBS View Road Work WBS View Bridge Work WBS View Environment, Safety and Health WBS

To equip site supervisory team with knowledge and tools to deliver quality construction products by:

- Providing basic construction knowledge and tools that are accessible online 24 x 7, comprising but not limited to-
- Specifications and Standards, Manuals and guidelines, Lessons Learned (Dos and Don'ts), Best Practices

KM in CKE - ePSMG



Jabatan Kerja Raya Malaysia x Building Work WBS - J-Pe x


← → ↻ epsmg.jkr.gov.my/index.php/Building_Work_WBS

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JKR

Page Discussion Read View source Vi

Building Work WBS



Navigation

- Main page
- Community portal
- Current events
- Recent changes
- Random page
- Help

Toolbox

- What links here
- Related changes
- Special pages
- Printable version
- Permanent link

Contents [hide]

- 1 Soil Investigation
- 2 Site Clearing & Earthwork
- 3 Work below Floor Level (Substructure)
- 4 Work above Floor Level (Superstructure)
- 5 Architectural Work
- 6 Mechanical Services
- 7 Electrical Services
 - 7.1 SISTEM PEMASANGAN VOLTAN RENDAH (LOW VOLTAGE INSTALLATION SYSTEM)
 - 7.1.1 DB/SSB/MSB
 - 7.1.2 Switchboard equipment
 - 7.1.3 Busduct
 - 7.1.4 Systems of Wiring
 - 7.1.5 Conduit wiring
 - 7.1.6 Trunking
 - 7.1.7 Cable
 - 7.1.8 Cable Tray

Benefits

- ensure quality and standards of supervision work are maintained regardless of the nature and different levels of complexities of the projects;
- improve productivity and efficiency;
- nurture and develop human capital;
- foster closer cooperation between different disciplines and enable the creation of cross functional knowledge clusters;
- enable more effective utilisation of resources;
- promote long life learning and provide support to the creation of new knowledge.

KM in CKE - ePSMG



Jabatan Kerja Raya Malaysia x Earthing - J-Pedia x slide CTI-PCI - Google Ser x www.mampu.gov.my/do x ya Malay x Earthing - J-Pedia x slide CTI-PCI - Google Ser x www.mampu.gov.my/do x

← → ↺ epsmg.jkr.gov.my/index.php/Earthing epsmg.jkr.gov.my/index.php/Earthing

Getting Started Settings Imported From Firef... Google Celcom Online Cust... Universiti MKI - DE... Settings Imported From Firef... Google Celcom Online Cust... Universiti MKI - DE...

8. Menentukan kaedah joint menggunakan EWC.
 9. Memastikan saiz kedalaman copper tape yang menyambungkan dua earth chamber
 10. Memastikan ada label di dalam earth chamber.
 11. Memastikan penutup earth chamber sama aras dengan aras tanah

• Peralatan penyeliaan : Caliper

Ilustrasi

①

②

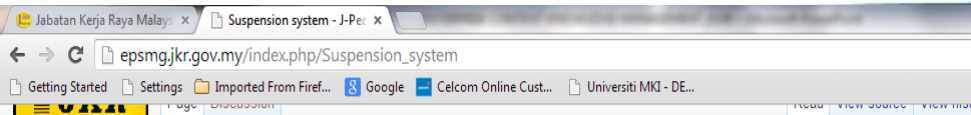
③

④

⑤

408152_26419567699...jpg 7699...jpg

KM in CKE - ePSMG



Suspension system

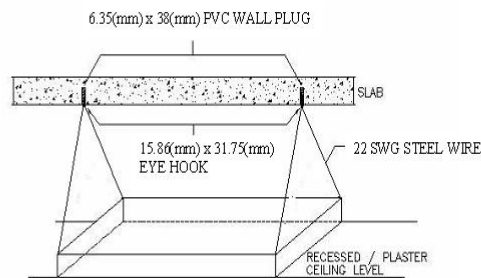
Contents [hide]

- 1 Butiran Kerja
- 2 Ilustrasi
- 3 Metodologi
- 4 Rujukan (Sila sertakan klausa/ayat yang terbabit dari sumber rujukan).
- 5 Gambar-gambar pemasangan

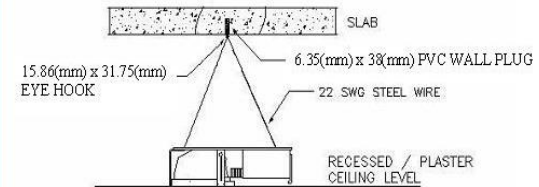
Butiran Kerja

- Objektif - Pemasangan sistem penggantungan yang berasingan untuk kelengkapan lampu termasuk control gear (jika berasingan).
- Keterangan - Perlu dipasang pada semua kelengkapan lampu dan/atau control gear, bukannya hanya dipasang di atas siling.
 - Sistem ini perlu bagi menampung berat kelengkapan lampu termasuk control gear (jika berasingan).
 - Saiz minimum bagi dawai penggantung adalah 22 SWG steel wire (0.71mm).
- Peralatan penyediaan - T/B

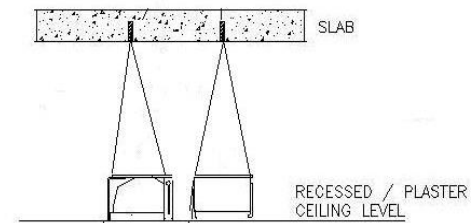
Ilustrasi



FLUORESCENT FITTING



DOWNLIGHT C/W CONTROL GEAR FITTING



DOWNLIGHT WITH SEPARATE CONTROL GEAR

Metodologi

Sila rujuk ilustrasi

Rujukan (Sila sertakan klausa/ayat yang terbabit dari sumber rujukan).

- L-S1 : Section 11.4 : The luminaires shall not sit on the ceiling structure but shall be securely suspended from the floor rods, brass chains or G.S. wires as specified or as directed by the S.O.'s Representative.

KM in CKE: J-Pedia



- Collection of lessons learned to assist project managers, designers, site staff and team.



PLL wiki

Elektrikal

1. [Do and Don'ts CKE \(2008\)](#)
2. [Do and Don'ts CKE \(2011\)](#)
3. [Do and Don'ts CKE \(2012\)](#)

3. [Do and Don'ts CKE \(2015\)](#)

KM in CKE: J-Pedia



- Collections of CKE's Specifications



WikiSpecs
WikiSpecs

Electrical

- L-S1: Low Voltage Internal Electrical Installation
- Addendum L-S1: LED Luminaires (11.4)
- L-S2: Low Voltage Automatic Power Factor Correction Equipment
- L-S3: Low Voltage Underground Cable
- L-S4: Low Voltage Overhead Line Distribution System
- L-S5: Three Phase Generator Set
- L-S6: Acoustic Treatment For Generator Room
- L-S7: Single Phase Diesel Generator Set
- L-S8: Specification For Lightning Protection System (Using Stranded G.I. Wires)
- L-S9: Lightning Protection System For Structures
- L-S10: 11 Kv Distribution Transformers
- L-S11: For 11 Kv High Voltage Oil Circuit Breaker
- L-S12: For 11 Kv High Voltage Ring-Main Unit Distribution Switchgear
- L-S13: For 11 Kv High Voltage Underground Cable
- L-S14: For 11 Kv Sf6 Ring Main Unit
- L-S15: For 11Kv Metal-Enclosed Switchgear
- L-S17: For 11Kv Dry-Type Distribution Transformer
- L-S20: For Road Lighting Installation
- Specification For Traffic Signals
- Specification For Mesin X-RAY Klinik Kesihatan
- Specification For Operation Table
- Specification For Surgical Light Fittings
- Specification For 60Hz Rotary Frequency Converter System
- Specification For Three Phase 50/400Hz Frequency Converter and Associated Auxilliary Equipment

KM in CKE: J-Pedia



- Collection of thesis & Research paper by CKE's Staff.



[WikiResearch](#)

[WikiResearch](#)

CKE

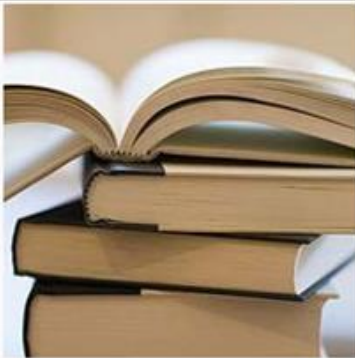
- Probabilistic Failure Analysis Of Surge Protective Devices Connected To Low-Voltage Due To Lightning Phenomenon In Malaysian Climate
- World residential sector energy consumption: can implementing energy efficient designs save energy?
- Evaluation of the Solar Hybrid Systems for Rural School in Sabah
- Design and Construction of A Small Scale Tesla Coil 2kV
- Calculating the Probabilit of SPDs Failure in an Installation Served by Overhead Lines
- Spark Gap Modeling Using PSCAD/EMTDC
- Maintaining Project Alignment: A Grounded Theory Study of Project Managers in The Public Works Department of Malaysia (PWDM)

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KM in CKE: J-Pedia



- Collection of Electrical Guides & Specifications



Guides and Standards

Electrical Engineering

- Panduan Penggantungan Fluorescent Luminaires Downlight dan Speaker
- Rujukan Standard Terkini CKE.USPMA(P).005-1-1
- Rujukan Standard Terkini CKE.USPMA(P).005-1-2
- Rujukan Standard Terkini CKE.USPMA(P).005-1-3
- Energy Efficiency Guidelines For CKE Design
- Senarai Bahan-bahan yang Mendapat Kelulusan Jawatankuasa Bahan JKR Cawangan Kejuruteraan Elektrik
- Manual Polisi Senggara Elektrik
- Panduan Menyemak Kabel (PVC Insulated Armoured & Non Armoured)
- Panduan Menyemak Bahan (Street Lantern)
- Panduan Menyemak Conduit (UPVC Galvanised Steel)
- Aplikasi Teknologi LED Bagi Pemasangan Projek Kerajaan
- Panduan Teknik Rekabentuk Elektrik Edisi 4
- Manual Pengurusan Dokumentasi CKE [🔗](#)

- Manual Pengurusan Dokumentasi CKE [🔗](#)
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KM initiative in Progress:



- eCOMs
- JKR Yellow Pages
- E-Learning
- CoP – Community of Practice

“FEATURES” eCOMs

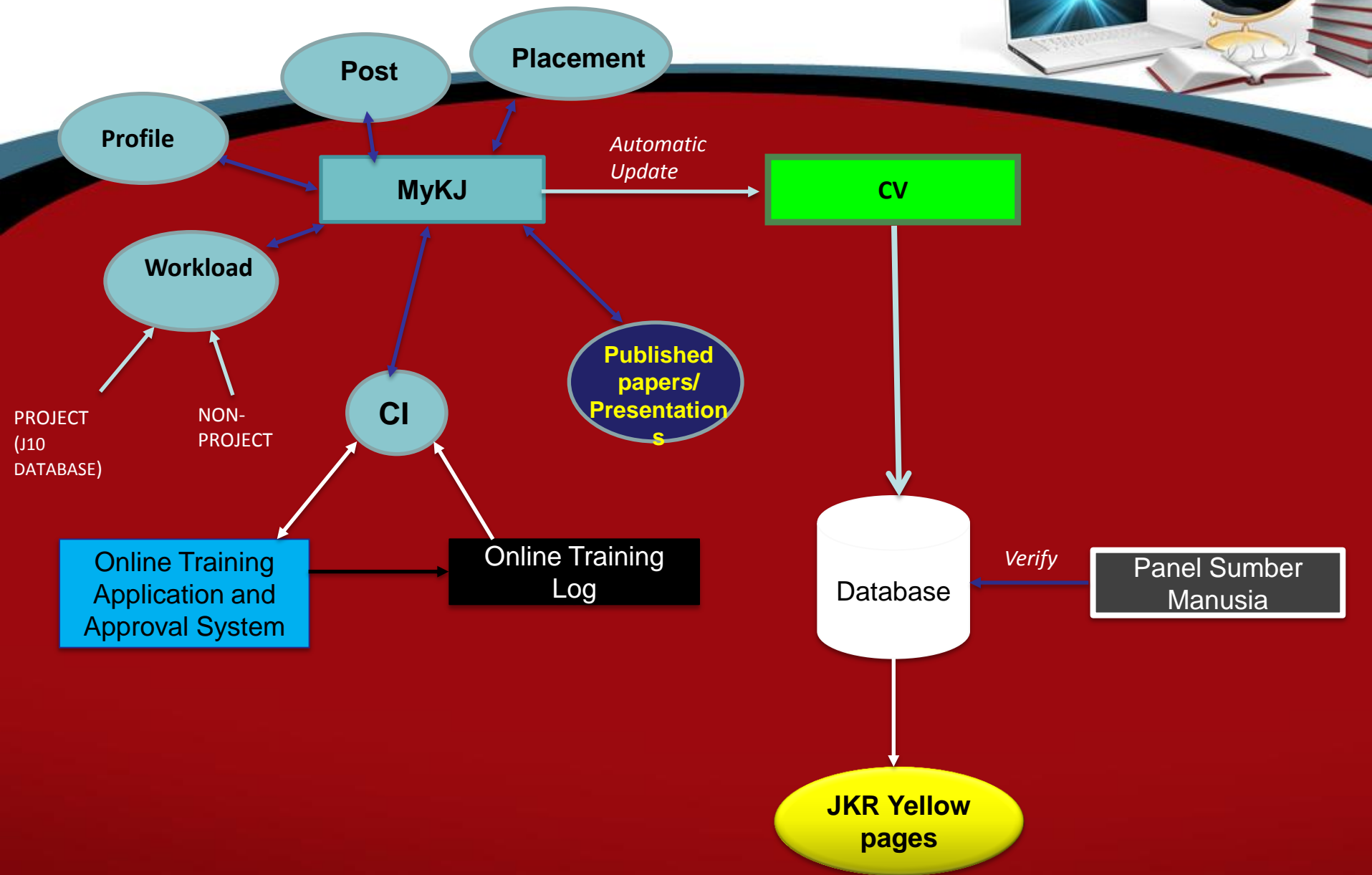
Capture

Manage

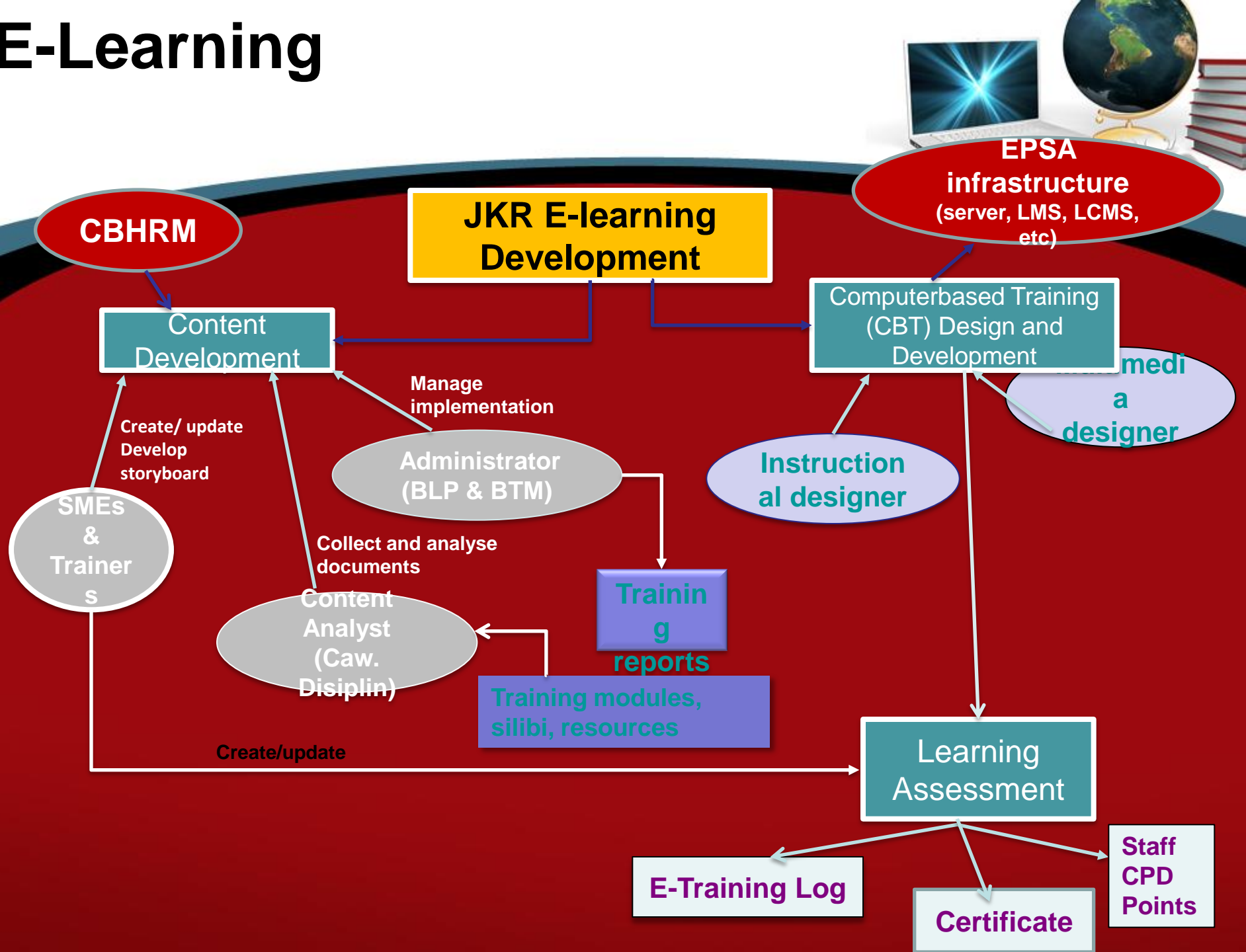
Deliver



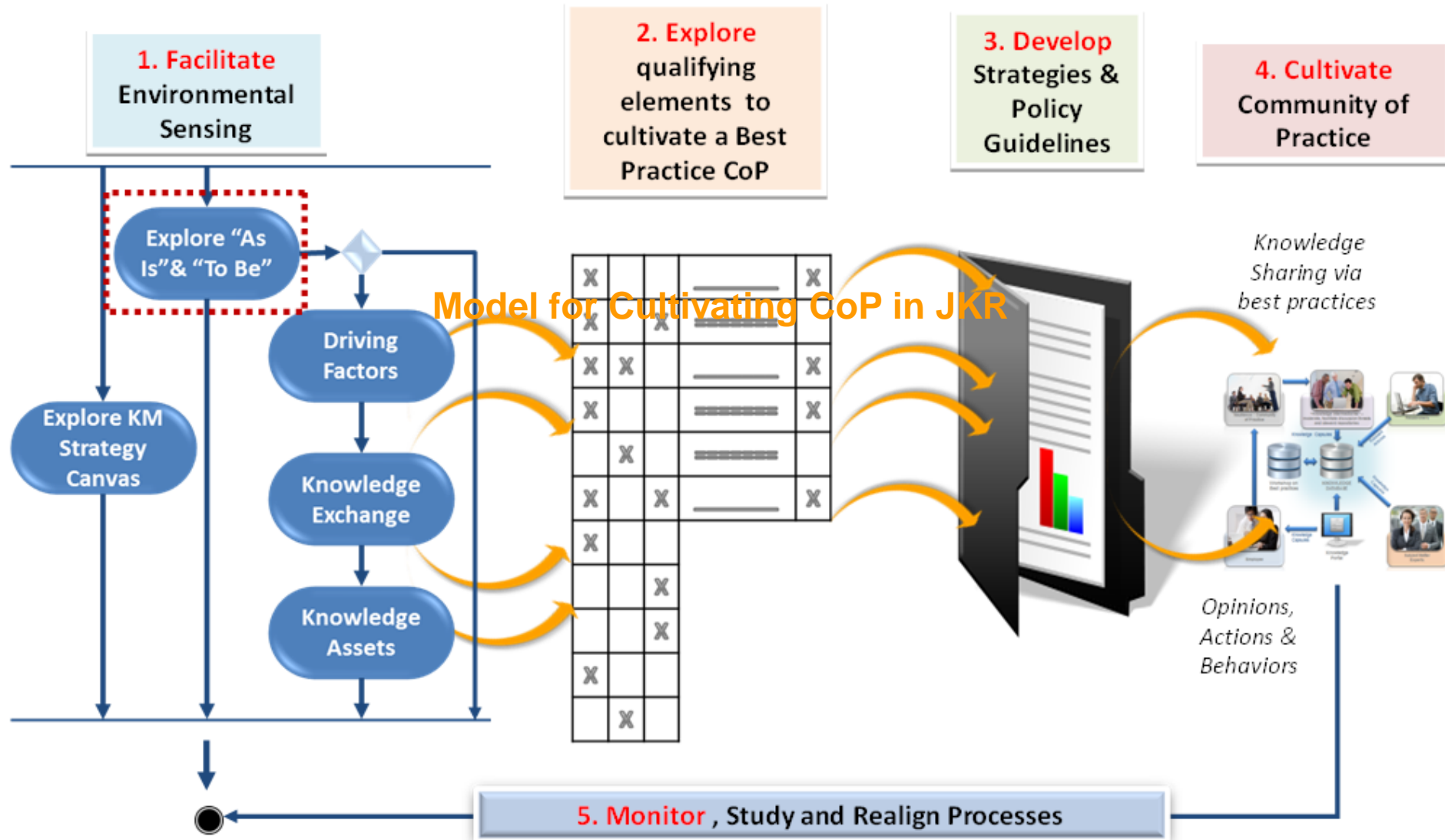
JKR Yellow Pages



E-Learning



Model for Cultivating CoP in JKR





THANK YOU



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