

Bangchak for **Technological Strategy and Deployment**

Japan Cooperation Center, Petroleum (JCCP)

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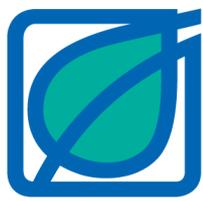


1. Introduction to Bangchak Petroleum PLC

2. Bangchak Technological Strategy

3. Bangchak Technological Deployment





1. Introduction to Bangchak Petroleum PLC

2. Bangchak Technological Strategy

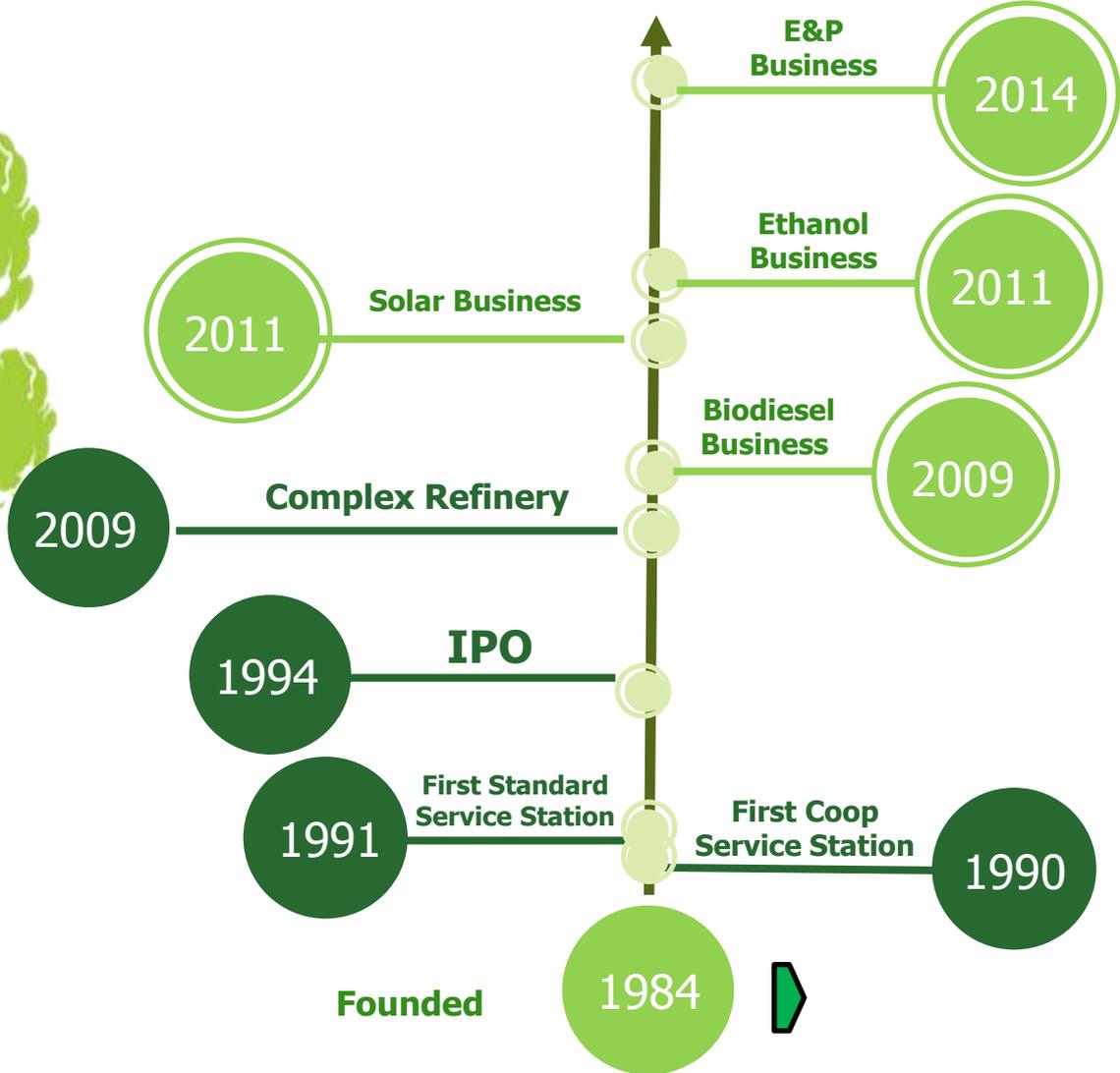
3. Bangchak Technological Deployment



30 Years of Bangchak Petroleum PLC



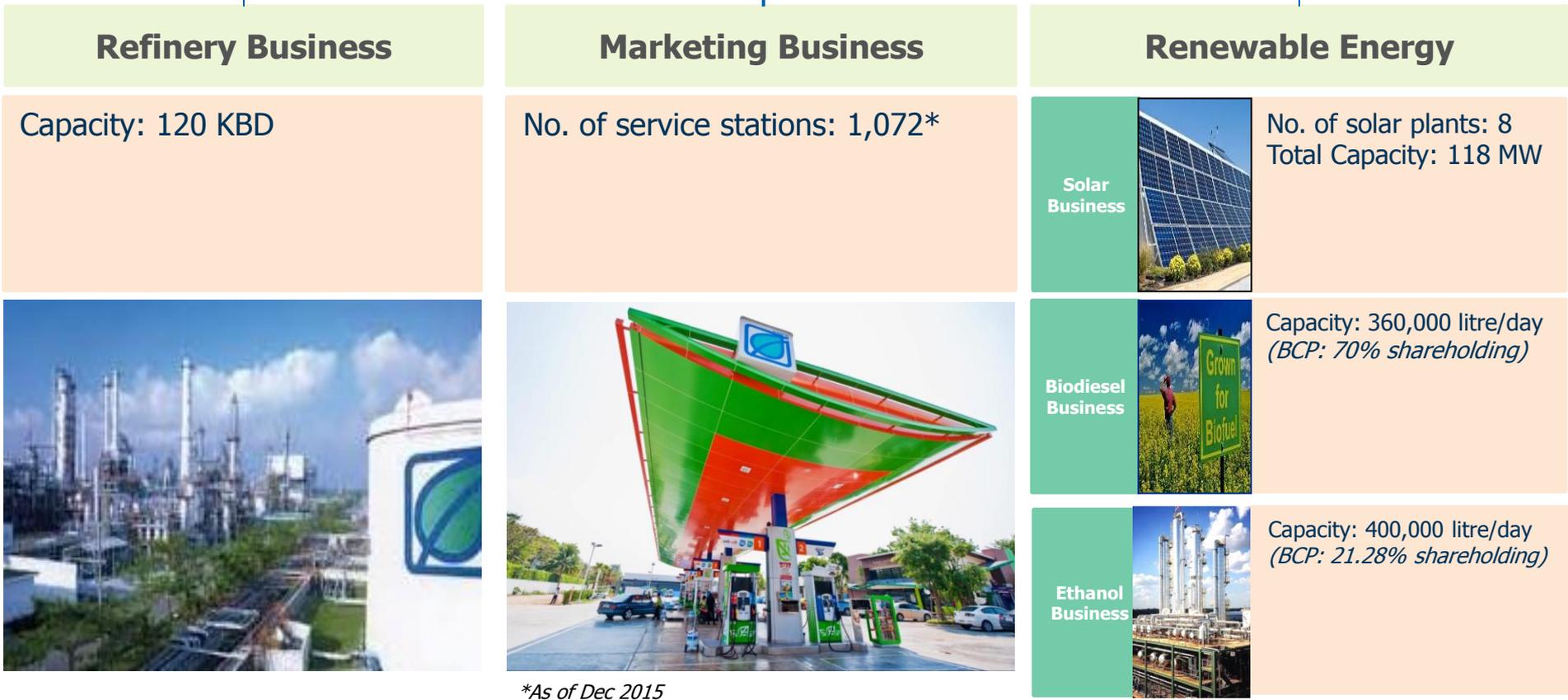
GREENERGY EXCELLENCE



Company Overview / Business Model



The Bangchak Petroleum PLC ("BCP")



*As of Dec 2015



1. Introduction to Bangchak Petroleum PLC

2. Bangchak Technological Strategy

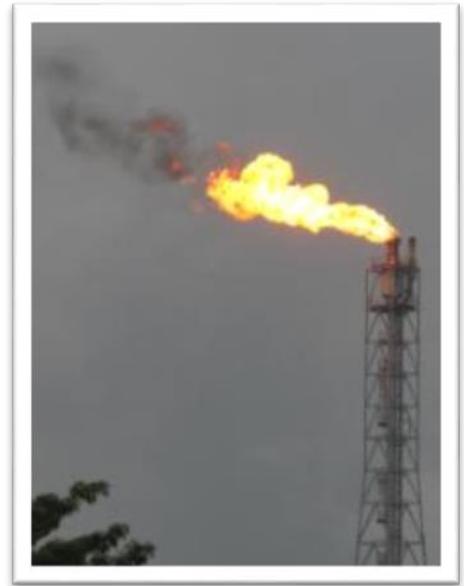
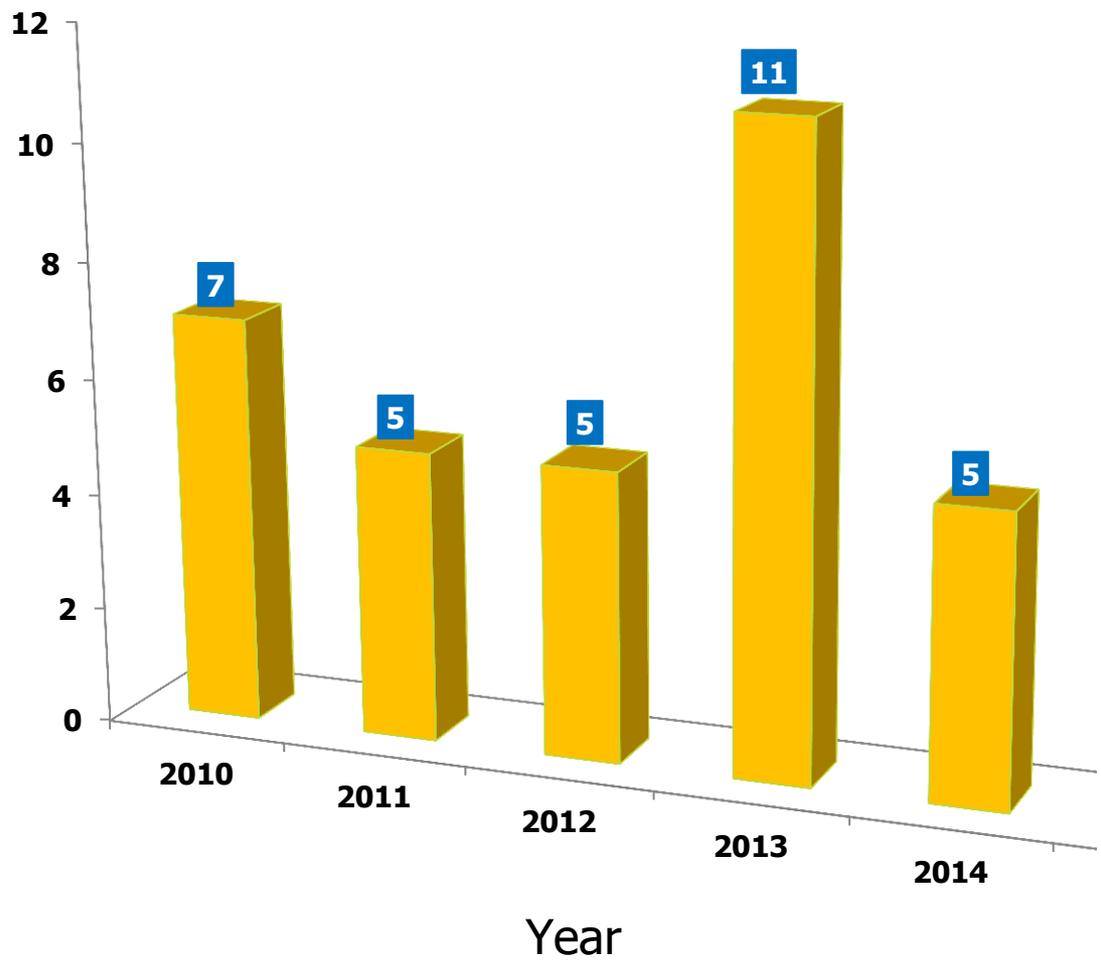
3. Bangchak Technological Deployment



Process Unit Unplanned Shutdown



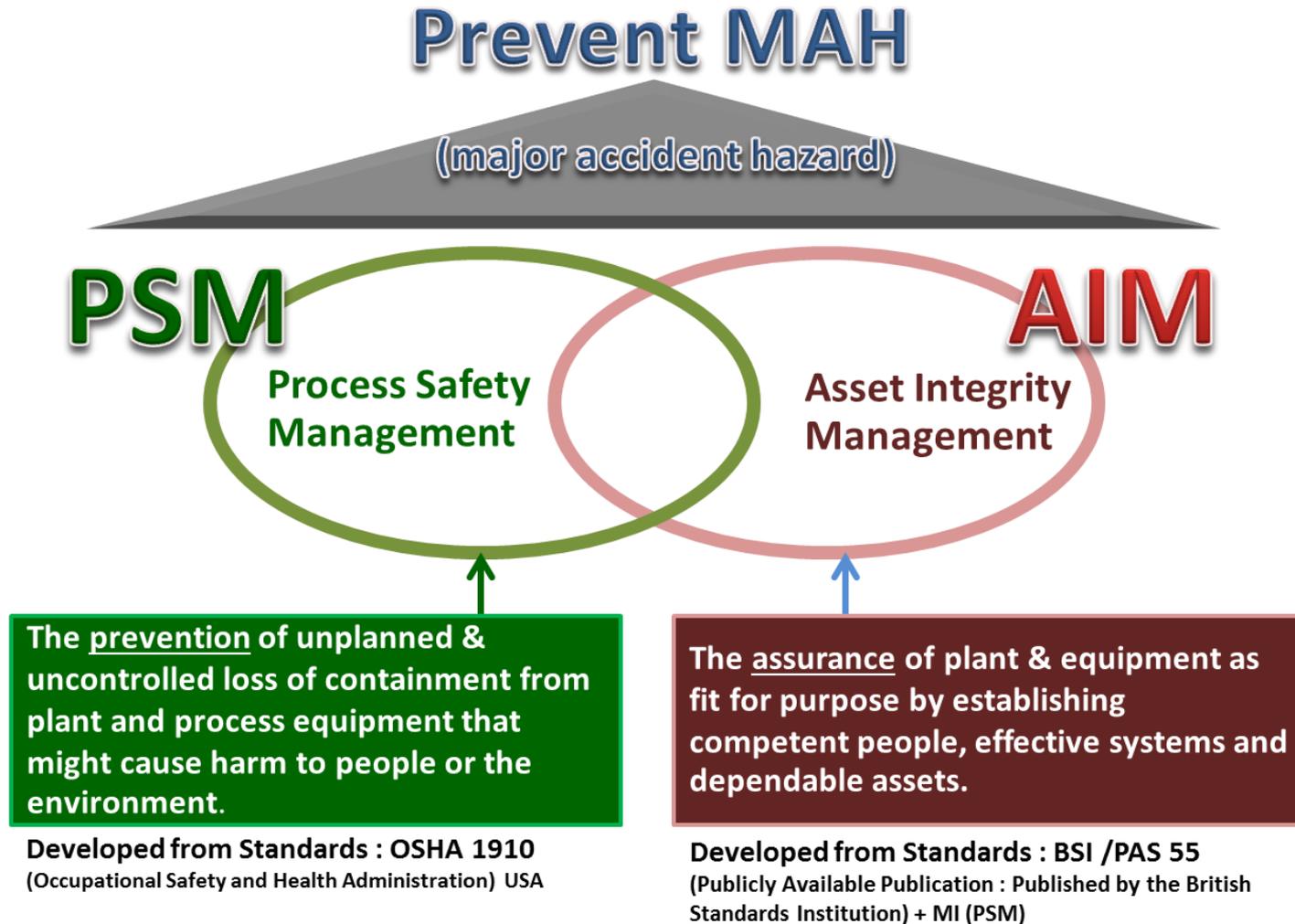
Number of Shutdown

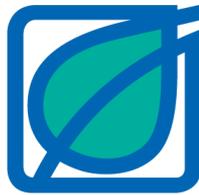






Process Safety Management & Asset Integrity Management



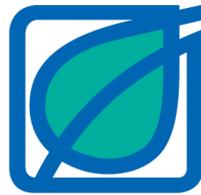


PSM : Process Safety Management (14 Elements)

“ Preventing or minimizing the consequence of (catastrophic) release of toxic, reactive, flammable or explosive chemicals. These release may result in toxic, fire or flammable hazards. ”

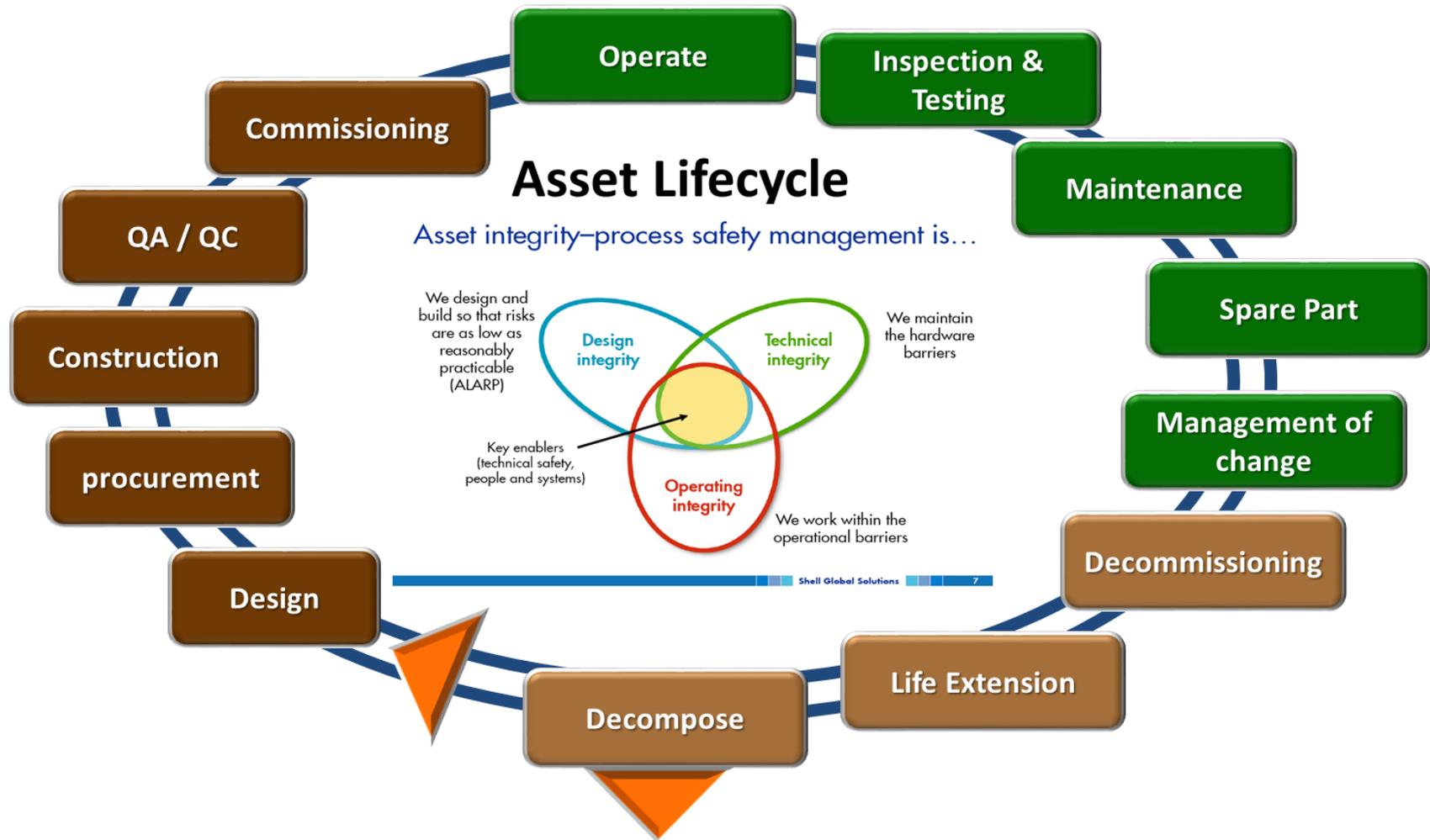


Technological Management



AIM : Asset Integrity Management

"The ability of an asset to perform its required function effectively and efficiently while protecting health, safety environment, and asset"





Example of Activities Implemented

- **Hazardous and Operability (HAZOP) Study** 
 - To hazardous identify and recommend to minimize operation risks and impacts
- **Pressure Equipment Integrity Management** 
 - To improve an Integrity of Static Equipment& Piping of Refinery
- **Reliability Centered Maintenance (RCM)** 
 - To appropriate maintenance/spare part planning
- **Safety Integrity Level (SIL)** 
 - To reduce the risk of instrument failure
- **Risk Based Inspection (RBI)** 
 - To appropriate inspection planning of each equipment

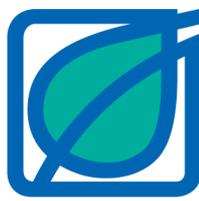


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PSM Value :3E's

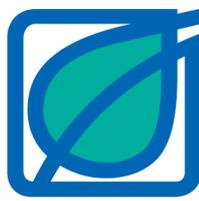
PSM journey



- Everyone Goes Home Safely Everyday
- Environment and Asset are Protected
- Efficient and Reliable Operations



Technological Deployment Build Driving Team ...



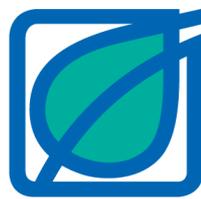
PSM journey



Felt Leadership Workshop



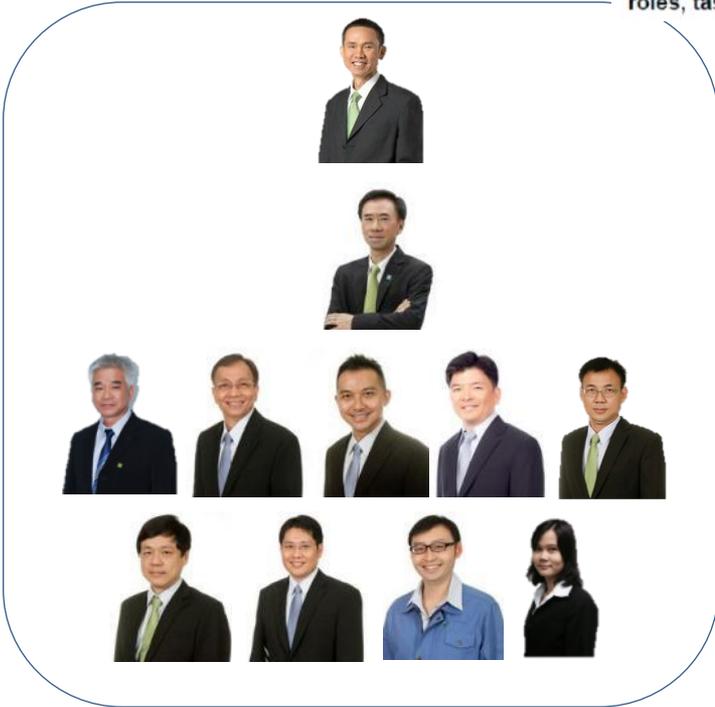
Technological Deployment Set Up Taskforce ...



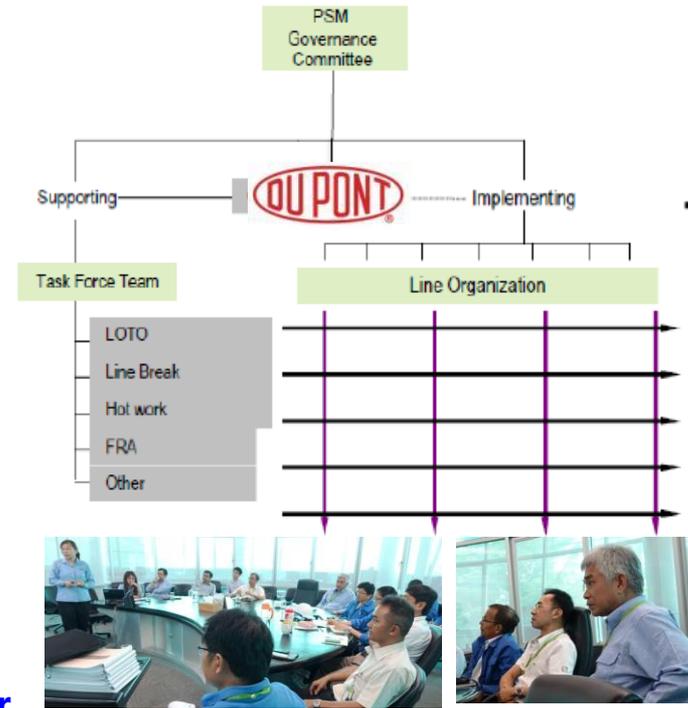
PSM journey



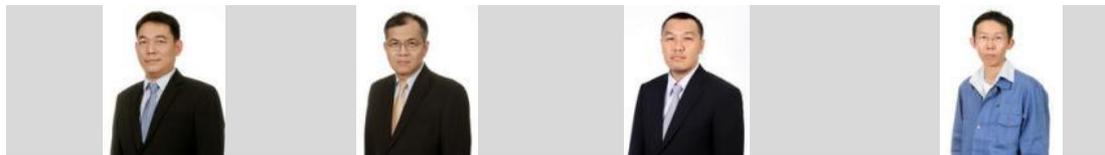
Governance Member



The PSM Governance Committee, and Consulting team are the key enablers of success implementation: their structure, staffing and charters define appropriate roles, tasks, KPIs, and deliverables.



Taskforce Leader

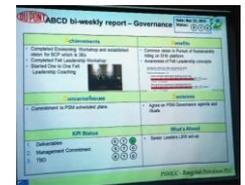


Lockout Tag out
(LOTO)

Line Break
(LB)

Field Risk Assessment
(FRA)

Hot Work Permit
(HW)



Technological Deployment Employee participation...

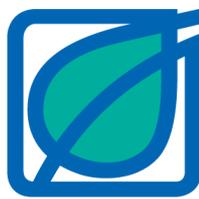


PSM journey



Governance Line Walk

Technological Deployment Promotion and Recognition...



Eagle One Project



New Jacket
"Everyone Goes Home Safely Everyday"



LOTO TFT



LB TFT



HW



FRA TFT



Safety Journey "Flying Together"

The Outcome of Strategy



- No Major Incident
- No Unplanned Shutdown
- Employee Engagement
- Community Engagement
- Market EBITDA : Actual > Target





Thank you

**GREEN
SOCIETY**



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