

PROJECT MANAGEMENT CONCLAVE, 2018

Ranchi, June 2-3

Structured Project Management – the key to Project Success

TITLE: PROJECT MANAGEMENT – PRINCIPLES & PRACTICES

Presenter details: Suneet Prakash, Head – Group Projects, ABMCPL



INDEX

- ❑ INTRODUCTION

- ❑ PROJECT LIFE CYCLE BACKGROUND

- ❑ PROJECT MANAGEMENT BEST PRACTICES

- ❑ INDIA PROJECT PITFALLS

- ❑ GOING FORWARD – PM 2.0

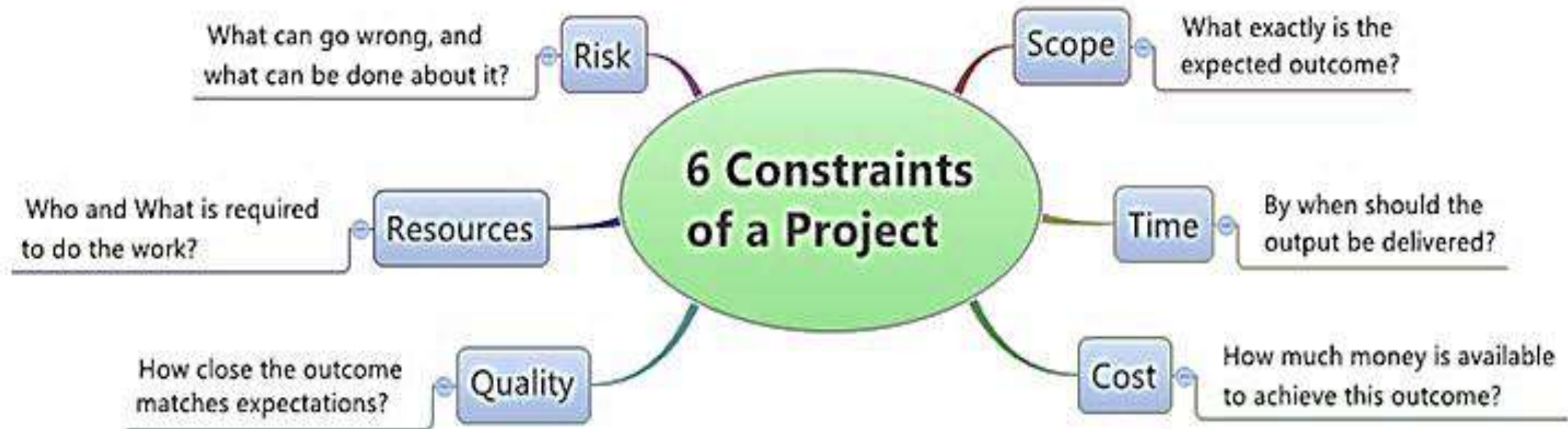
A Project is A TEMPORARY ENDEAVOR undertaken to create A UNIQUE PRODUCT, SERVICE or RESULT!

One or more of the following strategic considerations of an organisation give rise to projects –

- Market demand
- Customer request
- Business need
- Technological advancement
- Statutory and Legal requirement
- CSR



There's always a challenge in a project - "Project Constraints"



Pushing too much in one direction causes problems on the other ... That's why 'Project Management' is so important!

PROJECT MANAGEMENT is the application of KNOWLEDGE, SKILLS, TOOLS & TECHNIQUES to project activities to meet the project requirements!

And the cross-cutting skills and traits of an effective PROJECT MANAGER include ...

- Leadership
- Team building
- Motivation
- **Communication**
- Influencing
- Decision making
- Political & cultural awareness
- Negotiation
- Trust Building
- Conflict Management
- Coaching



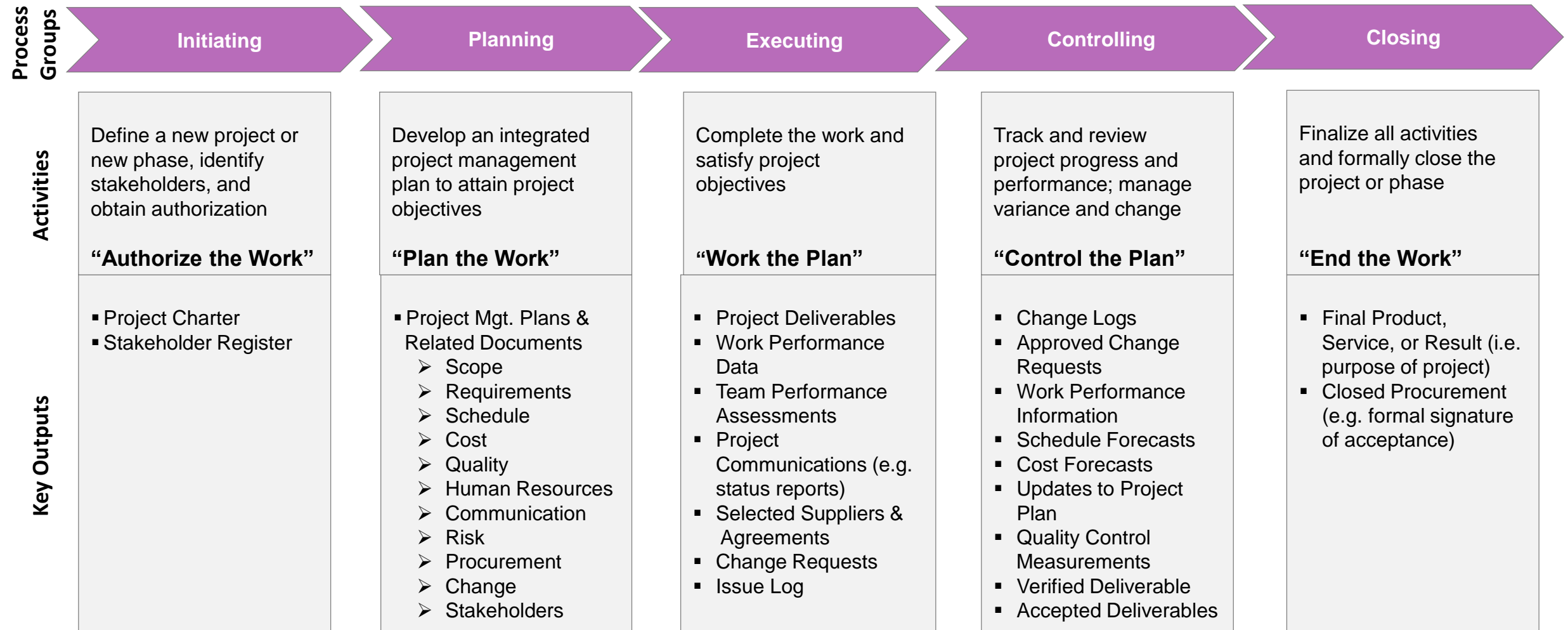
How many projects can
a **PROJECT MANAGER**
handle at one time?



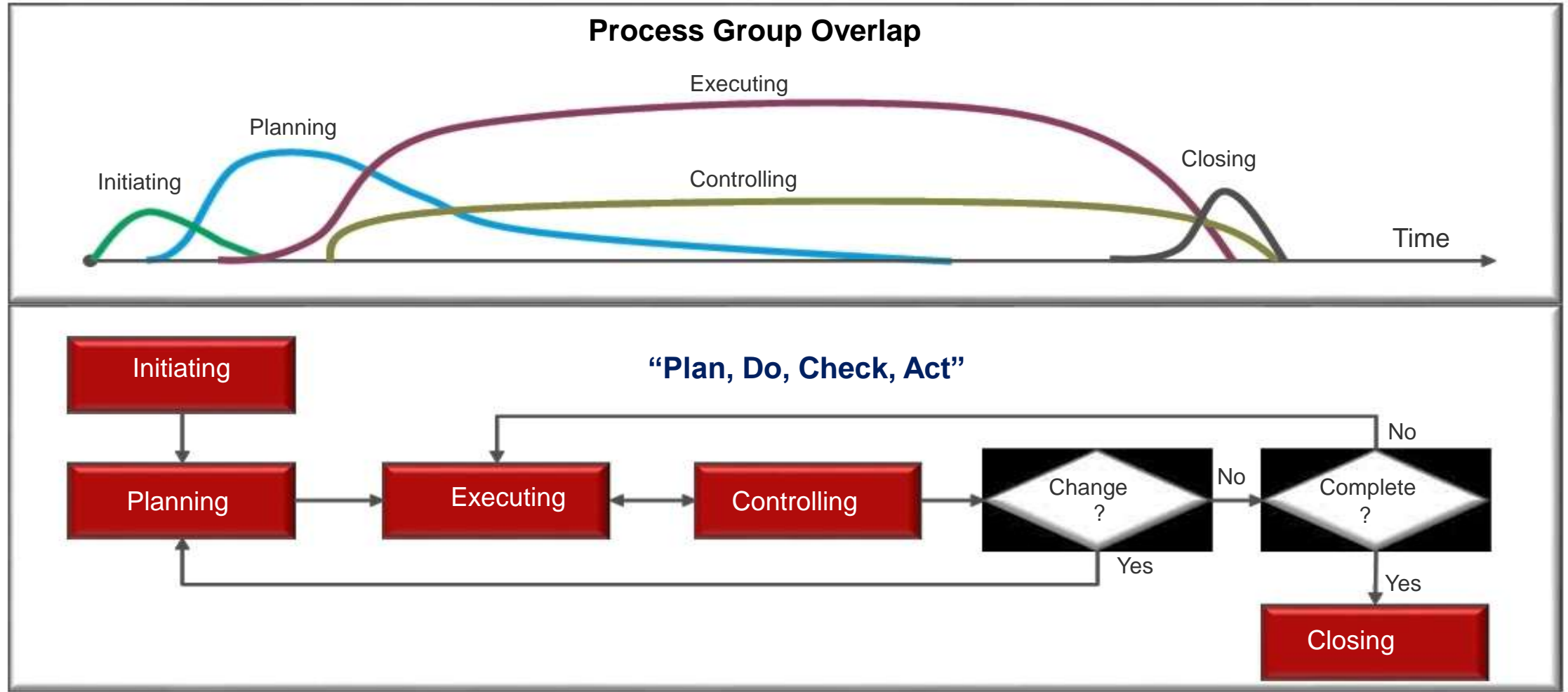
WHAT IS A PROJECT LIFE CYCLE?



A project lifecycle is a logical grouping of activities, inputs, tools, techniques and outputs in a project.



The five process groups overlap and follow a basic cycle of “plan, do, check, act” until project closure.



**How do you work
with people not
familiar with PROJECT
MANAGEMENT
practices?**

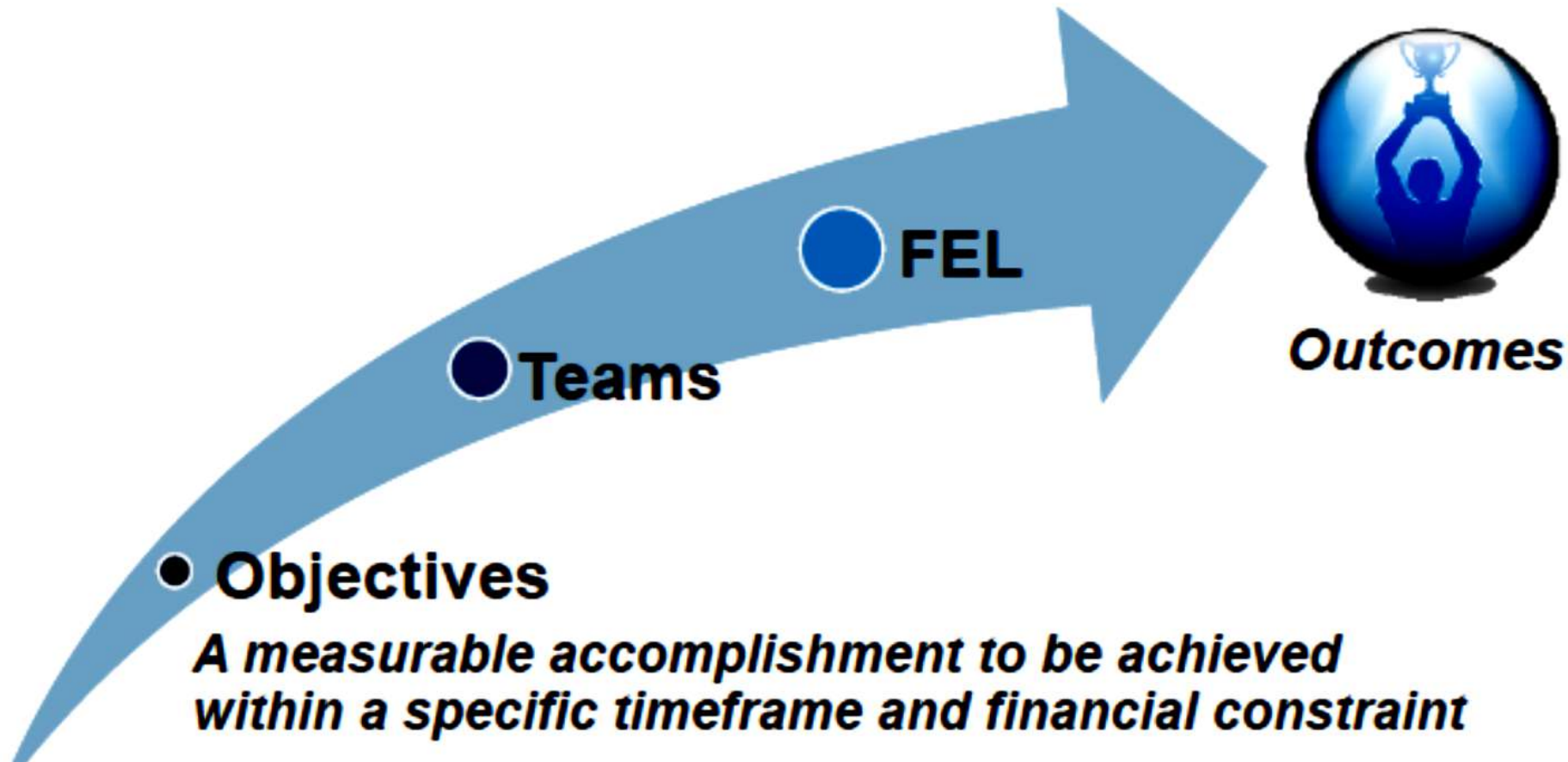


WHAT ARE THE PROJECT MANAGEMENT BEST PRACTICES?

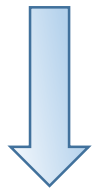




CLEAR OBJECTIVES SHOULD START THE PROCESS



FRONT-END LOADING PHASES



**Business & Project
Team Interface**



**Full-Funds
Authorization**



FRONT-END LOADING (FEL)

Also referred to as *pre-project planning (PPP)*, *front-end engineering design (FEED)*, *feasibility analysis*, *conceptual planning* and *early project planning*.

FEL is the process by which an organization translates its opportunities into capital projects

The key elements of FEL include –

- Alignment of all functions with regard to business & project objectives and scope
- Delivery of a set of detailed design documents that incorporate site-specific conditions
- Creating a plan for executing the project

The FEL process starts at the formation of the core team and ends at full-funds authorization



BENEFITS OF FRONT-END LOADING

Early in the project, the final outcomes can be influenced at relatively low cost by -

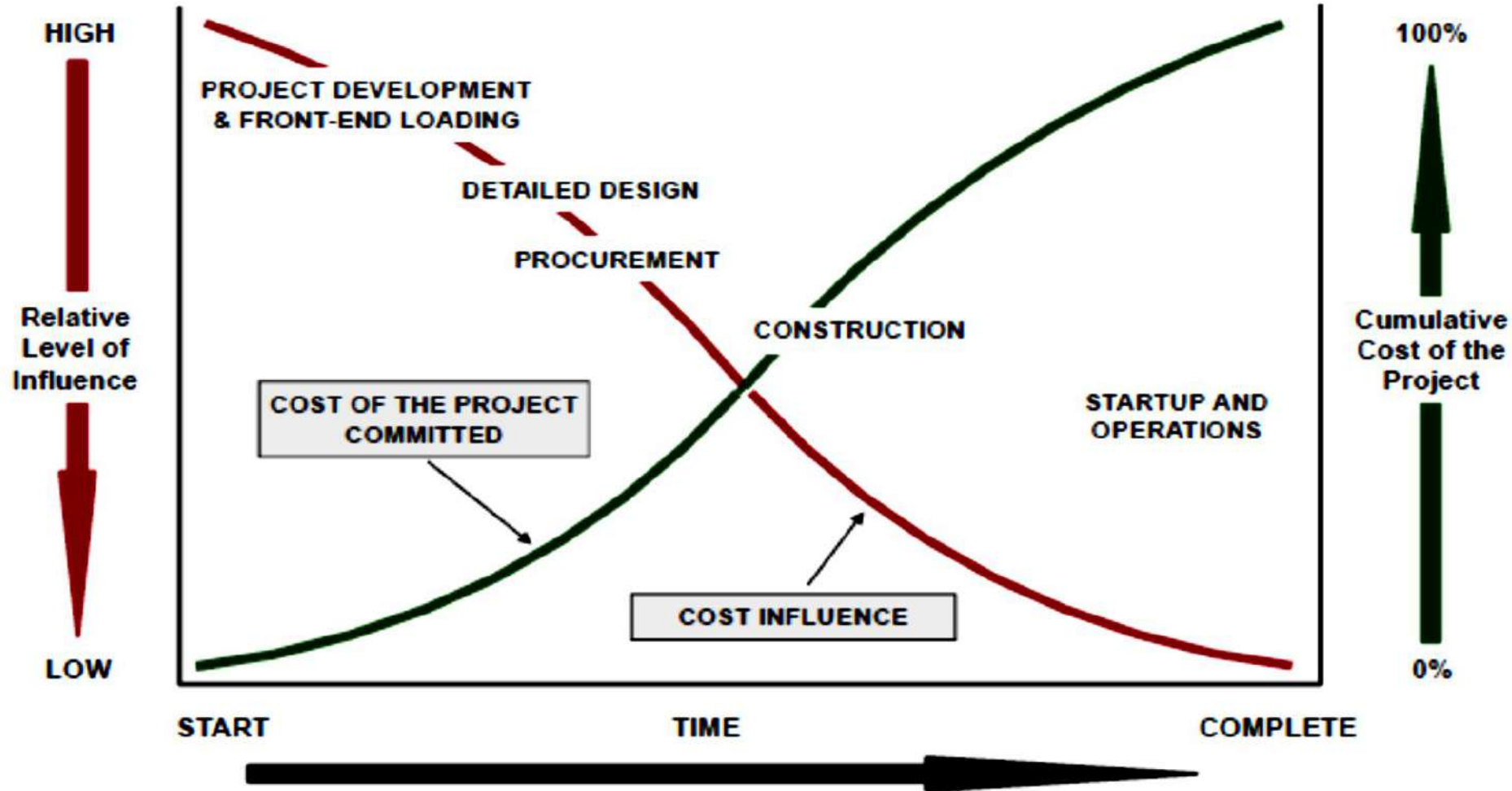
- Selecting the best projects
- Eliminating the wrong projects
- Selecting the best technology
- Selecting the most appropriate scope of work



The work done at the start of a project has a direct effect on how well the project turns out

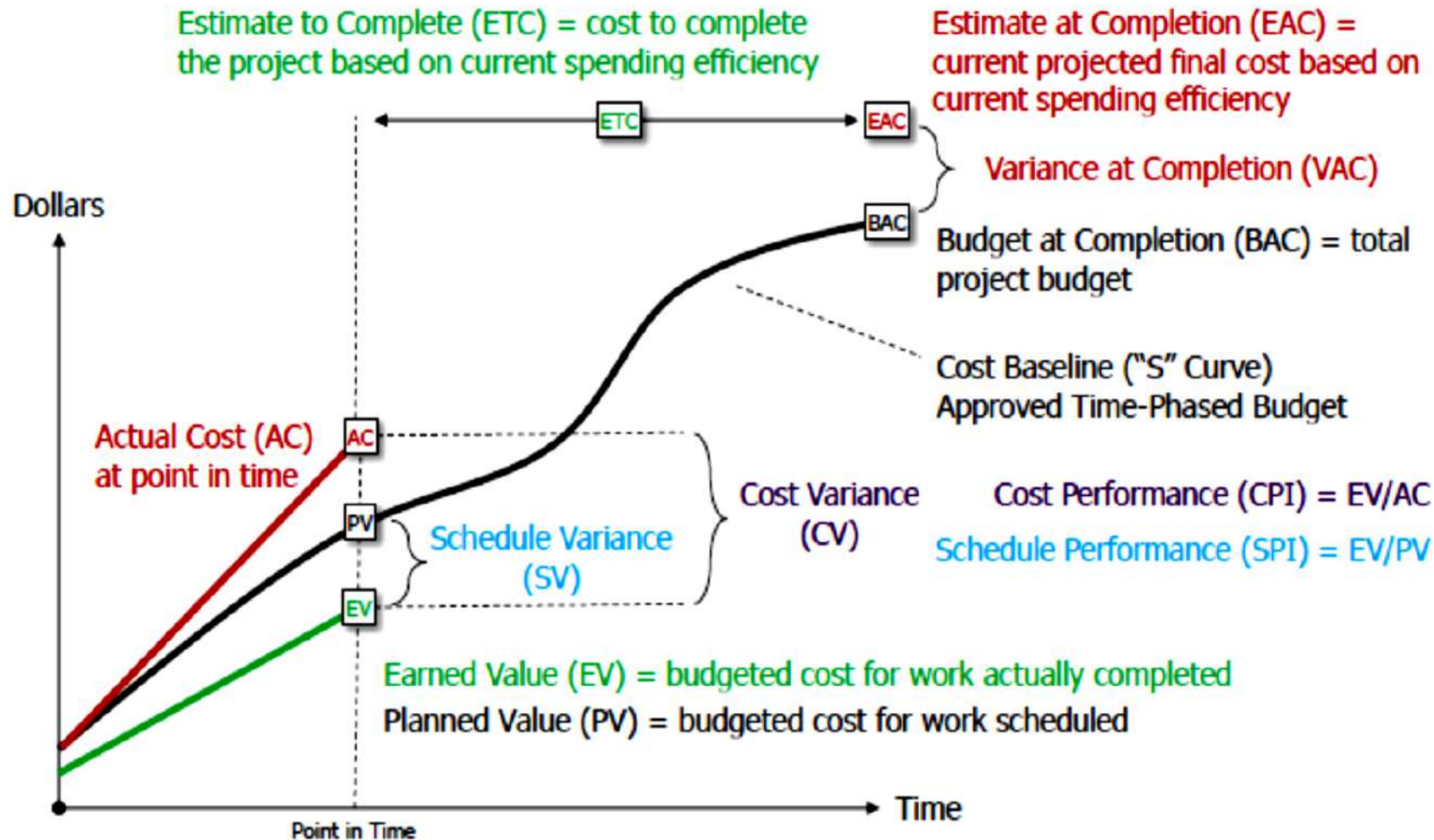
- Better planning drives better outcomes
- “Best Practices” help to improve safety, cost & schedule competitiveness, predictability and operability

COST INFLUENCE CURVE



Most Influential Project Decisions Are Made Early

Earned Value Management (EVM) - means of measuring project cost and schedule vs. the plan.



EFFICIENT QUALITY MANAGEMENT

Plan Quality Techniques

- Cost benefit analysis
- Cost of quality
- Benchmarking
- Design of experiments
- Seven quality tools
- Statistical sampling

Perform Quality Assurance Techniques

- Quality management and control tools
- Quality audits
- Process analysis

Perform Quality Control Techniques

- Statistical sampling
- Inspection
- 7 Quality tools & techniques
 - √ Cause & effect diagram
 - √ Flowcharts
 - √ Check sheets
 - √ Pareto diagrams
 - √ Histogram
 - √ Control charts
 - √ Scatter diagram

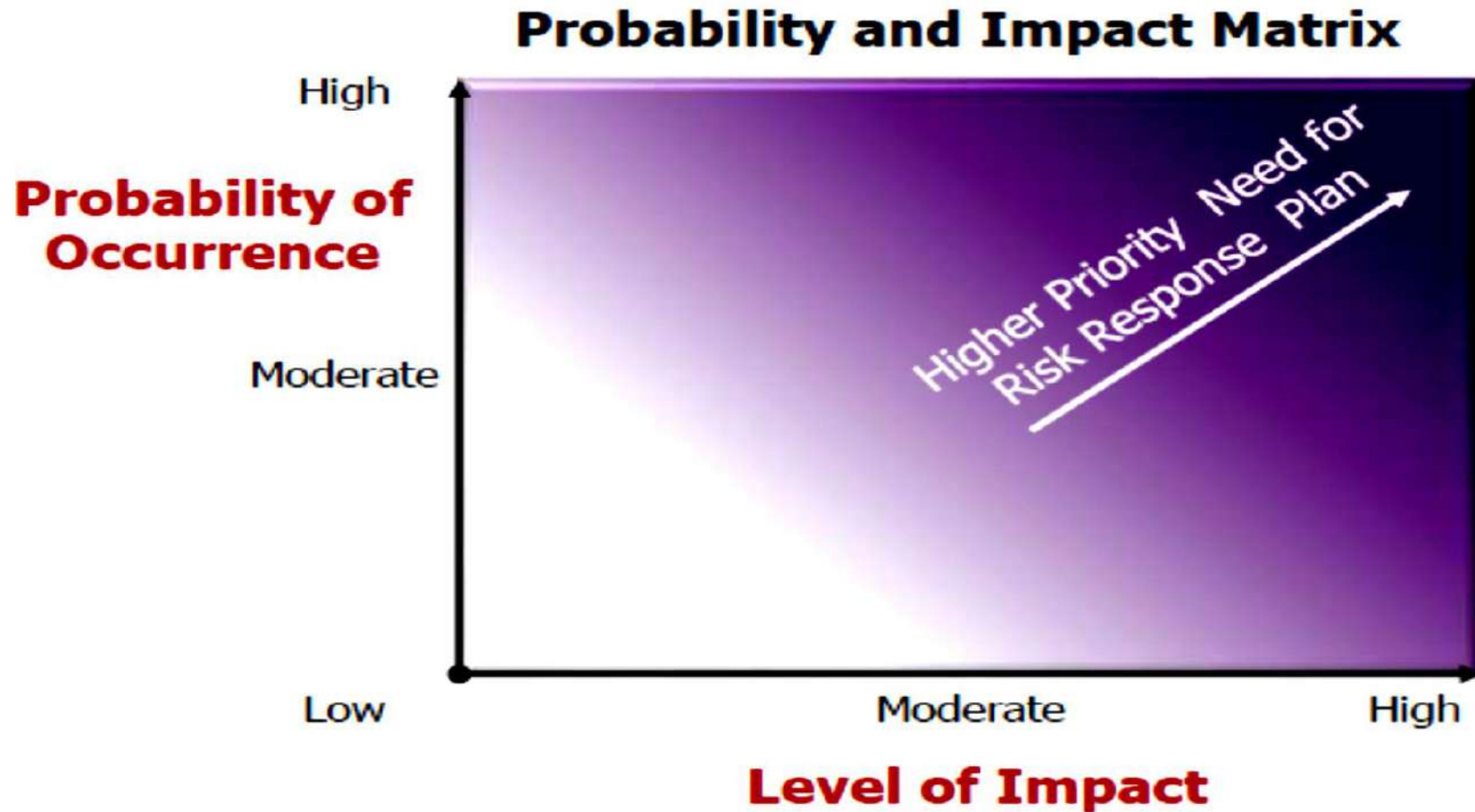


RACI MATRIX

Activity	Sponsor	Unit Head	Head - Projects	Project Manager	Planning Manager	Construction Manager	QA Manager	SHE Manager	Business CFO	Engineering Manager	Materials Manager	Contracts Manager
Define Project Objective	A	C	R	I								
Prepare PEP		C	A	R	I	I	I	I	I	I	I	I
Appoint Project Team	C	C	A	R								
Organize Kick-off Meeting		C	A	R	I	I	I	I	I	I	I	I
Prepare Project Baseline	I	C	A	R	C	C	C	C	I	C	C	C
Legend												
R: Responsible												
A: Accountable												
C: Consult												
I: Inform												



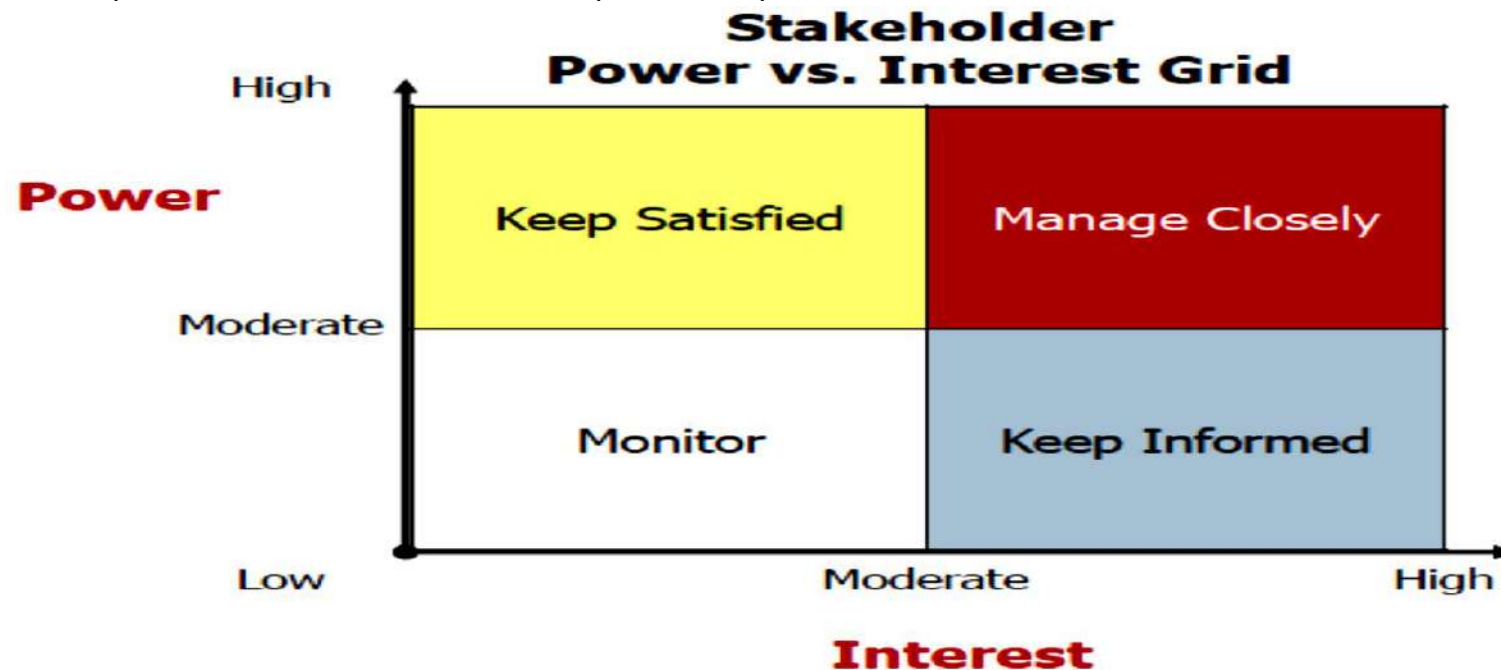
PROJECT PROBABILITY & IMPACT MATRIX



EFFICIENT STAKEHOLDER MANAGEMENT

Critical to project success to identify stakeholders, address their requirements, meet their expectations, and foster their engagement.

All stakeholders are different and, therefore, need to be managed differently based on their relative authority (power) and level of concern (interest).



GROWING IMPORTANCE OF 'PMO'

Project Office	Basic PMO	Standard PMO	Advanced PMO	Center of Excellence
Manage the preferred project team structure	<p>Establish essential project roles and relationships</p> <ul style="list-style-type: none"> ➤ Specify standard roles for project team members ➤ Facilitate internal business unit relationships ➤ Identify project stakeholders 	<p>Introduce PM structure</p> <ul style="list-style-type: none"> ➤ Evaluate PM structure options ➤ Implement preferred project team structure ➤ Implement preferred PMO staffing structure 	<p>Expand PM and business alignment</p> <ul style="list-style-type: none"> ➤ Develop PMO organizational alignment ➤ Align project managers with PMO ➤ Manage broader stakeholder alignment and participation 	<p>Review and analyze project organization and structure</p> <ul style="list-style-type: none"> ➤ Analyze effectiveness of PM organization ➤ Examine effectiveness of project team structure ➤ Identify capability associated with current structure

Front-End Loading

Detailed Engineering

Construction

Startup and Operations

Front-End Loading

Detailed Engineering

Construction

Startup and Operations

FEL Period Risks -

- Land acquisition
- "Value Engineering" to reduce CAPEX
- Permitting problems
- Delay in authorization due to cost or high cost bids

Procurement Period Risks -

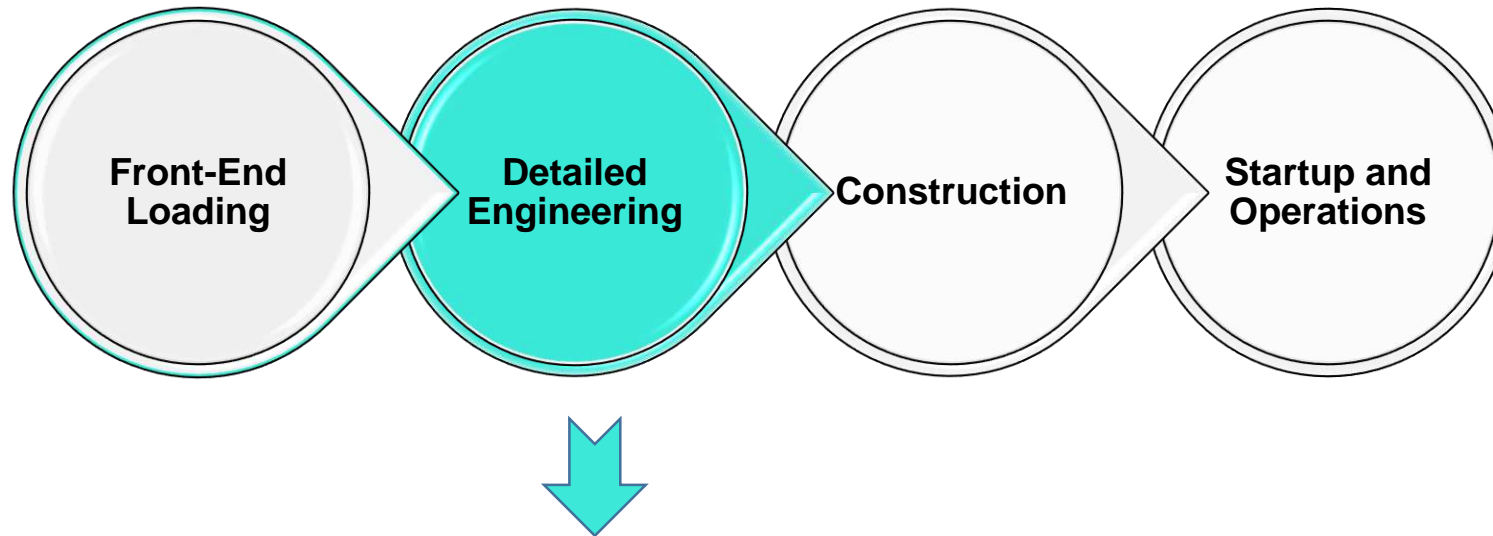
- Delay in ordering
- Delay in engineering
- Commercial issues with vendors and sub-vendors, vendor shop loading, and materials quality

Front-End Loading

Detailed
Engineering

Construction

Startup and Operations



Detailed Engineering Risks

- Insufficient manpower (including slow ramp-up)
- Poor engineering quality (lots of re-work/rejects)
- Delay in vendor input, resulting in engineering delay
- Lack of proper communication protocol; communication issues that lead to errors
- Resolving any engineering issues may take longer than anticipated due to the multiple geographical areas and interfaces
- Lack of clear interfaces between EPC contractors
- Delay in release of construction packages (i.e., delay in mobilization)

Front-End Loading

Detailed
Engineering

Construction

Startup and Operations

Front-End
Loading

Detailed
Engineering

Construction

Startup and
Operations

Construction Risks

- Lack of skilled labor
- Construction labor turnover
- Safety
- Weather conditions—hot, severe monsoons, etc.
- Availability of construction materials: cement, structural steel, aggregate, etc.
- Availability and mobilization of construction equipment (e.g., heavy lift cranes, piling equipment, etc.)
- Construction labor strikes/protests
- Local community issues

Front-End Loading

Detailed
Engineering

Construction

Startup and Operations

Front-End
Loading

Detailed
Engineering

Construction

Startup and
Operations

Commissioning, Installation, and Startup

- Concerns over necessary raw materials/utilities, including steam/nitrogen/ oxygen/ cooling water/demineralized water/air/power
- Availability of the licensor personnel and equipment vendors
- Lack of SOP/operating manuals
- Poor quality of pre-commissioning
- Poor planning leads to poor sequencing of startup activities
- Availability of trained personnel for commissioning

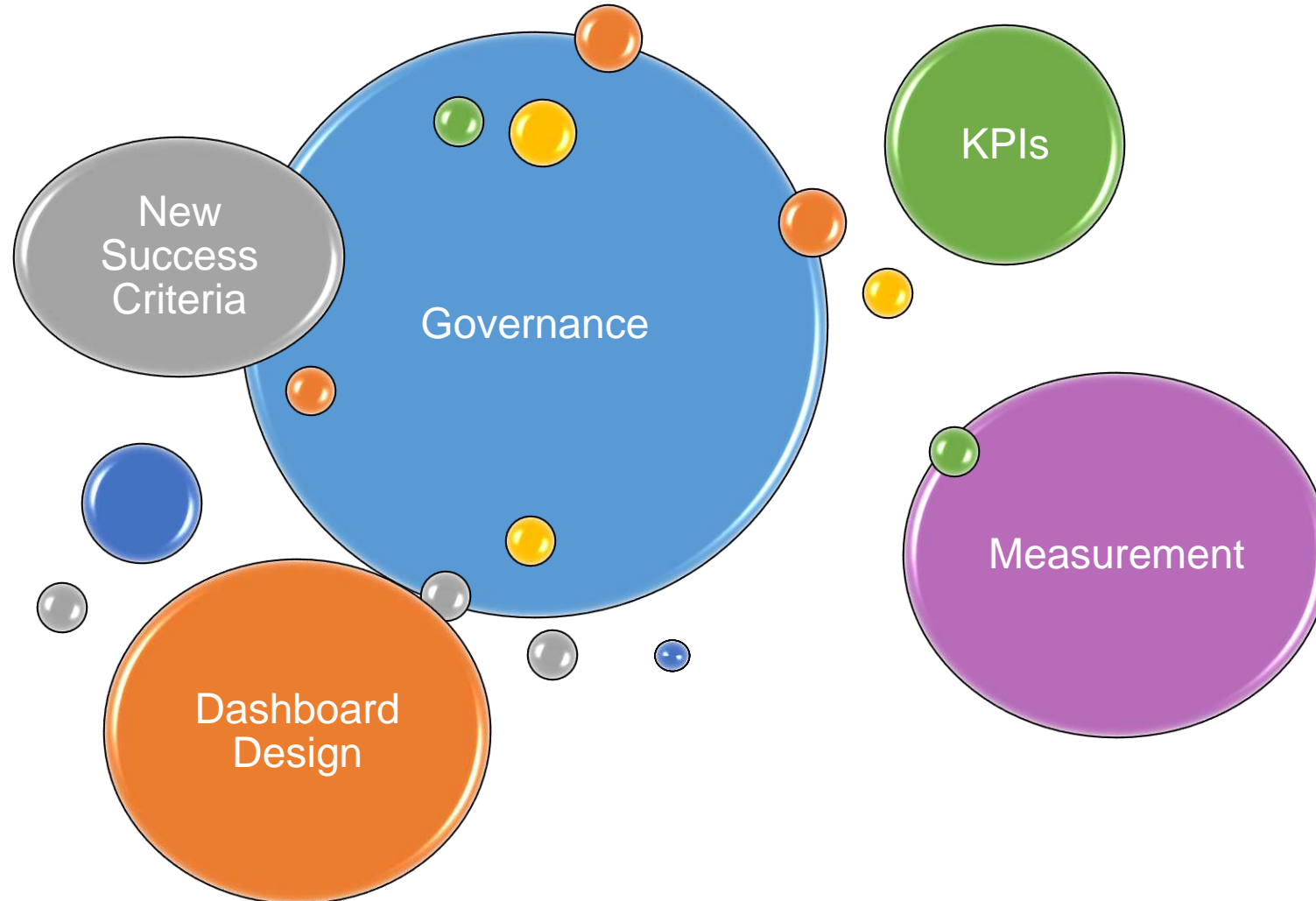
GOING FORWARD – WHAT NEXT?



Factor	PM 1.0	PM 2.0
Project approval process	Minimal PM involvement	Mandatory PM involvement
Project types	Operational	Operational + Strategic
Planning	Centralised	De-centralised
WBS development	Top down	Bottom up
Definition of success	Time, Cost & Scope	Business value creation
Activity work flow	In series	In parallel
Access to information	Localised & Restricted	Live, unlimited & globalised

Factor	PM 1.0	PM 2.0
Communication media	Reports	Dashboard
Role of software	As needed	Mandatory
Contract type	Firm fixed price	Cost reimbursable
Decision making	By PM	By the team
Project health checks	Optional	Mandatory
Access to stakeholders	At selected intervals	Continuous
Customer involvement	Optional	Mandatory
PM education	Not necessary	Necessary

FUTURE TRENDS IN PROJECT MANAGEMENT



Thank you

