

IT Project Management Module 2 **Project Integration** Management





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READING

Schwalbe Chapter 4

LEARNING OBJECTIVES

At the end of this topic you should be able to:

- Describe an overall framework for Project Integration Management (PIM)
- Relate this framework to the project management Knowledge Areas and the project life cycle
- Outline how to apply guidelines and templates to develop project plans and perform stakeholder analysis
- Explain project plan execution, its relationship to project planning and factors related to success
- Describe the process of monitoring & controlling a project
- Introduce the integrated change control process and outline how to develop a change control system

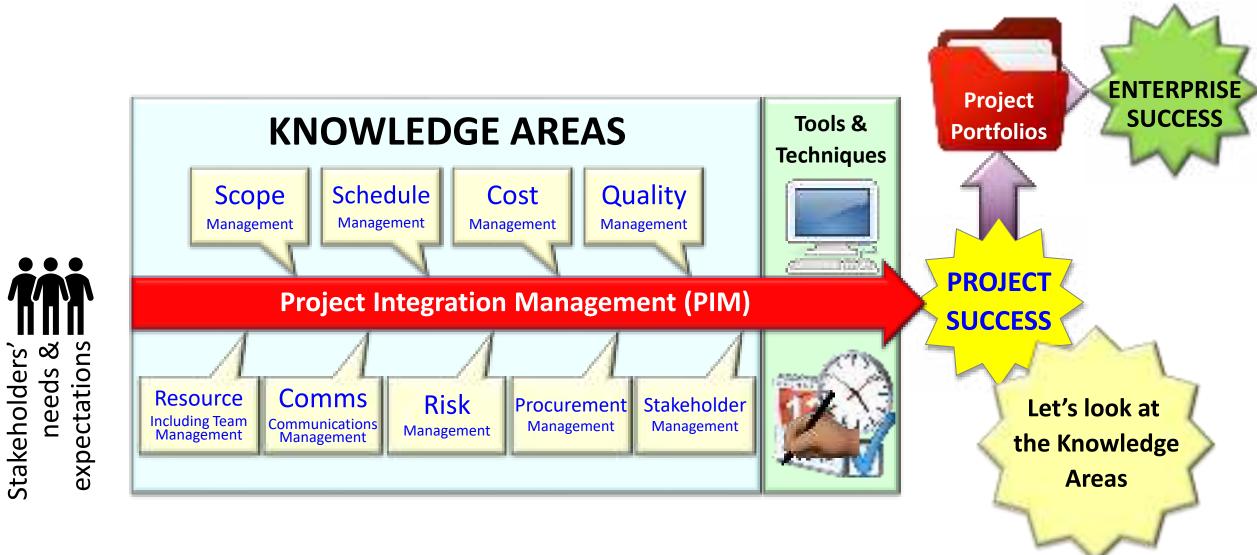


PROJECT INTEGRATION FRAMEWORK

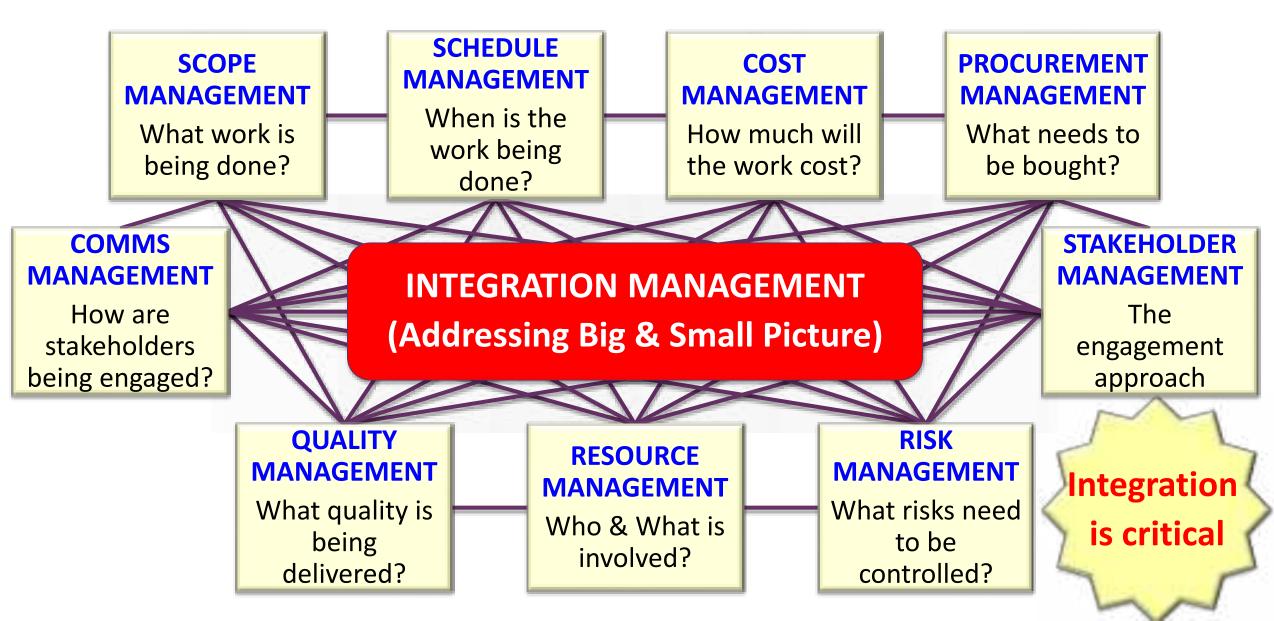




OVERVIEW - PMBOK APPROACH



THE KNOWLEDGE AREAS

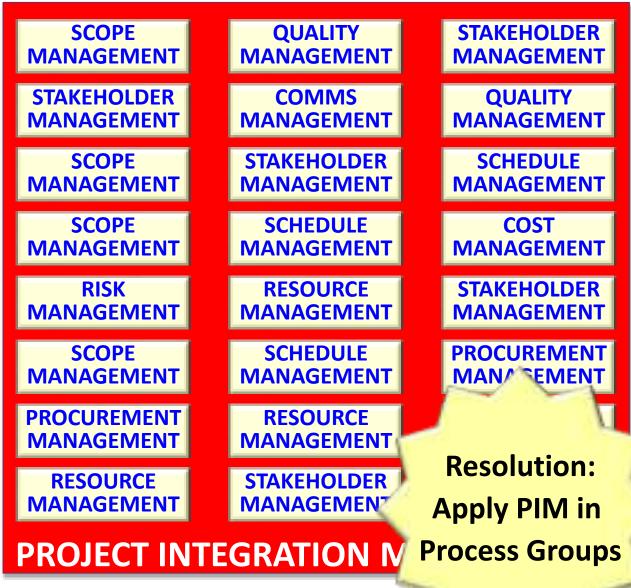


TOP 9 REASONS ICT PROJECTS FAIL

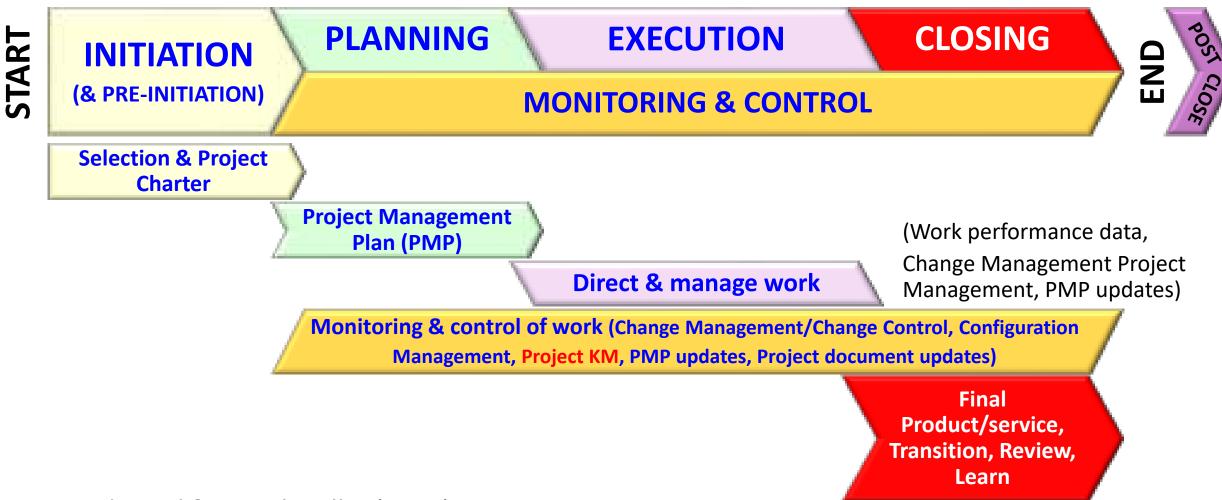
- 1. Inaccurate Requirements
- 2. Uninvolved project sponsors
- 3. Shifting project objectives
- 4. Inaccurate estimates
- 5. Unexpected risks
- 6. Dependency delays
- 7. Not enough resources
- 8. Team Procrastination

9. Poor Project Management

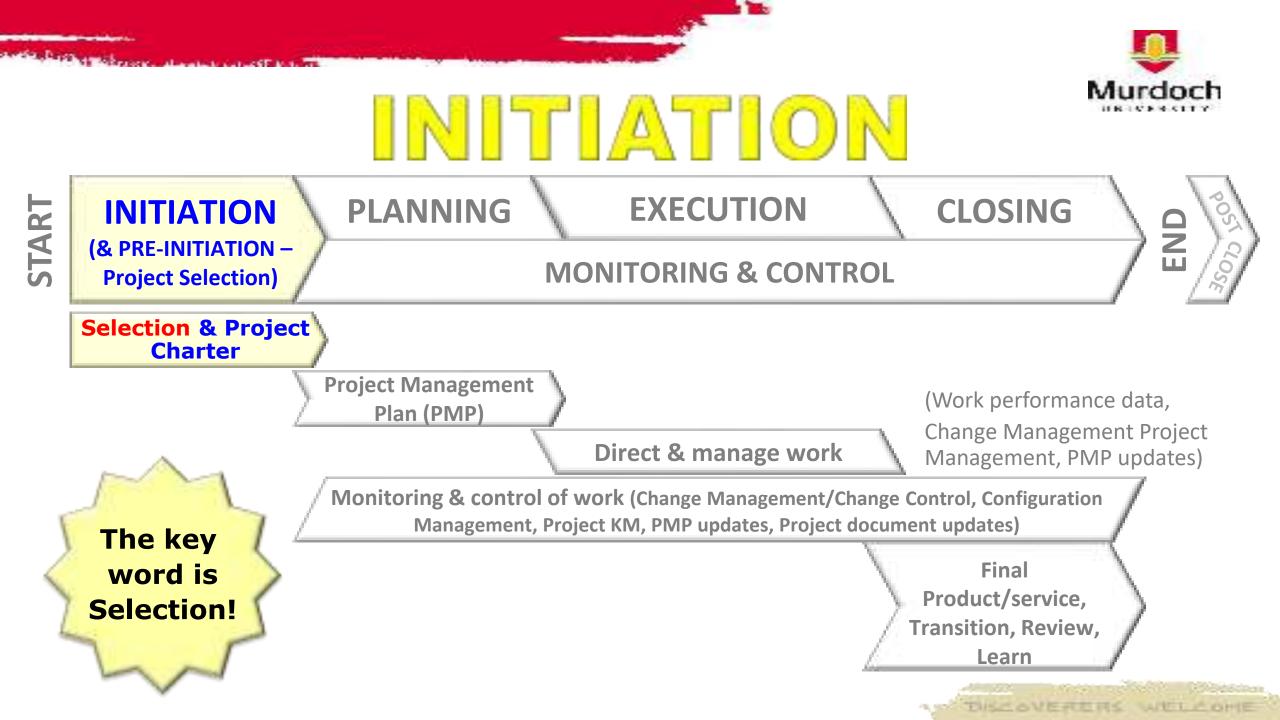
Source: PMI - https://www.askspoke.com/blog/it/reasons-for-it-project-failure/

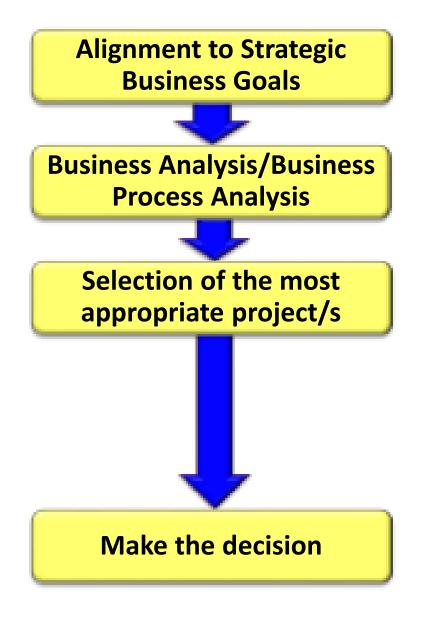


PIM DELIVERABLES IN THE PROCESS GROUPS



Source: Adapted from Schwalbe (2018)





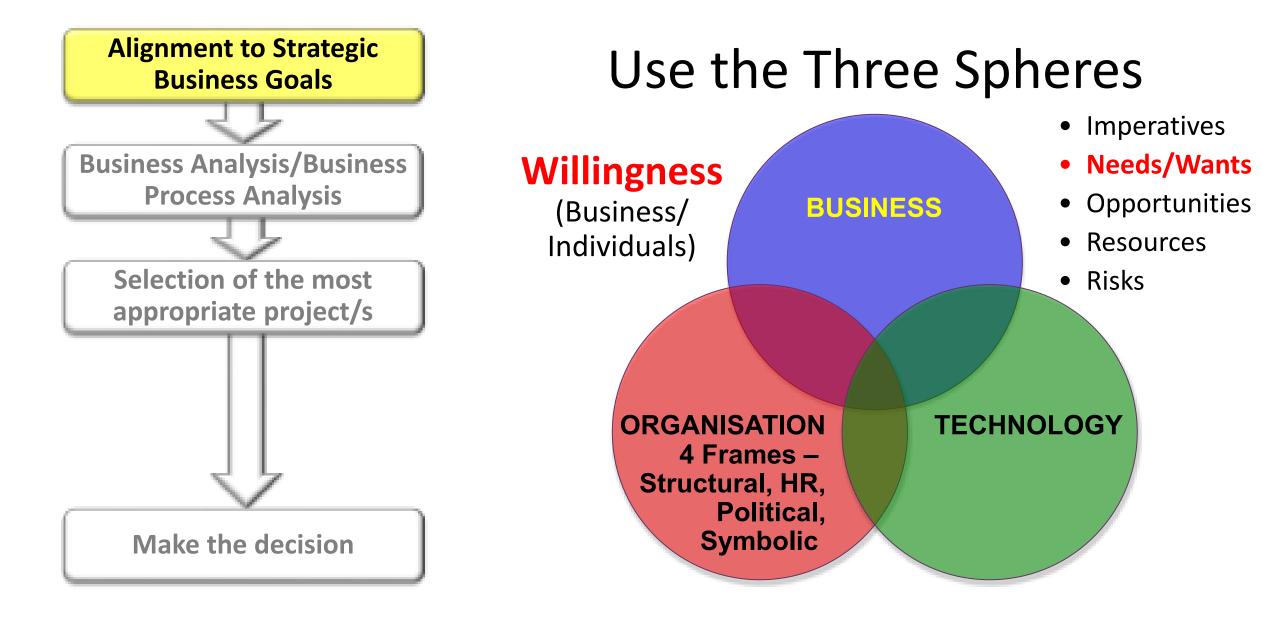
What is the general business case?

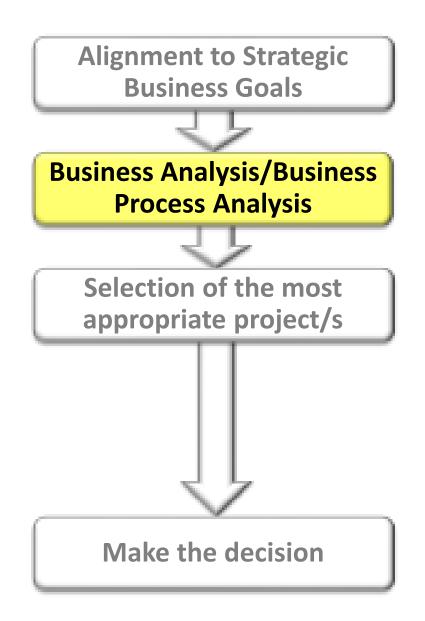
Understand the options benefits/risks

Using a range of approaches

- Categorisation (Problems, Opportunities, Directives)
- SWOT (Strengths, Weaknesses, Opportunity, Threat)
- Weighted Analysis (Importance/Effect)
- Balanced Scorecard
- Financial Analysis (NPV/IRR/Payback)

Make an educated/balanced decision





What is the organisation doing now? (what business, what clients, what products, what services)

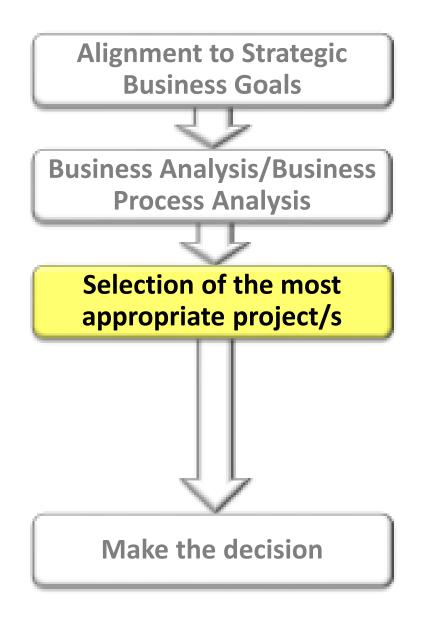
How is the organisation doing its tasks? (how is it organised, how is it structured, how are the processes implemented)

When is the business doing the various tasks (timeframes, process timelines)

Who is doing various tasks (who is doing the work, who are the clients, who are the stakeholders)

Why is change needed (problems, opportunities, directives)

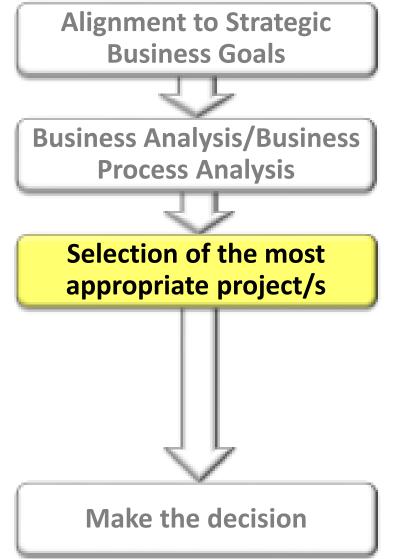
USE METHODS LIKE USECASE ANALYSIS



Apply one or more of the following

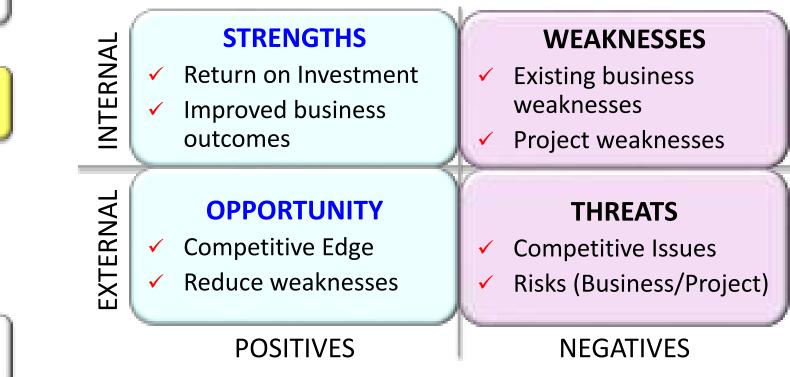
- Categorisation
 - Problems What problem needs to be fixed
 - Opportunities What gives the greatest benefit
 - Directives What has been ordered
 - Duration How long will it take
 - Risk Which has the greatest risk/s
 - Cost Which has the highest cost
 - Cost/Benefit Which project will provide the greatest benefit for the cost

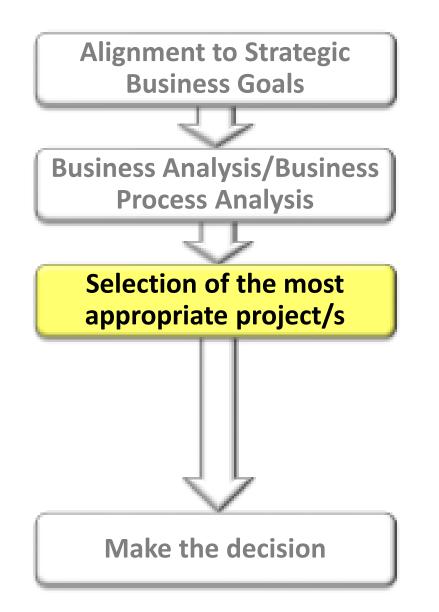
Use the following techniques to help categorisation



Apply one or more of the following

 SWOT (Strengths, Weaknesses, Opportunity, Threat)



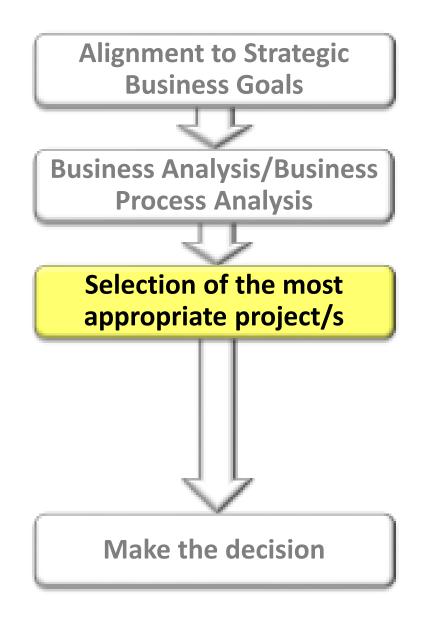


Apply one or more of the following

Weighted Analysis

There are a variety of different techniques. We'll look at a key one during the workshop this week.

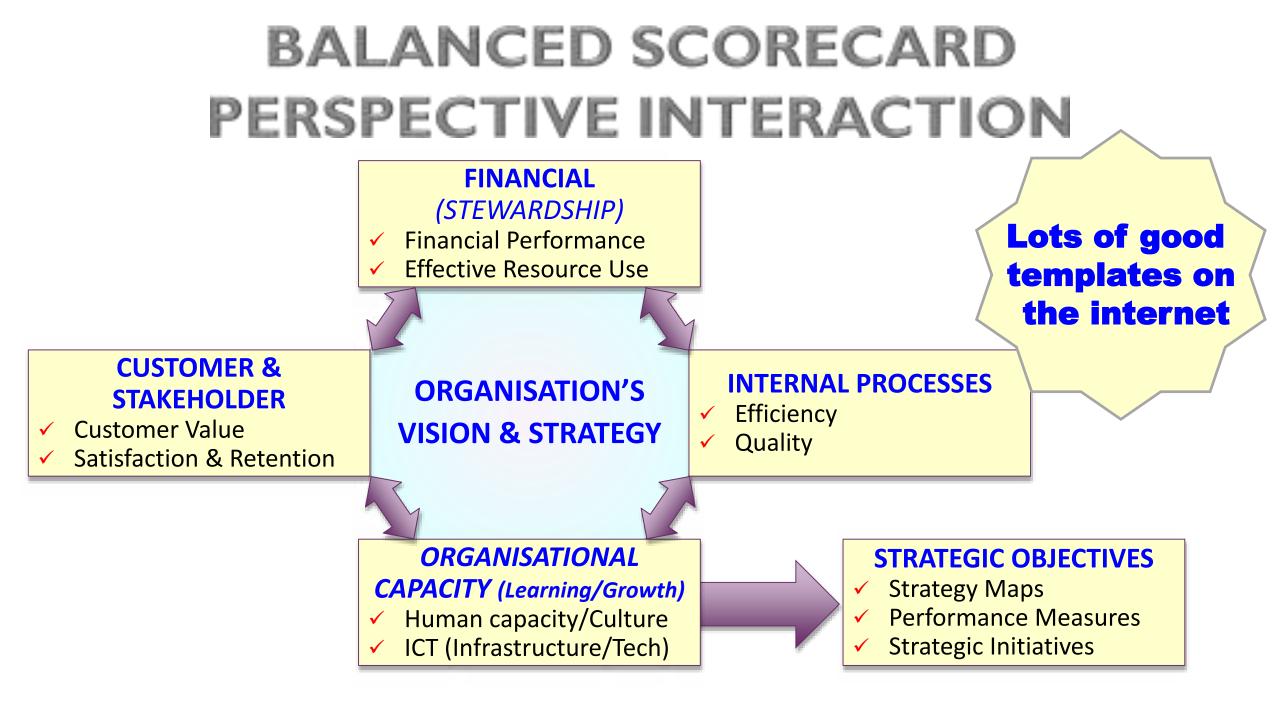
PERSPECTIVES

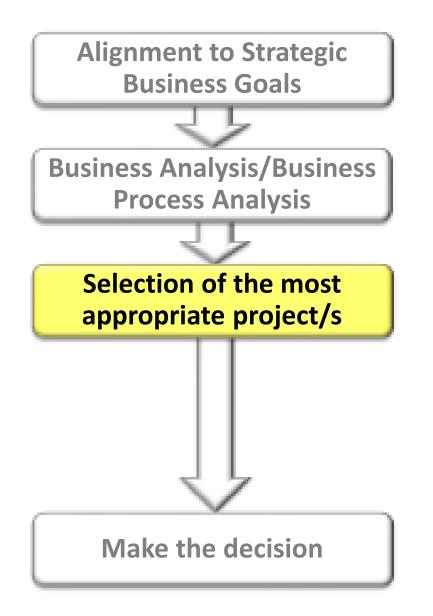


Apply one or more of the following

- Balanced Scorecard Five Factors
 - Business Vision & Strategy
 - Financial (Stewardship)
 - Customer & Stakeholder
 - Internal Process
 - Organisational Capacity (Learning & Growth)

Lets look at the interaction





Apply one or more of the following

- Financial Analysis
 - Net Present Value (NPV)
 - Return on Investment (ROI)
 - Payback Period (Break-Even)

Lets look at each of these individually

NET PRESENT VALUE (NPV)

- ✓ What is NPV?
 - A method of calculating the expected monetary gain/loss of a project
 - Takes into account changing value of money due to costs (e.g. interest/inflation) – Discount Rate or Minimum RRR

RETURN ON INVESTMENT (ROI)

✓ What is ROI?

Identifies how much money will be made in relation to how much was spent

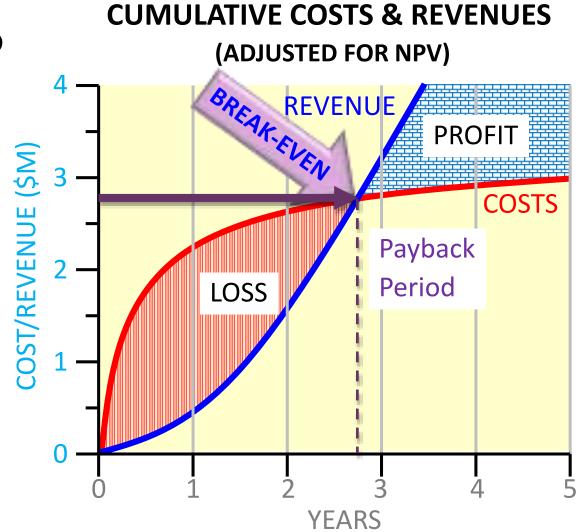
ROI = (Total Discounted Benefits – Total Discounted Costs)/Discounted Costs

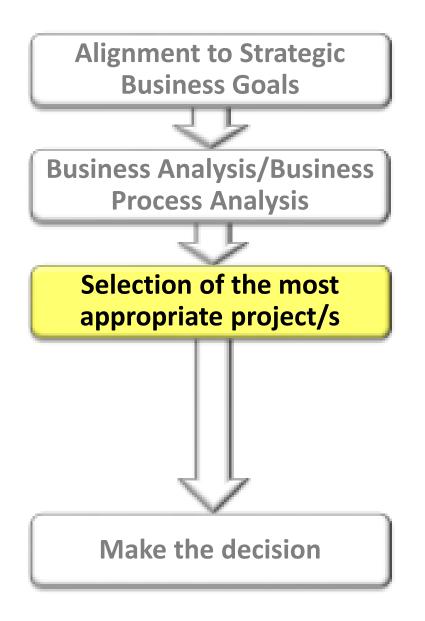
PAYBACK ANALYSIS (PB)

What is Payback?

The time it will take to recoup the money invested (project & support, etc.)

We'll look at NPV, ROI & Payback during the Topic 2 workshop

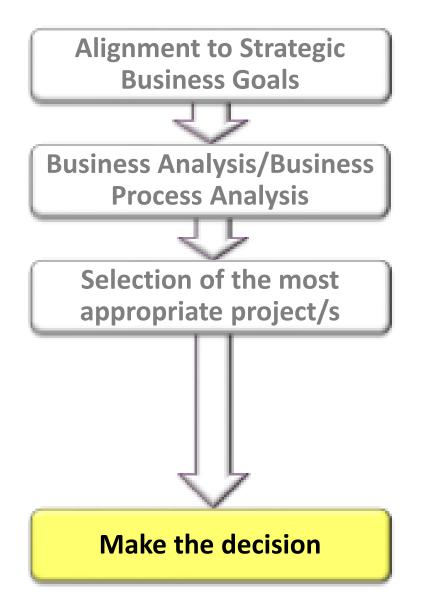




These types of analysis

- Categorisation (Problems, Opportunities, Directives)
- SWOT (Strengths, Weaknesses, Opportunity, Threat)
- Weighted Analysis (Importance/Effect)
- Balanced Scorecard
- Financial Analysis (NPV/IRR/Payback)

can...



... help you make the right decisions about selecting projects

Once the selection is made – develop the Project Charter

THE PROJECT CHARTER

- A project charter is a short document that:
 - formally recognises the existence of a project
 - provides high level direction and feasibility information
 - gives a summary of the schedule (including key milestones)
 - supplies high level budgetary information
 - provides the name/s & contacts for key stakeholders
 - outlines the project objectives
 - explains the main project success criteria
 - gives a high level overview of the approach
 - outlines key roles & responsibilities
 - other fundamental information

Includes sign off for all key stakeholders (essential)

PROJECT CHARTER EXAMPLE

Anignment L. Project Chatter

Edual Systems

INTRODUCTION

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Business Analysis

3.1 Research for the Project and General Approach

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We will discuss this during the Topic 2 Workshop

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WHAT ISTHE PMP

- ✓ A high level document used to coordinate (binds others)
- Used as the overall map (Single document that everyone can use to get an understanding of what is going on)
- ✓ It is used to outline approaches for all Knowledge Areas
- Gives key personnel insights so they can manage their areas (points to subsidiary documents)
- It is a living document it continues to evolve as the project continues (make sure it is visible to all stakeholders)

HOW SHOULD IT BE STRUCTURED?

Lots of different standards (organisational/project differences)

- And templates to meet standards
- ✓ For example...

Use the appropriate template (and be willing to modify it if necessary)

IEEE STD 1058-1998 - SOFTWARE PMP STANDARD

- 1. Overview (Project Summary)
- 2. References
- 3. Definitions
- 4. Project Organisation
- 5. Managerial Process Plans (Start-up Plan, Work Plan, Control Plan, Risk Management Plan, Closeout Plan)
- 6. Technical Process Plans
- 7. Supporting Process Plans (CM Plan, Verification & Validation Plan, Documentation Plan, Quality Assurance Plan, Reviews & Audits, Problem Resolution Plan, Contractor Management Plan, Process Improvement Plan)
- 8. Additional Plans

HOW SHOULD IT BE STRUCTURED?

A generalised template has been provided

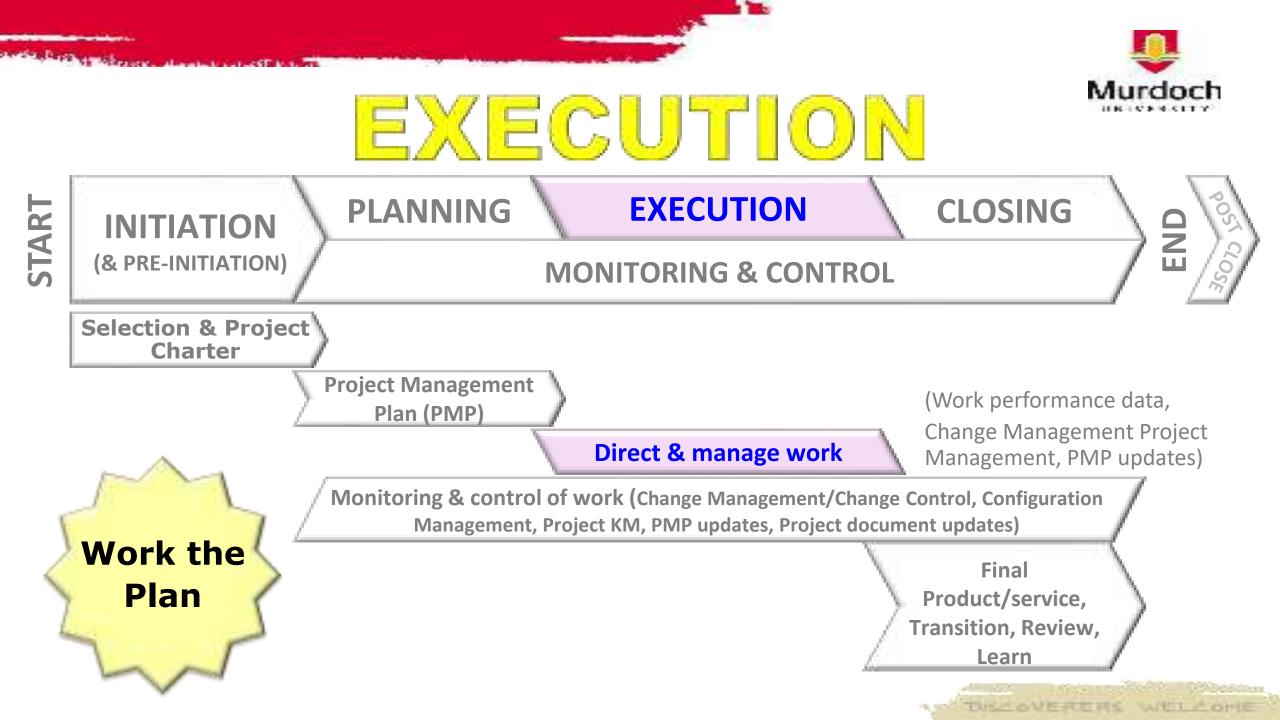
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We will discuss this during the Topic 2 Workshop



PROJECT EXECUTION

- Project Execution involves managing and performing the work described in the Project Management Plan (and other plans/documents)
- The majority of time and money is usually spent on execution
- This is where the team needs to produce what was offered in the project commitment

PROJECT EXECUTION

- Requires diverse management skills
- Project Managers must have both!

SOFT SKILLS Leadership **Problem solving** Teamwork **Negotiations Politics** HARD SKILLS **Technical Schedule** Resource **Budget** Reporting

PROJECT EXECUTION

And needs an integrated approach that applies

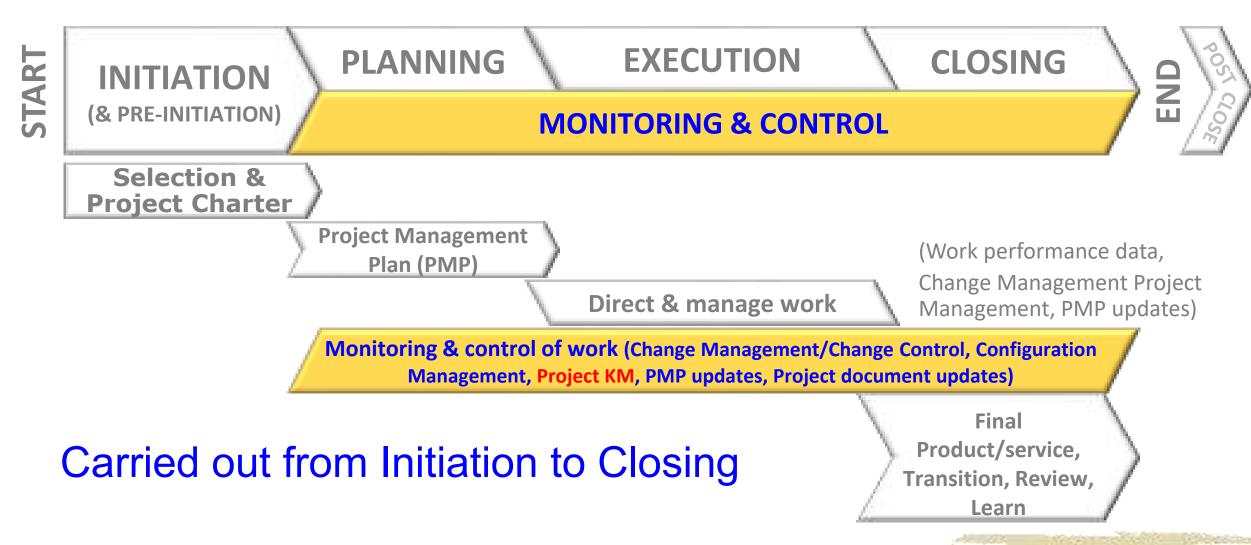
PROJECT MANAGEMENT METHODOLOGY (PM Processes, Procedures and Systems) PROJECT MANAGEMENT DOLS (PM Software)

These support monitoring & control



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MONITORING & CONTROL





Proactive monitoring of project aspects

Proactive control of project related activities

PROJECT MONITORING & CONTROL

- All project plans
 evolve (many things change!!!!)
- So our implementation must also evolve (and this needs to be done proactively – don't just react at the last minute)

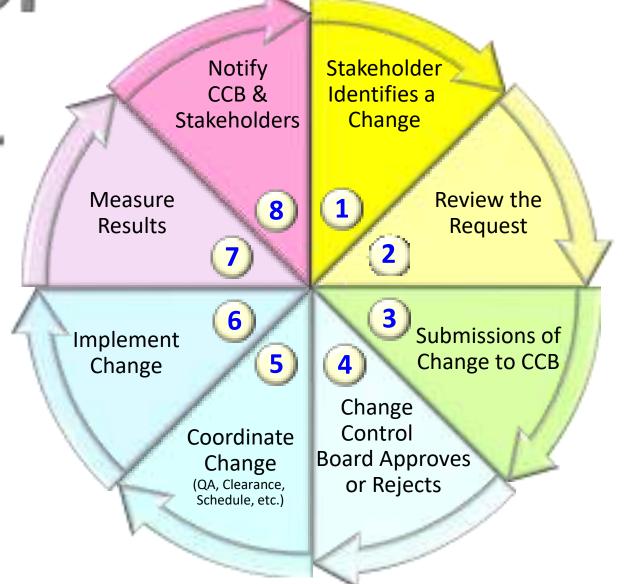
Let's use an analogy



PROJECT MONITORING & CONTROL

- ✓ The same is true for any project
- Monitor the situation and proactively evolve your approach as necessary
- Three main objectives are:
 - 1. Influence the factors that create changes to ensure that changes are beneficial (needs a managed process)
 - 2. Determine that a change has occurred (either proactive or responsive control)
 - 3. Manage actual changes as they occur (through the Change Management process)

AN OVERVIEW OF CHANGE MANAGEMENT Different organisations have different approaches (all much the same). **Use ChM** – it will save you from many



Sources: Adapted from Gardner & Ash (2003); Akhtar (2016); Galup, et al. (2009)

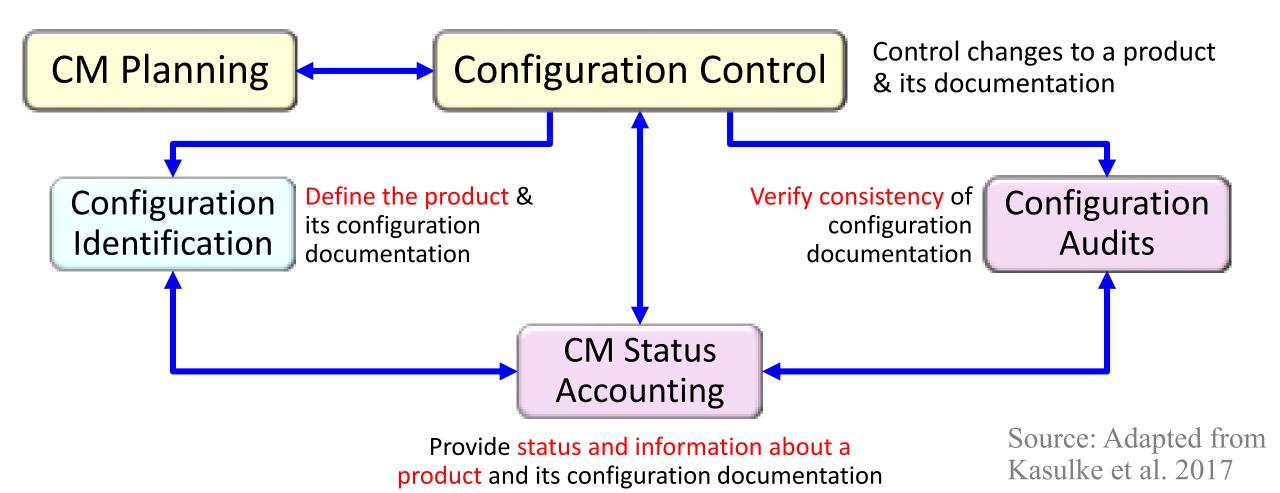
problems

PROJECT MONITORING & CONTROL

- This Change Management (ChM) requires:
- Proactive planning (Plan for change and proactively evolve)
- Integral reporting/monitoring (through the whole ChM system)
- Good communication (Project management as a process of constant reporting, communication and negotiation)
- Good control structures (systems and a Change Control Board)
- Well defined procedures for making timely decisions (large & small)
- Use project management and other software to help manage and communicate changes
- Integrated Configuration Management (CM) (technical system documentation and management)

WHAT IS CONFIGURATION MANAGEMENT?

Configuration Management includes the following activities

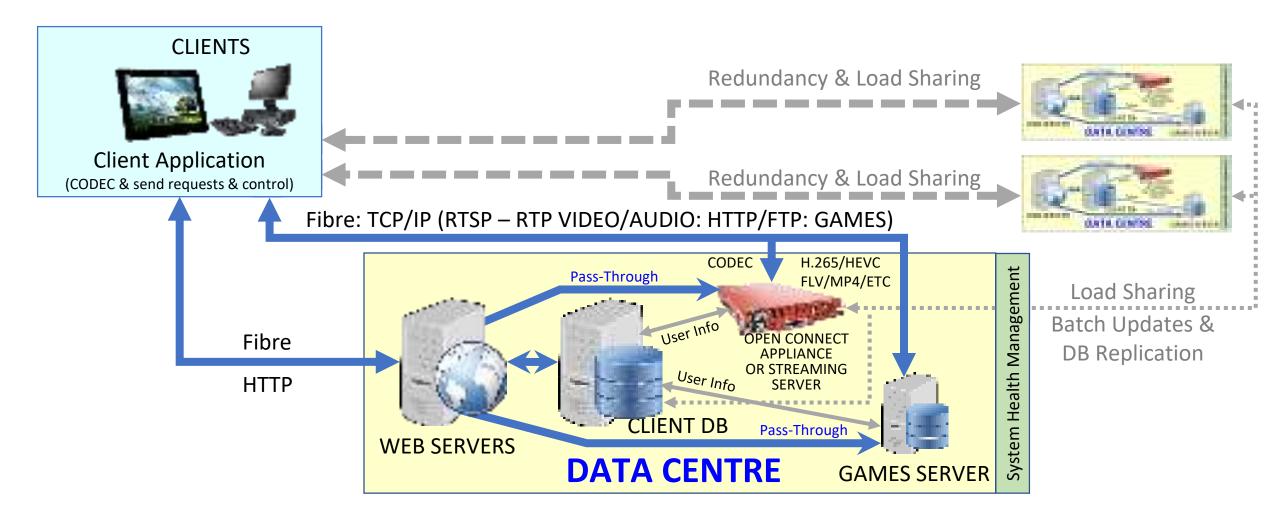


WHAT IS CONFIGURATION MANAGEMENT?

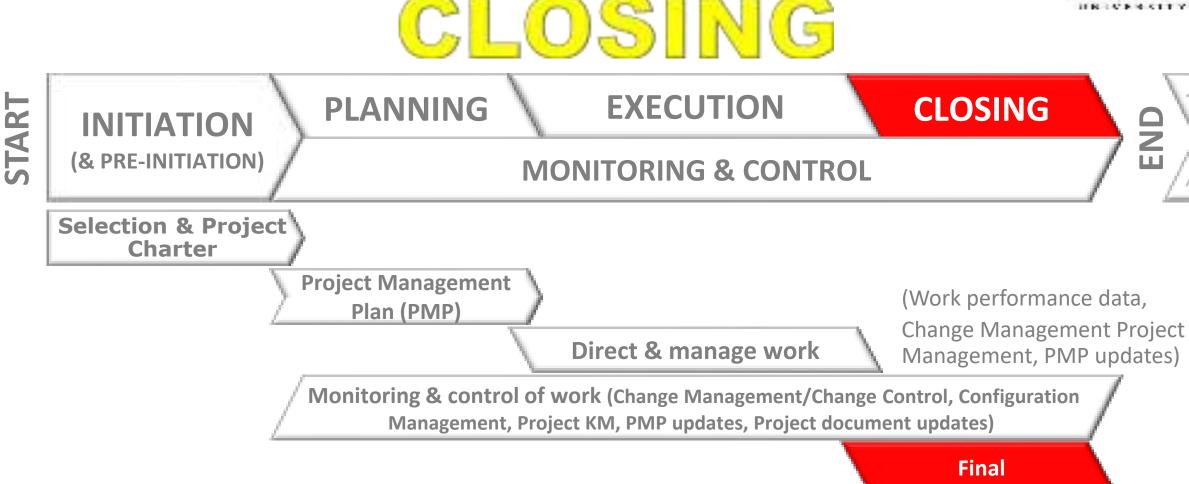
- Identifies functional and physical design (e.g. technical design)
- Documents key descriptive aspects (so they are understood by all pertinent stakeholders)
- ✓ Help to ensure that:
 - The right information is available for planning (technical, procurement, system design, roll out, etc.)
 - Changes in one part of the system will not impact on another (ensure that the design remains coherent)
 - Everyone's part of the solution will mesh together during Execution

HERE IS AN EXAMPLE OF WHY THIS IS IMPORTANT

SIMPLIFIED TECHNICAL ARCHITECTURE





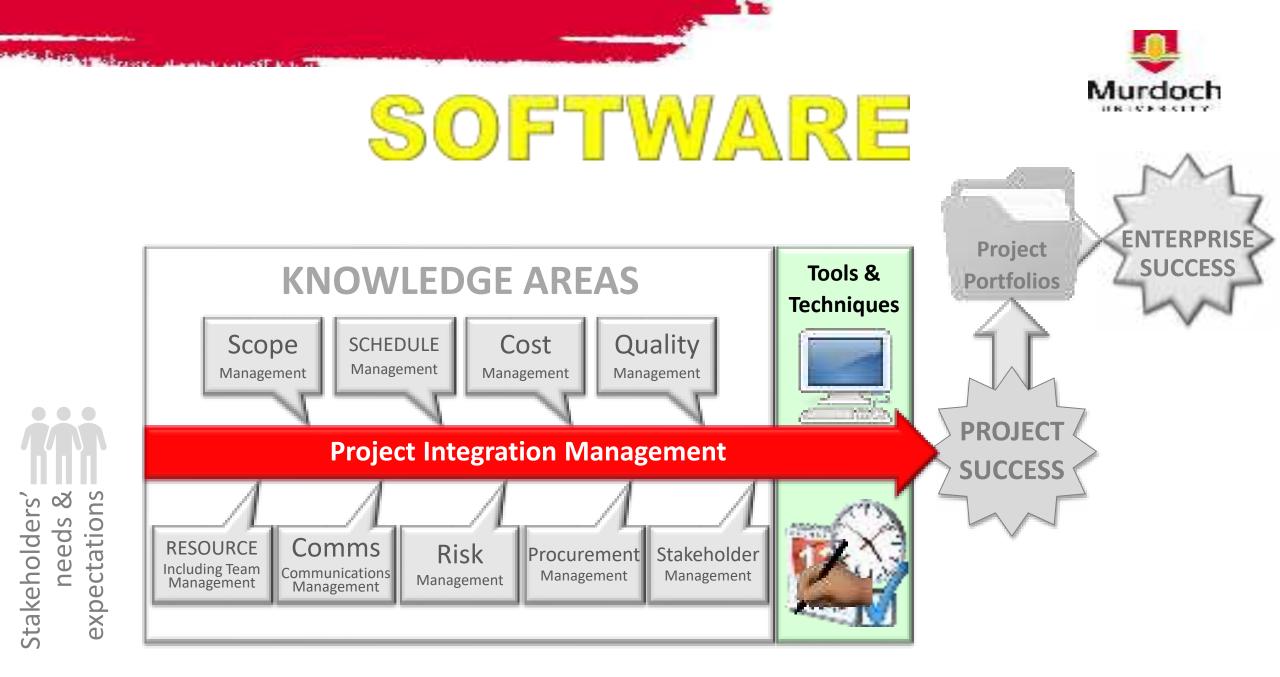


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CLOSING

- To close a project finalise all activities and transfer the completed or cancelled work to the appropriate stakeholders
- Main outputs include:
 - Administrative closure procedures
 - Contract closure procedures
 - Final products, services, or results
 - Organisational process asset updates



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SOFTWARE FOR PIM

- Different types of software can be used to assist in PIM:
 - Word processing software creates documents
 - Presentation software creates presentations
 - Spreadsheets or databases perform tracking
 - Communication software such as e-mail and Web authoring tools facilitate communications
 - Project management software can pull everything together and show detailed and summarised information
 - Business Service Management (BSM) tools track the execution of business process flows

SOFTWARE FOR PIM



SOFTWARE FOR PIM

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TOPIC SUMMARY



TOPIC SUMMARY

- PIM involves coordinating the other Knowledge Areas throughout a project's life cycle
- ✓ Project integration management includes:
 - Initiation (Pre-Initiation) Selecting the right project
 - Initiation Developing a Project Charter
 - Planning Developing a Project Management Plan (PMP)
 - Execution Directing and managing project execution
 - Monitoring and controlling project work (including performing integrated Change Control (ChC), etc.)
 - Closing the project

ANY OUESTIONS