Project Management Overview

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MODULE OBJECTIVES

AT THE END OF THE OVERVIEW…

You would need to be able to :

- *Identify a project*
- *Differentiate between Project Management Processes and the SDLC*
- *List the tasks and responsibilities of the project manager*
- *Understand the contributing factors of success*

The Concept of Project

+ Definition of Project

+ Other related concepts

01

CHARACTERISTICS THAT DEFINE A PROJECT

Each of these were projects from different times and industries. Despite the elements of time and space, they remain true to the present definition of project.

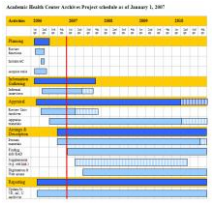
Try identifying the characteristics that define a project

A temporary endeavor undertaken to create a unique product, service, or result

5th Edition (PMBOK® Guide) ©2013

WHAT IS PROJECT MANAGEMENT

Applying tools and techniques to project activities to meet project requirements



Tools & Techniques

Example :

- WBS
- Scheduling
- Risk Analysis
- Stakeholder Analysis
- Cost Benefit Analysis

Project Activities

Example :

- Requirements analysis
- Acceptance testing
- Performance testing
- Coding
- Purchasing hardware

Meet Requirements

Example :

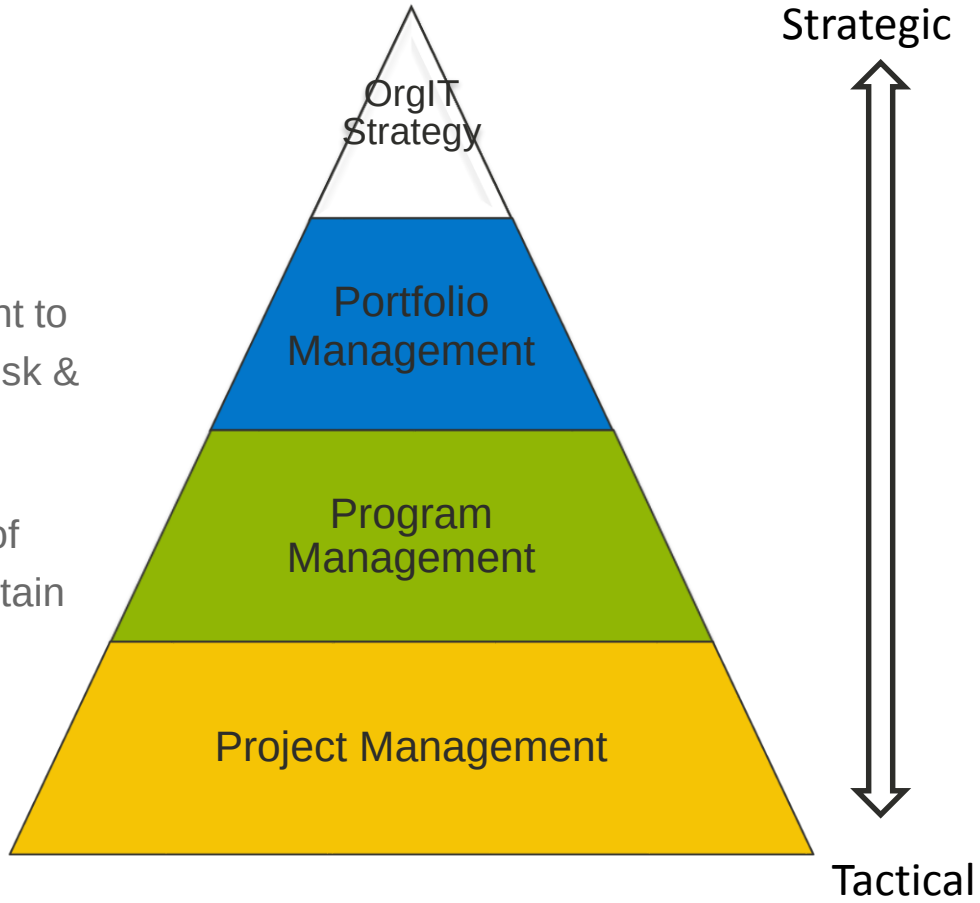
- User friendly MMI
- Mobile deployable
- Up time of 99.99%
- 24 X 7

CONCEPTS RELATING TO PROJECTS

Projects do not exist in isolation but as part of a larger ecosystem that is aimed at delivering benefits to meet the strategic objectives of the business

Portfolio Management - Centralized management of a group of projects or programs to facilitate effective management to meet strategic business objectives (E.g. Risk & Returns)

Program Management - Manage a group of related projects in a coordinated way to obtain benefits and control not available from managing them individually. (Source: PMBOK® Guide)



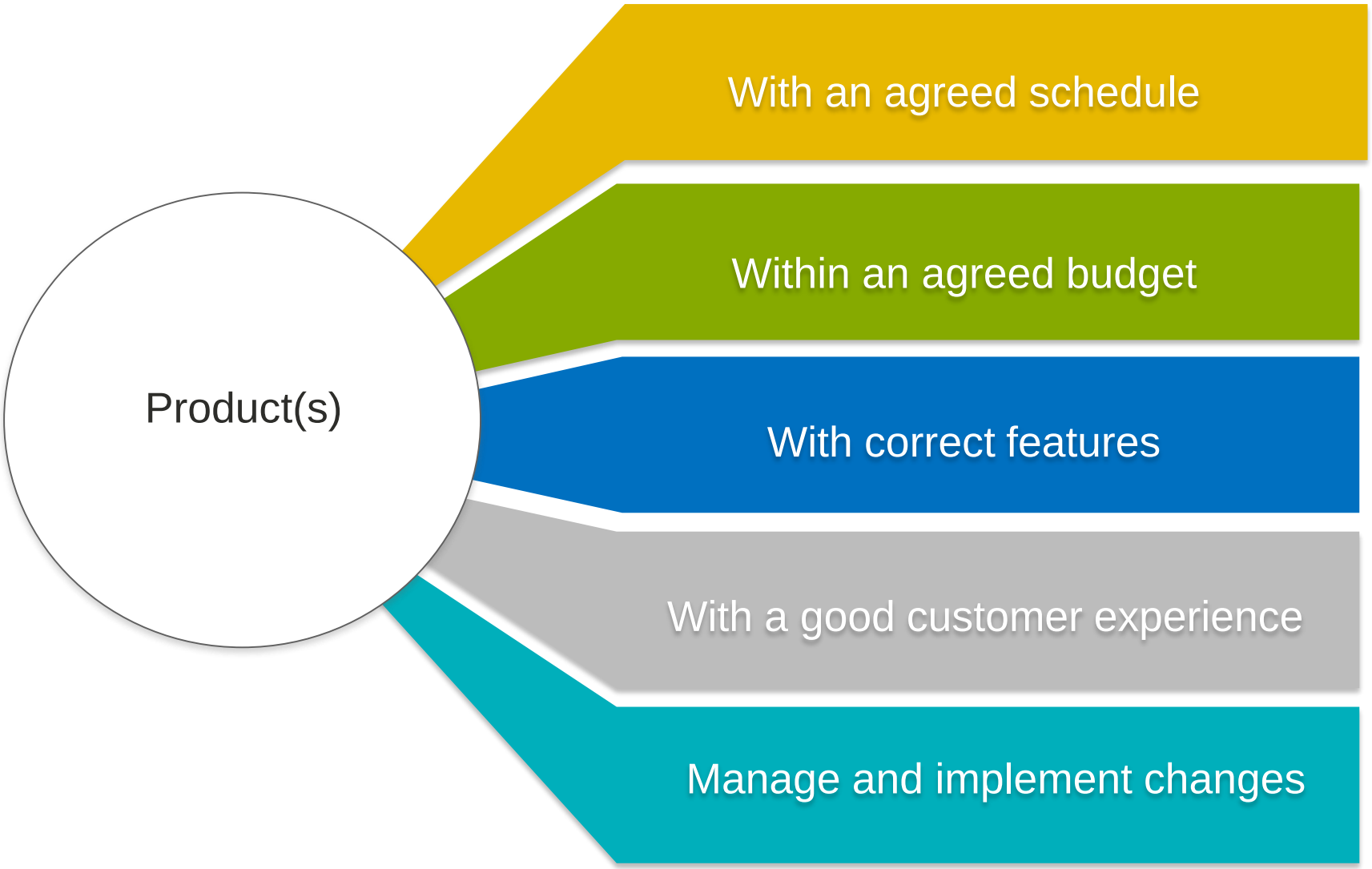
The Aims of Project Management

+ What do we want to achieve

+ What do we manage

02

DELIVER TO CUSTOMER



WHAT IS "MANAGED" IN A PROJECT?

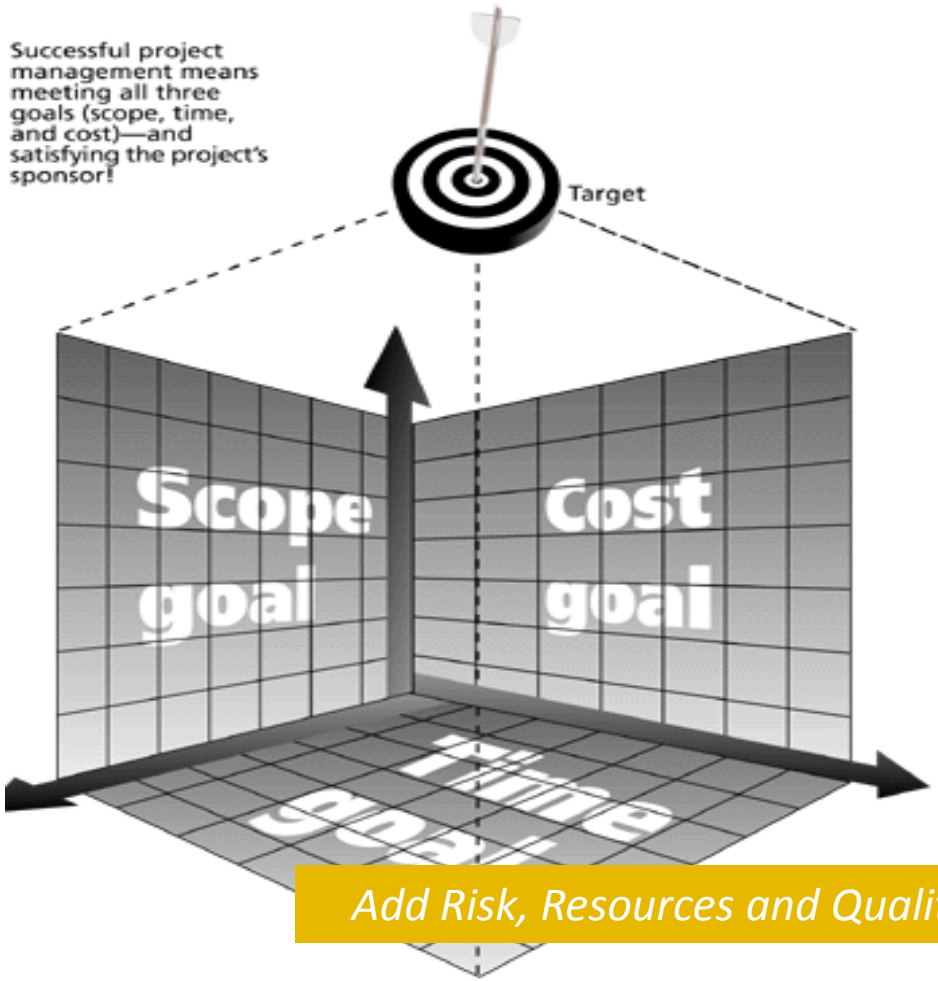
Project Management KPIs are pegged to the schedule, scope and cost.

Constraints are boundaries placed on the project. Eg. a budget, a deadline

Other constraints : Risk, Resources and Quality.

What other constraints can you think of?

The "Triple Constraints"



Add Risk, Resources and Quality!

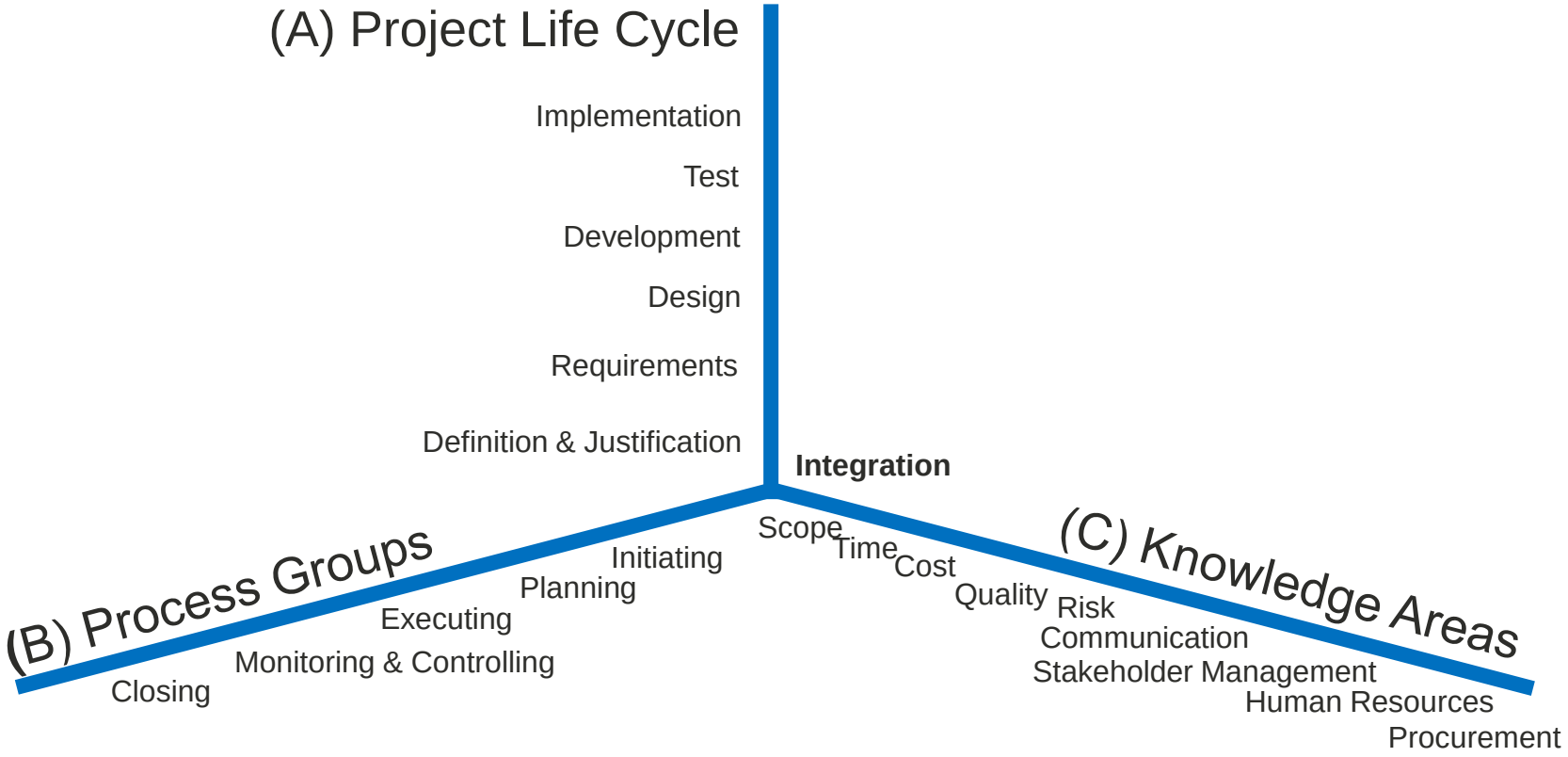
The 3 Dimensions of Project Management

+ *Project Life Cycle*
+ *Project Management Processes*
+ *Areas of Responsibility*

03

THE 3 DIMENSIONS

The project life cycle, project management processes and the knowledge areas are the three dimensions that a project manager needs to know to deliver a project.



PROJECT LIFE CYCLE

Project Life Cycle

The collection of project phases (concept, development, implementation and close-out)

Applies to all projects regardless of the products being created.

Primary purpose of life cycle

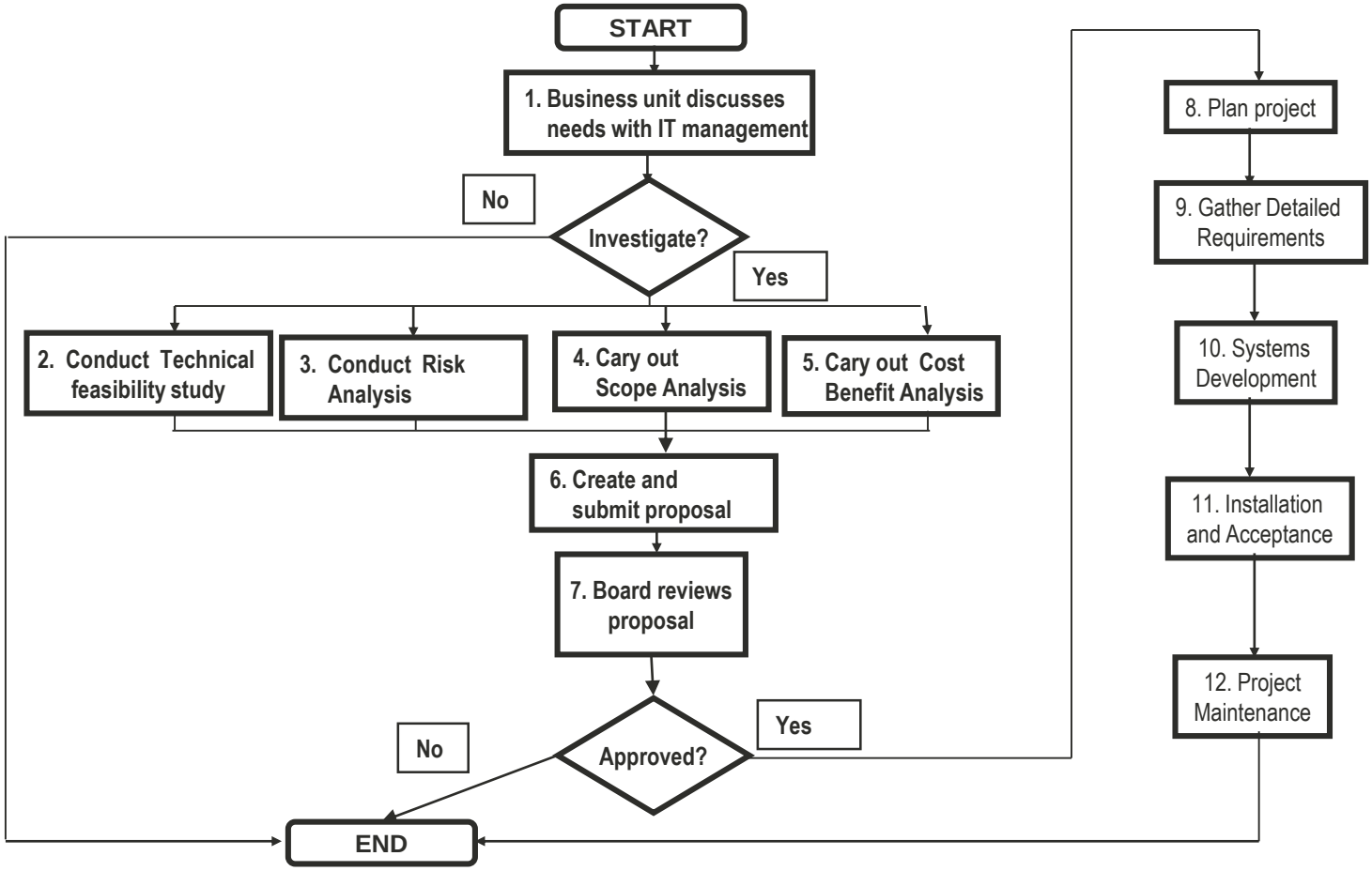
To provide a consistent and effective approach for undertaking projects

Systems/Software Development Life Cycle (SDLC)

A framework for describing the phases involved in developing and maintaining information systems.

PROJECT LIFE CYCLE

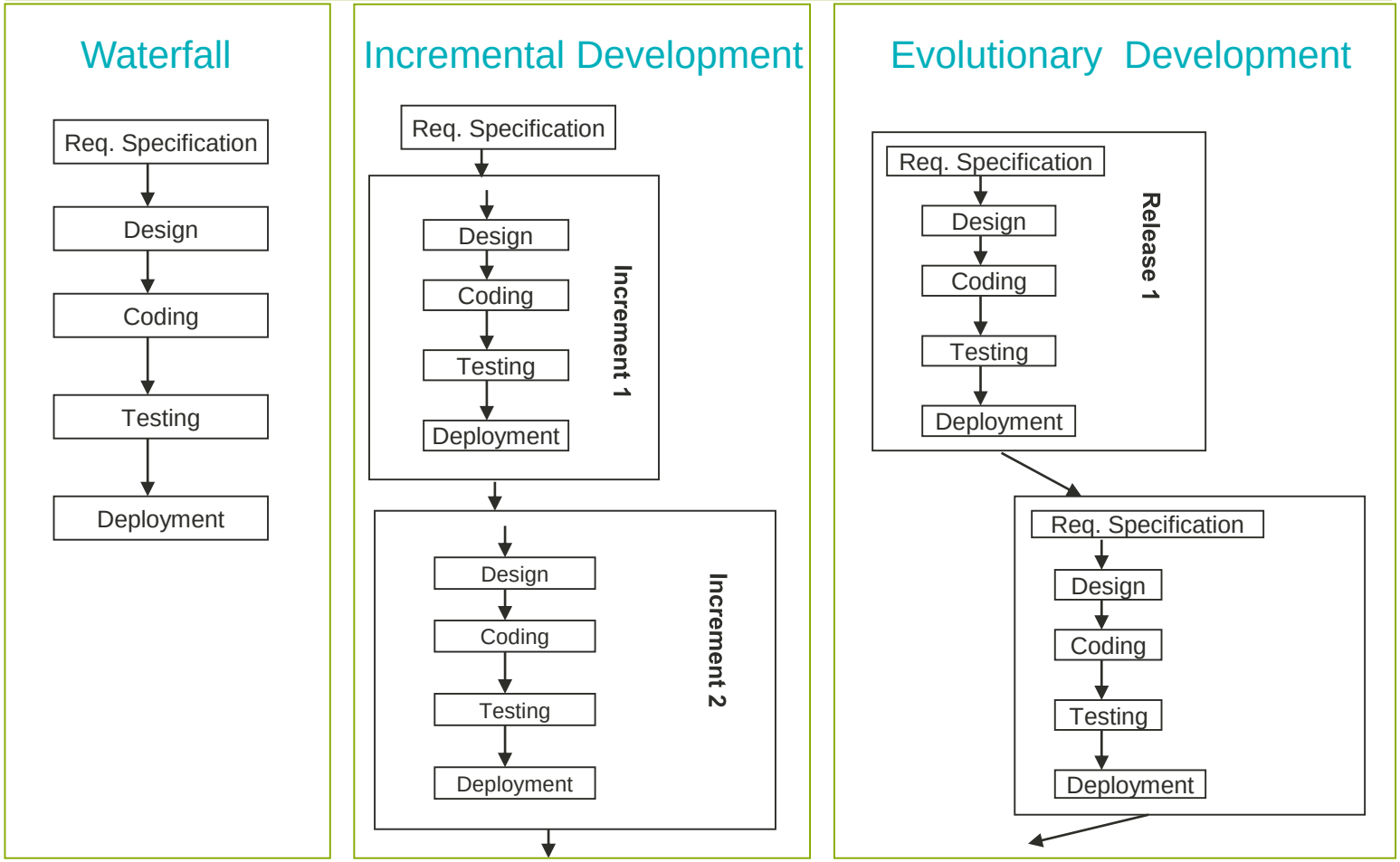
The collection of project phases (concept, development, implementation and close-out)



GENERIC SOFTWARE DEVELOPMENT LIFECYCLES (SDLC)

Plan Driven — Iterative — Adaptive

Agility



AGILE MANIFESTO AND THE PRINCIPLES

Individuals and interactions/ processes and tools

Working software / comprehensive documentation

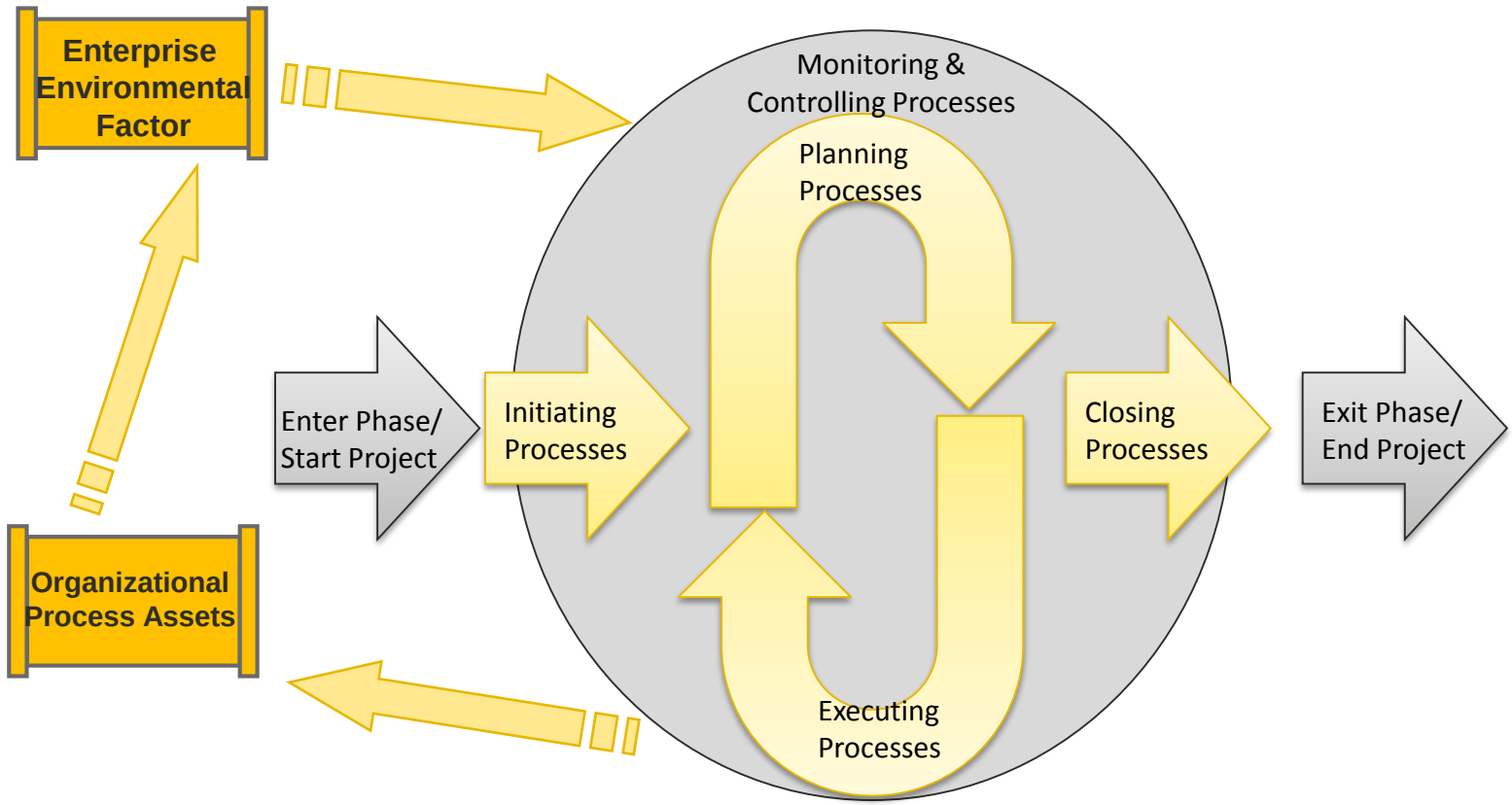
Customer collaboration /contract negotiation

Responding to change /following a plan

1. *Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.*
2. *Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.*
3. *Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.*
4. *Business people and developers must work together daily throughout the project.*
5. *Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.*
6. *The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.*
7. *Working software is the primary measure of progress.*
8. *Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.*
9. *Continuous attention to technical excellence and good design enhances agility.*
10. *Simplicity--the art of maximizing the amount of work not done--is essential.*
11. *The best architectures, requirements, and designs emerge from self-organizing teams.*
12. *At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.*

PROJECT MANAGEMENT PROCESS GROUPS(B)

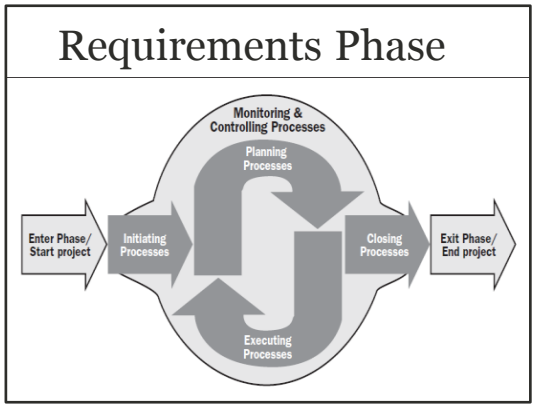
The Project Management Model can be viewed as a number of interlinked process groups:

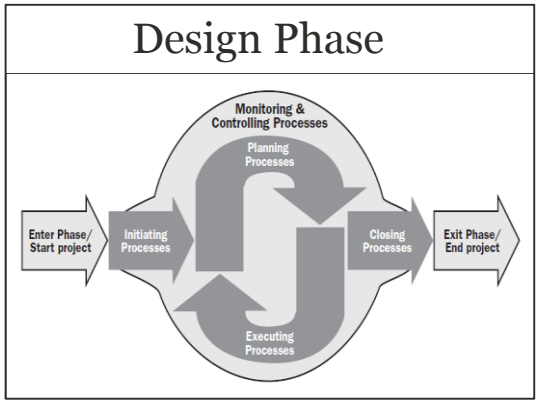


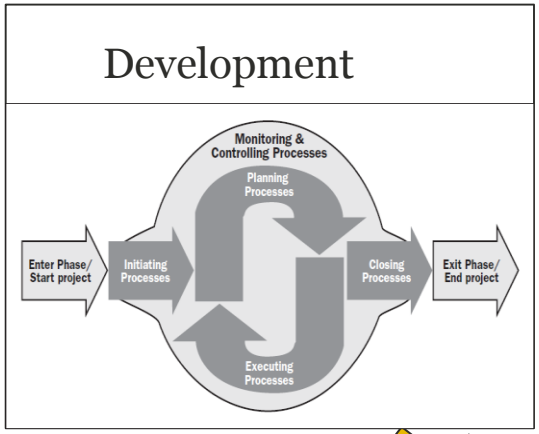
Source: PMI, Project Management Body of Knowledge (PMBOK Guide), Fifth Edition

PROJECT MANAGEMENT IS AN ITERATIVE PROCESS

Prior Phases...

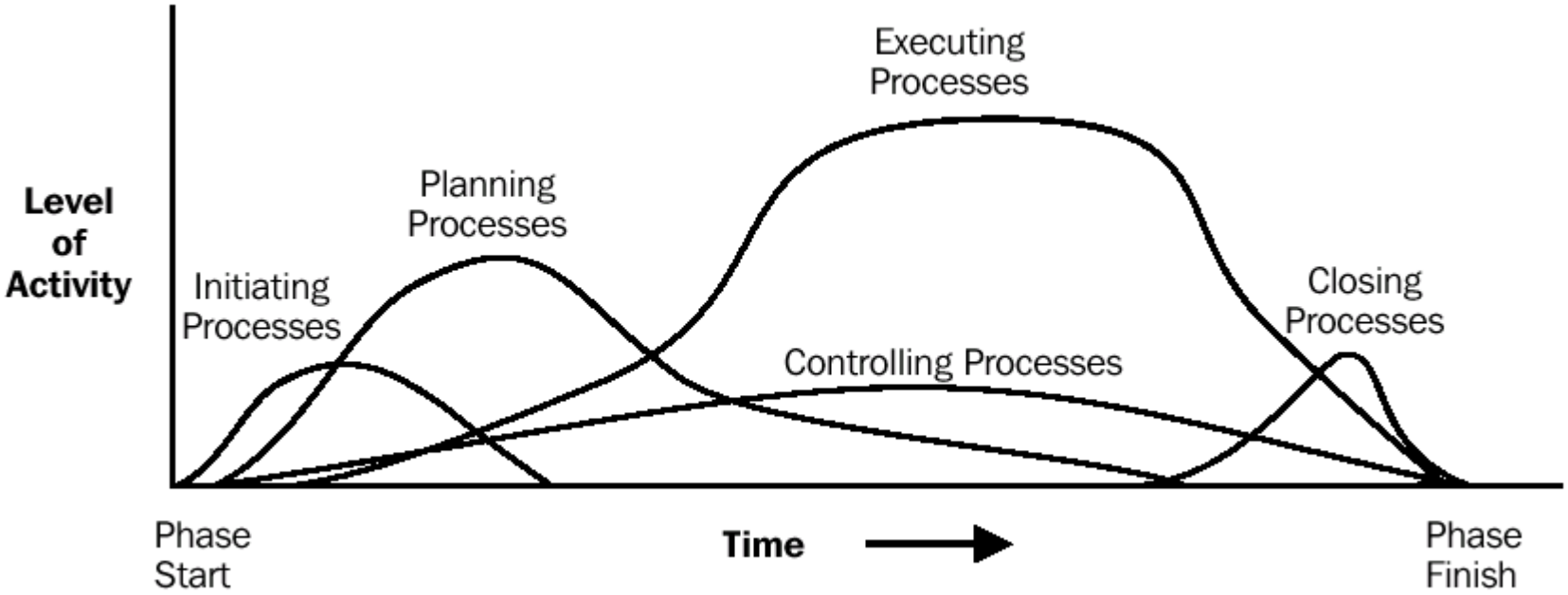






Subsequent Phases...

OVERLAP OF PROJECT MANAGEMENT PROCESS GROUPS



PM PROCESS GROUPS – A SUMMARY

Process Group /purpose	Process and outputs	Decisions
Initiating: To get commitment for the project	Stakeholder Analysis - Stakeholder Register Project Charter & Strategy	Implementation Strategy The PM Overall schedule, budget Management Sponsor
Planning: Establish scope, estimates and schedule and course of action to meet objectives	Risk planning and assessment Preparing a Work Breakdown Structure Preparing Cost Estimates Conduct Precedence Analysis Draw up Schedule	Duration of activities Milestones Types of resources Responsibilities of team Project communication protocols Project Organization Structure……..
Executing: Completing the work done according to plan	Co-ordinating people and resources Work deliverables Performance reports Updates to project plans and docs	Trade-offs Manpower Resource assignments

PM PROCESS GROUPS – A SUMMARY

Process Group/purpose	Process and outputs	Decisions
Monitoring and control Track and regulate the progress and performance	Change requests (corrective/preventive actions) Analysing deviations Replanning Updates to project docs	What and when to escalate issues Project termination When to close risks To revise schedule / resources
Closing Finalize all activities to formally close the project/phase	Final signoff Complete documentation Archival of information Close contracts Post Implementation Review Roll-off Personnel Celebrations	To accept the system or not What to carry forward into O&S Rewards

PM KNOWLEDGE AREAS (C)

Scope Management	Time Management	Cost Management	Quality Management
• Plan Scope Management • Collect Requirements • Define Scope • Create WBS • Validate Scope • Control Scope	• Plan Schedule Management • Define Activities • Sequence Activities • Estimate Activity Resources • Estimate Activity Duration • Develop Schedule • Control Schedule	• Plan Cost Management • Estimate Costs • Determine Budget • Control Costs	• Plan Quality Management • Perform Quality Assurance • Control Quality
Project Integration Management			Stakeholder Management
• Develop Project Charter • Develop Project Management Plan • Direct and Manage Project Work • Perform Integrated Change Control • Close of Project or Phase			• Identify Stakeholders • Plan Stakeholder management • Manage Stakeholder Engagement • Control Stakeholder Engagement
Human Resource Management	Communications Management	Risk Management	Procurement Management
• Plan HR management • Acquire Project Team • Develop Project Team • Manage Project Team	• Plan Coms Management • Manage Coms • Control Coms	• Plan Risk Management • Identify Risks • Perform Qualitative Risk analysis • Perform Quantitative Risk Analysis	• Plan Procurement Management • Conduct Procurement • Control Procurement • Close Procurement

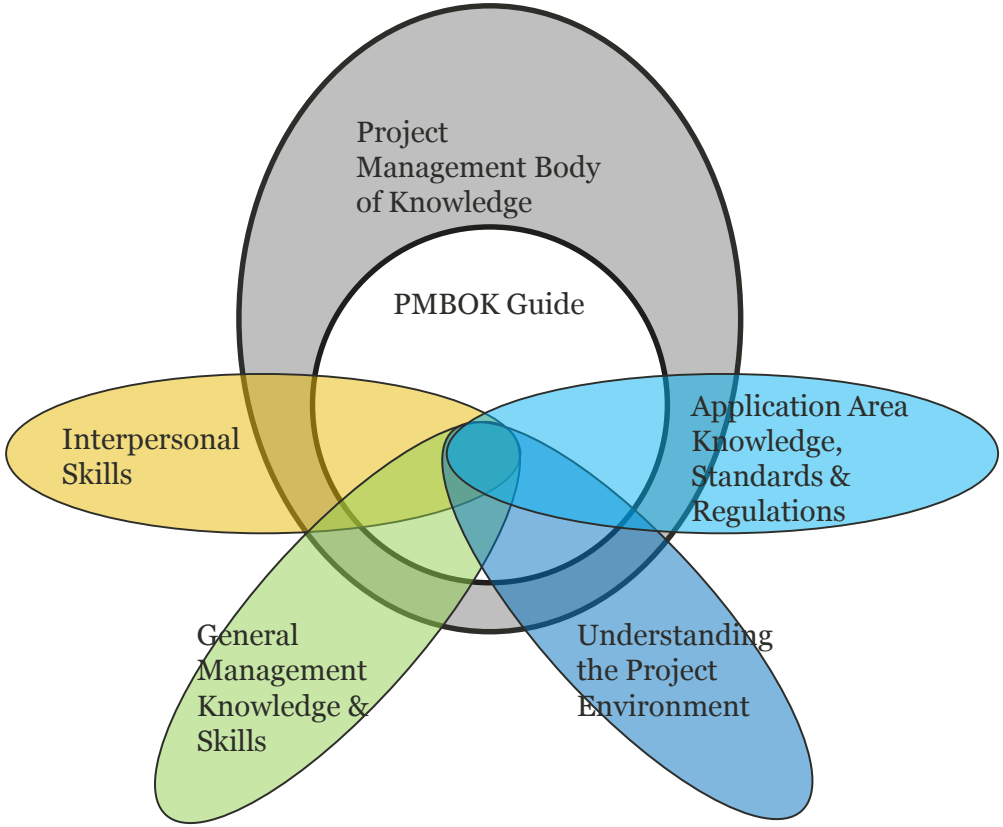
PM AREAS OF EXPERTISE

Much of the knowledge needed to manage projects is unique to PM

However, project managers must also have some knowledge and experience in

- *Interpersonal skills*
- *General management*
- *The application / business domain*
- *The project environment*

Project managers must focus on meeting specific project (business) objectives by integrating various activities.



Success and Failure

04

WHY DO PROJECTS FAIL?

The Standish Group's CHAOS report on why projects succeed or fail (since 1994)

70,000 projects were categorized into 3 types:

Type 1 – Project Success

- completed on time, on budget with all features and functions as initially specified

Type 2 – Project Challenged

- Completed and operational
- Over-budget, over time estimate
- Fewer features and functions than originally specified

Type 3 – Project Impaired

- Cancelled at some point during development cycle

CHAOS REPORT 2015 – TRADITIONAL RESOLUTION DEFINITION

	2011	2012	2013	2014	2015
Successful	39%	37%	41%	36%	36%
Challenged	39%	46%	40%	47%	45%
Failed	22%	17%	19%	17%	19%

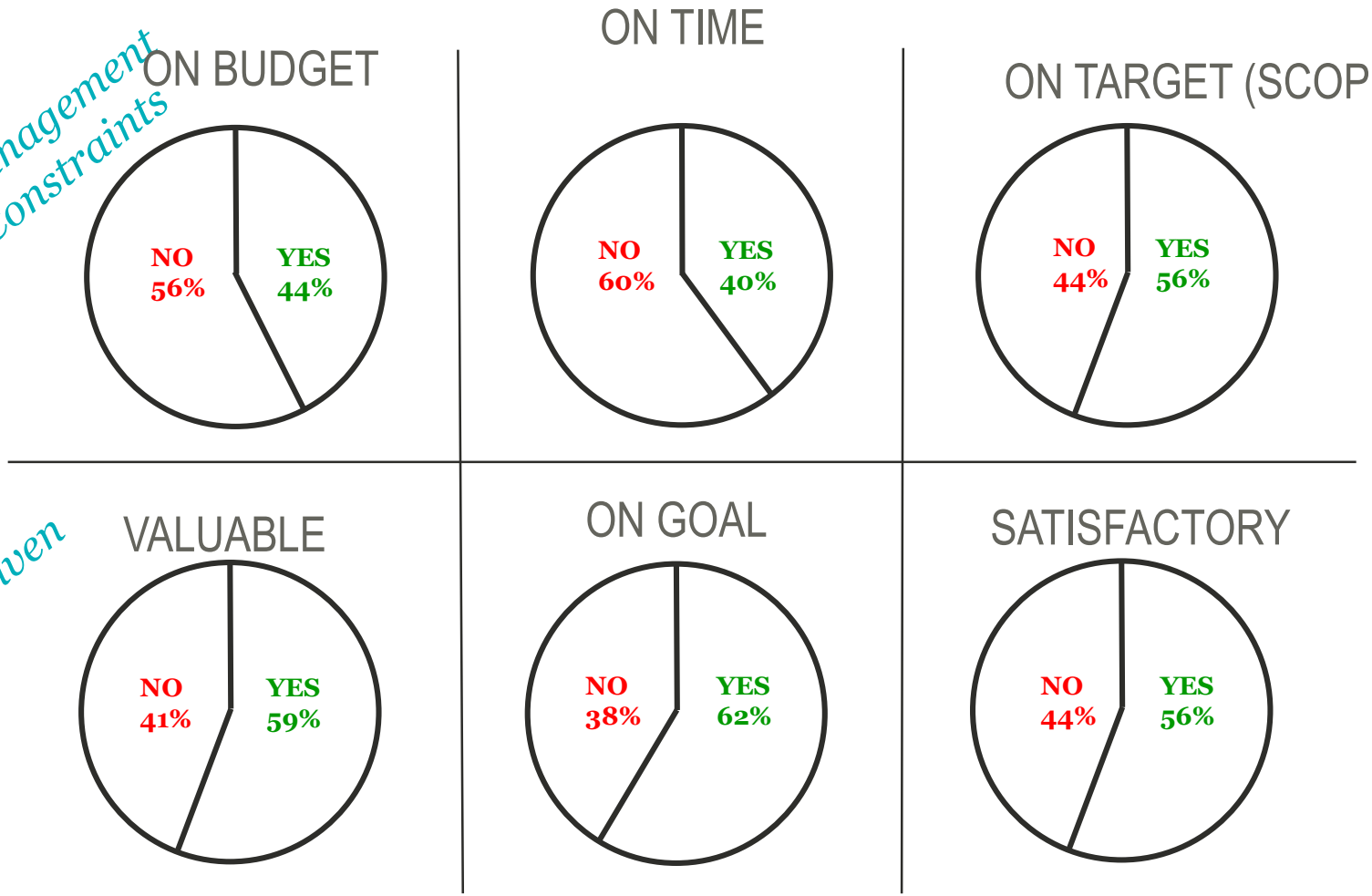
Source: Chaos Manifesto 2015

1) *The Traditional resolution of all software projects from FY2011–2015 within the new CHAOS database.*
2) **All data, unless otherwise noted, represents results from FY2011-2015. The total number of software projects is 25,000-plus, with an average of 5,000 per yearly period.*

CHAOS REPORT 2015

Project Management Triple Constraints

Value Driven



Source: Chaos Manifesto 2015 – Standish Group

Source: Chaos Report 2015 – Standish Group

CHAOS FACTORS OF SUCCESS

Factors for Success	Points
Executive Sponsorship	15
Emotional Maturity	15
User Involvement	15
Optimization	15
Skilled Resources	10
Standard Architecture	8
Agile Process	7
Modest Execution	6
Project Management Expertise	5
Clear Business Objectives	4
	100

Degree of influence on project success

Source*: Chaos Manifesto 2015*

Back

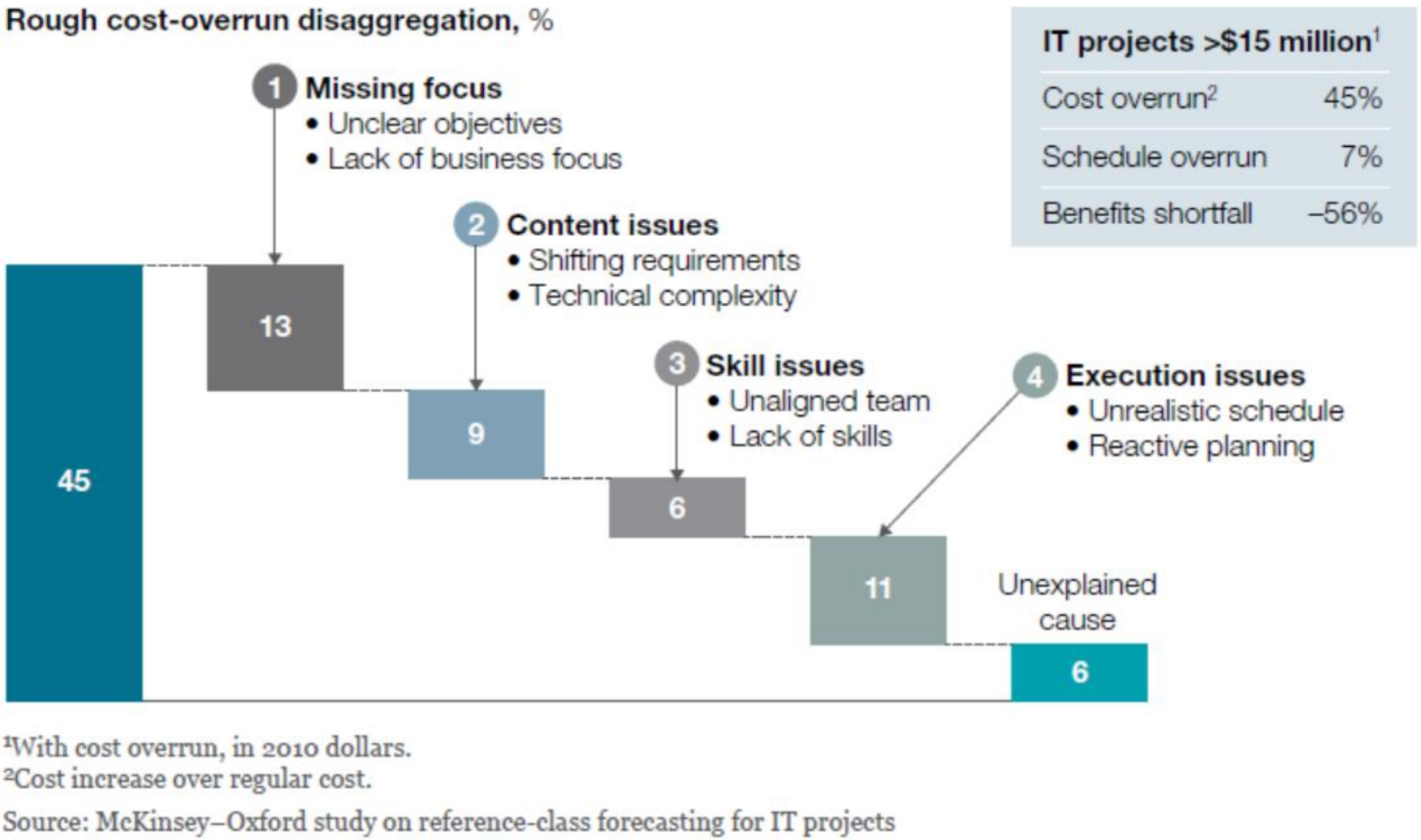
CAUSES OF PROJECT FAILURE

A study conducted by KPMG in 2010 found these causes of software failures:

40%	Scope changes
36%	Resource Competition
33%	Unrealistic deadlines
28%	Unclear Objectives
20%	Uncertain dependencies
19%	Poor communication
19%	Failure to plan
18%	Customers and end users not engaged
16%	Lack of organizational/strategic support (Governance)
14%	Insufficient team skills
10%	Poor cost and scheduling estimation

CAUSES OF PROJECT FAILURE

IT Executives identify 4 groups of issues that cause most project failures.



[1]With cost overrun, in 2010 dollars.
[2]Cost increase over regular cost.

Source: McKinsey–Oxford study on reference-class forecasting for IT projects

WHAT MUST YOU DO TO ENSURE PROJECT SUCCESS?

Understand early User needs and get agreement of user requirements

Gain and retain User and management commitment

Choose an appropriate SDLC

Determine whether a formal Methodology is necessary

Develop a comprehensive project plan early and Monitor against the plan

Modify the plan when necessary

Determine realistic cost estimates

Equip staff with appropriate skills

Establish realistic expectations of project amongst all project team

Accept and manage change

WHAT MAKES A GOOD PROJECT MANAGER?

Knowledge and Skills

Planning

Observation

Communication

Behavioral Traits

Ability to operate in uncertainty

Can the project manager deal with ambiguous goals, risks, undefined responsibilities

Flexible Management Approach

Can the manager change his management style to match the situation?

Motivation

Empathy in combination with Killer Instinct

Credibility

How respected and trusted is the Project manager, by superiors, his team, vendors , and clients

Summary

THE OVERVIEW TAKEAWAY

Takeaway

- Projects are differentiated from BAU (business as usual) as there is specific focus
- To deliver a software project requires a Software Development Life Cycle suited to the project
- PM process are generic and applicable for the entire project and phases within a project
- To manage a project well, there are project management responsibilities which require knowledge and skills. These include hard skills and soft skills.

Project Management Certifications

+ *CITPM*

+ *PMP*

5

THE CITPM CERTIFICATION PROGRAMME

The National IT Skills Certification Programme launched by IDA and SCS in November 1998.

Designed for those who are involved in IT project management and wish to have their competencies assessed

Certification examines the candidate's competence in thirteen areas of IT project management.

Candidates will be assessed through both

Experience and Examination

- CITPM (Associate), CITPM, CITPM (Senior)

Endorsed by: iDA SINGAPORE

Managed by: SCS

Examined by: ISS

THE PROJECT MANAGEMENT INSTITUTE (PMI)

The Project Management Institute was established in 1969 to promote excellence in Project Management.

There are now has 100,000 PMI professionals, representing 125 countries

PMI professionals come from all major industries

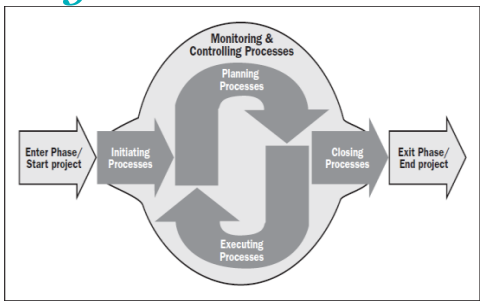
PMI is recognized worldwide

To be qualified as a PMI professional you must

meet specific education and experience requirements

adhere to a code of professional conduct.

Candidates must then sit computer-based multiple-choice examination to assess and measure project management knowledge.



Source: PMBOK Guide, Fourth Edition

SOME USEFUL PM WEBSITES

Project Management Institute
http://www.pmi.org/

Dave Farthing's Software Project Management Website
http://www.comp.glam.ac.uk/pages/staff/dwfarthi/projman.htm

Michael Greer's Project Management Resources
http://www.michaelgreer.com/

Ten Step Project Management Process
http://www.tenstep.com/

PM Boulevard
http://www.pmblvd.com/

Carter McNamara'Project Management Website
http://www.mapnp.org/library/plan_dec/project/project.htm

REFERENCE TEXTS

Kathy Schwalbe, Information Technology Project Management, Thomson Course Technology.

Graham McLeod & Derek Smith, Managing Information Technology Projects, Course Technology.

Project Management Institute (PMI), A Guide to the Project Management Body of Knowledge (www.pmi.org)