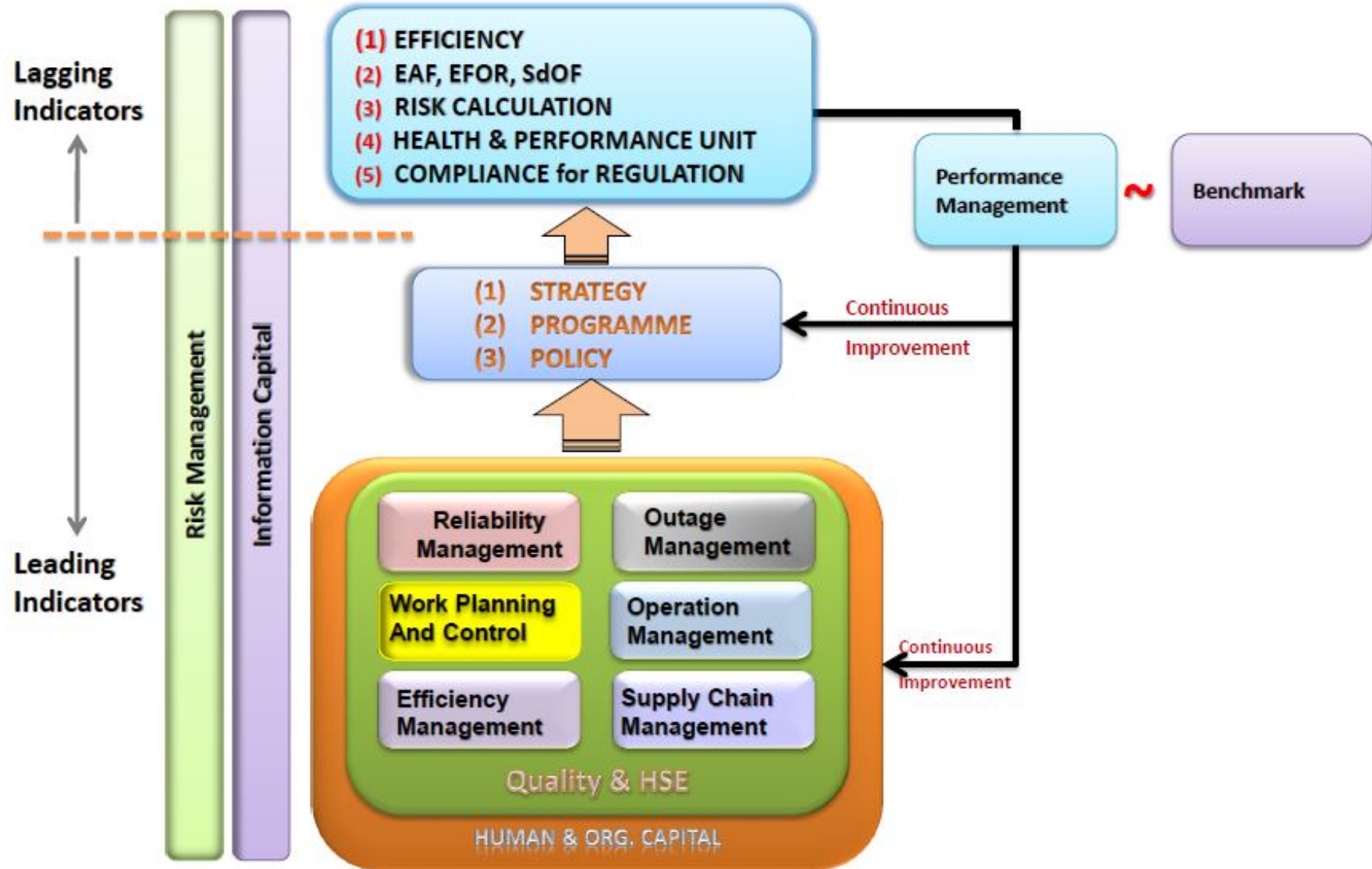


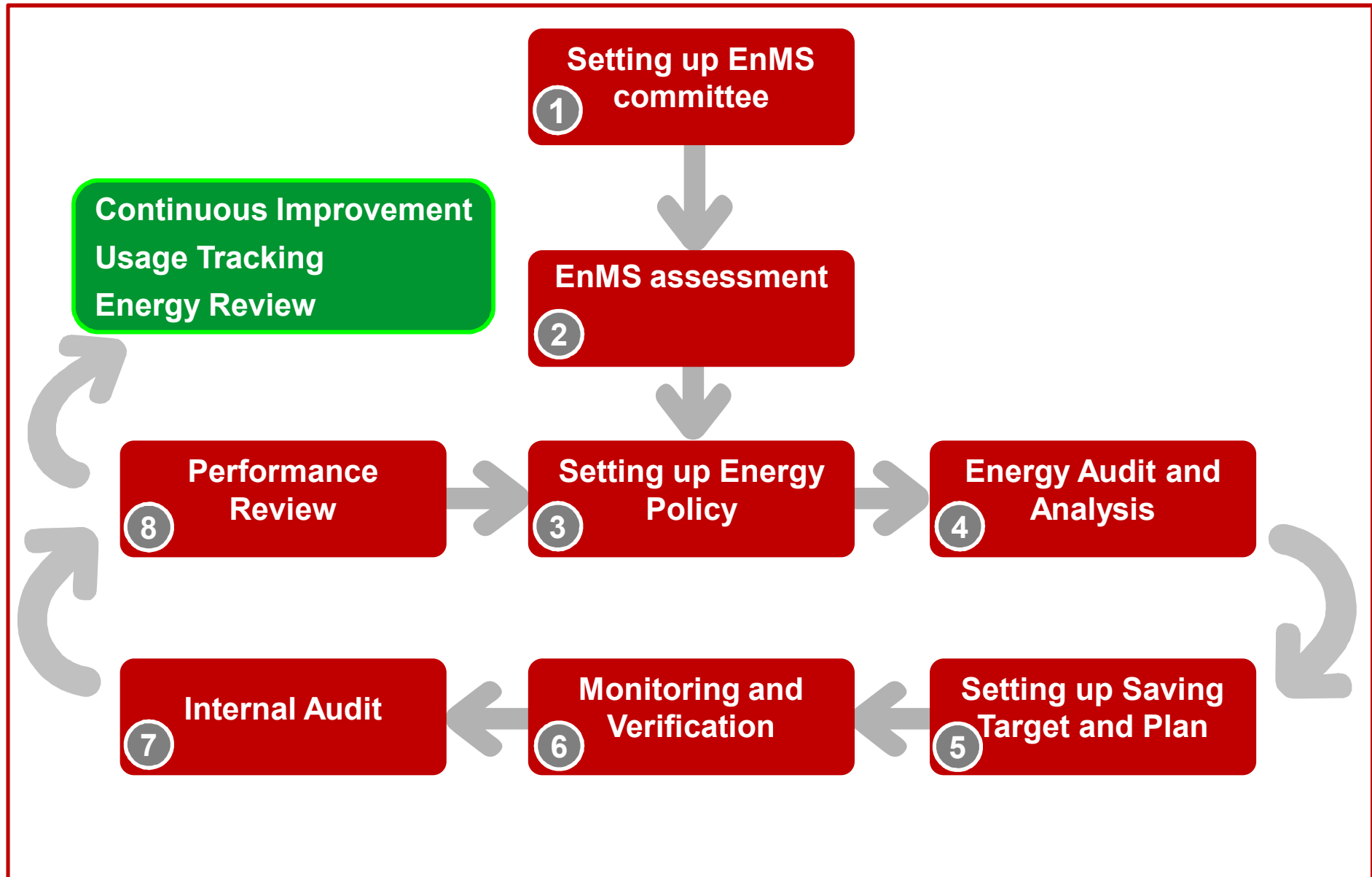
Group 4 Able Team Members

- **Ms Khorlii**
- **Dr Rini**
- **Ms Lin**
- **Mr Trung**
- **Virendra**

Asset Management in Perspective Operation & Maintenance



Energy Management System Configuration



4.6 Checking

(Monitoring, measurement and analysis)

4.6.1 Monitoring, Measurement and Analysis

- **PT IP have central data mgmt system managed by Instrumentation Deptt**
- **The person responsible for EM takes the relevant infos for his consumption.**
- **Monitoring & Measurement plan evidence not shown**
- **The records are also maintained on hard copy parallel for the reason not known to shop floor personnel.**
- **Logbook paper used one side and very thick.**
- **SE has well established data mgmt software with built-in MIS for the above**

4.6.2 Evaluation of Compliance with Legal Requirements and Other Requirements

- There is very few local/Govt requirements wrt EE except some tariff obligations. There is no penalty but meant for supporting the Industries
- PT IP fulfilling the obligations.
- In case of SE, only tariff laws are applicable which they are complying
- SE shown poor commitment wrt PF which was found low(0.93) but fulfilling the statutory requirement.

4.6.3: Internal Audit

- PT IP couldn't show the IA evidence but confirmed that they have qualified team of IAs and regularly conducting inter Deptt audits. Auditor independence was demonstrated.
- The IAs are trained thru reputed external agency

Internal Energy Audit-SE Evidence



Sample

	Conform	Remark	Non Conformity	Opportunity For Improvement	Total
Internal Energy Audit Y2014	15	12	2	15	44

Progress for Action Plan for NC , Remark & OFI

	Closed	Open	Total
Remark	6	6	12
Non Conformity	1	1	2
OFI	10	5	15

Remark : 21 persons certified Internal Auditor for ISO 50001 thru a Consultant

4.6.4: Nonconformities, Correction, Corrective action, and Preventive Action

- PT IP lower staff was not conversant with Corrective/Preventive Action terminology.**
- On explaining the same, they couldn't show the evidence.**

4.7: Management Review

4.7 Management Review

4.7.1 General

- PT Indonesia power conducts MRM in the interval of one month, since it's conducted on the protocol of 7 asset mgmt, EE issues are diluted, No MRM record was shown.
- Schneider Electric, an ISO-50001 compliant company, conducts MRM in the interval of one month, as informed are maintaining the records
- MRM is chaired by MR-Mr Mujiino which is against the spirit of Top Mgmt Commitment

4.7.2 Input to management review

- PT. Indonesia Power do not present the EE related issues assertively as this is diluted with other 7 asset mgmt issues
- Follow-up actions from previous management reviews is done...record not evidenced.
- Review of the policy...It's a part of their MRM..
- Review of energy performance and related EnPIs-No infos available at shop floor.
- Results of the evaluation of compliance with legal requirements and changes in legal requirements and other requirements to which organization subscribes being discussed in MRM

4.7.2 Input to management review (contd.)

- Energy objectives and targets are critically discussed**
- EnMS audit results are not discussed as per ISO-50001 clause**
- The status of corrective actions and preventive actions-no evidence shown.**
- Projected energy performance form the following period –They have 5 yr EP Plan**
- SE complies all above clauses of EnMS**

4.7.3 Output from management review

- Providing resources is beyond the jurisdiction of PT IP MRM members as all major decisions are taken by HQ.
- In case of SE, matter was not precisely discussed

Key Learning Points:

- SE implementation Model is quite spiritual and have many takeaways
- Our team was impressed with the Awareness methods SE used.
- Morning mild exercise could be excellent forum for information sharing.
- Too many systems combined dilutes the focus.