

Lonmin Plc

The SAP PM Journey Process Division

LONMIN



“Power without control is meaningless. SAP PM without structure and execution suffers a similar fate”

Our journey explained

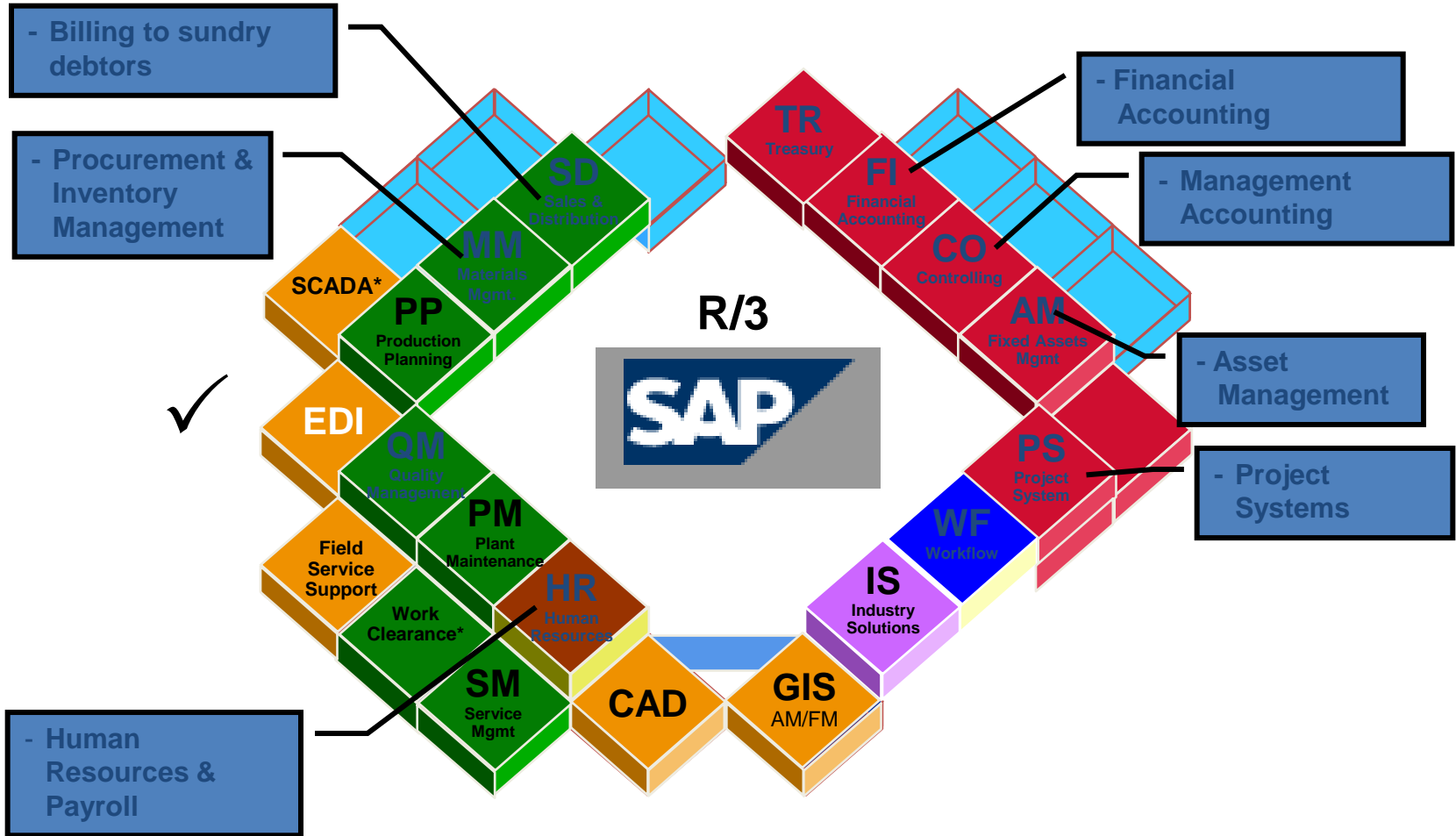


Welcome to Lonmin Process divisions SAP PM journey 2007 to Present

2005/6 Lonmin

- SAP is rolled out as the ERP for Lonmin – FI, PM, MM, PS
- SAP PM rolled out in March 2006
- PM (Planned Maintenance) Policy and Strategy developed with 3rd Party
- Roadmap developed linked to Strategy and Policy
- Reporting developed linked to Strategy
- High level support in terms of management
- Very little to no support structure on the floor
- PM Roll out and Roadmap audit outsourced (2006/7)

2006 SAP Architecture



Our journey explained



Setting the scene of forthcoming PM attractions

2007 Lonmin Process division – PM start

- Accepted the assignment to put PM in place at the Process division
- Review began – System, Structure, Support
- SAP PM accepted as functional at the start – ‘Assumption is the
- Existing SAP PM blueprints requested and studied ([LINK](#))
- Existing PM Policy and Strategy studied and understood
- Deep dive into plants, interaction with PM teams at the BMR, PMR, SME and Concentrators
- Interviewed PM personnel into system/support – High and low level

2007 State of the Asset

- Assets were run down, poor state of disrepair, inefficient, unpredictable
- Plants operated well above design capacity, low availabilities, instability
- Breakdown maintenance was the norm – Reactive, high cost
- ‘No cost’ maintenance months was acceptable – Cost control!
- Major onsite sub stores and scrap, JIC spares out of control - Reactive
- Few engineers and planners, few and far between
- Poor understanding of what PM really entailed – Fire Brigade mentality
- Reporting not standardized and irregular – Not properly governed

2007 State of the System - SAP

- SAP PM was set up and rolled out per plant – various standards
- SAP PM set up to mirror old systems and practices – Non std SAP
- Non standardized set up of functional locations, eq numbering, schedules
- Reporting guideline not followed
- Reporting done on Excel, irregular with No or little governance
- Blue prints was not understood, necessarily followed nor displayed
- Central SAP PM support was poor and not guided at the PD
- SAP integration with MM was very poor and not as per SAP std

2007/8 On your marks, get set,

- An Asset management Charter was drawn up, CEO sign off requested [L]
- Structure was proposed and recruitment started – Very specific set up [L]
- RACI set up and used to review role profiles and write new ones [L]
- Engineers, planners and maintenance specialists appointed
- A ‘State of the Asset’ audit commissioned by a knowledgeable 3rd party
- Photographs taken per plant, recorded the baseline [L]
- MM tackled – Contracts, Stores, Procurement, Stock rationalization started
- Training suite put together and scheduled – Indoctrination began (L)

2007/8 On your marks, get set....(cont')

- A PM 'Asset management' booklet put together and rolled out – PM way [L]
- A maturity chart picked and rolled out – PM/MM link [L]
- Rhythm and Routine put in place around KPI's and reporting (weekly) (L)
- PM planning meetings set up and started – Policy written
- Planner assessments set up, done and tracked per plant (3 monthly) (L)
- PM health check for SAP compliance set up and done per plant (3 monthly)
- SAP PM blueprints reviewed and put on posters rolled out to plants (L)
- Split Breakdown and Planned maintenance teams to stabilize plants

2008 On your marks, get set,(cont')



- Required reporting set up and rolled out, properly governed in Excel
- Maintenance Specialists all exposed to std PM training from MTECH
- First Roadmap Audits done, all plants scored as a baseline [L]
- Improve failure prediction and analyses skills for PM teams based on RACI
- Succession planning entrenched via recruitment process and structure(s)
- Making Engineering, Maintenance and Asset management visible – EXCO
- Make link between Asset Management (Maintenance) and Safety
- Create an Auditing culture to drive CI process around PM and SAP

Our journey explained



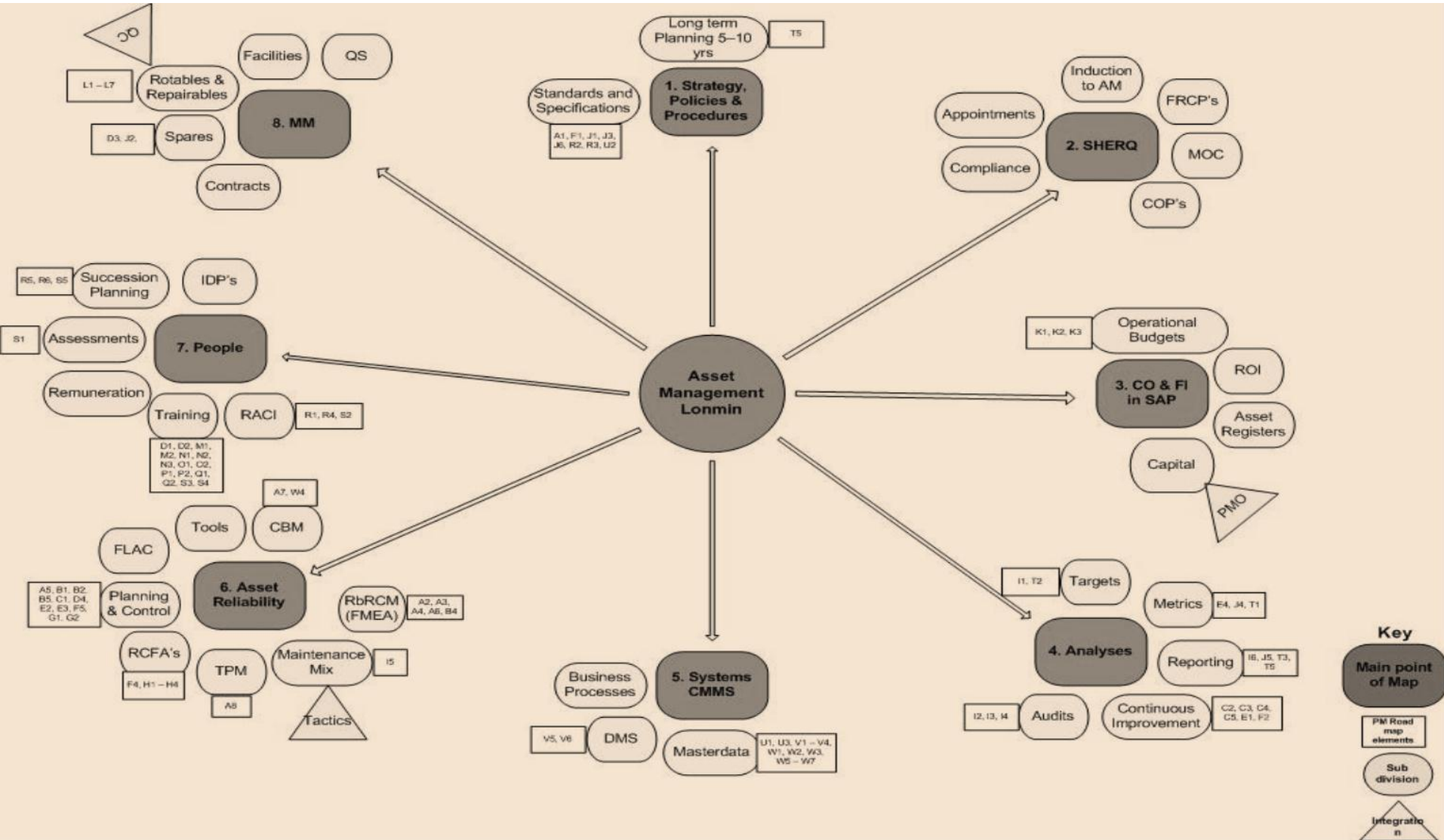
SAP PM review and re-rollout - Optimine



2008 SAP PM Optimine Project Agenda

- Review Existing Business Blueprint (Lonmin value chain)
- Asset Management Strategy
- Business Processes & detail design
- Training strategy & documentation
- Review exiting PM Roadmap
- Determined detailed PM Mindmap
- Developed new PM Roadmap

2008 SAP PM Optimise, AM Strategy Updated



2008 SAP PM Optimine, back to std SAP



- Assembled a Project team headed by Expert PM consultant and core owners team for duration of the Optimine project
- Great need for reviewing and revamping the SAP PM master data
- Review and changing of order types (PM01,2,3,4 to LM01,2,3,4,5,6,7)
- Functional location standards and changes – Link to Asset registers (L)
- Equipment numbering standardized (Plant Design)
- Reporting review and BW set up of KPI reports (Business Objects (BO)) (L)

2008 SAP PM Optimine, back to std SAP Cont.



- Optimine team identified; Masterdata team, Process team and Training team
- CMMS PM Audit (L)
- Develop Optimine Business Case (Lonmin value Chain - EXCO Approval)
- Develop Optimine project plan
- Change Management Strategy
- Project Kickoff
- Project Progress Meetings & Weekly Status Report

2008 Optimine Technical – Process management & Data management



- Improvement of PM business processes (ARIS modelling)
- Ensure continuous System Process Integrity and Understanding
- Data management – Ensure continuous Master data integrity
- Collate and improve documentation registers
- Load doc registers on SAP and link to equipment via SAP DMS (L)
- Develop and load catalogue codes (Damage and cause codes)

2008 Optimine Technical aspects ECC6

- Access to SAP simplified via a Portal (**Portal View**)
- Process modeling for PM done on ARIS (**Link- Business processes**)
- Training documentation set up – SPP (SAP productivity pack)
- Authorizations done via GRC (Governance risk compliance)
- Change Management done via Solution Manager
- Reports – SAP standard; BW and BO
- EHP5 (Enhanced pack 5), Functionality 2012

Results PD

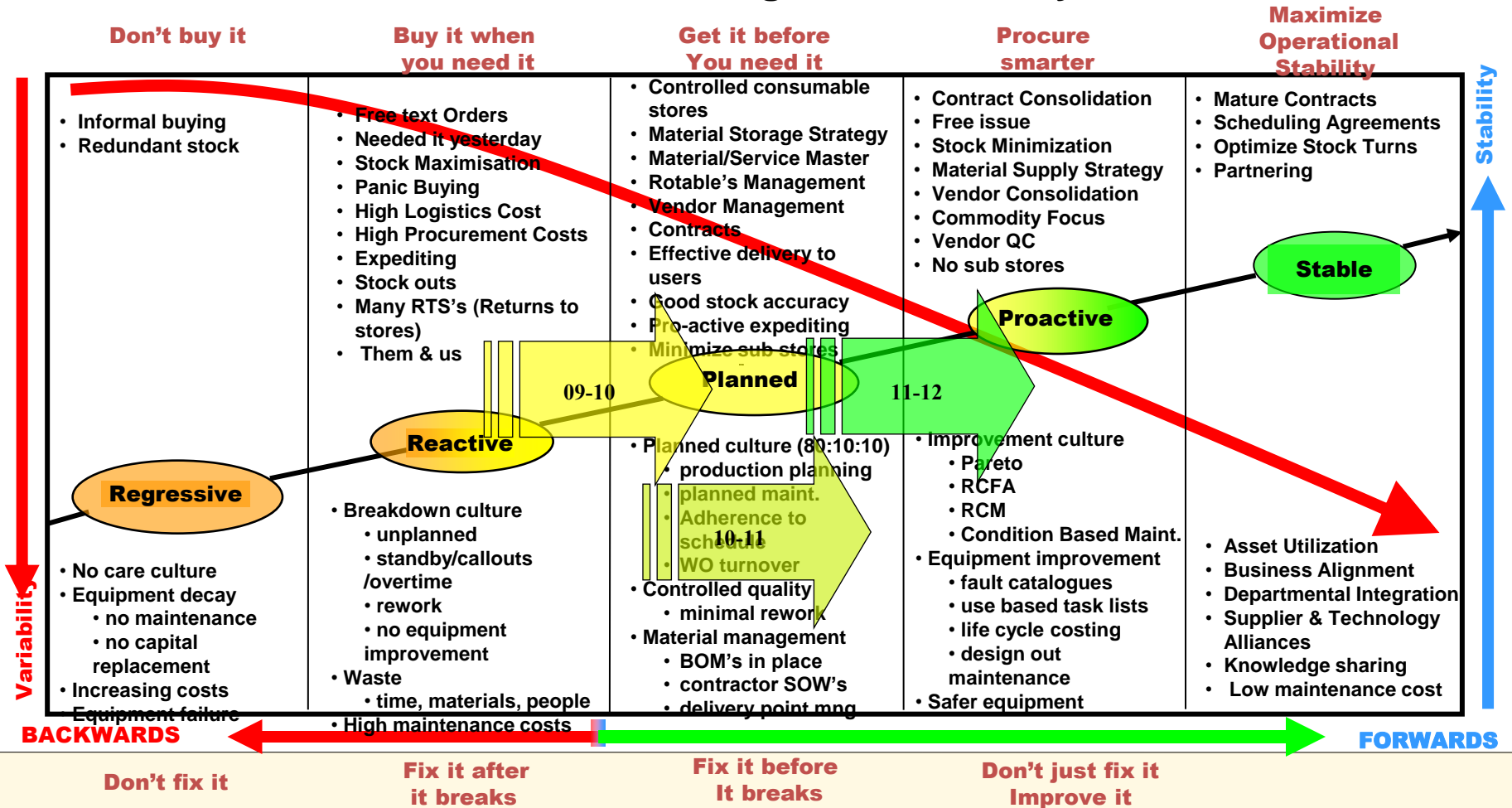
- Availabilities up and stable across the business units ([LINK](#))
- PM entrenched as the Maintenance philosophy
- Plant stability and subsequent efficiency improvements are sustainable
- Ultimate result – Increased production
- Use the Planner competence tool [[L](#)]
- Skilled PM teams and PM IDP
- Succession in place
- Reporting stable – Rhythm and Routine in place at PD

To Be

- BW (BO) reporting completed and in use, NO MORE excel!
- Move from Planned to Predictive Manitenance
- Entrenched Rotables and Repairables process
- Stable MM interface with world class stores
- No more sub stores only Kanbans
- Planners are SAP super users or capable

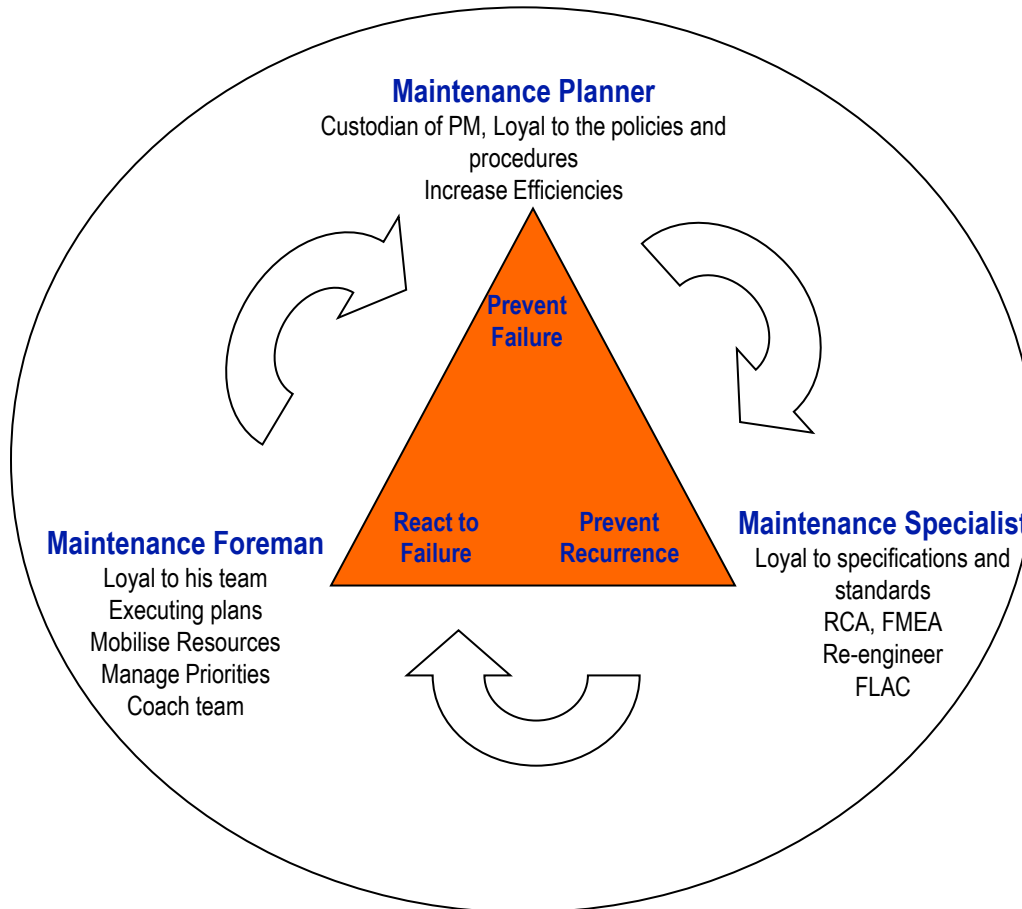
SAP PM & MM Maturity chart

Materials Management Maturity



Maintenance Maturity

The PM Structure



Maintenance manager

Loyal to the strategy and policy of the plant
Birds eye view on the processes in and around PM
Supports and directs the team
Ensures RACI is maintained
Monitors discipline within the system and processes