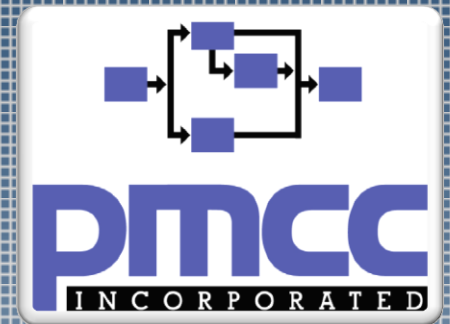


Aligning the CI I Feasibility and Stage Gate Process with the PMI Project Processes & Life Cycle



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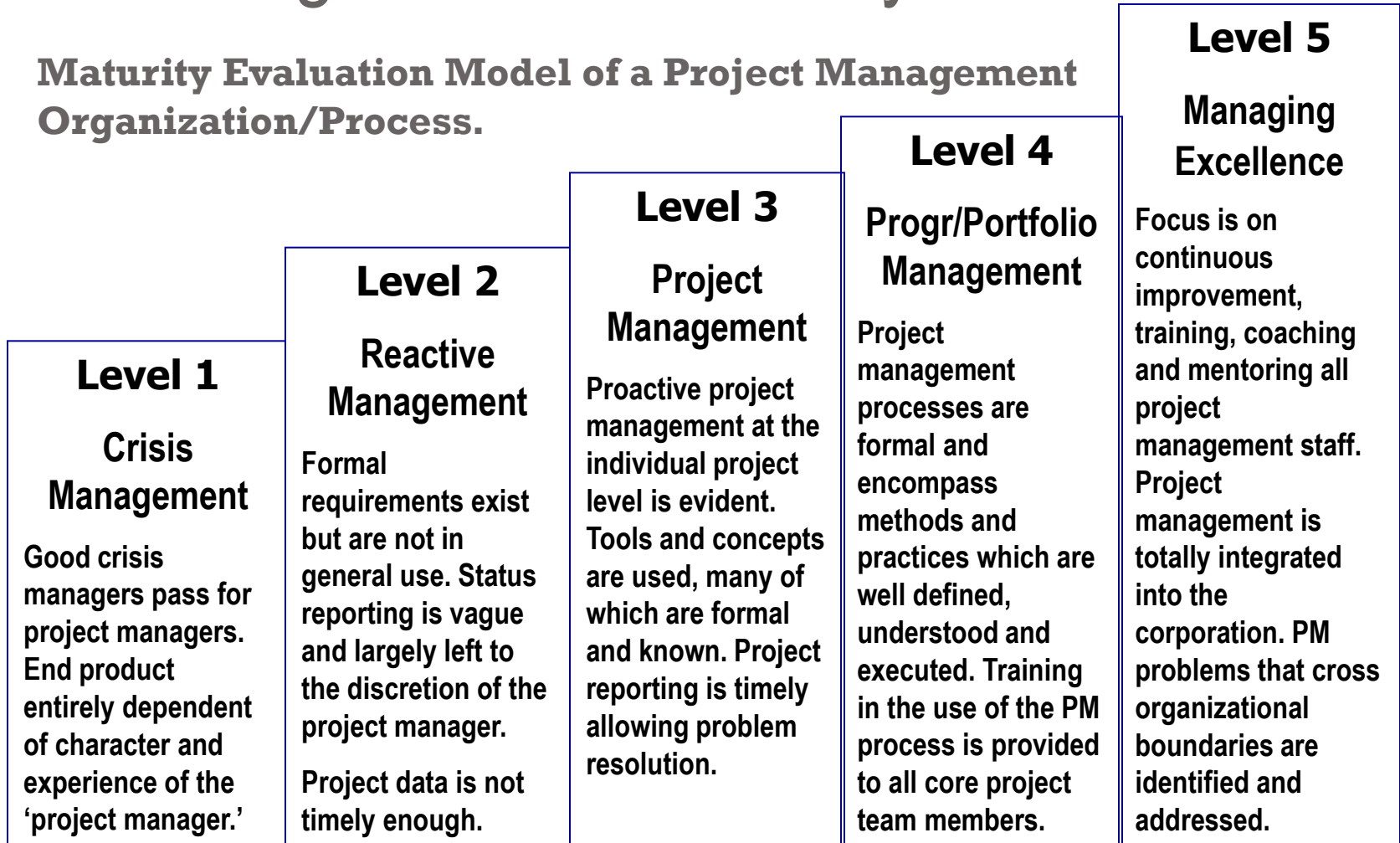
The Path to PM Competency

- Awareness
 - Dissatisfaction with current results both internally and from clients
 - Competitor Pressure
- Knowledge
 - General training/education on PM best practices
- Skills
 - Corporate adoption of standardized set of PM procedures and processes
 - Workshops on PM tools and specific best practices
 - Advanced training on software related to PM practices
- Competency
 - Demonstrated through increased returns on project investments and customer satisfaction

PM Organizations

Learning Leads to Maturity

Maturity Evaluation Model of a Project Management Organization/Process.



Must Understand the Life Cycle for the Capital Project

- Helps us:
 - Break the project process work down into manageable pieces
 - Plan!
 - Understand Key Gates & Authorization points
 - Assign roles and responsibilities within each phase
 - Team members
 - Sr. Management and Executives
 - Contractors
 - Engineering Consultants
 - Vendors

The Typical Project “Life Cycle”



- **Simplistic Model**
 - Fine for small “stand alone” projects
 - Projects with a reasonably defined scope of work at award
 - Good discussion tool for associating PM practices with phases
- **But....**
 - How do we address planning, estimating, and tendering processes that proceed project start/sanctioning?

Widely used Capital Project Life Cycle



- Significant improvement from the capital project viewpoint
 - Credited to CII and introduces Front End Loading (FEL) or Front End Engineering & Design (FEED) into the capital project management and engineering Lexicon during the 1990's
 - Stresses importance of the gates between Concept and FEL-3 phases to make sure that adequate planning and engineering is been done prior to the project sanctioning gate after FEL-3

A matter of viewpoint



- Owner focused Project Life Cycle
- Does not account for major project phases after sanctioning
 - Project Initiation
 - By selected contractor(s)
 - Project Planning
 - Remember that at the end of FEL-3 only 40-50% of the engineering may be complete when the project is sanctioned!
 - There is still significant planning to be done by the owner and contractor as more engineering details are made available

The Contractor's View of the Project Capital Life Cycle



- Concept Assistance
 - Many contractors work months and even years to assist Owner companies in “fleshing out” concepts
- Estimating Phase
 - Broad phase that can include engineering, planning, and estimating tasks
- Project Planning Phase
 - Development of bills of material and work order packages that can be executed by the contractor organization
 - Procurement, contractor engineering, etc...
- Execution Phase
 - Sub phases vary by industry

Execution Sub phase – Drilling Industry



- Mobilize

- Drill

- Completion

- Production to desired specification

- Demobilize

Execution Sub phase – Turnaround/Outage



- Mobilize/Pre Turnaround Work

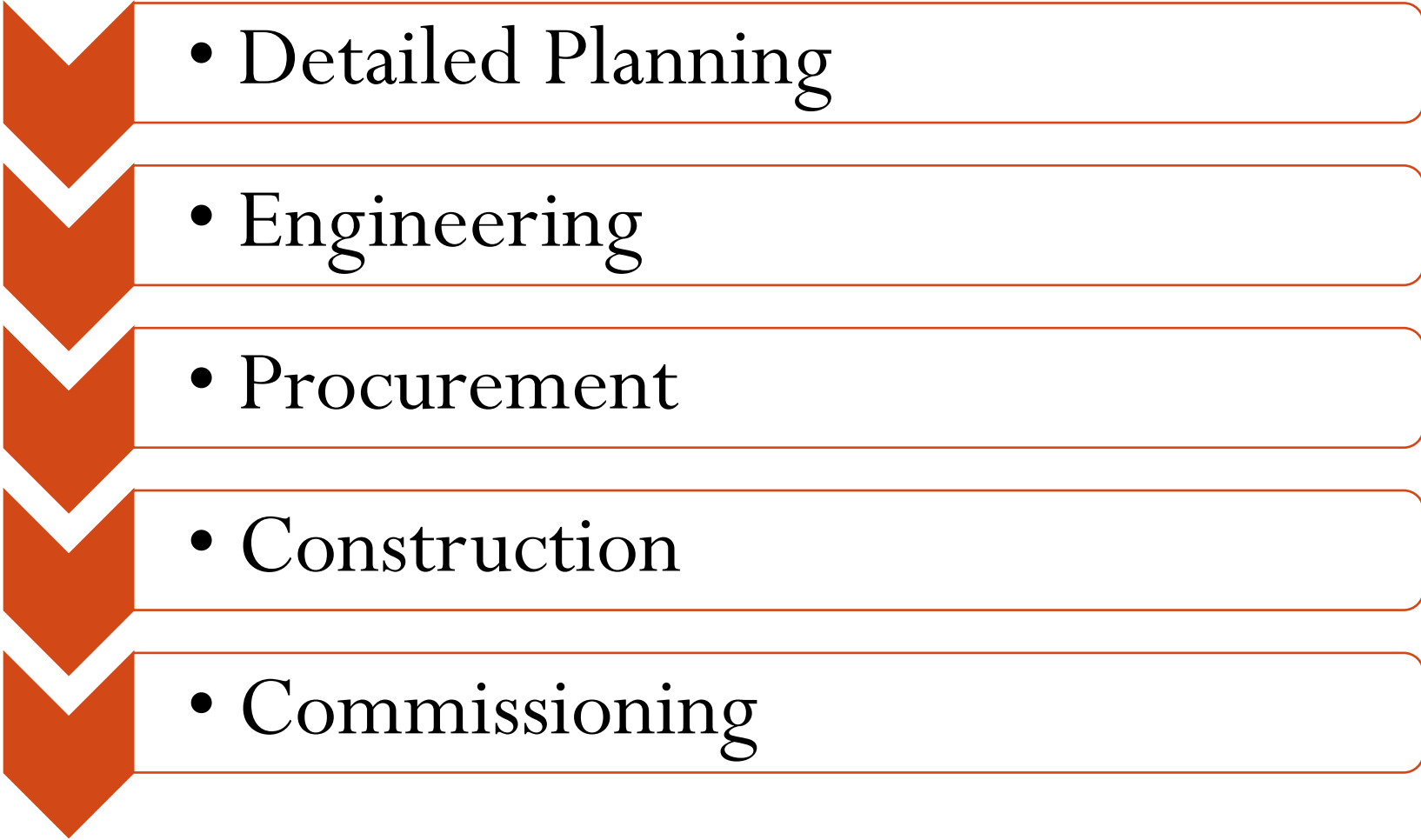
- Shutdown

- Turnaround Scope

- Startup

- Demobilize

Execution Sub phase – “EPC”

- 
- Detailed Planning
 - Engineering
 - Procurement
 - Construction
 - Commissioning

How do we align differing views of the Capital Project Lifecycle

- Owner View
 - Focuses on a capital project life cycle that:
 - Addresses various concepts for project delivery
 - Assures proper planning and estimating prior to the Project Sanctioning gate after the FEL-3 phase
- Contractor View
 - Need to align the estimating phase and process with the project phases
 - Many companies estimating processes do not easily reconcile with a project WBS!
 - Leads to “finger pointing” when projects overrun budgets!

PMCC Recommendation for a standard Capital project Life cycle



- Integrates Owner and Contractor/Service Company views of the project life cycle
 - Owner Project Assessment “Sub Phases”
 - Concept, FEL-1, FEL-2, FEL-3
 - Contractor or Service Company Project Assessment “Sub phases”
 - Concept Assistance, Estimating

PMCC Recommendation for a standard Capital project Life cycle



- Using the proposed capital project life cycle:
 - Contractors/service companies recognize the vital importance of the Project Assessment phase in meeting the scope, cost, schedule, and quality goals for the project and gain insight into how the owner view's the project assessment process.
 - Offer additional services earlier in the project life cycle
 - Owners recognize the importance of the project initiation and planning processes performed by the contractor

This isn't an Academic discussion!



- Working in collaboration with a major international oilfield services company with over 100 business units (product lines) and 48,000 employees working in dozens of countries worldwide, the PMCC client is implementing this Capital Project Life cycle
 - Focused on improving the quality of their project deliverables AND their Return on Investment.

Recommendations by Phase

- Project Assessment Phase and Gate
 - Focus on Scope and Risk before Cost and Schedule
 - Rigorous review of the scope
 - Clear understanding of the current state of engineering
 - Clarity on the contracts to be issued/signed
 - Beware of “cut and paste” terms and conditions and specifications
 - Clear understanding of Long Lead procurements
 - Rigorous review and comprehension of project risks
 - Preferably reviewed by WBS elements
 - Generation of estimates by WBS
 - Not just Labor, Material, Equipment, Overhead!
 - Approval of the AFE/Project Sanctioning (Owner)
 - Contract Approval (contractors)

Recommendations by Phase

- Project Initiation Phase and Gate
 - Short duration phase
 - Generally no more than two or three weeks on long term projects
 - Project Charter approved and distributed
 - Creation of project portal/directories
 - **Project Handover Meeting conducted**
 - Preliminary scope/risk statement prepared and reviewed with project sponsor
 - Emphasis on scopes where “100% availability of resource” was assumed during the project assessment phase
 - Clarify what a “kickoff meeting” really means

Recommendations by Phase

- Project Planning Gate
 - Clear understanding of roles and responsibilities for both owner and contractor/consulting team members.
 - Approval of the Project Management Plan!!
 - Project Plan located on the project portal
 - Dynamic..not static document..sections updated at least monthly
 - Setting of the baselines for scope, risk, cost, schedule, etc..
 - Up to this point, generally working off major milestones agreed to at Project Sanctioning
 - Value Planning!
 - Don't rush to Execution!

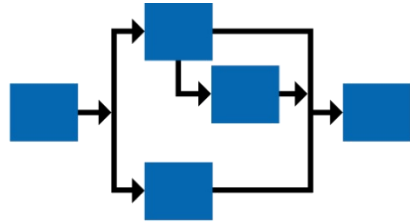
Recommendations by Phase

- Project Execution
 - Make sure everyone understands the “sub phases” and how owner and contractor scopes of work mesh.
 - Work the Plan!!
 - Beware of the impact of change and its direct relationship to increased risk
 - Communicate ..communicate..communicate
 - Acceptance of key deliverables by the client/sponsor
- Project Closeout
 - Turnover of client mandated closeout documents
 - Closeout of the project within the accounting systems of the company
 - Turnover of pertinent information to the Project Assessment organization
 - Archiving of project files

Importance of an improved Capital Project Life Cycle



- Aligns all project participants and stakeholders
- Easily incorporates key gates/milestones where Sr. Management and Executives can participate in the decision making process
- Increases the quality of the project deliverables and reduces the costs



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- Thanks for Coming
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