ICTPMG613

Manage ICT project planning

IT WORKS

RTOWORKS
QUALITY SOLUTIONS

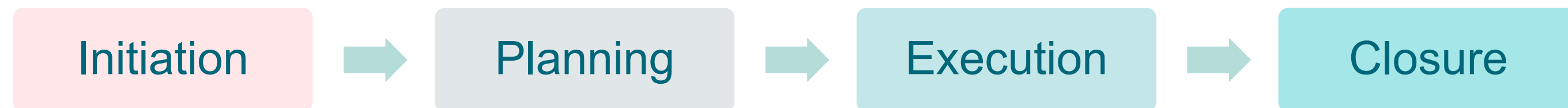# Topic 1: Planning and controlling a project

ICT PROJECTS

To plan and manage an Information and Communications Technology (ICT) project, whether it is for a small, medium or large organisation, you need to apply project management skills.

Topic 1: Planning and controlling a project

THE PROJECT LIFECYCLE

| Initiation | → | Planning | → | Execution | → | Closure |

Topic 1: Planning and controlling a project

WHY PLAN A PROJECT?

Project planning is an essential stage of a project's lifecycle. It establishes the scope, schedules, resources, budgets and control process used to support the management of a project.

Topic 1: Planning and controlling a project

ACTIVITY: DOWNLOADS

Project Management Docs is a great website that provides a range of free templates.

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MODELS OF PROJECT MANAGEMENT

In ICT project management there are a number of different project management methods and approaches. That will also have an effect on the way a project is controlled and managed.

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ACTIVITY: WATCH

Watch this engaging video to learn more about each stage of the SDLC.

Software Development Lifecycle in 9 minutes!

Video: https://www.youtube.com/watch?v=i-QyW8D3ei (09:13)

The trainer/assessor will facilitate a discussion about the outcomes from the video.

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THE SOFTWARE DEVELOPMENT LIFECYCLE

- Planning

- Analysing

- Designing

- Building

- Testing

- Deployment

- Maintenance

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ACTIVITY: READ

What methodology should I choose? Read the following article, which outlines different models and where they are best suited:

https://blog.teamwork.com/project-management-methodologies/

Take any notes to summarise what you have read and keep for future reference

Topic 1: Planning and controlling a project

ACTIVITY: RESEARCH AND DISCUSS

Work in pairs, researching the following:

- The 12 Agile principles.

- Green IT/Green PM.

- The 7 principles of PRINCE2.

- Iterative and Spiral models of development.

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DOCUMENTATION

Once a project management plan has been written, it will need approval.

Approval of the project plan will vary dependent upon the size and nature of the project, the approval procedure and/or organisational policies and procedures.

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TAILORING

- Just with most things in life, there is 'no one size fits all' when it comes to projects. Every project is unique!

- Tailoring may include adding, removing or changing certain processes to ensure flexibility.

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ACTIVITY: READ AND DISCUSS

Read the following article about tailoring:

https://www.projectmanagement.com/blog-post/21168/The-Art-of-Tailoring--Making-Your-Project-Management-Methodology-Fit

Your trainer will facilitate a discussion in which you will discuss what processes can potentially be tailored and the benefits of tailoring.

Topic 1: Planning and controlling a project

PROJECT COMMUNICATION

A project manager needs to have excellent communication skills. They will be communicating both in writing and verbally all the time: to the project sponsor, to key stakeholders, to their project team, to the board/committee and to suppliers.

Topic 1: Planning and controlling a project

Topic 2: Scheduling a project

The project schedule is a key document in project planning. It must include the tasks/activities, milestones and deliverables required to lead the project to success.

Topic 2: Scheduling a project

ACTIVITY: WATCH

In this video Jennifer will give you an overview of project scheduling and what needs to be considered.

What is Project Scheduling?

Video: https://www.youtube.com/watch?v=WNWSQOynrI0 (03:27)

Topic 2: Scheduling a project

ACTIVITY: READ

Look through this page to see the range of different project scheduling tools that can be used. You may also like to scroll further down to read the advice about project schedule development:

https://www.smartsheet.com/content/project-schedule-templates

Take any notes to summarise what you have read and keep for future reference.

Topic 2: Scheduling a project

THE WORK BREAKDOWN STRUCTURE (WBS)

The Work Breakdown Structure is a breakdown of all the activities and tasks that make up a project. It is a tool used to break down work into manageable chunks.

Topic 2: Scheduling a project

ACTIVITY: READ

An example of a WBS for IT Projects:

https://project-management.com/work-breakdown-structure-for-it-projects-wbs/

Take any notes to summarise what you have read and keep for future reference.

Topic 2: Scheduling a project

THE WORK BREAKDOWN STRUCTURE (WBS)

A WBS can also be represented in table format. WBS use codes to identify each unique activity along with the task and phase to which it belongs.

Topic 2: Scheduling a project

ACTIVITY: READ AND DISCUSS

Learn about the difference between a work package and an activity.

https://www.pmlearningsolutions.com/blog/work-package-versus-activity-pmp-concept-14

Think about the definitions of work package and activities provided above.

Choose an ICT project and think of one work package that would be relevant, and the activities within that work package.

Topic 2: Scheduling a project

ACTIVITY: WATCH

Watch this video that explains how to estimate project effort and duration.

How to Estimate Tasks & Dependencies.

Video: https://www.youtube.com/watch?v=IVtLYDHNbEI (05:06)

Topic 2: Scheduling a project

SEQUENCING PROJECT TASKS

There are a number of methods to sequence project tasks. This can include:

- Network diagrams

- Gantt Charts

- DFD

- Flow charts

- Project management software tools.

Topic 2: Scheduling a project

ACTIVITY: PRACTICAL

Using spreadsheet software, use the provided information to construct a Gantt chart which shows timings for deliverables.

Topic 2: Scheduling a project

PROJECT SCHEDULE CONTROLS

- A project manager needs to be able to use their schedule to identify how the project activities are tracking.

- To be able to do this efficiently, the project manager will need to be able to compare actual/current project performance with scheduled performance.

Topic 2: Scheduling a project

ACTIVITY: READ

The following example of how to effectively manage complex project schedules uses a case study which examines planning and control processes:

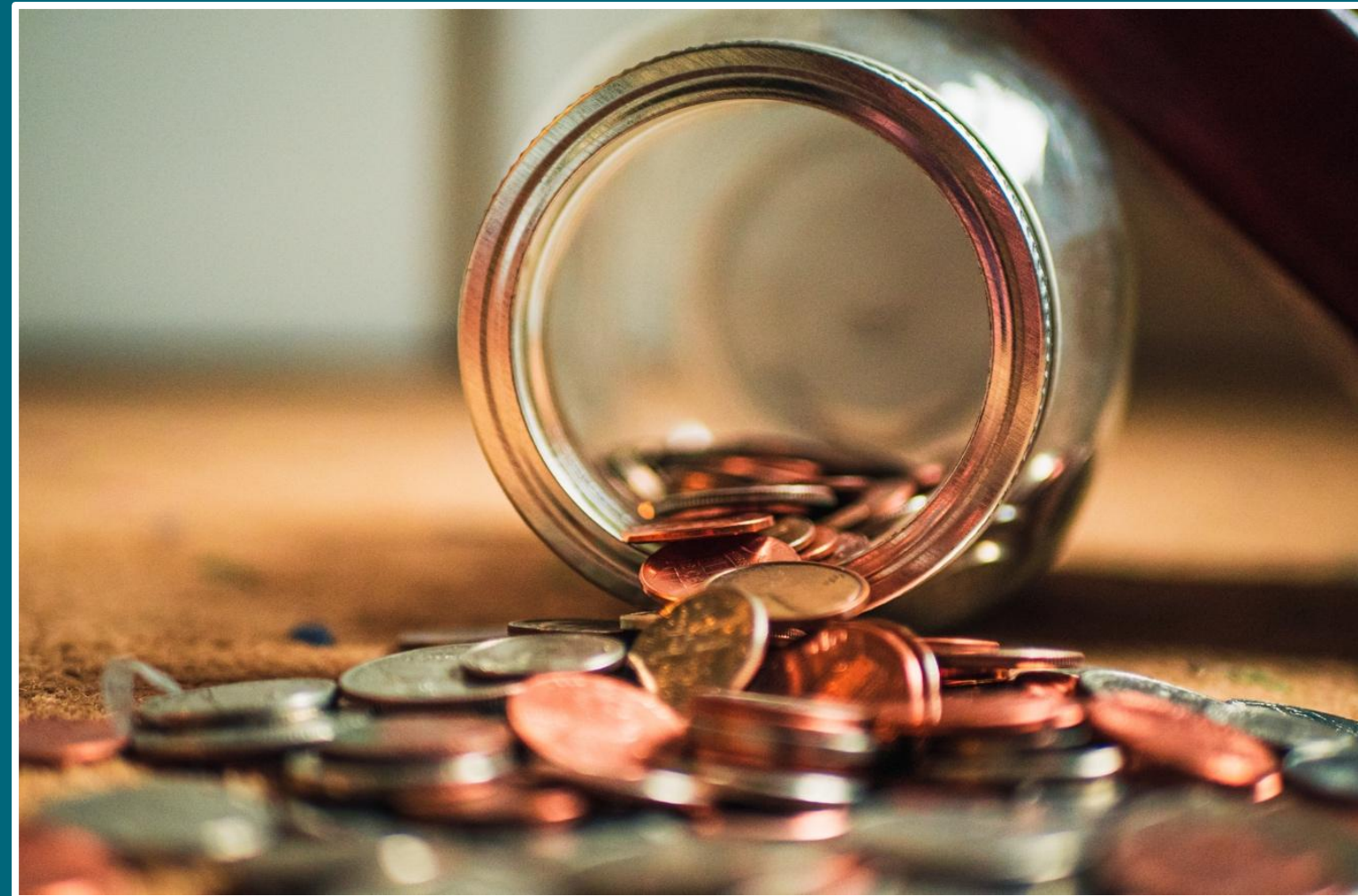https://www.pmi.org/learning/library/effectively-manage-complex-project-schedules-8229

Read through the following example on how to create a project management schedule:

https://www.projectmanager.com/blog/create-project-management-schedule

What are dependencies between tasks and why do you have to identify these?

Topic 2: Scheduling a project

Topic 3: Project budgets

A project budget is the document that provides the project manager with the estimated costs of the project. Aside from scheduling, developing and sticking to the project can be quite stressful for a project manager due to the pressure from the board/committee.

Topic 3: Project budgets

ACTIVITY: READ

Read the following articles to learn more about the stressful process of project budgeting!

https://corporatefinanceinstitute.com/resources/knowledge/finance/project-budget-overview/

https://www.clarizen.com/project-budgets-tips-estimating-cost-tracking/

Take any notes to summarise what you have read and keep for future reference.

Topic 3: Project budgets

THE PROJECT BUDGETING PROCESS

- Identify scope elements that must be costed.

- Conduct cost management planning.

- Estimate work package costs.

- Combine cost estimates and project schedule.

- Produce the budget in accordance with company cost management procedures.

- Adjust budget for contingencies.

Topic 3: Project budgets

THE PROJECT BUDGETING PROCESS

- Apply adjustments, allowing for dependencies and constraints within the project scope.

- Review the budget to ensure that all WBS packages have been fully costed.

Topic 3: Project budgets

PROJECT COST ESTIMATION TECHNIQUES/METHODS

- Analogous estimating

- Parametric modelling

- Bottom-up estimating

Topic 3: Project budgets

COST–BENEFIT ANALYSIS

The purpose of conducting a cost–benefit analysis is:

- to determine if an investment or decision is sound; this involves verifying whether its benefits outweigh its costs, and if so, by how much

- as a basis for comparing projects; this involves comparing the expected cost of each option against its expected benefits.

Topic 3: Project budgets

KEY PERFORMANCE INDICATORS

Key performance indicators assist managers to analyse the current financial position of a company and in considering trends and establishing patterns. These patterns can then identify the strengths and weakness of the company.

Topic 3: Project budgets

CASH FLOW

- An important part of developing the budget will include determining cash flow.

- It doesn't matter how good the budget is, if you don't where and how money is being moved during the project's lifecycle, you could potentially end up with no money.

Topic 3: Project budgets

ACTIVITY: READ AND DISCUSS

Read the following article about keeping large IT projects on budget:

https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/delivering-large-scale-it-projects-on-time-on-budget-and-on-value

Take any notes to summarise what you have read and keep for future reference.

Topic 3: Project budgets

ACTIVITY: WATCH

How To Estimate Your Project.

Video: https://www.youtube.com/watch?v=rN0FrDpQNUk&t=34s (03:35)

What to do when your project is over budget?

Video: https://www.youtube.com/watch?v=xYR7dkQPHKY (06:02)

Topic 3: Project budgets

COST CONTROL

Just like with scheduling, it is common in project management for unforeseen costs to occur. However, implementing cost controls can help the project manager identify the potential risks for budget blow out and how to address them.

Topic 3: Project budgets

ACTIVITY: WATCH

Watch the video below to learn more about cost control.

Project Cost Management Tips: Keeping your project budget under control.

Video: https://www.youtube.com/watch?v=oXhgwn-girl (06:16)

Topic 3: Project budgets

ACTIVITY: READ

Read the articles below for examples where IT project budgets ended up out of control:

https://www.brisbanetimes.com.au/politics/queensland/delayed-queensland-government-project-more-than-doubles-in-cost-20181011-p5093x.html

https://www.projectmanager.com/blog/failed-projects

As we finish up, review the following project management statistics, particularly those related to budgets.

Not everyone gets everything right all the time!

https://learn.g2.com/project-management-statistics

Topic 3: Project budgets