Goldsmiths
UNIVERSITY OF LONDON

Project Management Manual and Methodology

Purpose of this document
This document defines how projects should be controlled and managed

VERSION HISTORY

Version	Date Issued	Brief Summary of Change	Owner's Name
0.1	01/12/2006	First Draft Version for review by Head of Estate & Facilities	Henry Loo (HoE&F Diana Gamble)
0.2	15/02/2007	Second Draft Incorporating review comments, formatting/layout changes and additional material.	Henry Loo (HoE&F Diana Gamble)
0.3	02/02/2011	Additional revisions and update	Michael Dick
0.4	07/07/2013	Review in progress	Catriona Boulton

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Approvals

Role	Name	Signature	Date
Head of Estates & Facilities	Catriona Boulton		tbc
Estates Committee	Reviewed and noted by Estates Committee		tbc
Estates Committee	Updated document referenced and noted by Estates Committee		tbc

Quick Reference

If you are a new project manager or new to project management	Read chapters 1, 2, and 3, then 4, 5,6, or 7 as appropriate
If you are a member of a Project Board	Read chapters 8 and 9 and optionally sections 4.3, 5.8 and 6.6
If you a head of department wishing to promote a project	
If you are registering a project proposal	Read sections 4.2 and 4.4
If you are preparing a Project Initiation Document (PID)	Read section 5
If you are preparing a business case	Read section 4.2 and 5.2
If you are preparing a project or stage plan	Read section 5.1
If you have to prepare a highlight or checkpoint report	Read section 6.6
If you want to understand more about risk	Read sections 6.2 and 10.2
If you want to understand more about benefits	Read section 10.3
If you want to understand more about change control	Read section 6.4
If you are closing down a project	Read chapter 7
If you want to understand how this methodology fits with PRINCE2	Read Appendix C
If you require any further information on the methodology or project management in general	Contact Capital Projects Office

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Acknowledgements

The work of Henry Loo (Goldsmiths 2007) in developing the original draft of this document is gratefully acknowledged.

1. Introduction

1.1. Purpose of this document

This document describes how effective project management should be carried out. Its purpose is to describe the key activities, processes and techniques which contribute to successful project delivery.

1.2. What is Project Management?

By its very nature, a project is set up to deal with change, and the future is less predictable than with day-to-day activities. Project management is the discipline of controlling all aspects of the project in order to achieve the project objectives on time, and to the specified cost, quality and performance.

1.3. Why a Project Management Methodology is Important

A methodology is a systematic approach to the initiation, management and closure of projects. Without such a structural approach, there is a risk that those who are involved in the project may have differing ideas about how things will be organised and completed. Furthermore, there will be confusion around roles and responsibilities, authority and accountability. Ultimately the project will not only be completed late, but will cost more than budgeted and not fit for its intended purpose.

> *No one in his right mind wants a project to fail. However, in the history of Project Management Failures, the primary reasons for failure would almost all contain one or more of the following factors:*
>
> - *Wrong motive or objectives*
> - *Wrong form of contractual relationship*
> - *Too much innovation*
> - *Too complex interfaces*
>
> *If you get one of these failure factors in the project it will be hard work, if you get two, your project is doomed.*
>
> *[Dr Martin Barnes, President, Association for Project Management]*

Use of a project management methodology facilitates the implementation of strategic change in a structured and consistent manner, provides standardised management information and contributes to the mitigation of project risk. It also provides assurance to the senior management that its portfolio of change initiatives are meeting objectives and using resources efficiently.

> *To make things happen, you need System, Process and People. Just having people is not enough.*
>
> *[Tony Douglas, Chief Executive BAA Heathrow]*

1.4. Audience for the Methodology

The Methodology is primarily intended as guidance for new Project Managers newly given project management responsibility, senior managers who have project governance responsibilities and project team members across the college. The Methodology will also be used by external project managers as a source of best practice and to ensure a consistent approach across departments.

1.5. Scalability and Tailoring the Methodology

While projects share similar general characteristics (see section 2.1), they will often differ from each other in terms of size and their level of risk, and therefore the amount of control they require. For instance, there is great difference in size and approach between a multi-million pound Private Finance Initiative project and an internal process change which has been carried out on numerous occasions in the past. To reflect this and to avoid excessive overhead, this Project Management Methodology has been designed to be flexible.

Use of certain essential controls and outputs is mandatory. However, according to the project type (derived from the project's level of risk, as determined by the Risk Assessment process, see section 4.4), some of the outputs of the project management processes may be scaled down or removed. These are indicated in the Scalability section of each process, and are listed collectively in the table below.

Project Type	Project Mandate	Project Proposal	PSO Risk Assessment	Project Board	Project Plan	Stage Plan	Team Plan	Business Case	Risk Log	Issue Log	Project Approach	Communications Plan	Quality Plan	PID	Change Log	Request For Change	Highlight Report	Checkpoint Report	End Stage Review	Lessons Learned Log	Lessons Learned Report	End Project Report	Follow-On Actions	Project Closure Notification
Class A	M	M	M	M	M	M	D	M	M	M	D	D	M	M	M	M	M	D	M	D	M	M	M	M
Class B	M	M	M	S	S	D	D	S	S	S	D	D	S	S	S	S	S	D	D	D	S	S	S	S
Class C	S	S	S	D	D	D	D	D	S	D	D	D	D	D	D	D	D	D	D	D	D	D	S	S

Table 1 Project Scalability Criteria

Key
M – Mandatory Product
S – Scaled-down Mandatory Product
D – Discretionary Product

It is expected a mandatory product of the methodology will be produced using standardised template, under development by the Capital Projects Office. Where a product is marked as scaled-down, the template may be used as is, or customised according to user needs.

Class A Projects: Projects that are considered high risk and its success or failure will have a direct impact upon the college strategy (Project value circa £15m and above).
Class B Projects: Projects considered medium risk and success or failure may have an impact upon the college strategy (Project value circa £2m and above).
Class C Projects: Projects considered low risk and success or failure have no impact upon the college strategy (Project value below £2m).

2. Project Management Lifecycle

2.1. Differences between a Project and a Service

In all business, irrespective of the environment or nature of the organisation, change is a constant factor. Organisations are only able to evolve and adapt successfully if they are adept at managing change. Projects, alongside improvements to 'business as usual' activities, are key elements in introducing change into the organisation.

A project is a temporary structure whose goal is the delivery to the organisation of specific products (also known as deliverables) which enable business benefits to be derived. Projects are finite – in other words they have a defined start and a defined end. They often have a dedicated project team, drawn from across the organisation, working together to achieve the objectives of the project.

By contrast, services or business as usual activities are those tasks, functions and processes which underpin the organisation. They are regular, repeatable and often supported by operationally focused teams and departments. In most cases, services do not have a defined end date, instead, they simply continue on a permanent or quasi-permanent basis.

Consider the following examples:

- Development of a new students admission system
- The function of managing new students admission performed by the admissions team

A useful statement which illustrates the difference between a project and a service is the following:

"Until you know what you want, when you want it, how much it's likely to cost, and what benefits it will bring….you don't have a project"

2.2. The Project Management Lifecycle

In contrast to regular business as usual activities or services, projects have a defined lifecycle, made up of distinct phases.

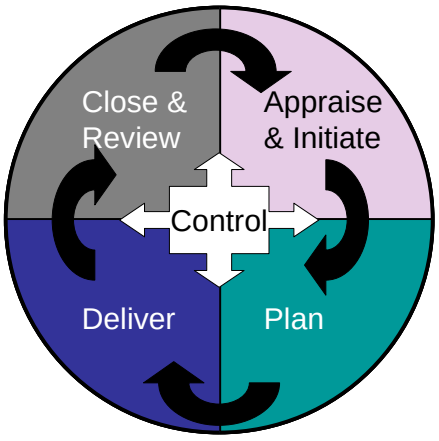


Figure 1 - Project Management Lifecycle

Each of these phases has a distinct purpose; at the end of each one there must be an associated decision point at which a decision about whether to continue with the project should be made. This is similar to a Gateway Review operated by OGC in larger Public Sector Projects.
The following phases have been defined as part of the Project Management Methodology:

Phase	Purpose	Decision Point
Appraise and Initiate	Assess the viability of a proposed project and carry out initiation activities	SMT, College Secretary & Registrar, Director of Estates Head of Capital Projects- depending on the nature and scale of the project (see section 4.5)
Plan	Plan the early stages of the project, and obtain approval of the Project Initiation (PID) by the Project Board (where Class A or Class B projects)	SMT Approval Authorise the Project (see section 5.8)
Deliver	Perform the bulk of the project work to develop the desired solution or outputs	Head of Capital Projects for Estate related projects Review a Stage (see section 6.6)
Close and Review	Close down the project and review its effectiveness in meeting its objectives	Review the Project (see section 7.1)

Table 2 Project Phases

During each phase a number of distinct processes will be carried out. For details of these processes, see section 3.

3. Project Management Processes

The diagram below shows the processes which make up each phase of the project management lifecycle

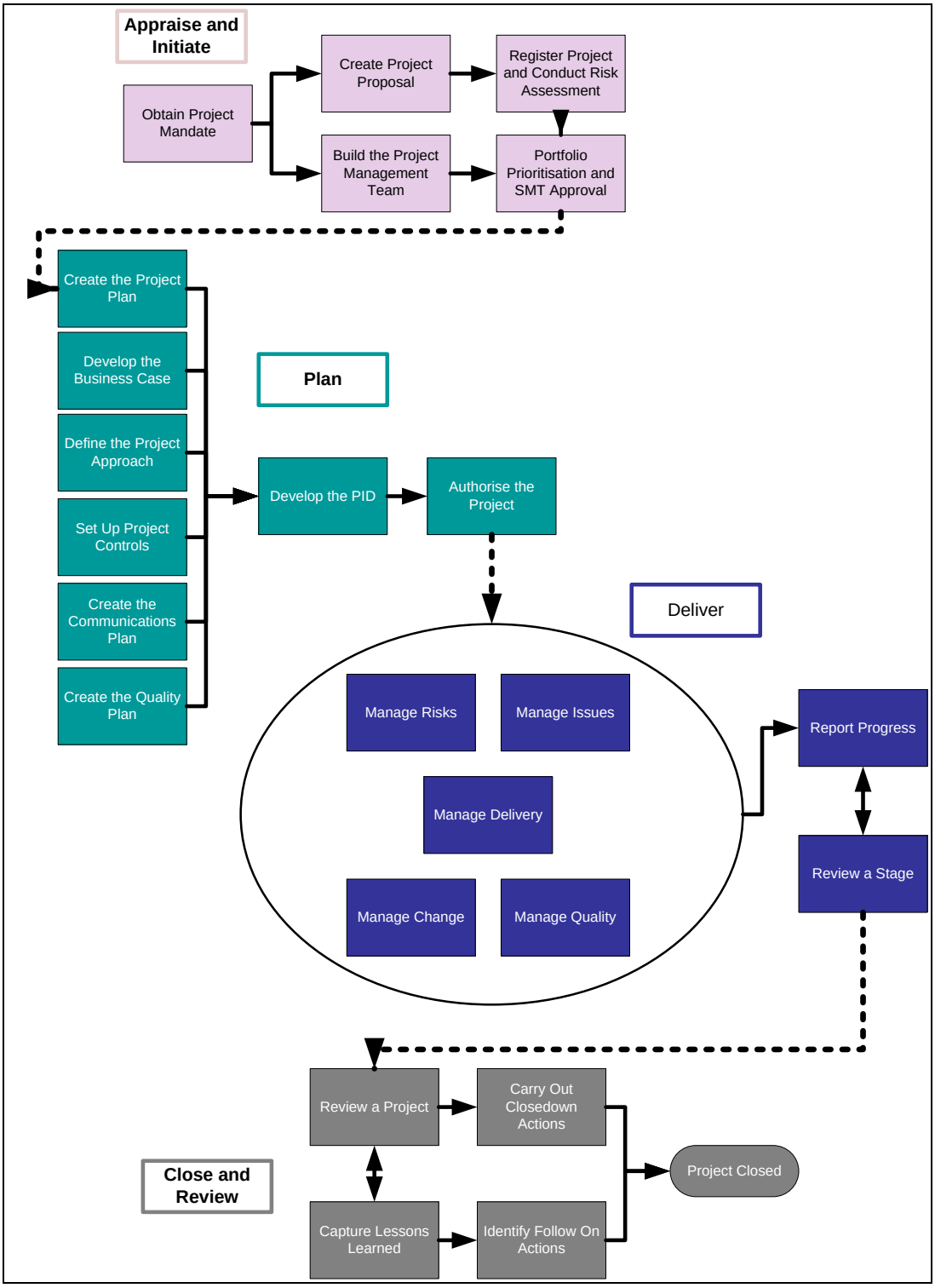


Figure 2 - Project Management Process Map

3.1. Process Outputs

The following matrix lists the outputs of each process and where they are created (C), updated (U) and approved (A).

	Methodology Process	Project Mandate	Project Proposal	Project Board	Risk Assessment	Risk Log	Issue Log	Change Log	Quality Plan	PID	Lessons Learned Log	Project Plan	Stage Plan	Business Case	Project Approach	Comms. Plan	Request for Change	Checkpoint / Highlight Report	End Project Report	Follow On Actions	Lessons Learned Report	Project Closure Notification
Appraise and Initiate	Obtain Project Mandate	C																				
	Create Project Proposal		C											C								
	Register Project and Conduct Risk Assessment		U		C	C																
	Build The Project Management Team			C																		
	Portfolio Prioritisation and SMT Approval		A																			
Plan	Create the Project Plan									U		C	C									
	Develop the Business Case									U				U								
	Define Project Approach									U		U			C							
	Set Up Project Controls					U	C	C		U	C							C				
	Define the Communications Plan									U		U				C						
	Create the Quality Plan								C	U												
	Develop the PID									C												
	Authorise the Project									A				A								
Deliver	Manage Delivery											U	U									
	Manage Risks					U	U					U	U									
	Manage Issues					U	U	U				U	U									
	Manage Change					U	U	U				U	U				CUA					
	Manage Quality							U				U	U									
	Report Progress											U	U					U				
	Review a Stage									U	U	U	U	U				U				
Close and Review	Review the Project																		C			
	Identify Follow-On Actions											U								C		
	Identify Lessons Learned										U										C	
	Carry Out Closedown Actions																		A	U		

Table 3 Process Outputs

3.2. Introduction to the Processes

Each process is laid out in the following manner:

Description	A short description of the process and what it is used to achieve
Benefits	Some reasons why the process should be used
Sequence	A diagram showing the process's position with respect to other processes in the same phase of the project management lifecycle. The process being described is shown in the diagram using the following notation: 
Inputs	The information, documents or other outputs from a previous process which are needed in order for the process to be completed
Outputs	The outputs produced by the process
Completion Criteria	Criteria which must be met to ensure that the process has been successfully completed
Steps	The steps in the process to be carried out. Some processes may also have a supporting process flow diagram for clarity of use.
Scalability	The outputs and approach to the process may vary according to the size, complexity and risk level of the project. This section shows details of when the process may be scaled.
Best Practice	Hints, tips and additional guidance to support the process where appropriate
Templates / Checklists	Related templates or checklists to support the process.
References	Cross references to any other material or methodologies as appropriate

Table 4 Introduction to the Process

The processes have been designed to be both read individually, and also in conjunction with other processes.

4. Appraise and Initiate

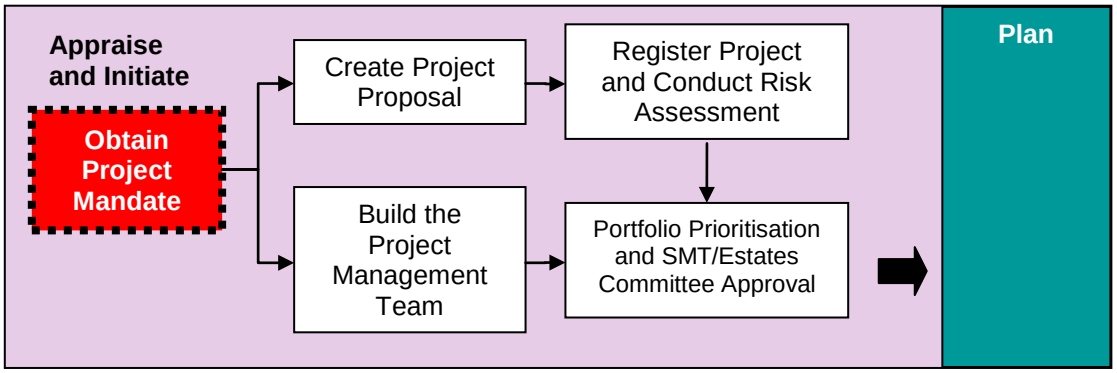
The processes described in the Appraise and Initiate phase detail how an initial idea is developed into a structured project proposal, for review and approval by the Project and Programme Assurance Board (SMT).

4.1. Obtain Project Mandate

Description

A project mandate is information created externally to the project, which forms the terms of reference and is used to trigger the project initiation phase. The mandate may come from various sources. A mandate may originate from annual planning initiatives, compliance or regulatory requirements (such as new legislation), an operational trigger for senior management intervention, or a department initiative.

Sequence



Benefits

- Gives assurance that appropriate governance group is aware of the project request early in the process
- Standard approach to the identification of project criteria
- Captures and stores initiatives from across the College

Inputs

- Estates Masterplan
- College Annual Planning
- Estate Strategic Objectives
- HEFCE Mandated National Programmes
- Operational triggers
- Performance Objectives
- Research Proposal
- Compliance/regulatory requirements from new legislation
- Department Initiative

Outputs

- Documented project mandate
- Individual nominated to prepare Project Proposal

Completion Criteria

- The mandate has been signed off by the appropriate governance or commissioning forum ☑
- Mandate information is lodged with Capital Projects Office ☑

Steps

1. Capture idea or requirement and complete initial options analysis	Proposal Author
2. Document and submit mandate information to appropriate commissioning body	Proposal Author
3. Pass mandate information to Capital Projects Office. This may be in the form of minutes of meetings, an email or a more formal document.	Proposal Author
4. Individual nominated to develop Project Proposal	Commissioning Department
5. Mandate information logged	Capital Projects Office

Scalability

A mandate must be generated for all proposed projects. The mandate may range from an e-mail or a minute of a meeting to a formal document produced by a programme.

Best Practice

For some larger or more complex initiatives, the mandate at this stage may simply be for the production an initial feasibility study to investigate the situation and determine options for the way ahead.

Templates/Checklists

- Not applicable

Reference

- PRINCE2: Starting Up A Project

4.2. Create Project Proposal

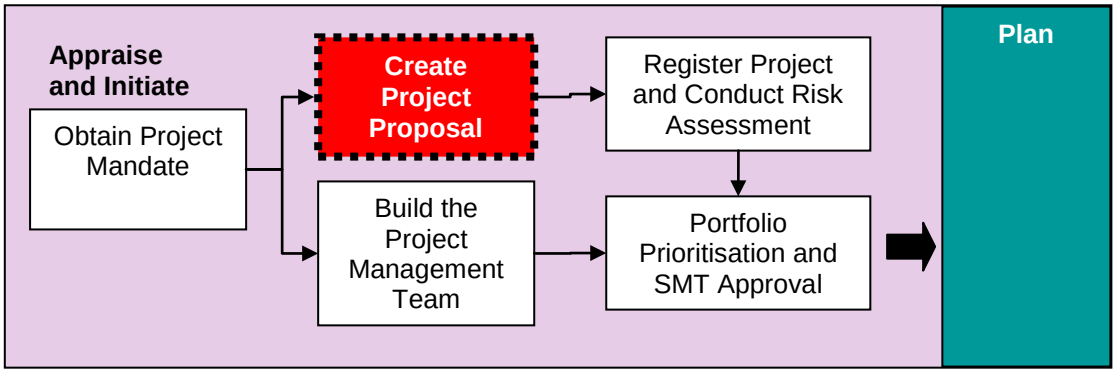
Description

This process develops the initial idea or requirement, identified via the Project Mandate, into a more detailed project proposal. This provides the appropriate commissioning body with sufficient information to allow it to confidently review the proposed project against the college's strategic plan.

The process also covers submissions to SMT where projects require capital expenditure to be authorised.

Further information on the preparation of Outline and Full Business Cases can be found in section 5.2 - Develop the Business Case.

Sequence



Benefits

- All appropriate options for the development of the project will be thoroughly examined and documented
- The commissioning body have an enhanced level of information to support decision-making that is presented in a standard and consistent manner

Inputs

- Documented Project Mandate
- Author of Project Proposal appointed

Outputs

- Completed project proposal
- SMT review of proposal is scheduled
    - o Outline Business Case
    - o Full Business Case (if submission > £2m and Outline Business Case supported)

Completion Criteria

- Cost/Benefit Analysis of preferred option is included in the Project Proposal ☑
- For capital projects, SMT prioritisation is obtained ☑
- Capital Projects Office's quality review of proposal is completed ☑

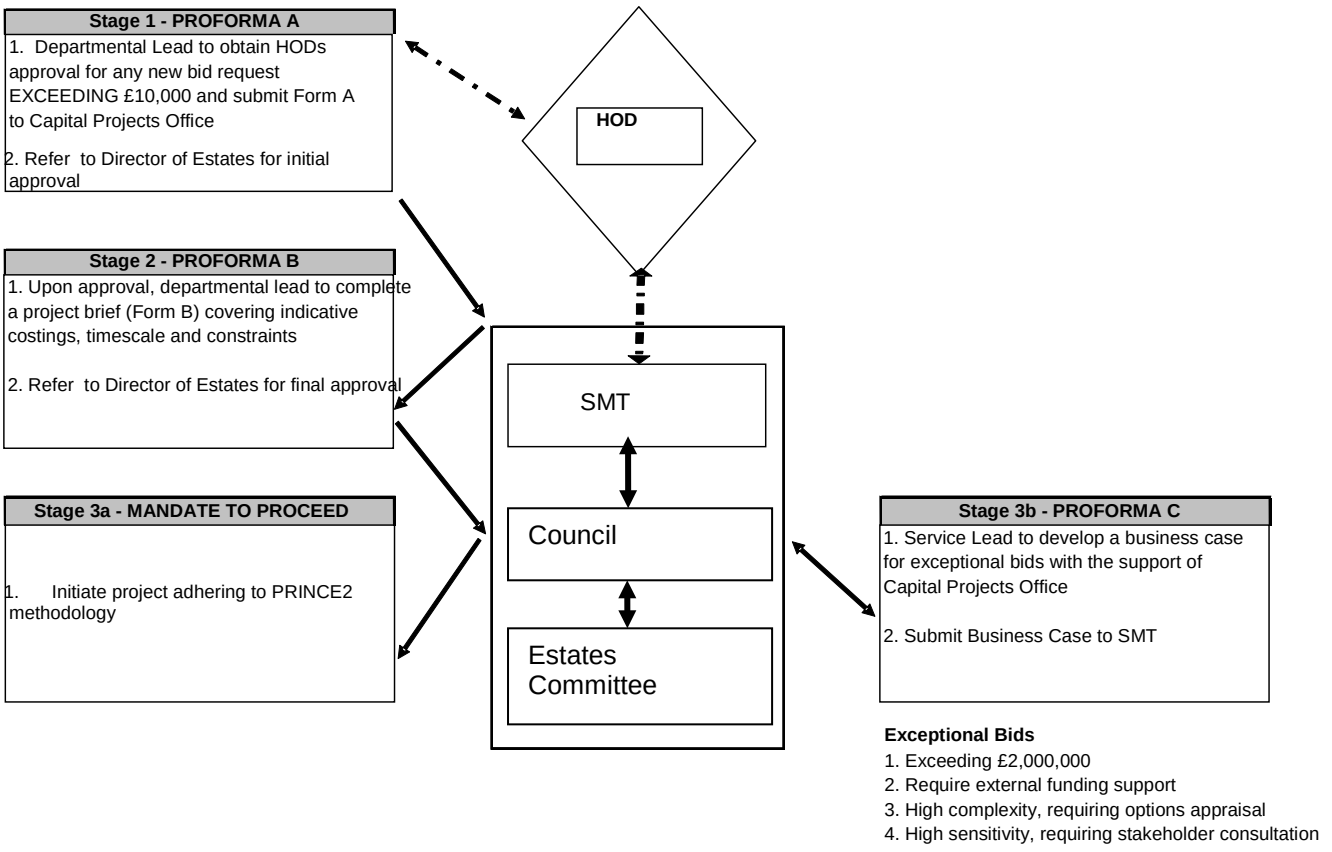
Steps

1.	Carry out analysis of the project with key stakeholder groups	Proposal Author
2.	Complete project proposal document. HOD to complete funding and cost/benefit analysis section.	Proposal Author HOD
3.	Submit to College Capital Projects Office for quality review	Proposal Author
4.	Perform quality review and liaise with proposal author to feed back comments	Capital Projects Office
5.	For capital expenditure projects, submit proposal to Director of Estates for appraisal and prioritisation	Capital Projects Office
6.	For capital bids valued at over £1m, complete Business Case, otherwise submit Proposal to SMT.	Proposal Author Director of Estates
7.	SMT confirm or reject proposal (with or without Outline Business Case) for entry into the College Capital Programme	Estate Committee
8.	Schedule SMT review of proposal unless SMT has already rejected the proposal	Capital Projects Office

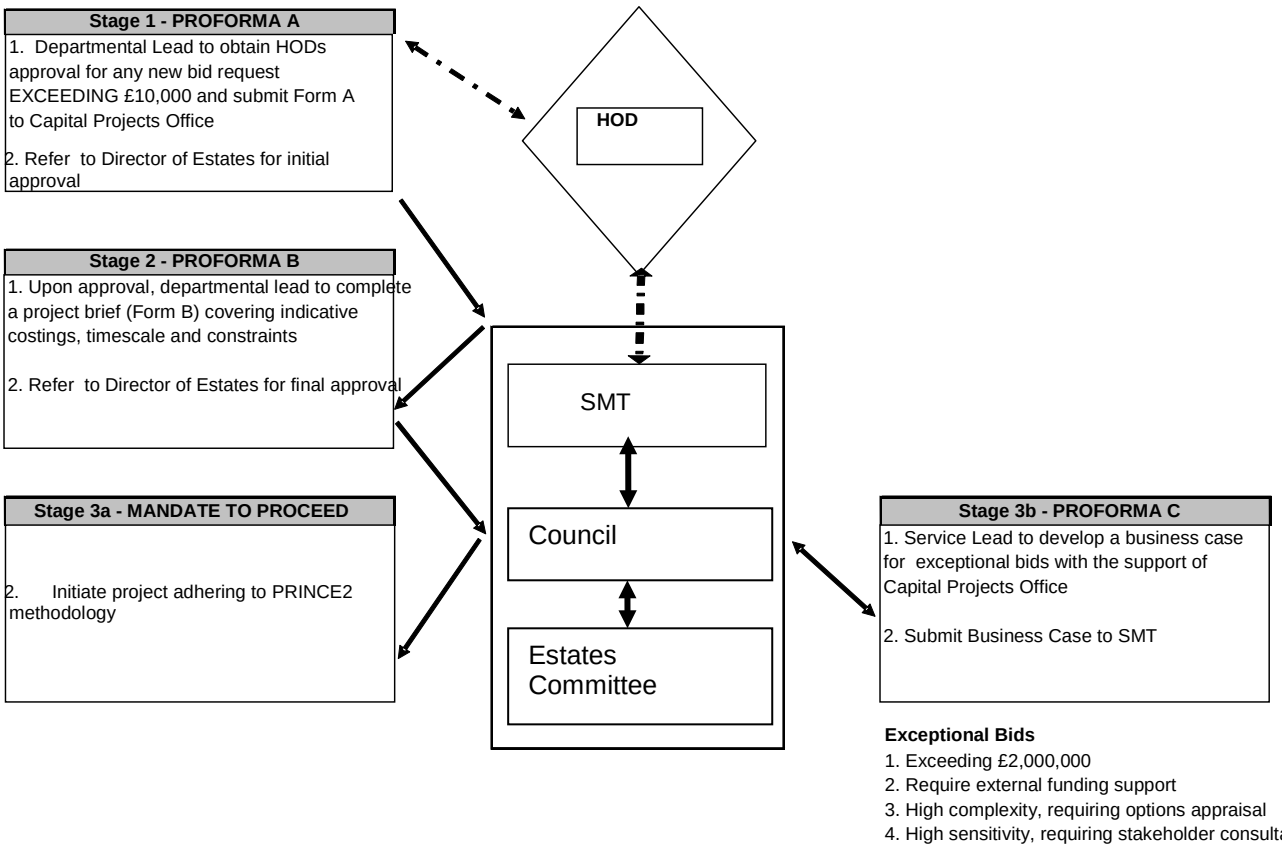
Scalability

Application of the Project Proposal process is mandatory for all projects.

Process Flow Diagram



Note: Includes all new investment on building schemes, non-asset projects, IT, vehicles and equipment procurement managed by the Estates and Facilities Department



Note: Includes all new investment on building schemes, non-asset projects, IT, vehicles and equipment procurement managed by the Estates and Facilities Department

Best Practice

At this stage, the exact detail of how the project will be delivered may not be known. It is therefore to be expected that in some cases the proposal will be to a certain degree made up of high level material or supplemented with assumptions.

A valid option for a proposal may be to do nothing. This option should not automatically be discounted. Indeed, doing nothing may provide a compelling case for taking some kind of action, for instance where it would leave the College open to litigation.

Templates/Checklists

- Project Proposal
- Outline Business Case
- Full Business Case

Reference

- PRINCE2: SU4 – Preparing a Project Brief

4.3. Build the Project Management Team

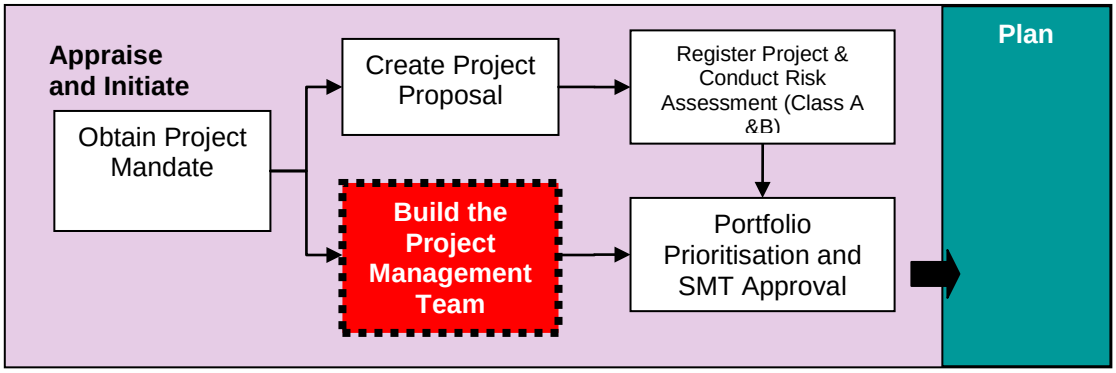
Description

This process assembles the project management team as part of initiation to ensure early direction and control necessary for project success.

The three initial roles to be appointed at this stage are the Project Sponsor/Senior Responsible Officer (SRO)*, Project Executive and the Project Manager. Other roles, including the rest of the Project Board can then be appointed as part of this process. Note that this will not occur until the Project Proposal has been approved by the Senior Management Team (SMT).

Sequence

This process occurs following the receipt of the project mandate, and in parallel with the development of the project proposal.



Benefits

- Control throughout project lifecycle results when roles and responsibilities are established up-front
- Project governance is built in to the project before development work begins
- Provides a structure for a project management team that supports:
    - Roles for decision makers
    - Management by exception for the decision makers
    - Full or part-time project management
    - Controlled delegation of some day-to-day management responsibilities, where required, to Team Managers
    - Roles for the independent inspection of all aspects of project performance
    - Admin support, as required, to the Project Manager and Team Managers
    - Agreement by all concerned on the various roles and responsibilities
    - Lines of communication between the project management team members

Inputs

- Project Proposal

Outputs

- Agreed Project Executive job description and appointee
- Agreed Project Manager job description and appointee
- Project Management team structure and appointees

Completion Criteria

- Proposed Executive has sufficient financial and functional authority necessary to support the project adequately ☑
- Candidates are available to contribute to the project's success throughout its lifecycle ☑
- Appointees have skills, qualifications, knowledge and experience required to undertake their duties – provision has been made for any necessary training to fill any skills gaps ☑
- All roles and responsibilities have been allocated and any exclusions are justified ☑
- Project Manager and Project Board members can make the commitments required of them and have experience of budgetary control to a level that would be acceptable to an external auditor ☑
- All relevant stakeholders are represented in the project management team ☑

Table 5 Completion Criteria

Steps

1. Identify candidates for Project Executive and Project Manager	Commissioning Body
2. Establish responsibilities for each role in line with best practice approaches to project governance	SMT
3. Appoint the Project Executive	Commissioning Body
4. Appoint the Project Manager	Project Executive
5. Design & develop Project Management Team Structure	Project Executive Project Manager
6. Identify candidates for other project management team roles o Senior Supplier o Senior User o Project Assurance o Project Support	Project Executive Project Manager
7. Appoint other project management team roles as appropriate to the scope, resources and constraints of the project	Project Executive Project Manager
8. If necessary, constitute additional groups such as quality review groups, service and academic representation, public and/or union consultative forums	Project Manager and Project Board
9. Ratify appointments	SMT

Table 6 Completion Criteria Steps

Scalability

All projects should have a Project Executive and Project Manager. These roles must not be performed by the same person.

Class A and B projects must have a full Project Board. Use of a Project Board is discretionary for Class C projects.

Best Practice

It will not always be possible to appoint the entire project management team while the project is not fully defined, scoped or planned. However, as a minimum the Project Executive and Project Manager roles should be filled so that early decisions can be made on the future of the project.

If the project is part of a programme, then programme management should appoint the Executive, and may influence the appointment of the Project Manager as well.

Expectations of what level of commitment is required from members of the project management team should be clearly defined and agreed, for instance whether full or part time commitment is required. Lessons learned from previous projects may provide data on the likely commitment required by project team members on similar projects, or on the mix of skills and experience needed.

Full-time engagement may not be possible for each member of the project management team on every project that is initiated. Project Executives and senior management should be aware that while part-time engagement is not necessarily a negative, it can lead to an increase in project risk.

Templates/Checklists

- Project Management Methodology - Section 9 - Project Board Handbook
- Project Management Methodology - Section 8 - Project Management Team Roles

Reference

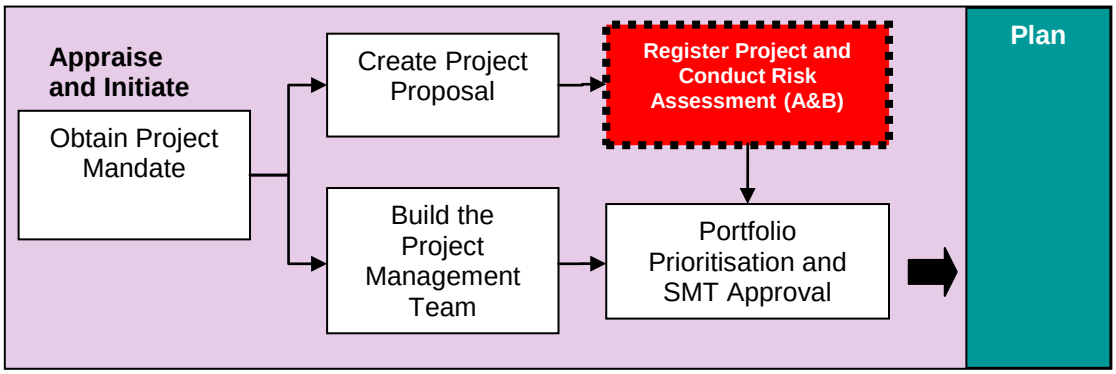
- PRINCE2: SU1: Appointing a Project Executive and Project Manager
- PRINCE2: SU2: Designing a Project Management Team
- PRINCE2: SU3: Appointing a Project Management Team
- Association for Project Management: A Guide to Governance of Project Management
- See also section 8 - Project Management Team Roles for additional information

4.4. Register Project and Conduct Risk Assessment

Description

This process lodges the project proposal, for the time being, with the Capital Projects Office and provides a risk assessment score which is used by the Programme and Project Assurance Board (SMT) when deciding whether to approve the project.

Sequence



Benefits

- All project proposals are logged centrally, thereby contributing to the development of the College's portfolio of programmes and projects
- Risks are identified early in the project, allowing potentially difficult or unviable projects to be highlighted to senior management team
- Consistent approach adopted for project risk assessment and appraisal

Inputs

- Completed Project Proposal
- Name of appointed Project Executive
- Provisional date for SMT review of Proposal

Outputs

- Registered project with unique project number
- Project Type (Class A, & B) assigned

Completion Criteria

- All mandatory information is supplied and recorded in the Capital Projects Office Project Register ☑

Steps

1. Send final version of Project Proposal to Capital Projects Office	Project Proposal Author
2. Enter project details into project register	Capital Projects Office
3. Supply Proposal Author and Project Executive with unique project number	Capital Projects Office
4. Supply Project Executive with project risk assessment score	Capital Projects Office
5. Supply Project Executive with date when Proposal will be considered by SMT	Capital Projects Office

Scalability

All proposed in class A & B projects must undergo a risk assessment prior to consideration by SMT.

Templates/Checklists

- Capital Projects Office Project Registration Form and Database

Reference

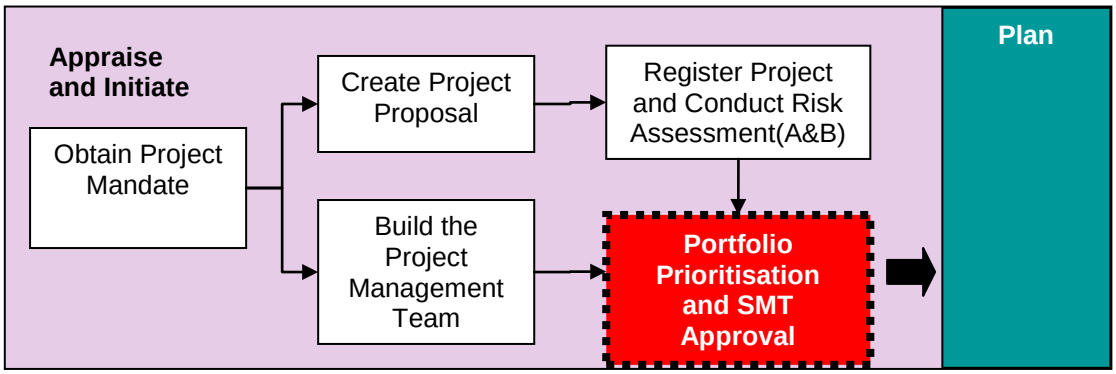
- Internal Capital Projects Office Procedure

4.5. Portfolio Prioritisation and SMT Approval

Description

This process reviews the completed project proposal against the rest of the College's portfolio of programme and projects and provides a decision on whether the project should be approved.

Sequence



Inputs

- Completed Project Proposal
- Outline Business Case (where available)
- Project Risk Assessment Rating

Outputs

- Decision
  - Approval
  - Rejection
  - Amend
  - Defer

Steps

1.	Submit Proposal and/or Outline Business Case as papers to SMT	Project Support Office
2.	Present case at SMT meeting	Project Executive Project Manager
3.	Appraise Proposal and make decision	SMT
4.	Assign project priority	SMT
5.	Communicate outcome	Capital Projects Office

Best Practice

The following areas should be considered by SMT at this stage:

Strategic Fit

- Is the proposal in line with the College's future strategy?
- Is/are there existing projects which are already addressing similar issues as the proposed project?
- How does this proposal contribute towards taking the College towards its stated objectives?

Finance

- Does the proposal present a viable business case?
- Is the cost estimate robust and does it cover all known costs and activities?
- Is funding available? If so, from where?
- What is the SMT priority for the proposed project?

Benefits

- Is there a robust definition of the proposed project's benefits?
- When does the proposed project plan to begin realising its benefits?
- What are these benefits?

Project Governance

- Have the interests of key stakeholders, including suppliers, other academic bodies, and interested institutions been aligned with project success?
- Are key project management roles and responsibilities clear and in place?

Resources

- How many areas will be impacted by this project – both during any development work and following implementation?
- Are departments and suppliers willing and able to provide key resources to support and deliver the project?
- Is the project reliant on external contractors to deliver the change?

Dependencies

- Is this proposal dependent on any other projects to succeed?
- Are any other projects dependent for their success on this proposed project?

Scope and implementation

- When is this project planned to be implemented?
- What other projects are being implemented at the same time and resources availability/allocation?
- What is the implementation approach – phased or 'big-bang'?
- Will other projects have to be moved forwards or backwards, or terminated, to accommodate this project? If so, which ones?

At the end of this phase a gateway review process shall be conducted as defined in prince2 for class A projects

References

- Association for Project Management: A Guide to Governance of Project Management

5. Plan

The processes contained within the Plan phase all contribute to the development and authorisation of the Project Initiation Document, and the approval for the project to proceed into Delivery.

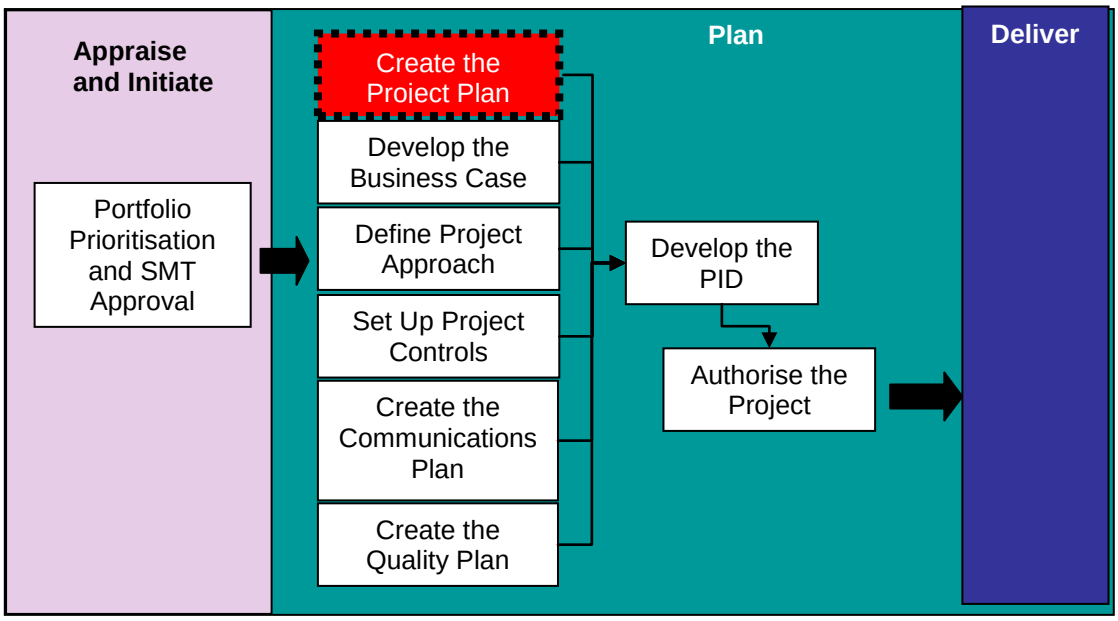
5.1. Create the Project Plan

Description

A plan is the backbone of every project and is essential for a successful outcome. This process describes how to approach the production of an effective project plan. The project plan forms a key component of the Project Initiation Document.

It is important to note that creation of a sound project plan is an iterative process which should involve regular consultation and validation with key project stakeholders.

Sequence



Benefits

- Allows the project manager to maintain day-to-day control
- Gives the Project Board a mechanism for viewing project progress
- Establishes the duration, resource effort and budget of the project and provides a baseline for the project to be measured against
- Breaks down the project into meaningful and manageable components

Inputs

- SMT Approval
- Project Proposal

Outputs

- Plans
  - Project Plan
  - Stage Plan
  - Team Plan
  - Exception Plan
- List of proposed management and specialist products
- Updated risk and issue log

Completion Criteria

- Presentation method and the level of detail of the plan is appropriate for the audience ☑
- All products identified ☑
- Types of resources required have been identified ☑
- The tasks which, if they slip, will delay the whole project/stage (also known as the critical path), have been identified ☑
- Key milestones have been identified and incorporated ☑
- Risks and potential issues have been identified and risk management activity has been built in to the plan ☑

Steps

1. Develop the initial top level breakdown of project objectives into work streams.	Project Manager
2. Identify the products which will be produced by each work stream.	Project Manager Project Team
3. Produce a Product Breakdown Structure to identify and clarify all the products the project will produce (see Scalability below).	Project Manager Project Team
4. Produce a Product Description for each specialist product which is to be developed. These can then be used to assist with management of the delivery of the product (see sections 6.1 - Manage Delivery and 6.5 - Manage Quality)	Project Manager
5. Identify product dependencies	Project Manager Project Team
6. Produce a Product Flow Diagram (see Scalability below)	Project Manager Project Team
7. Define tasks and activities which must be completed to create the products.	Project Manager
8. Incorporate milestones to signify achievement of key planned deliverables	Project Manager
9. Estimate effort to complete each task. Use information from previous projects undertaken where this is available.	Project Manager Project Team
10. Create a schedule. Take into account the sequence of and dependencies between tasks, and resource availability or time constraints.	Project Manager
11. Assess the risks to the plan – where assumptions have been made, these increase risk.	Project Manager
12. Add any new risks to the risk log. Validate assumptions with appropriate stakeholders.	Project Manager
13. Refine the schedule. Are dependencies still valid? Is additional resource effort required? Can resources be released?	Project Manager

14. Calculate the overall cost – time and resources/effort of the project.	Project Manager
15. Examine the critical path (the sequence of tasks whose slippage will delay the whole project). Can the risks around these tasks be contained or reduced in some way?	Project Manager
16. Apply an appropriate level of contingency to the project plan (see Contingency below)	Project Manager
17. Divide the project into meaningful stages and schedule end stage review milestones	Project Manager
18. Create a narrative to support the plan.	Project Manager

Scalability

Use of a project plan is mandatory for all projects. However, Class C projects may use a scaled-down plan subject to the approval of the Project Executive. (refer to page 3 of this manual) For example, a plan may consist of a list of key milestones and high-level stage descriptions as below:

Stage or Milestone Name	Baseline Date	Current Forecast Date	Actual Date
Procurement Start	01/08/2005	01/08/2005	30/07/2005
Issue ITT	14/08/2005	21/08/2005	
Response deadline	06/09/2005	06/09/2005	
Select Supplier	20/09/2005	20/09/2005	
Procurement Complete	28/09/2005	28/09/2005	

Product Breakdown Structures and Product Flow Diagrams (see section 10.1 - Product Based Planning) are discretionary products for all types of project.

Levels of Plan

Within a project, there are different levels of plan to reflect the needs of the different levels of management within the project.

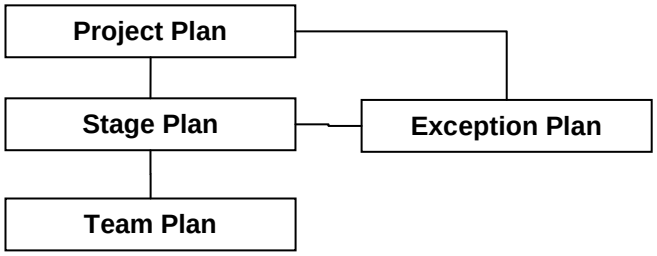


Figure 3 - Levels of Plan

This process is concerned with producing a project plan, but the principles and steps contained here may equally be applied to other levels of plan.

A Stage Plan is a more detailed view of the activities necessary to produce the outputs of a stage. Where a stage involves several teams, it may be necessary for each team to additionally plan its own work in a greater level of detail, in the Team Plan.

An Exception Plan is produced when a stage is forecast to exceed its allocated tolerance. It replaces a Stage Plan and is intended to describe to the Project Board how the Project Manager will put the project back on track.

Contingency

It is recommended that the level of contingency is linked to the risk assessment score of the project (see Process Register Project and Conduct Risk Assessment), as follows:

Project Risk Assessment Rating	Recommended Contingency Allowance
High	30%
Medium	20%
Low	10%

Contingency should be applied at the project and stage level against time and cost as illustrated below

	Project Risk Rating	Contingency Allowance	Example		
			Excluding contingency	Contingency Amount	Total
Project	High	30%	100 days duration	30 days	130 days duration
Stage	Medium	20%	£10,000 cost	£2,000	£12,000

Contingency should only be applied to tasks with variable duration or cost and not fixed duration or cost. For example, do not apply contingency to a task such as public consultation period with a standard duration of six weeks.

Best Practice

Keep plans simple. The process described above uses the Product Based Planning Technique, for more information on Product Based Planning, see section 10.1.

Previous projects completed within the College may be a useful source of reference when constructing a plan. There may be actual measures of how long a task took to complete or how much effort was required. Lessons learned from previous projects on approaches to planning or developing products can also be valuable.

Remember that different formats or layouts of plans may be required for different audiences. For example, aim to produce one page plans for project boards including key deliverable milestones, benefit realisation milestones, and baseline data.

The boundary of stages may be obvious for certain types of project (for example, when a new building has been completed, but prior to fitting out), but less so in others. As a guide, stages should not be longer than three months in duration.

Project managers should plan in detail to the end of the current stage, to a higher level thereafter.

Not everyone has access to the use of, or knowledge of a formal planning tool such as Microsoft Project, so consider the use of Microsoft Excel or Word instead. The Capital Projects Office can provide guidance on production of plans using these tools.

Consider the use of a workshop or facilitated meeting to identify products, approaches and activities and to get buy-in from stakeholders.

Techniques such as Product Based Planning can be used to identify what the project is going to produce and can be useful in the planning phase when the full scope and extent of the project is not yet completely determined.

If product descriptions are produced, representatives of the user/customer community must be involved in this effort as they will be responsible for accepting the completed products of the project.

When identifying and defining tasks and dependencies, consider those which can run in parallel with other tasks, or tasks which can overlap others.

Be realistic about resource availability and the number of resources required – take into account part-time working, the demands of other project work and day-to-day responsibilities, seasonal variation (e.g. holidays in summer, illness in winter), and so on.

Take time to validate any assumptions being made with the Project Team, Project Board or other key stakeholders as appropriate, to reduce risk and provide a sound foundation to the project plan.

The narrative to support the plan could be a few paragraphs or a presentation to the Project Board or stakeholders. It should describe where necessary the reasons for the project being developed in a certain manner or sequence and should support any graphical representation of the plan.

The plan is a living document which should be reviewed and updated regularly to take into account changes, external factors and the progress of work being performed. See section 6.6 for more information on reviewing plans.

Templates/Checklists

The Estate Office maintains several Microsoft Project plan templates which describe the key project management tasks for a project. These templates are scaled to be appropriate for different sizes of project.

The Methodology contains a section on the Product Based Planning technique, which contains further information on producing Product Breakdowns Structures, Product Descriptions and Product Flow Diagrams. See section 10.1 for further information.

- Microsoft Project plan templates

Reference

- PRINCE2: Planning – PL1 to PL7
- PRINCE2: Techniques: Product Based Planning

5.2. Develop the Business Case

Description

The Business Case is the assessment of the proposed benefits of the project against the costs which will be spent on the project. The Business Case forms part of the Project Initiation Document (PID). It is a living document which should be reviewed regularly through the lifetime of the project to ensure that the project is still viable.

Sequence

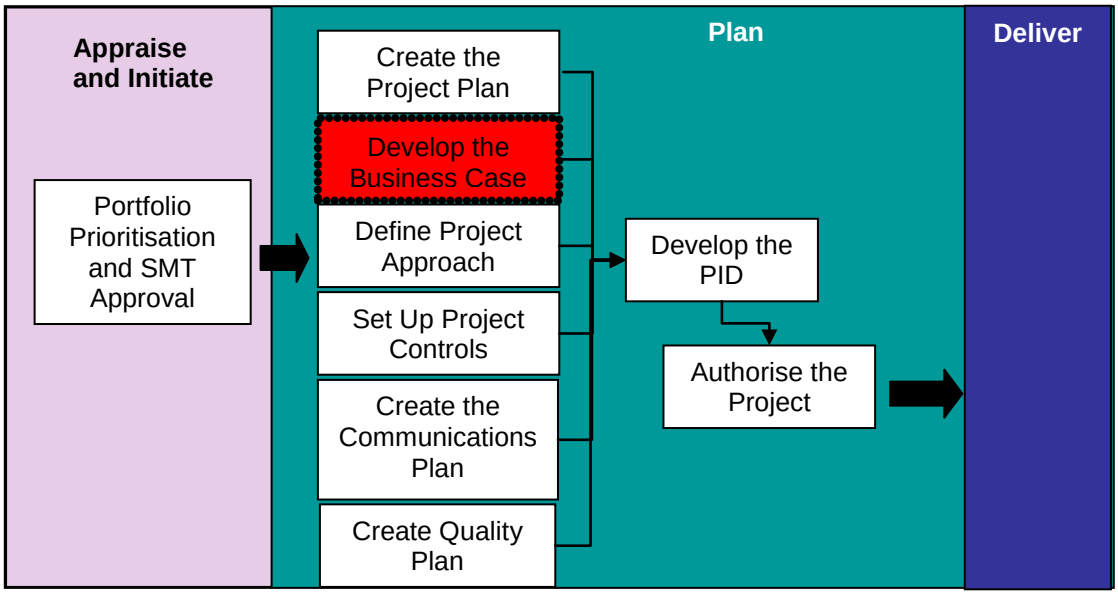


Figure 4 Business Case Sequence

Benefits

- A robust business case provides a strong justification for the initiation and delivery of a project

Inputs

- Completed Project Risk Assessment
- SMT Approved Project Proposal

Outputs

- Updated Project Initiation Document
- Strategic Outline Case (where appropriate)
- Outline Business Case (where appropriate)
- Full Business Case (where appropriate)

Completion Criteria

- For OBC and FBC, a full investment appraisal of all options (including 'do nothing' or 'do minimum' option) has been completed ☑
- Pre-existing content of Project Proposal has been refined to take into account any additional information gained since approval ☑

Steps

1.	Determine business case development route	Project Manager
2.	For internal projects with no Private Finance involvement, review the existing Business Case material contained in the Project Proposal and update if required	Project Manager
3.	For Private Finance Initiative Projects, develop Strategic Outline Case if required	Project Manager Project Team
4.	Gain approval of SOC if applicable	SMT
5.	Develop Outline Business Case and Full Business Case	Project Manager Project Team
6.	Gain approval of OBC and FBC from appropriate bodies	Project Executive

Scalability

Production of a Business Case is mandatory for all Class A and B projects, although in the latter case, the appropriate section of the Project Proposal is an acceptable substitute. For Class C projects, the business case may be scaled down to a simple summary of cost and benefit.

Best Practice

In the case of the majority of projects carried out by the College, the business case component of the Project Proposal can simply be inserted directly into the Project Initiation Document, with additional detail being included as appropriate. Refer to section 4.2 for further information.

In some circumstances such as PFI it will be necessary for the project to complete a Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC), together with a submission to SMT The table below denotes the criteria for the completion of such documents:

Project / Value	**Business Case Required**	**Approval Body**
Internal Project – revenue only/no capital investment	Project Proposal	Director of Estates
Internal Project – capital investment, less than £1 million	Project Proposal Pro-Forma	SMT
Internal Project – capital investment, more than £1 million	Project Proposal and FBC	SMT, Estates Committee

.
For larger projects involving procurement through the Private Finance Initiative, the process of developing Outline and Full Business Cases can be very lengthy.

Construction of the business case for larger projects may form a project in its own right. A structured approach, with clear understanding on roles and responsibilities, as well as a clearly defined objective, is vital in this instance.

Skills and knowledge required to produce an effective business case include:

- College Business Planning
- Management and operation of academic services
- Financial analysis and costing

- Construction and property management
- IT, HR and Business Process Re-engineering

It may be necessary therefore for training activities to occur prior to the development of the business case.

Production of a robust business case is a vital component in ensuring that projects are adhering to benefits management best practice. For more on benefits management, see section 10.3.

Templates/Checklists

- Project Proposal
- Outline Business Case Template
- Full Business Case Template

Reference

- HM Treasury Green Book
- OGC Gateway Review
-

5.3. Define the Project Approach

Description

This process describes how the work to be undertaken by the project will be approached. The output of this process forms an important component of the Project Initiation Document.

Sequence

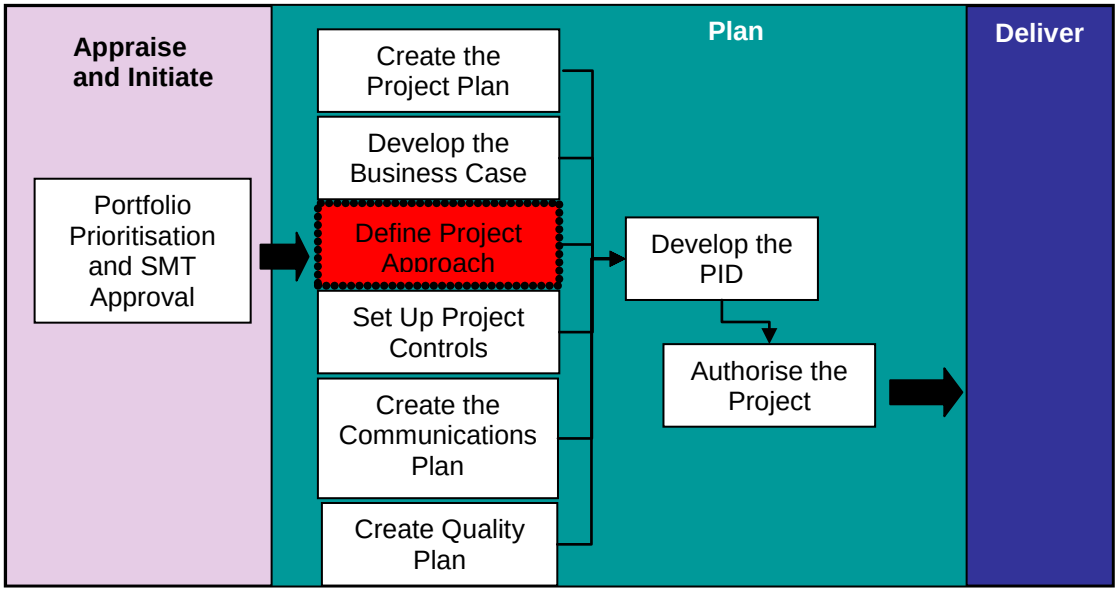


Figure 5 Define Project Approach

Benefits

- The process considers all possible options for the way the project will be conducted and identifies if the College has the capacity to manage this internally or if external expertise is required
- Initiates early two-way communication to key stakeholders of how the project will proceed
- Identifies potential project and service risks which will influence the decision to proceed with the project

Inputs

- Approved Project Proposal

Outputs

- Documented project approach and choice of recommended option for inclusion in the PID
- Identified risks for chosen project approach

Completion Criteria

- Risks for each possible approach have been identified, documented and evaluated ☑
- Lessons learned, data or information from projects which have used similar ☑

approaches have been considered where necessary to aid decision making
- Key stakeholders have been consulted and fully understand the selected approach ☑

Steps

1.	Define appropriate criteria and parameters for the choice of project approach	Project Manager and Project Executive
2.	Identify any standards or guidelines which might govern how the project is carried out or how the solution must be developed or supported.	Project Manager
3.	Identify a range of options to conduct the work	Project Manager
4.	Identify and evaluate the level of risk of each suggested option	Project Manager
5.	Identify any constraints of time, scope or resources associated with each option	Project Manager
6.	Evaluate the possible options against the identified criteria and parameters	Project Manager and Project Executive
7.	Select the most appropriate option	Project Manager and Project Executive

Scalability

Production of a dedicated Project Approach document is discretionary. However, as a minimum, the corresponding section of the Project Initiation Document must be completed.

Best Practice

Existing standards or regulations or their custodians which might influence the choice of project approach include:

- Higher Education Funding Council for Education (HEFCE)
- British Standards Institute (BSI)
- International Standards Organisation (ISO)
- Freedom of Information Act
- Data Protection Act
- Equal Opportunities and anti-discrimination regulations,
- Internal College procedures and guidelines,
- Health and Safety regulations
- Prevention of Crime & Counter Terrorism Act

Possible approaches for the development of a project include:

- Purchase of a commercial off the shelf product
- Internal development of a product or solution
- Use of external consultancy or third-party suppliers
- Joint working with other Institutions, London Borough of Lewisham or other public bodies
- Private Finance Initiative (PFI) partnership or other risk transfer mechanism

The associated risks of the chosen approach should be clearly stated and strategies put in place to reduce risk exposure wherever possible.

The choice of project approach often has a direct bearing on the cost, duration and level of risk of a project. It is strongly recommended that the Project Manager consult and involve the Project Executive in the assessment and evaluation of possible approaches.

Prior to the next stage of the project – delivery – being authorised, it is recommended that the approach be discussed informally with key stakeholders and/or members of the appropriate commissioning body.

If the project is large, the project approach may be a document or paper in its own right. Typically however, the project approach will be a component of the Project Initiation Document.

Templates/Checklists

- See Project Approach section of Project Initiation Document template

Reference

- PRINCE2: SU4: Defining the Project Approach

5.4. Set Up Project Controls

Description

This process determines the necessary control mechanisms to ensure successful monitoring and management of the project.

Key controls, such as the Issue Log and Risk Log templates are customised at this point to meet the needs of the project.

Configuration management is the control of products and documentation produced during the project. As projects produce large amounts of information, a standard folder structure is produced to hold any documentation generated during the project and to assist with efficient configuration management and control of change. Document management standards for the project also contribute to this control and should be defined as part of this process.

Sequence

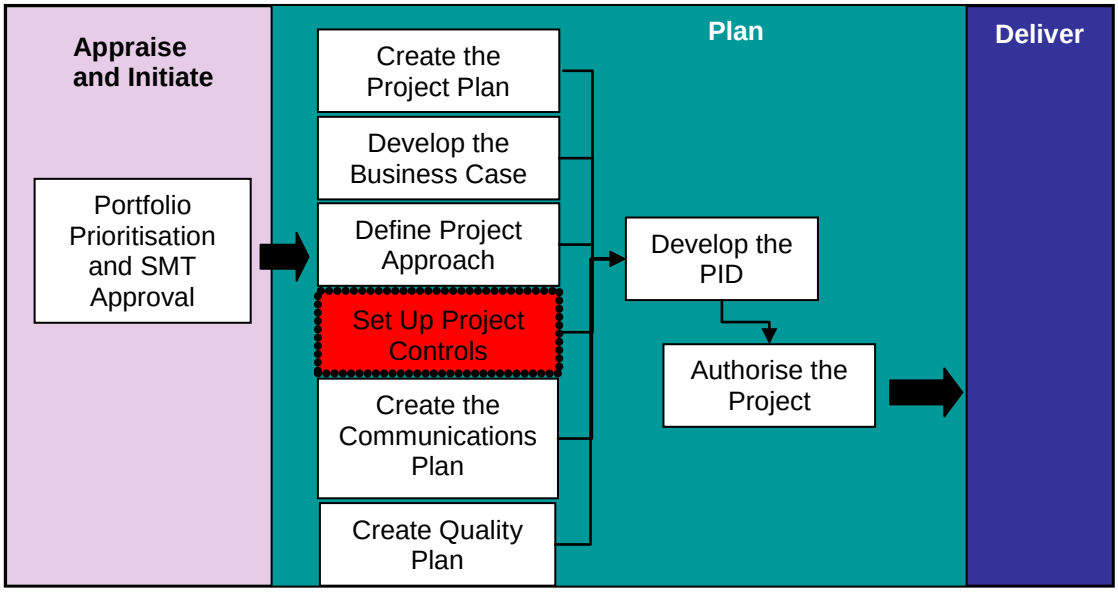


Figure 6 Set up Project Controls

Benefits

- Standardised approach to project control mechanisms
- Project teams are able to call on the services of the Capital Projects Office to provide support and mentoring as needed
- Gives the project a degree of structure and rigour early in the lifecycle
- Gives confidence to stakeholders that the project is being properly managed

Inputs

- SMT Approved Project Proposal
- Project Plan
- Project Approach Section of the Project Initiation Document (if not held as a separate document)

Outputs

- Standard project folder structure and procedures for document control
- Customised Risk, Issue and Change Logs specific to the project itself
- Lessons Learned Log
- Agreed project highlight, checkpoint and summary reporting structure and schedule
- Draft Capital Projects Office Quality Assurance schedule

Completion Criteria

- Standard project folder structure must be appropriate for the type of project ☑
- Effective system in place for holding, baseline, archive and in progress project information ☑
- Customisations to project risk and issue log templates must be fully functional prior to release to the project ☑
- Any necessary training on use of standard templates has been defined and scheduled ☑

Steps

1. Produce standard project folder structure and save any current project information in the appropriate folders	Capital Projects Office (PSO) Project Manager
2. Create a baseline of the current approved project documentation	PSO
3. Agree document management and configuration management standards	PSO Project Manager
4. Meet with Project Manager to customise risk, issue and change log templates as necessary	PSO Project Manager
5. Develop and test any required customisations to risk, issue and change log templates	PSO
6. Agree Project Reporting structure, schedule and any training needs	PSO Project Manager
7. Arrange training where required	PSO
8. Agree initial quality assurance requirements and schedule	PSO Project Manager
9. Create initial Lessons Learned Log	Project Manager

Scalability

Standard folder structures should be tailored to reflect the documents stipulated by the Methodology following registration with the PSO.

Best Practice

- It is advisable to seek to develop all the control requirements in one or two meetings with the Project Manager to avoid lengthening the process
- Project folder structures should be made available on network drives which can be accessed by the entire project team
- Existing College standards for document management, naming and version control should be followed wherever possible
- Review the controls at the end of each stage of the project and revise if required

Templates/Checklists

- Risk Log Template
- Issue Log Template

- Change Log Template
- Checkpoint Report Template
- Highlight Report Template
- Project Summary Report Template
- Risk and Issue Log User Guidance

Reference

- PRINCE2: IP4: Setting Up Project Controls
- PRINCE2: Configuration Management

5.5. Define the Communications Plan

Description

Effective communication with the project's stakeholders is equally important in ensuring project success as the delivery of good quality products on time and within budget. A Communication Plan helps with this by identifying the stakeholders and detailing the approach to communicating with them. This process describes the steps to be taken to produce such a plan.

In larger or more complex projects, the Communications Plan may form a document in its own right, but in most cases it is a component of the Project Initiation Document (PID).

Sequence

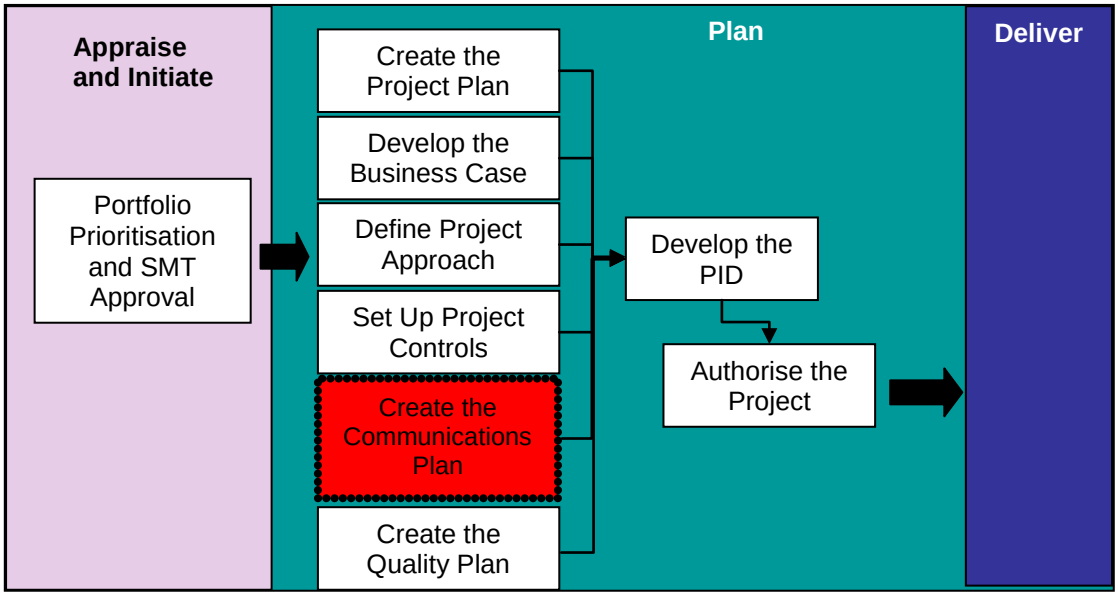


Figure 7 Create the Communication Plan

Benefits

- Ensures that communication activities are structured and efficiently planned, thereby avoiding duplication of effort
- Ensures that communications are timely and appropriate to the needs of each group of project stakeholders

Inputs

- SMT Approved project proposal
- Project approach
- Project plan

Outputs

- Completed Communications Plan, for inclusion in the PID
- Updated project plan

Completion Criteria

- All stakeholders have been identified and their communication requirements ☑

defined

- Identified stakeholders have agreed to the content, frequency and method of the communication ☑
- Time for any required communications work has been incorporated into the project and/or stage plans as appropriate ☑

Steps

1.	Identify project stakeholders	Project Manager Project Team
2.	Define communication requirements	Project Manager
3.	Agree communication frequency and format	Project Manager
4.	Schedule communication development and transmission activities into the project plan	Project Manager
5.	Update Communication Plan	Project Manager

Scalability

Production of a Communications Plan is discretionary for all projects. However, in the case of Class A projects it is highly recommended that one is produced.

Best Practice

Regardless of whether a Communications Plan is produced, the importance of regular communication both within the project and from the project to stakeholders cannot be emphasised strongly enough. In most cases it is better to over-communicate than not at all.

Stakeholders may not simply be those with a direct interest in the project, such as the Project Executive, or users of the project's outputs. There may be other stakeholders (possibly external to the College) who have an indirect interest in the project. It is important not to lose sight of these groups and to consider how their communication needs should be met.

The methods of communication used should be appropriate to the content of the message. For example, face-to-face meetings may be more appropriate when dealing with sensitive issues, while email may be more suitable for general project updates.

The success or otherwise of communication activities conducted during the project should be reviewed at regular points to ensure that material and methods continue to be appropriate as the project advances.

It may be necessary to increase the frequency, content and audience of communication material as the project nears completion, and this should be taken into account when the project is planned. For example, additional material such as presentations and public meetings may need to be developed prior to implementation of a new system into the live environment.

The College has a dedicated team of communications specialists who are able to provide practical advice to project teams.

Templates/Checklists

- See Communication Plan section of Project Initiation Document Template

Reference

- PRINCE2 – IP4 – Setting Up Project Controls

5.6. Create the Quality Plan

Description

The Quality Plan describes how the project will meet the customer's quality expectations for the products to be delivered.

Sequence

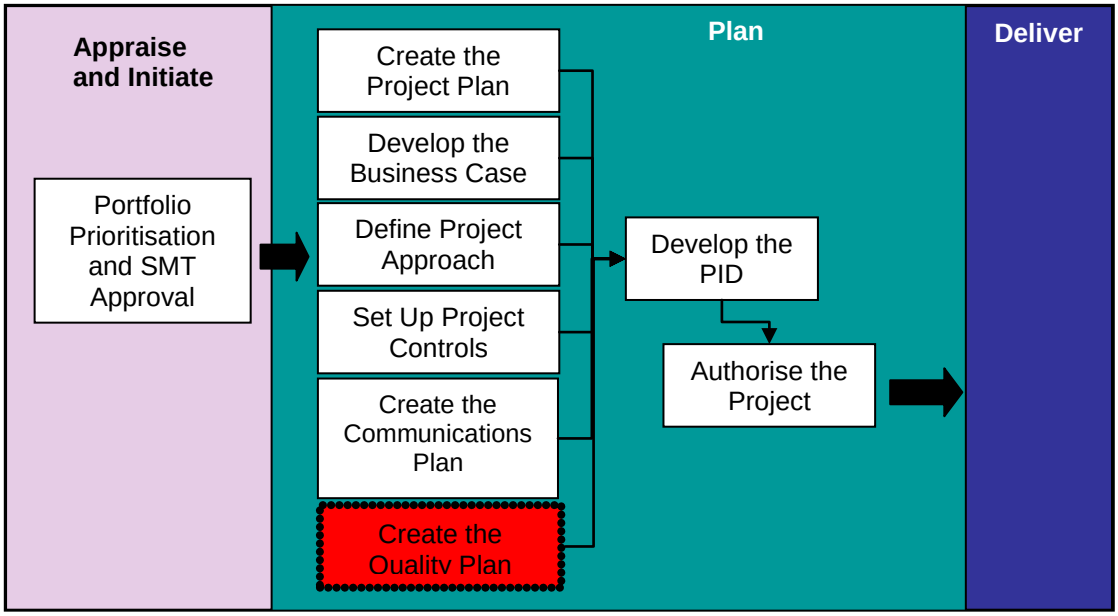


Figure 8. Create the Quality Plan

Benefits

- Use of a Quality Plan ensures that both the customer and the supplier of the final products are aware of the quality control standards and processes to be followed
- Ensures that the focus on quality products is not lost or lessened

Inputs

- Project Approach
- Existing standards
- Customer or user expectations for quality

Outputs

- Completed Quality Plan for inclusion in the PID

Completion Criteria

- The customer has been involved in specifying his/her quality requirements ☑
- Responsibilities for quality management within the project are clearly understood and documented ☑
- Quality criteria are measurable ☑

Steps

1. Establish the customer's quality expectations	Project Manager Customer / User
2. Establish whether existing quality standards exist (both on the supplier and customer sides)	Project Manager
3. Identify the quality control procedures to be used during the project	Project Manager
4. Identify quality responsibilities both within, and outside, the project	Project Manager
5. Define the procedures to be used to control the configuration of the project's outputs	Project Manager
6. Document all the above elements into the Project Quality Plan	Project Manager

Scalability

The Quality Plan component of the PID must be completed for all projects.

Best Practice

To ensure the project delivers outputs of an acceptable quality, the quality plan should cover the following areas:

- How the product will be tested against its quality criteria
- When this testing will occur
- Who will be responsible for this testing
- How acceptance of the product will be notified

The chosen project approach may affect how the project goes about meeting the customer's quality expectations. Information on the project approach must therefore be reviewed and understood when the quality plan is constructed.

Uncontrolled change will have a significant impact on the quality of the project. It is therefore crucial that robust change control processes are in place.

Where the project will use existing quality standards, these should simply be referenced appropriately in the project quality plan.

Templates/Checklists

- See Quality Plan section of Project Initiation Document Template

Reference

PRINCE2 – IP1 – Planning Quality

5.7. Develop the PID

Description

The Project Initiation Document (PID) is the key document which is produced during the Planning phase of a project. Authorisation of the PID is the green light for the project to proceed into the Delivery phase. Once authorised the PID forms the baseline against which project progress will be measured. This process assembles the PID, taking material produced in other Planning phase processes, prior to it being considered for approval by the Project Board.

Sequence

As can be seen from the diagram below, there are several processes which should be completed before the assembly of the PID. In practice these processes can occur in parallel with each other, with the PID being updated as each component becomes available.

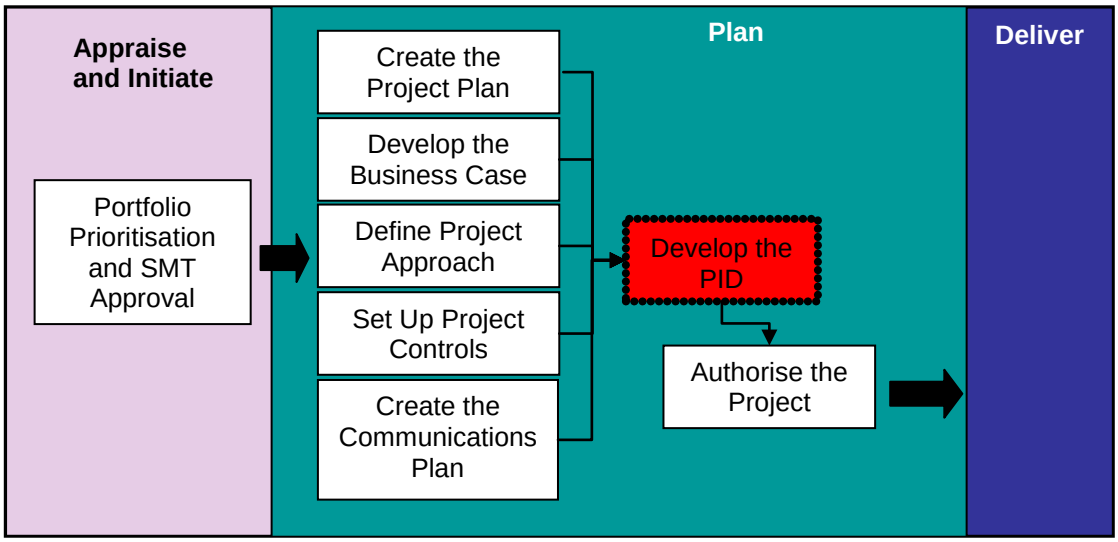


Figure 9 Develop the PID

Benefits

- The PID provides a consistent and single source of information to the project team and wider stakeholders on how the project will proceed, what it will produce, and who will be involved.

Inputs

- Project Proposal
- Business Case
- Project Approach
- Project Plan
- Risk Log
- Issue Log
- Communications Plan
- Quality Plan
- Project Management Team structure

Outputs

- Draft Project Initiation Document for approval

Completion Criteria

- All the necessary components of the PID have been supplied ☑
- The document is under version control ☑
- The document provides all the information required to enable a decision on project approval to be taken ☑

Steps

1. Collate all information and components produced in the other Plan processes	Project Manager Project Support
2. Incorporate this material into the PID	Project Manager Project Support
3. Complete any additional sections and incorporate supplementary materials as required. For example: • Project Objectives • Assumptions • Acceptance Criteria • Project tolerances	Project Manager Project Support
4. Issue draft PID for review and comment	Project Manager

Scalability

A PID must be produced for all projects. For Class C projects, the PID may be scaled down subject to the agreement of the Project Executive.

Best Practice

If the contents of the PID have been developed using various other components, then these should be cross-checked to ensure consistency and compatibility across the document.

The PID is not a static document, produced on a one-time only basis. It should be kept current to reflect the current approach being taken and the position of the project's business case. Following the approval of major changes to the project, the PID should always be updated and reissued. This could range from a full re-write to a simple addition of the change details as an appendix.

Liaise with the members of the Project Board to determine how they would like to see the content of the PID. For instance, it may be appropriate to keep the length of the main document short, and supplement it with material held in appendices.

Templates/Checklists

- PID Template

Reference

- PRINCE2 – IP6 – Assembling a Project Initiation Document

5.8. Authorise the Project

Description

This process allows the Project Board to check, before major resource commitment, that

- A reasonable business case exists for the project
- The project's expected duration and effort are within acceptable limits
- The risks facing the project are acceptable
- Adequate controls are in place

Sequence

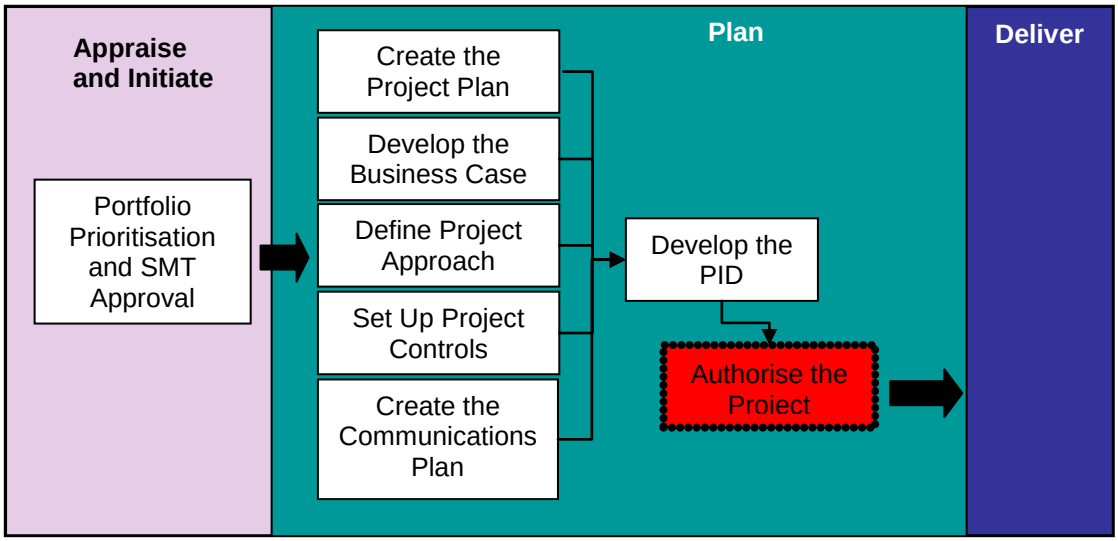


Figure 10 Authorising the Project

Benefits

- The baseline of the project at the point it is approved is formally captured, allowing future measurement of progress or deviation against this snapshot

Inputs

- Initial Project Initiation Document
- External approval of Outline Business Case

Outputs

- Approved and baselined Project Initiation Document

Completion Criteria

- All members of the Project Board to have reviewed and signed-off the PID ☑
- Any caveats, exclusions or amendments to be fully documented and incorporated ☑
- Project Initiation Document to be re-based at version 1.0 and stored in project file following sign off ☑

Steps

1. Review the PID: a. Confirm that the project's objectives and scope are clearly understood by all b. Confirm that the objectives are in line with corporate/programme objectives c. Confirm that all authorities and responsibilities are agreed d. Confirm that the business case is adequate, clear and measurable e. Confirm the existence of a credible project plan for the project and the next stage f. Confirm tolerance limits for the project and the next stage	Project Board
2. Feed back amendments	Project Board
3. Set stage tolerances for the following areas • Duration • Cost/effort • Risk • Quality	Project Board
4. Sign off the PID and the plan.	Project Board
5. Formally commit resources to the project	Project Board
6. Baseline any documentation produced to this point	Project Manager Project Support
7. Arrange a date to review the next stage	Project Board Project Support

Scalability

Formal authorisation of the project by the Project Board is mandatory for Class A and B projects. For those smaller projects which do not have a dedicated Project Board, it is mandatory that written authorisation to proceed is obtained from the Project Executive.

Best Practice

All stakeholders should be fully engaged in the process of reviewing the PID. The Project Manager should have regular informal contact with the Project Board prior to approval of the project. This helps to build engagement and reduce the likelihood of surprises occurring later in the project.

Perform a review of the risks and issues prior to obtaining approval in order to capture any last minute changes which may impact the project at a later date.

The level of tolerance allocated to a stage should depend on the risk content of the work. For example, a project using an untested or new approach to development is more risky, and therefore should have greater tolerance levels, than a project using a tried and tested approach.

Risk tolerance determines when risks should be referred upwards to the Project Board. For more on this see section 6.2.

Keep the number of signatories of the PID to an appropriate level for the scale of the project, otherwise there is a risk that this process could be unnecessarily extended and hold up the delivery phase.

There does not always need to be a formal meeting of the Project Board in order to approve the PID and the project – it is acceptable for sign-off to be obtained via email, however it is best practice to obtain a signed copy for storage in the file of project documentation. Incorporate a Project Charter into the PID to formally denote the Board's approval. See Appendix A-2 for a template.

Where the project is approved, but amendments to the PID are required, and it will take some time to update the document, the Project Board may allow delivery activities to commence with the proviso that the updated PID is issued by a given date. This avoids project approval becoming a bottleneck for the rest of the project management processes.

Project Board members are busy people, so it is advisable to schedule the date for the review of the next stage at this point rather than at short notice later.

AT THE END OF THIS PHASE A GATEWAY REVIEW PROCESS SHALL BE CONDUCTED AS DEFINED IN PRINCE2 FOR CLASS A PROJECTS

Templates/Checklists

- Project Board Members Handbook

Reference

- PRINCE2: DP2 – Authorising a Project

6. Deliver

The Deliver phase is the engine room of the project. It is where the majority of the project's desired outputs and deliverables should be produced. It is also where regular project reporting, tracking and re-planning takes place. Processes within the Deliver phase are concerned with the completion and delivery of project outputs, ensuring effective control and minimising project risk, and with ensuring good quality information is provided to the project management team to enable effective decision making. The principal processes of managing delivery, change, quality, risks and issues occur iteratively throughout the Deliver phase.

6.1. Manage Delivery

The exact process for managing delivery will be dependent on the type, complexity and approach of the project. Best practice guidance is included for reference below.

Sequence

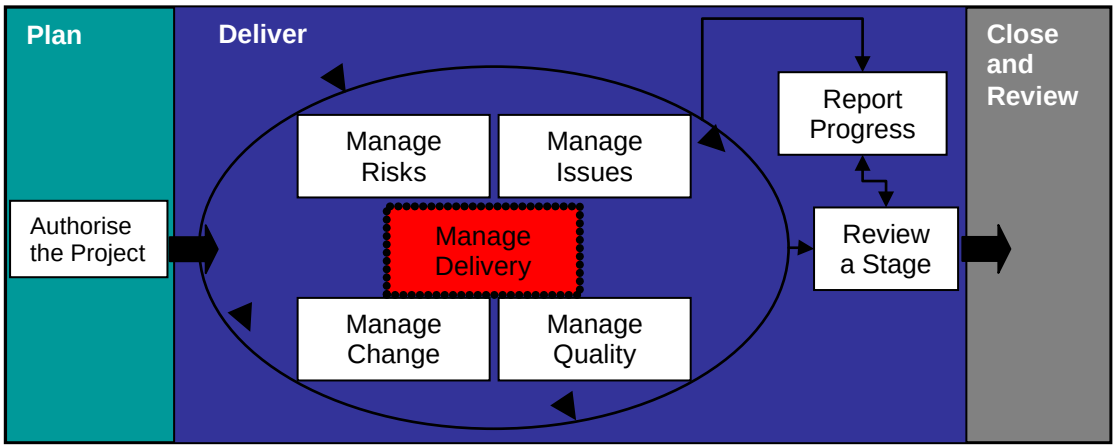


Figure 11 Managing the Delivery Process

In summary, the process can be defined as

- Project Manager negotiates the work to be done with the team/individual responsible
- Team/individual plans the work
- Project Manager oversees the work being done and keeps track of progress
- Team/individual reports progress (see also 6.6 - Report Progress)
- Project Manager and customer checks the products produced are fit for purpose
- Project Manager controls changes (see also 6.4 - Manage Change)
- Project Manager approves the product
- Confirm the work has been completed

Best Practice

The level of formality of this process will vary according to the nature of the project. Smaller project, or those where the project manager is directly responsible for managing the work will follow a less formal approach, whereas larger projects (including those involving third parties) are recommended to adopt a more formal process.

If required, formal work packages may be used to capture the work which is required to be performed. These should contain as a minimum the following information:

- Team or person authorised to perform the work
- Description of the work
- Product description of products to be produced
- Agreed effort, cost and start and end dates
- Reporting arrangements
- Sign-off requirements

The definition of what constitutes a ‘fit for purpose’ output of the project must be agreed between the customer and supplier. Use of product descriptions can help to formally qualify and quantify the quality of deliverables.

While on small projects, the assignment of work packages can be a verbal instruction, it is advisable to keep a written record to avoid misunderstanding and allow for performance assessment.

Reference

- PRINCE2: CS1 – Authorising a Work Package
- PRINCE2: MP1 – Accepting a Work Package
- PRINCE2: MP2 – Executing a Work Package

6.2. Manage Risks

Description

This process covers the activities necessary to register risk information and to reduce the impact of unforeseen events on the project.

A risk is defined as something that may happen at some point in the future which requires positive management to reduce the likelihood of it happening, its impact on the project, or both.

Sequence

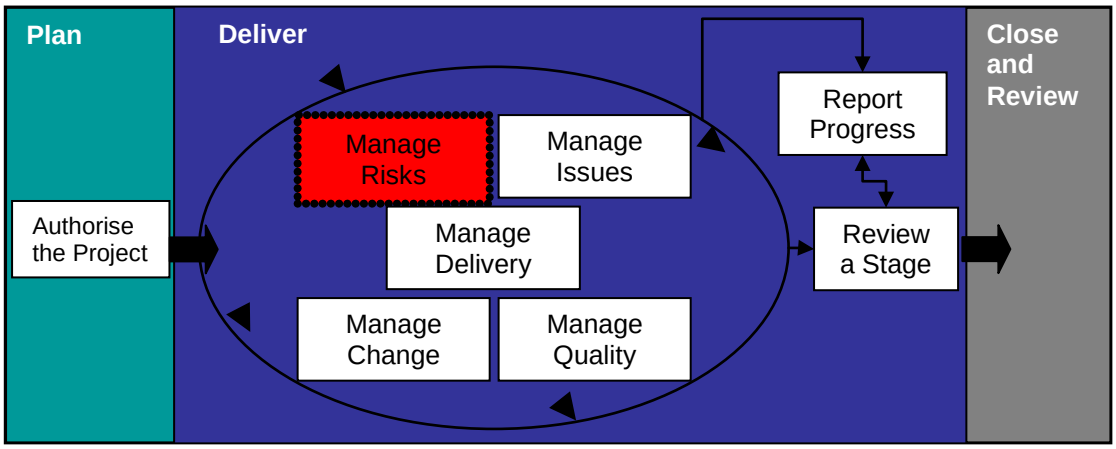


Figure 12 Managing the Risks

Benefits

- Provides information to control the project and aid decision making
- Highlights potential problems and obstacles
- Allows continuous monitoring of risks thereby preventing project issues occurring

Inputs

- Completed risk registration form with new risk information

Outputs

- Updated risk log
- Relevant corporate risk information also incorporated

Completion Criteria

- Risk registration form completed ☑
- Project Manager has authorised the registration of the risk ☑
- Risk log regularly reviewed and updated ☑

Steps

1.	Identify the risk	Any member of the project team
2.	Complete risk registration form (where used)	Risk author
3.	Discuss identified risk with project manager/project team. Determine likelihood and consequence ratings of the risk. Update risk registration form with any changes to the information.	Risk author Project Manager Project Team
4.	If risk is valid, update risk log with risk information from registration form. If risk is not valid then notify risk raiser and request new information or close risk.	Project Manager or Project Support
5.	If risk is a corporate or College level risk, add the risk to Datix	Project Support
6.	Carry out risk management activities. For more information on risk management, see section 10.2.	Project Manager and Project Team
7.	Escalate the risk to the next level of authority if it cannot be adequately mitigated without impact to the project	Project Manager
8.	Perform regular monitoring and review of risk management activity	Project Manager and Project Assurance
9.	If a risk becomes an issue – in other words the risk has become reality - it should be marked as an issue and added to the issue log.	Project Manager or Project Support

Scalability

Tracking of project risks must be carried out for each project. A risk log must be produced for Class A projects. For other projects, a scaled down version (in Word/Excel) may be used at the discretion of the Project Executive. These templates are available from the PSO.

A risk registration form may only be required on larger projects. For other projects it is acceptable for risk details to be entered directly on to the Risk Log, or captured via email.

Best Practice

Any one can raise a risk to the project. Members of the project team should be actively encouraged to discuss risks and participate in risk management activities.

The Project Manager has overall responsibility for managing project risk therefore it is imperative that he/she is kept aware of the status of risks and progress in risk management activity.

The project team should understand the important distinction between risks and issues. A risk is an event which has not yet occurred, while an issue is a current problem requiring resolution. Training may need to be given on risk management at the outset of the project.

Consider holding a regular, dedicated risk identification and review session if the project is large or involves many stakeholders. This provides focus on risk management activities. Participants should include the Project Manager, Project Support and team or work stream managers as appropriate.

As part of the approval of the project (see section 5.8) the Project Manager and the Project Board should agree the threshold for the escalation of risk to the Project Board.
This should be based on a combination of the risk's likelihood and consequence ratings, with any that are above the 'risk tolerance' line, shown by the thick line on the grid shown over, being referred to the Project Board for a management decision. The positioning of the line is for the Project Board to decide.

		Consequence					
		Negligible	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Likelihood	**Certain**						
	Likely						
	Possible						
	Unlikely						
	Rare						
	Impossible						

Escalate

Alternatively, the standard Risk Log template contains a Risk Rating field with the values below, based on likelihood and consequence.

- Significant
- High
- Moderate
- Low

This may be used to determine an appropriate threshold for escalation of risks.

For smaller projects, use of a risk registration form may be an unnecessary overhead. It may be appropriate for risks to be entered directly into the issue log following discussion with the project manager.

Care should be taken to allow sufficient time for risk management and monitoring activities in the project plan.

Templates/Checklists

- Risk Registration Form
- Project Management Methodology Section 10.2 - Risk Management
- Project Management Methodology Appendix A : A-5 - Sample RAG (Red-Amber-Green) Status Definitions

Reference

- PRINCE2: Management of Risk
- PRINCE2: SB4 – Updating the Risk Log
- Management Of Risk (M_O_R) – Guidance for Practitioners

6.3. Manage Issues

Description

This process describes how to assess and control or mitigate issues which are affecting the project in some way. This process, along with those to manage project change, and project risk, is carried out iteratively throughout the duration of the project.

An issue is defined as something that is happening now, which is affecting the project in some way and which needs to be actively dealt with and resolved. The term issue is also used to describe queries or suggestions raised during the project

Sequence

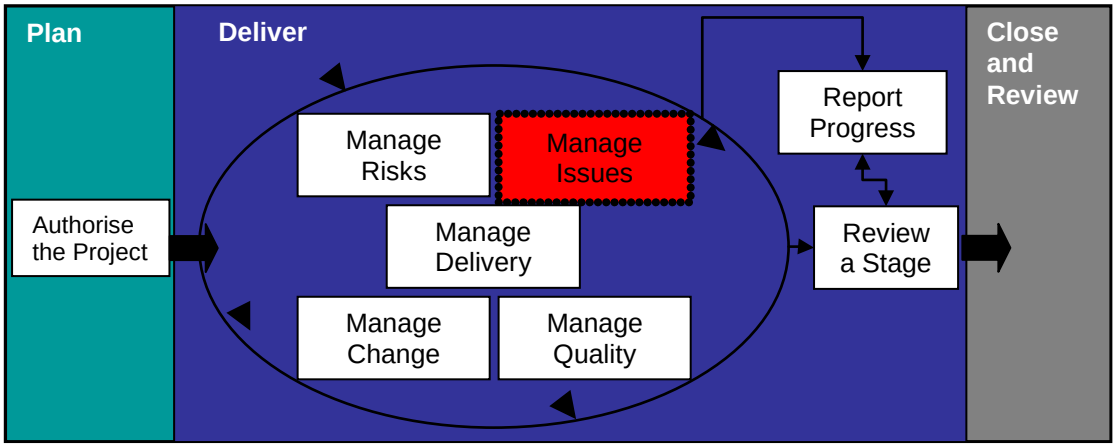


Figure 13 Managing the Issues

Benefits

- Ensures effective use of resources to resolve problems
- Provides control to minimise the impact of issues on the project
- Captures project issues centrally to ensure that none are overlooked

Inputs

- Completed new project issue registration form
- Risk log

Outputs

- Updated issue log
- Updated project plan
- Updated risk log

Completion Criteria

- Issue registration form completed ☑
- Project Manager has authorised the registration of the issue ☑
- Issue log regularly reviewed and updated ☑
- Issues escalated to Project Board where necessary ☑

Steps

1.	Identify the issue	Any member of the project team
2.	Complete issue registration form	Issue author
3.	Discuss identified issue with project manager/project team.	Issue author / project manager
4.	Carry out impact analysis and agree impact rating	Issue raiser / project manager
5.	Update the issue registration form with any changes	Issue raiser
6.	If the issue is valid, update the issue log. If the issue is a previously identified risk which has occurred, update the risk log to reflect this.	Project Manager or Project Support
7.	Carry out issue management activities, updating the project plan with additional tasks and milestones as appropriate	Project Manager and Project Team
8.	Escalate the issue to the next level of authority if the issue cannot be adequately resolved without impact to the project	Project Manager
9.	Perform regular monitoring and review of issue management activity	Project Manager and Project Assurance

Scalability

Tracking of project issues must be carried out for each project. An issue log based on the standard issue log template (in Microsoft Access format) must be used for Class A projects. For other projects, a scaled down version (in another format if necessary) may be used at the discretion of the Project Executive and the Capital Projects Office.

For smaller projects, use of an issue registration form may be an unnecessary overhead. It may be appropriate for issues to be entered directly into the issue log following discussion with the project manager.

Best Practice

It may be necessary to split larger or very complex issues into a number of smaller issues.

Feed back information on issue resolution actions to the authors of project issues

Review open issues on a regular and frequent basis. Consider the use of a dedicated issue review meeting if the project is large or if it generates numerous issues but beware the temptation to spend lots of time and effort on tracking the issues to the detriment of resolving them.

Resolution of issues may take a considerable amount of time or effort on the part of key project team members. Such effort should be factored into the project plan at an early stage, and every effort made to filter out the more trivial issues to allow concentration on the important ones. Where issue resolution threatens to breach any agreed tolerances for a stage (for example by delaying a key milestone by more than the permitted tolerance), this should be escalated to the Project Board.

If the issue is a previously identified risk which has occurred, the risk log should be updated to reflect the change in status.

Training for the issue management process, if required by members of the project team, should be built in to the project plan.

Templates/Checklists

- Issue Log Template

Reference

- PRINCE2: CS3 – Capturing Project Issues
- PRINCE2: CS4 – Examining Project Issues
- PRINCE2: CS8 – Escalating Project Issues

6.4. Manage Change

Description

This process describes how changes to the project's scope, duration or budget are analysed and authorised in a controlled manner.

Sequence

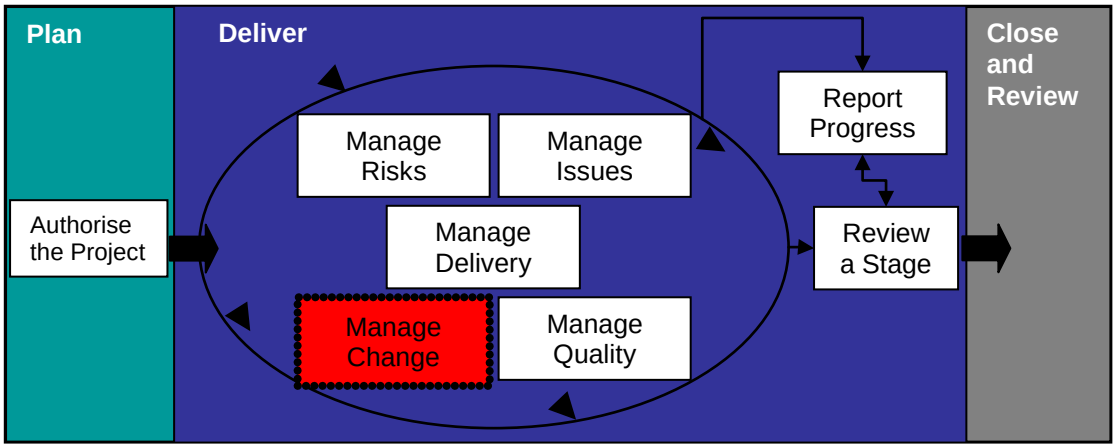


Figure 14 Managing Change Control

Benefits

- Projects with uncontrolled change are significantly more likely to fail to meet their objectives, therefore a rigorous and systematic approach to change control reduces project risk

Inputs

- Request For Change

Outputs

- Updated Request For Change
- Updated Product Description(s)
- Updated Change Log
- Updated Project Plan
- Updated Project Initiation Document
- Updated Risk Log
- Updated Quality Log

Completion Criteria

- The impact of accepting the change has been fully considered in terms of time, cost, scope and quality ☑
- All relevant documentation kept update with a record of all changes caused by the acceptance of change requests ☑

Steps

1. Raise change using Request For Change template (CiF) and submit to Project Manager	Project Team member
2. Log the request for change in the change log	Project Manager or Project Support
3. Assess the impact of the proposed change on the stage and the project	Project Manager Workstream Manager
4. If the impact of the change is outside the agreed authority limits assigned to the Project Manager by the Project Board, raise the change to the Project Board for its consideration	Project Manager
5. Approve or reject the request for change	Project Manager or Project Board
6. Notify raiser of the change of the decision	Project Manager
7. Update any documentation to reflect the change request (if approved) • Project Plan • Project Initiation Document • Product Description(s) • Business Case • Risk Log • Quality Log • Change Log	Project Manager or Project Support
8. If the change is to a specific project deliverable, update any versioning or configuration management records to reflect the change	Project Support

Scalability

Requests for Change must be used on all projects to ensure formal capture of change requests. Use of a change log is mandatory for Class A and Class B projects, but discretionary for Class C projects.

Larger or high-risk projects may wish to define a dedicated change authority group to review requests for change which are outside the agreed threshold for approval by the project manager.

Best Practice

When assessing the impact of the proposed change, the following areas should be considered:

- Scheduling
  - When can the tasks required to incorporate the change take place?
  - Will other tasks or deliverables have to be rescheduled or extended/shortened to accommodate the change?
  - Will the dates of key workstream, stage or project milestones change as a result?
- Resources and Budget
  - Will additional resources, including both staff and non-labour resources, be required to incorporate the change?
  - Quantify the cost of any additional resources wherever possible
  - Can the budget for the project, workstream, stage or product accommodate this change?
  - Include details of any savings to be made by incorporating the change
- Risk and Benefit
  - What are the risks and/or the opportunities associated with the change?
  - Will incorporation of the change have an impact on other risks to the project?

    - What is the impact of the change on the project's business case, and ultimately the benefits of the project?
- Quality
    - Will the change have any impact on the outputs of the project?

This balancing act between risk, cost and time on the one hand, and the potential advantages and savings of the change can be illustrated using the diagram below:

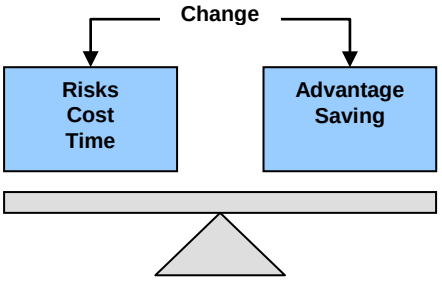


Figure 15 - Balancing the Impact and Benefit of Project Change

As part of authorising the Project Initiation Document (see section 5.8- Authorise the Project) the Project Board may have granted the Project Manager the ability to approve changes up to a predefined level without intervention from the Project Board. There may also be a dedicated change budget which has been set aside. Finally, a dedicated change authority group can be set up to review changes above the threshold for project manager approval. These controls are useful to avoid bottlenecks when controlling changes to the project.

An example approval structure is set out below:

Approving Group/Role	Level of Authority	
	Time	**Cost**
Programme Board	All other changes	
Project Board	Change over ± 14 days to project milestone	Change over ± 15% of project budget
Change Authority	Change between ± 7 and ± 14 days to project milestone	Change between ± 10% and ± 15% of project budget
Project Manager	Change up to ± 7 days for project milestone	Change up to ± 10% of project budget

Where the project involves a third-party, it is critical that change processes are agreed upfront as part of contract negotiations. Disputes over acceptance of changes and change control responsibility can have a detrimental effect on working relationships if they are allowed to escalate.

Any additional cost incurred to carry out the change will normally have to be funded by the customer.

Templates/Checklists

- Request For Change Form
- Change Log Template

Reference

- PRINCE2: Change Control
- PRINCE2: Configuration Management

6.5. Manage Quality

Sequence

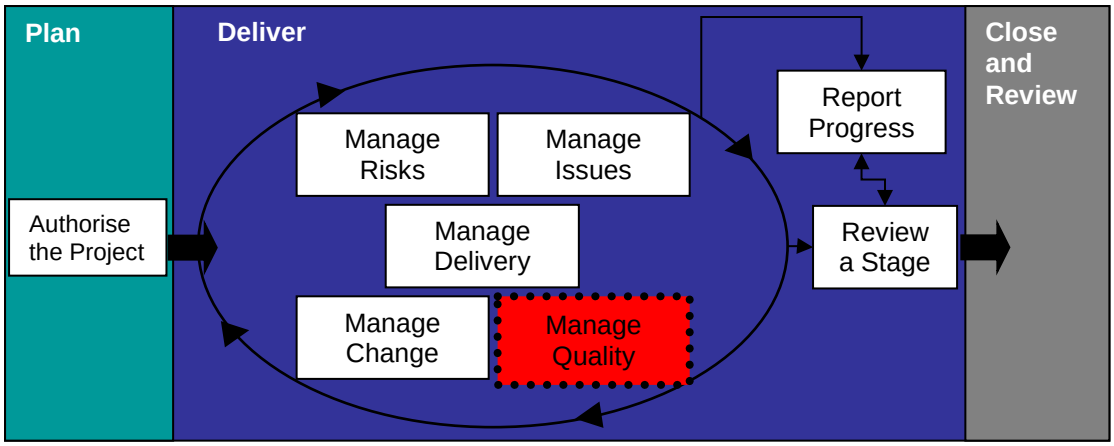


Figure 16 Managing Quality

Quality considerations begin with discovering what the customer's quality expectations are. This should be a part of the project initiation and planning activities.

The approach taken by the project (see section 5.3 - Define the Project Approach) will affect the ability of the project to meet the customer's quality expectations. Therefore the way the project seeks to control quality should be tailored to the approach.

The project may wish to create a Project Quality Plan to define how the project will meet the customer's quality expectations. Currently this is not within scope of the first release of COLLEGE Project Management Methodology.

If the output or deliverable from the project does not meet the customer's quality expectations, it is very difficult, if not impossible, for the customer to reap the planned benefit of the deliverable. For instance, if project benefits are based on reducing manual data entry by the introduction of a software tool, and the tool has an unacceptably high rate of errors then it may not be possible to reduce manual data entry significantly enough to gain benefit.

For further information, see PRINCE2 – Quality in a Project Environment

6.6. Report Progress

Description

This process covers the production of both Highlight and Checkpoint Reports.

The Highlight report provides the Project Board with information about the status of the project at the frequency defined by the project board. The Highlight Report additionally feeds into programme status reports which are provided to SMT. The diagram below shows overall project and programme reporting structure within the College.

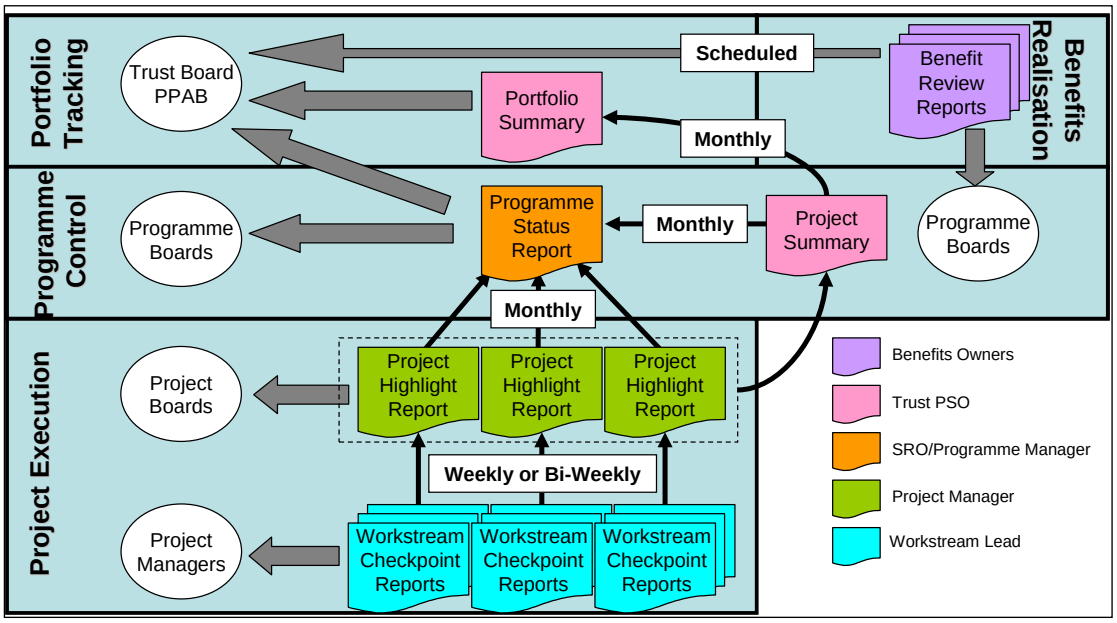


Figure 17 - Reporting Information Flow

Checkpoint Reports provide the Project Manager with information on the current status of the work being undertaken within the project.

Checkpoint Reports are an optional component of the methodology, and it is left to the discretion of the Capital Projects Office and the Project Manager as to whether they are required to be produced by the project team. If they are used, Checkpoint Reports are completed by Workstream Leads.

Programme Status Reports and Project Summary Reports are produced by Programme Management and comprise both detail and summary information on a programme's suite of constituent projects. Information from the Project Highlight Report is a critical input to these reports.

At the portfolio level, the Programme and Project Assurance Board (SMT) receive a Portfolio Summary report which tracks programme and project progress across the College's entire collection of change initiatives.

Sequence

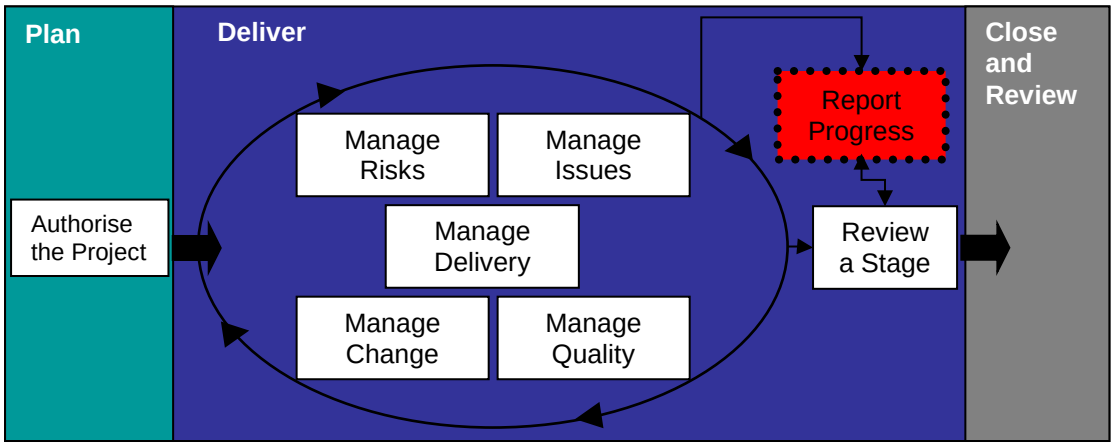


Figure 18 Reporting Progress

Benefits

- College Management and the Project Board receive regular and appropriate information to gain assurance the project is progressing to plan and to enable effective decision making
- Deviations from the project baseline are highlighted early

Inputs

- Reporting structure and timetable
- Project Plan
- Stage Plan
- Team Plan (where available)
- Risk Log
- Issue Log
- Change Log
- Updates from project team members

Outputs

- Highlight Reports
- Checkpoint Reports

Completion Criteria

- Highlight Reports are completed to the level of detail and frequency stipulated by the Project Board ☑
- Reports produced in a timely manner in line with agreed reporting process ☑

Steps – Checkpoint Reports

1. Assess workstream progress: • Progress against the workstream plan a. Tasks completed to date b. Slipping or incomplete tasks c. Tasks for next period • Financial information • Risks to the workstream • Changes to or new issues • RAG Status	Workstream Lead
2. Produce Checkpoint Report	Workstream Lead
3. Submit to Project Manager in line with agreed schedule	Workstream Lead

Steps – Highlight Reports

1. Agree key events and milestones which are to be reported on to the Project Board	Project Manager
2. Assemble the information from the Checkpoint Reports (if they are produced)	Project Manager
3. Identify any current or potential problems which should be shared with the Project Board: • Problems with the validity of the Business Case • Progress against the Project Pan (both time and cost) • Changes to other risks • Changes to or new issues	Project Manager
4. Produce the Highlight Report and distribute to the Project Board, Capital Projects Office and any other agreed recipients	Project Manager Project Support
5. Review the Communication Plan for any other required reports or materials and distribute accordingly	Project Manger

Benefits Review Reports

These reports are produced by Programme Management and the Capital Projects Office and focus on progress against the achievement of programmes' stated benefits. They are included in this methodology for reference purposes only.

Project Summary Reports

These reports are produced by Programme Management and the Capital Projects Office and summarise the progress of a programme's constituent projects. They are included in this methodology for reference purposes only.

Scalability

Highlight reports must be produced on at least a monthly basis by each project. Checkpoint reports are discretionary for all projects.

Best Practice

Reports should be kept as short as possible, consistent with the information needs of the Project Board. Content and structure of reports should be agreed up front as part of the process to set up project controls (see section 5.4). Remember that Project Board members are usually drawn from senior managers with operational responsibilities, and have limited time to read materials.

The Communications Plan (see section 5.5 - Define the Communications Plan) may have defined additional information to be communicated to stakeholders. It may be appropriate to incorporate this information into the highlight report, or to issue it at the same time.

Other project documentation such as the Project Initiation Document, Project Plan, Risk, Issue and Change Logs should also be used as sources of content for reports where possible.

For small or short projects, or those not involving many resources, production of checkpoint reports may be an unnecessary overhead. Verbal or email updates to the project manager for inclusion in the Highlight Report are sufficient.

Templates/Checklists

- Highlight Report Template
- Checkpoint Report Template

Reference

- PRINCE2: - CS2 – Assessing Progress
- PRINCE2: - CS5 – Reviewing Stage Status
- PRINCE2: - CS6 – Reporting Highlights

6.7. Review a Stage

Description

This process covers both the review of a stage following completion and also the activities necessary for ongoing control of the stage.

The results of a stage should be reported back to those who provided the resources and approved its execution so that progress is clearly visible to the project management team.

Sequence

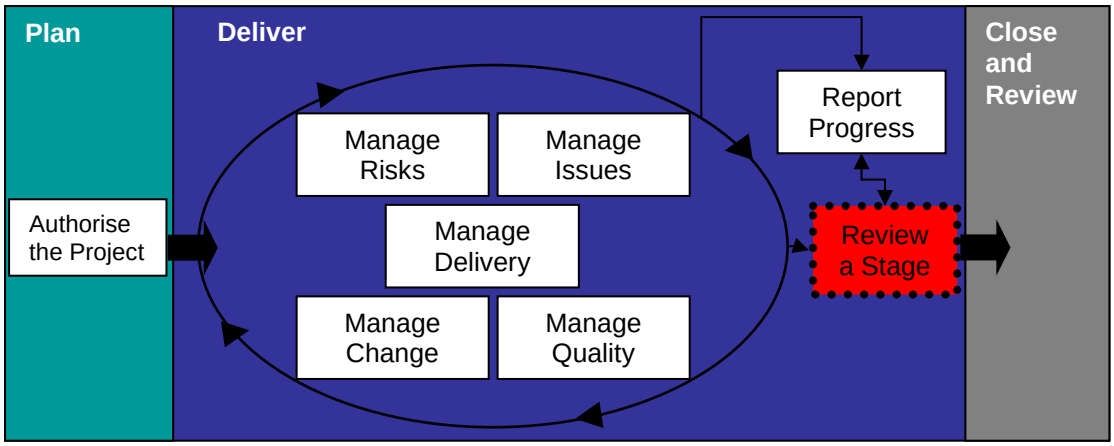


Figure 19 Reviewing a Stage

Benefits

- Regular checking of project progress ensures that it does not get out of control
- Stage reviews enable the Project Board to realign the goals of the project if the project environment changes
- Review of a completed stage is a trigger for a management decision point on whether to continue with the project or not, thereby avoiding unnecessary waste of resources

Inputs

- Project Plan
- Risk Log
- Issue Log
- Highlight Report
- Checkpoint Reports (where used)
- General stage status information

Outputs

- Updated Project Plan
- Updated Risk Log
- Updated Issue Log
- Updated Lessons Learned Log
- For end stage review - End Stage Report
- For end stage review – Project Board authorisation to proceed to next stage

Completion Criteria

- All products/outputs planned for the stage have been completed ☑
- The plan for the next stage has been prepared and checked ☑
- The Project Board have been informed of the outcome of the review of the stage ☑
- The Project Board have received the next stage plan and/or exception plan ☑

Steps

1. Examine the impact of the stage on the business case, project plan, and project risks	Project Manager
2. Review resource utilisation and future availability	Project Manager
3. Examine the impact of approved changes on the business case, the project plan and project risks	Project Manager
4. Review external developments for any impact on the project	Project Manager
5. Compare actual progress against what was originally planned	Project Manager
6. If this review is occurring at the end of a stage, prepare an End Stage Report	Project Manager
7. If this review is occurring at the end of a stage, submit the End Stage Report to the Project Board	Project Manager
8. If this review is occurring at the end of a stage, give authorisation for the project to proceed to the next stage	Project Board

Scalability

Formal end stage reviews must be carried out for all Class A projects. They are strongly recommended for all other projects.

Best Practice

Regular reviews of stage status should be held to check that the stage remains within any tolerances set by the Project Board when the project was approved.

If any lessons learned have arisen during the stage, they should be captured at this point and the Lessons Learned Log updated.

An end stage review should take place as close as possible to the actual end of the stage. If necessary, a review of the end stage report can be combined with any scheduled project board meeting due to be held at the same time.

The Project Manager should consider the ongoing viability of the project at the end of a stage.

Approval to proceed to the next stage should be formally documented within Project Board Minutes.

AT THE END OF THIS PHASE A GATEWAY REVIEW PROCESS SHALL BE CONDUCTEDAS DEFINED IN PRINCE2 FOR CLASS A PROJECTS

Templates/Checklists

- End Stage Report

Reference

- PRINCE2: CS5 – Reviewing Stage Status
- PRINCE2: SB5 – Reporting Stage End

7. Close and Review

The Close and Review phase of the lifecycle is concerned with reviewing the success of the project, capturing lessons and best practice which can be applied by future projects, and documenting any outstanding actions.

7.1. Review the Project

Description

This process looks at the actual outcomes and benefits of the project and the effectiveness of the methodology and approach used during the project. It can be carried out in parallel with the capture of lessons learned.

Sequence

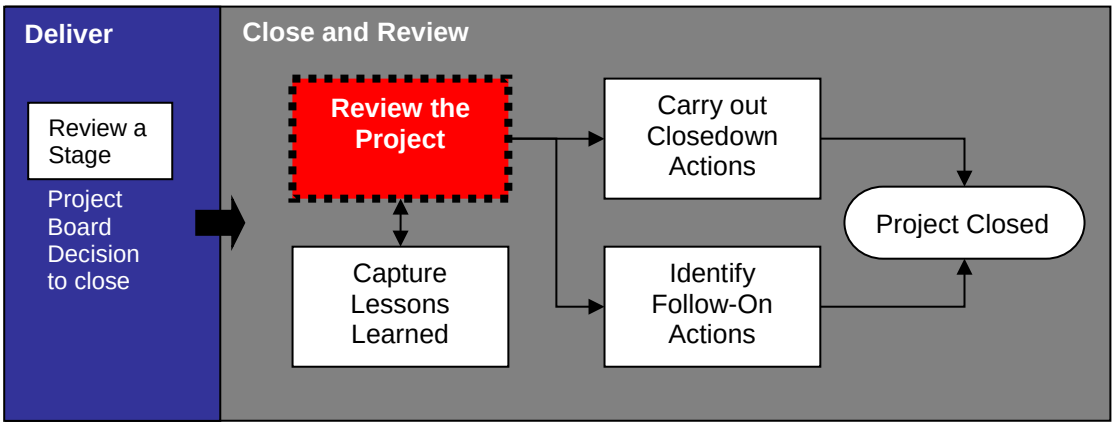


Figure 20 Reviewing the Project

Benefits

- The review indicates whether the project was successful or otherwise
- The information captured will assist with the development and enhancement of the project management methodology which will assist future projects

Inputs

- All project documentation
- Stakeholder opinion
- Anecdotal evidence

Outputs

- End Project Review Report

Completion Criteria

- All aspects of the project, both successful and unsuccessful have been investigated ☑
- The opinions and experiences of all key stakeholders involved in the project have been sought ☑
- The review has focused on both the performance of the project and the project management processes followed ☑
- Any recommendations are circulated to stakeholders ☑

Steps

1. Review project documentation	Project Manager*
2. Interview key stakeholders	Project Manager*
3. Prepare end project report with recommendations	Project Manager*

* In certain situations it may be appropriate for an independent reviewer to conduct the review of the project to avoid potential conflicts of interest and allow the project manager to provide his/her own personal feedback.

Scalability

Production of an End Project Report is mandatory for Class A and Class B projects, and discretionary according to the wishes of the Project Executive for Class C projects.

Best Practice

The review should consider the effectiveness of all aspects of the project management process. Wherever possible the project team should concentrate on items that can be of use to future projects. Some areas to examine include:

Project governance

- How effective was the decision making process?
- Was the composition of the Project Board appropriate?

Communications and information flow

- Were the activities outlined in the communication plan effective?
- How was the information sent out by the project received by stakeholders?

Stakeholder engagement

- What is the opinion of the stakeholders of the project?
- If there were any issues experienced with stakeholders during the project, how were they resolved?

Project definition

- Was the scope of the project, and any changes to it, effectively managed?
- Did the project's final outputs and outcomes reflect what was envisaged during the definition and initiation of the project?

Project approach

- Was the chosen approach for the development of the project's outputs or solutions appropriate and successful, and why?
- If there was training given as part of the project, which aspects of it were a success?

Value for money and Business Case

- How do the actual costs and expenditure of the project compare with what was planned?
- If possible, examine the benefits that the project has started to realise and compare these with what was originally envisaged.
- Where capital funding was obtained, examine the value for money of the expenditure.

Risk and Issue management

- Were risk management activities successful? How many risks became actual issues during the project, and what were the reasons for this?
- Were there any unforeseen issues which affected the project? How were these managed?

- Was the contingency planned for the project actually invoked?

Change Control

- How many changes to the project were raised and how did they affect the success of the project?
- Were there any compromises that had to be made as a result of changes?

Impact on the organisation

- How did the delivery of the project affect the organisation? Consider the impact on services or resources during the life of the project.

Project reviews must be timely. The quality of information gained during the review will be diminished if the review does not occur within a reasonable period of time of the close and review phase being initiated. This is because the project team may return to the service or shift its focus to the next project.

Templates/Checklists

- End Project Review Report

Reference

- PRINCE2: CP3 – Project Evaluation Review

7.2. Identify Lessons Learned

Description

This process captures lessons, both positive and negative, to be transferred into the College's body of knowledge for future projects. This information will be stored centrally and increase over time as projects are completed.

The process may take place in parallel with that of reviewing the project.

Sequence

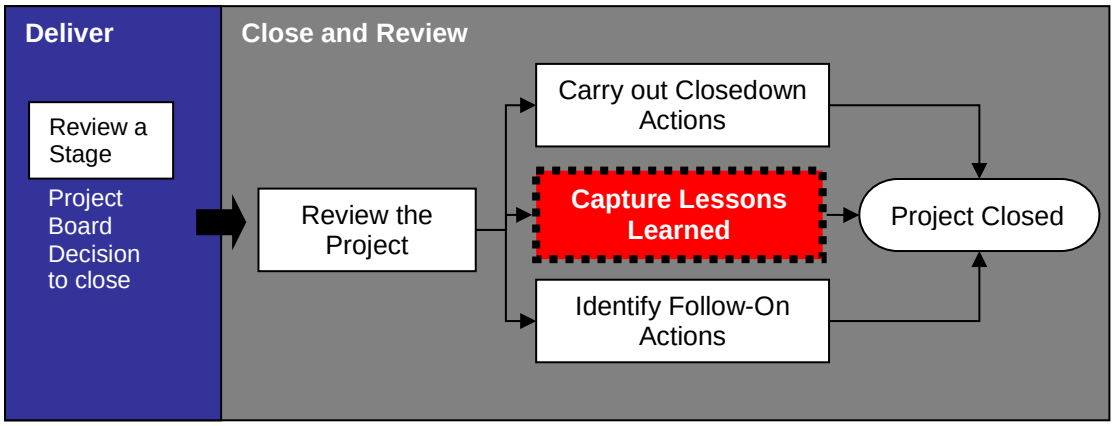


Figure 21 Identifying Lessons Learnt

Benefits

- The information captured will assist with the development and enhancement of the project management methodology which will in turn assist future projects
- Reuse of lessons learned in previous projects will reduce the risk of future project failure
- Reuse of lessons learned will ultimately save the College money

Inputs

- All project documentation, particularly the Lessons Learned Log if one exists
- Stakeholder opinion
- Anecdotal evidence

Outputs

- Lessons Learned Report

Completion Criteria

- All aspects of the project, both successful and unsuccessful have been investigated, documented and communicated ☑
- The opinions and experiences of all key stakeholders involved in the project have been sought ☑
- The review has focused on both the performance of the project and the project management processes followed ☑
- Any recommendations are circulated to stakeholders ☑
- In line with the College's code of conduct, the report should not be used to apportion blame on individuals ☑

Steps

1.	Review project documentation	Project Manager
2.	Interview key stakeholders	Project Manager
3.	Prepare lessons learned report with recommendations	Project Manager
4.	Pass lessons learned report to Capital Projects Office for central storage and archiving	Project Manager
5.	Disseminate lessons learned to the wider project management community and other stakeholders as appropriate	College Capital Projects Office

Scalability

Lessons learned must be captured by Class A and Class B projects. For Class C projects, they can be incorporated into the End Project Report if one is produced.

Best Practice

Identification of lessons learned is an easier process to undertake if observations about the project management process and procedures are made and stored as they occur, through the lifetime of the project. Use of a Lesson Learned Log can assist with this.

When writing recommendations, the main question to consider is 'What should be done differently next time?'

Any useful measurements, techniques or statistics which have been used during the project should be included in the Lessons Learned Report to assist with future planning and estimating activities on other projects.

Lessons learned and the other outputs of project reviews can only be of use to future projects if they are distributed and shared. The Capital Projects Office will assist with this process, but Project Managers are also positively encouraged to share feedback and best practice among the wider project management community.

Templates/Checklists

- Lessons Learned Report

Reference

- PRINCE2: CP3 – Evaluating a Project

7.3. Identify Follow-On Actions

Description

This process captures and documents any outstanding issues which are unable to be resolved before the formal closure of the project. These items will mainly be derived from the project issue log, but may also include tasks from the project plan which have not been carried out.

Sequence

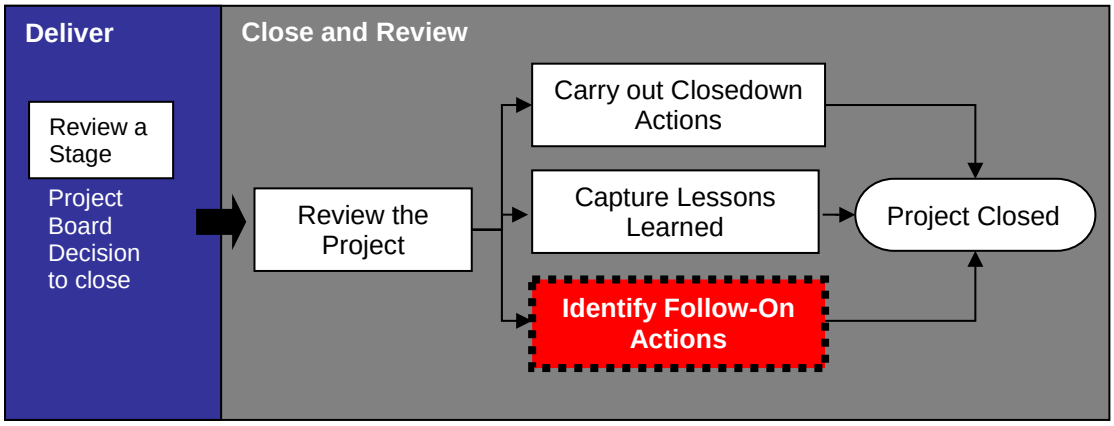


Figure 22 Identifying Follow on Actions

Benefits

- Supplier and User are in agreement as to the quantity and severity of outstanding issues or actions
- Any uncompleted work is formally documented and a timetable for action is produced

Inputs

- Official Project Board decision to close the project
- Issue Log
- Risk Log
- Project Plan
- Business Case
- Project budgetary information

Outputs

- Follow-On Actions list
- Suggested mandates for future projects
- Follow-On Actions recommendations and suggested timetable

Completion Criteria

- All outstanding issues are added to the Follow-On Actions list and assessed for impact ☑
- All recommendations have been documented ☑

Steps

1. Review the project plan, issue log and risk log for outstanding issues and uncompleted tasks	Project Manager
2. Review the business case for any benefits which cannot be measured at this stage	Project Manager
3. Update the Follow-On Actions List with the output of steps 1 and 2 above	Project Manager
4. Make recommendations for the resolution of outstanding items	Project Manager

Scalability

All projects must produce a list of follow-on actions.

Best Practice

At this stage, plans should be reviewed on a regular basis by the project team to ensure that all completed activities are marked. This will ensure that misplaced effort does not result when the follow-on actions list is compiled.

It is important to distinguish between those outstanding issues or actions which can be resolved by the operational or support areas, and those which should be recommended to become future enhancement projects.

Identifying follow-on actions should not be used as a substitute for completing all the work required to be performed by the project, nor for terminating the project early.

Ensure that all parties understand their role in the implementation and support of service level agreements.

Templates/Checklists

- Follow-On Actions List

Reference

PRINCE2: CP2 – Identifying Follow-On Actions

7.4. Carry out Closedown Actions

Description

This process is intended to ensure that the project is closed down in a controlled manner and the delivered or developed products and services are signed off by and transferred to the appropriate owners.

Sequence

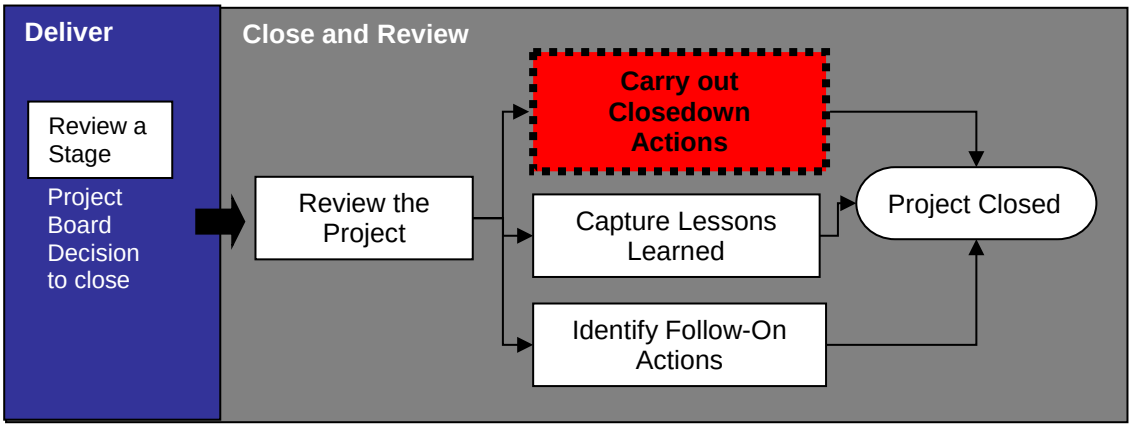


Figure 23 Carry out Closedown Actions

Benefits

- The project ends when its objectives are achieved, thereby releasing resources back to ongoing operations
- The cost of project overheads cease once the project is closed
- Controlled closedown ensures that there is no 'unfinished business' within the project

Inputs

- All deliverables completed to required quality standards
- Official Project Board decision to close the project
- Follow-On Actions list

Outputs

- Updated Follow-On Actions list
- Completed Project Closure Notification Checklist

Completion Criteria

- Formal customer acceptance of delivered products has been received and any outstanding issues are added to the Follow-On Actions list ☑
- Warranty, handover or post-implementation periods have been defined and invoked ☑
- Service level agreements for ongoing services have been invoked ☑
- Benefits measurement and review processes and procedures have been invoked ☑
- Project Board has been disbanded ☑

Steps

1. Project Board requests project closure	Project Executive
2. Create schedule of project closedown actions	Project Manager
3. Carry out project closedown actions	Project Manager Project Team
4. Update Follow-On Actions list with any outstanding issues	Project Manager
5. Complete Project Closure Notification Checklist	Project Manager
6. Schedule and hold final Project Board meeting to confirm: o All aspects of project are closed o Handover and review arrangements in place o Follow-On Actions and recommendations are accepted by the appropriate owner, be that user, supplier, or user and supplier o Disbandment of the Project Board itself	Project Board

Scalability

All projects should complete a Project Closure Notification Checklist.

Best Practice

The customer should be ready to support, maintain and further develop any products supplied by the project.

All stakeholders must be in agreement that the project is to be closed and that there are no outstanding issues, with the exception of those documented in the Follow-On Actions list.

Members of the project team must be debriefed and their contribution acknowledged. Celebrate project success and give recognition to teams and individuals for significant achievements.

Project documentation must be archived for future reference with the Capital Projects Office.

Completed support and training material should be handed over in a timely manner to the customer to assist with ongoing support of the products.

All budgets must be reconciled, and any surpluses or deficits addressed by the Finance Director.

Templates/Checklists

- Follow-On Actions List
- Project Closure Notification Checklist

Reference

- PRINCE2: CP1 – Decommissioning a Project
- PRINCE2: CP2 – Identifying Follow-On Actions
- PRINCE2: DP5 – Confirming Project Closure

8. Project Management Team Roles

Project roles can be tailored to suit the needs of any project. Tailoring may include combining roles or dividing a role between two or more people. The important thing is that all responsibilities must be held by someone. Responsibilities may be moved from one role to another, but should never be dropped.

It is important to note that the roles of Senior Supplier and Senior User should not be combined, to avoid potential conflicts of interest.

8.1. Project Board

- Is responsible to the Project and Programme Assurance Board (SMT) for the overall direction and management of the project and has responsibility and authority for the project as described in the Project Proposal approved by the SMT.
- Is the project's 'voice' to the College Community and, where appropriate, the outside world and it is responsible for any publicity or other dissemination of information about the project.

For more information on the role of the Project Board through the life of the project see section 9.

8.2. Project Executive

- Is ultimately responsible for the project, supported by the Senior User and Senior Supplier.
- Ensures that the project is focused throughout its life cycle on achieving its objectives and delivering a product that will achieve the projected benefits.
- Ensures that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of business, user and supplier.

8.3. Senior User

- Is responsible for the specification of the needs of all those who will use the final product(s), for user liaison with the project team and for monitoring that the solution will meet those needs within the constraints of the Business Case in terms of quality, functionality and ease of use.
- Ensures the provision of necessary user resources e.g. for user acceptance testing, validation of specification, etc are made available.

8.4. Senior Supplier

- Represents the interests of those designing, developing, facilitating, procuring, implementing and possibly operating and maintaining the project products.
- Is accountable for the quality of products delivered by the supplier(s).

8.5. Project Assurance

- Assurance covers all interests of a project, including business, user and supplier.
- Has to be independent of the Project Manager therefore the Project Board cannot delegate any of its assurance responsibilities to the Project Manager.
- Project Assurance responsibilities can be shared amongst the Project Board or an internal or external member added to the Project Board to carry out some, or all, of the assurance role.

8.6. Project Manager

- Ensures that the project produces the required products, to the required standard of quality and within the specified constraints of time and cost.
- Is responsible for the project producing a result that is capable of achieving the benefits defined in the Business Case.

8.7. Project Support

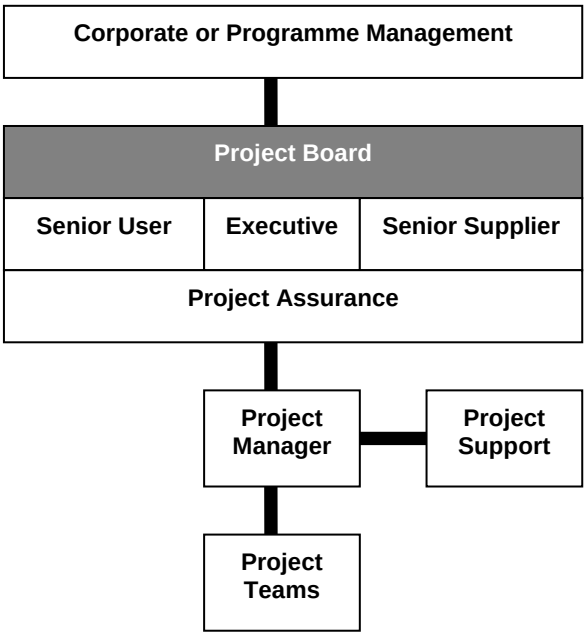
- The provision of any Project Support on a formal basis is optional.
- Tasks need to be done by the Project Manager or delegated to a separate body and this will be driven by the needs of the individual project and Project Manager.
- Examples of activities which could be performed by a Project Support function include:
    - Tracking and updating of project or stage plans
    - Collating risk and issue information and updating logs
    - Provision of financial or budgetary support
    - Owning and maintaining the library of documentation produced by the project

Further information on project management team roles and responsibilities can also be found in the Organisation section of PRINCE2.

9. Project Board Handbook

This section outlines the key activities and responsibilities for the Project Board during the life of the project.

9.1. Role and Purpose of the Project Board



Three interests must be represented on the Project Board at all times.

1. **Business** (Business Case) – represented by the Project Executive

The product(s) of the project should meet a business need and give value for money. There should be representation from the business viewpoint to ensure that these two prerequisites exist before commitment to the project is made and remain in existence throughout the project. There is a distinction between the business and the requirements of those who will use the final product(s). The Executive role is defined to look after the business interests (representing the customer).

2. **User** – represented by the Senior User

There will be an individual, group / groups that some or all of the following will apply:

- They will use the final product
- The product will achieve an objective for them
- They will use the end result to deliver benefits
- They will be impacted by the project outcome.

The user presence is needed to specify the desired outcome and ensure that the project delivers it. User management should therefore be represented on the Project Board. The Senior User role is defined to look after the user interests.

3. **Supplier** – represented by the Senior Supplier

The creation of the end product will need resources with certain skills. Representation is needed from the supplier who will provide the necessary skills. The project may need to use both in-house and external supplier teams to construct the final outcome. The Senior Supplier role is defined to look after the supplier interests.

A representation of a best practice project team structure is shown in the diagram above.

9.2. Project Board Terms of Reference

The project board will bring together key stakeholders from across the College and other areas to ensure the project runs effectively, in particular by:

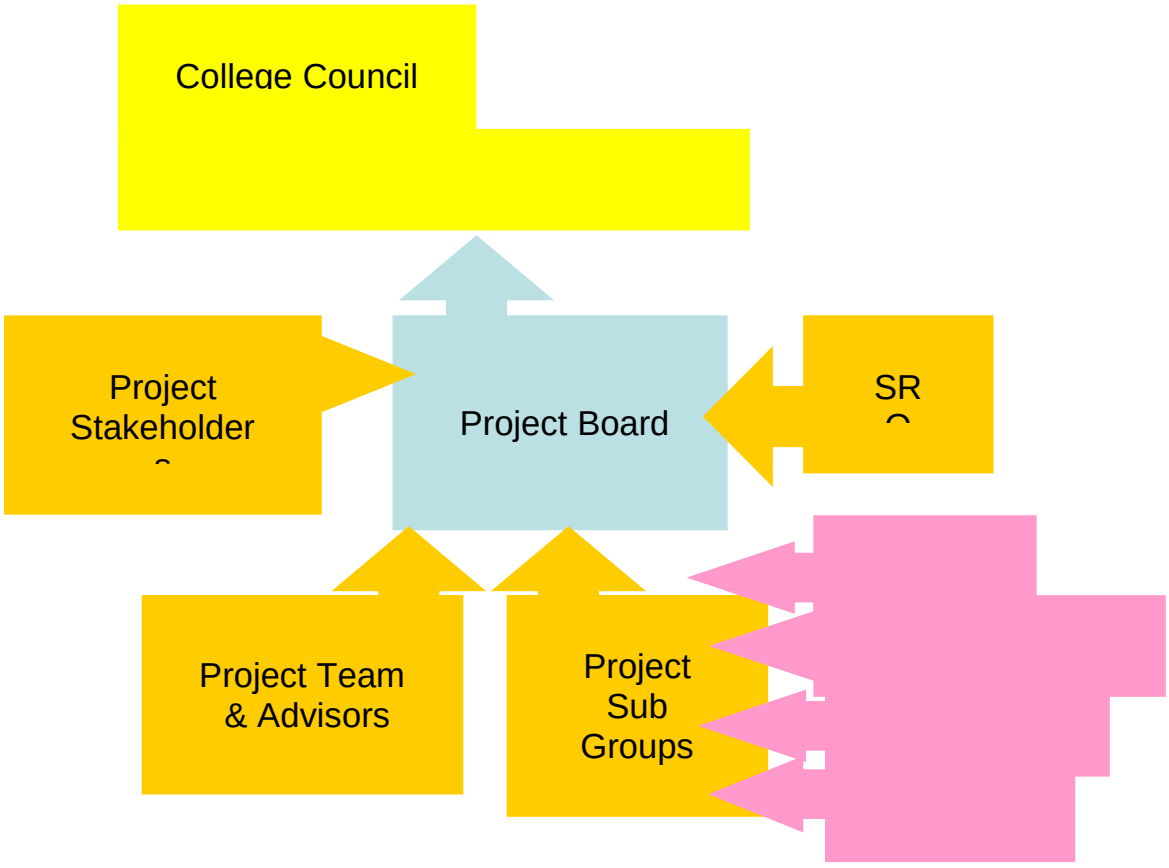
- Agreeing the project plans and documentation (e.g. Project Brief, Risks and Issues Register);
- Monitoring progress against the plans and agreeing any revisions necessary as the project progresses;
- Assisting in problem solving, (e.g. to help the project manager resolve scope and objectives that are not clear);
- Identifying and managing risks and issues;
- Agreeing any reprioritisation of work or reallocation of resources necessary to ensure milestones are achieved and risks managed effectively;
- Resolving issues brought to it.

At each meeting, the Project Board will:

- Take a report from the project manager and from each strand leader;
- Review the project plan, the risk register and the issues log.

Project Board members will not delegate attendance at meetings unless unavoidable. Where deputies are sent, they will be expected to have full authority to make decisions and, where appropriate, commit resources.

Project Structure



THE SENIOR RESPONSIBLE OWNER (SRO)

The SRO is ultimately responsible for the project, supported by the Senior User and Senior Supplier(s). The SRO has to ensure that the project provides value for money, balancing the demands of the business, user and supplier.

Throughout the project the SRO 'owns' the business change.

Specific responsibilities

- Authorisation of expenditure;
- Ensuring that there is a coherent project structure and logical plans;
- Ensuring Gateway Review takes place (where necessary) and that recommendations are addressed;
- Authorising and approving the Lessons Learnt Report and Post Implementation Review;
- Briefing programme management (where necessary) about project progress;
- Chairing Project Board Meetings;
- Referring serious problems upwards to Senior Management.

The SRO is responsible for the overall business direction of the project, i.e. that it remains on target to deliver products which will achieve the expected business benefits, and the project will complete within its agreed tolerances for budget and schedule. Responsibilities for maintaining business direction are:

- Validation and monitoring of the Business Case against external events and against project progress,
- Keeping the project in line with customer strategies;
- Monitoring project finance on behalf of the customer;
- Monitoring the business risks to ensure that these are kept under control;
- Monitoring any supplier and contractor payments;
- Monitoring changes to the Project Plan to see if there is any impact on the needs of the business or the project Business Case;
- Assessing the impact of potential changes on the Business Case and Project Plan;
- Constraining user and supplier excesses;
- Informing the project of any changes caused by a programme of which the project is part.

If the project warrants it, the SRO may delegate some responsibility for the above functions to the Project Manager.

THE PROJECT MANAGER

The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the board. The Project Manager's prime responsibility is to ensure that the project produces the required products, to the required standard of quality and within the specified constraints of time and cost. The Project Manager is also responsible for the project producing a result which is capable of achieving the benefits defined in the Business Case.

Specific responsibilities

- Managing the production of the required products;
- Directing and motivating the Project Team;
- Planning and monitoring the project;
- Agreeing any delegation and use of project assurance roles required by the Project Board;
- Producing the Project Initiation Document (PID)/Project Brief;
- Preparing the Project, Stage and, if necessary, Exception Plans in conjunction with Team Managers and appointed project assurance roles, and agreeing them with the Project Board;

- Managing business and project risks, including the development of contingency plans;
- Liaising with programme management (where necessary) or related projects to ensure that work is neither overlooked nor duplicated;
- Taking responsibility for overall progress and use of resources, and initiating corrective action where necessary;
- Being responsible for change control and any required Configuration Management;
- Reporting to the Project Board through Highlight Reports and stage assessments;
- Liaising with the Project Board or its appointed project assurance roles, to assure the overall direction and integrity of the project;
- Agreeing technical and quality strategy with appropriate members of the Project Board;
- Preparing the Lessons Learnt Report;
- Preparing any Follow-on Action Recommendations required;
- Preparing the End Project Report;
- Identifying and obtaining any support and advice required for the management, planning and control of the project;
- Being responsible for project administration;
- Liaising with any suppliers or account managers.

9.3. Role of the Project Board during the Project

Appraise and Initiate Phase

At this point, the Project Board does not formally exist. However, there must be a Project Executive in place in order to steer the Project Proposal through to approval by SMT, the other roles will not have been formalised at this point.

Plan Phase

The first major responsibility of the Project Board is to authorise initiation of a project through the approval of the PID. The purpose of this approval point is to ensure that no one commits to large expenditure on a project before making sure that it is sensible and worthwhile to do so.

Deliver Phase

As part of the planning process, the project will have been broken down into a series of stages by the Project Manager. A stage is simply a partition of a project and is the Project Manager's way of breaking a project down into manageable parts. The reason that stages are important for Project Board members is that the end of each stage is a major control point for a Project Board.

At this point the Project Board will meet to review the preceding stage and sign it off as well as authorising the next stage. This is known as an End Stage Review. Management of each stage helps to ensure that projects do not run too far ahead without a major control point, and they ensure that routine time-driven (usually monthly) Project Board meetings are eliminated.

A Project Manager will select stages that are appropriate to the individual project. For example, a stage break might be selected at a time when a major decision needs to be made such as commitment of resources, or because a significant product has been delivered which presents a decision point. In this way, End Stage Reviews happen when Project Boards have some directing and decision making to do. They do not happen routinely each month whether or not Project Board input is specifically required. This is the principle of management by Exception and is intended to eliminate time-wasting and unnecessary meetings.

If the Project Board members are happy that the current stage has been completed satisfactorily, that the project is still viable and worthwhile and that the next stage has been well planned, they can authorise the progress of the project on to the next stage. However, the Project Board has the right to refuse to approve the next stage if it is unhappy with any aspect of the previous or prospective stage.

Approval to proceed to the next stage should be formally documented within Project Board Minutes.

Once a project is underway, the principle of Management by Exception will continue to apply and if all is going well, Project Boards should only meet at the end of a stage. This however is at the discretion of the Project Board. The Board may wish to have additional meetings at critical points of the project, for example in the lead-up to implementation or launch activities, or if the level of issues which require Board intervention increases greatly.

However, most Project Board members like to have some reassurance that all is progressing well during the stage. For this reason, Project Managers will provide Project Board members with a regular Highlight Report. Project Board members will use the Highlight Report to monitor stage and project progress.

Project Managers may also use the Highlight Report as a means of informing Project Board members of any potential problems so that they are forewarned if any issues arise at a later date. Highlight Reports may also be used, subject to agreement between the Project Board and Project Manager, as a means of escalating issues which require Board involvement to resolve.

Close and Review Phase

At this point all work on the project should be completed and there should be no surprises for the Project Board. The role of the Project Board is to:

- Check that all products have been delivered satisfactorily,
- Approve final reports,
- Agree recommendations for any follow-on work,
- Agree arrangements for a End Project Review,
- Authorise the project's closure.

The role of the Project Board during the End Project Review is to:

- Check that all benefits have been delivered,
- Assess if the expenditure of resources and finance to complete the project was a worthwhile investment, given benefits achieved
- Approve final reports,
- Authorise or recommend further actions for enhancing the business delivery in this area

Once the business solution is in place and the benefits achieved, the continued running is an operational issue.

10. Techniques

The following sections contain details on various techniques which may be used in addition to the project management processes detailed above. Their use is not mandatory, and not every project will require their use, however they are useful supporting aids to the project manager.

10.1. Product Based Planning

Product Based Planning is a planning technique which focuses principally on products or outputs rather than tasks or activities.

There are three steps involved in product based planning:

- Defining a Product Breakdown Structure
- Writing Product Descriptions
- Producing a Product Flow Diagram

Defining a Product Breakdown Structure

A Product Breakdown Structure (PBS) is a decomposed view of all the products that a project will produce.

Production of the PBS helps to define the scope of the project and gives the project team an understanding of what the project will deliver. It can be produced individually by the project manager, but it is often beneficial to involve the project team, by way of a planning workshop.

The level of detail of the PBS will vary according to the level of plan being produced. Thus, a project plan may only show the first two levels of products, while a stage or team plan may decompose the products into further levels of detail

Each project will have a set of management and specialist products. Management products are the outputs that will be used to control the project, such as the Project Initiation Document and the Project Plan. Specialist products are the principal deliverables of the project, such as 'Invitation to Tender' and 'Completed Site Survey' in the example project to install a new scanner, below.

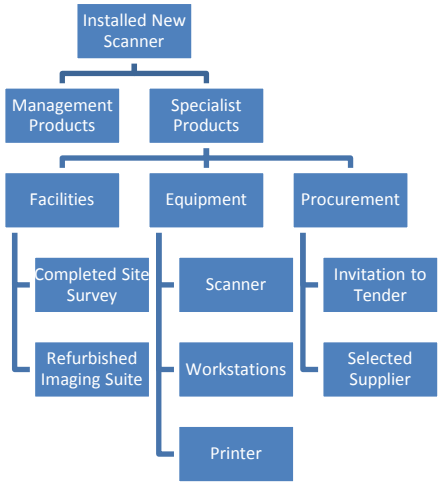


Figure 24 - Example Product Breakdown Structure

Writing Product Descriptions

Product descriptions describe the detail of the expected outputs of the project. They are in effect the specification for the product.

Each product description should contain the following items:

Item	Description	Example
Title	The title of the product	Invitation to Tender
Purpose	An explanation of the purpose of the product	A formal document inviting prospective suppliers to bid for a contract to supply the College
Composition	A list of the various parts of the product	Background Requirements Submission Process Review Process etc
Format	What the product should look like	Document – bound hard copy
Derivation	The sources of information for the product	Procurement Strategy Project Proposal etc
Quality Criteria	What quality measures the product must meet	Must be less than 50 pages long Must use College standard ITT template
Quality Method	What method of checking the product's quality is to be used	Quality check by Procurement team

In practice, product descriptions are usually only produced for the specialist products of a project.

Producing a Product Flow Diagram

The product flow diagram (PFD) is a graphical representation of the dependencies between each product and the sequence of their delivery. The diagram should flow either top to bottom or left to right.

Products which are not produced by the project but which are needed to ensure project success are called external products and should be represented differently on the diagram. The convention is to use an ellipse for such products. In the diagram below, the project to refurbish a room can only be completed with the input of procured furniture, which is not directly produced by the project.

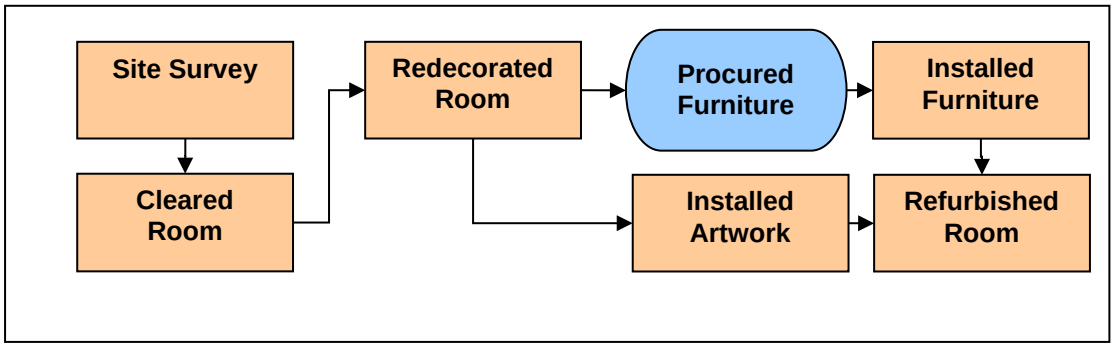


Figure 25 - Example Product Flow Diagram

Following completion of the PFD, the plan can be further refined with the addition of the tasks needed to produce the products in the defined sequence, estimates of effort, and the details of resources. See section 5.1 for more information.

10.2. Risk Management

Project management must control and contain risks if the project is to stand a chance of being successful. This section gives an introduction to the management of risk in a project environment.

Risk is defined as 'uncertainty of outcome'. It is important to remember that a certain degree of risk taking is essential if organisations are to move forward. Moreover, projects bring about change and change incurs risk.

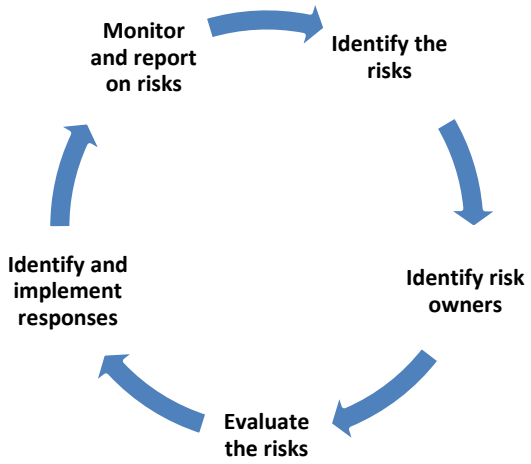


Figure 26 - Risk Management Cycle

Risk Identification

This step identifies the potential risks facing the project. A checklist of various categories of risk which may prove useful in risk identification is included in section 0. At this stage it is advisable to focus solely on identification and not be concerned about assessing impact and likelihood.

A useful method of identifying risks which face a project is to hold a risk identification workshop with the project team. Risks are 'brainstormed' and then categorised in the workshop.

Once identified, risks should be held in the risk log. A good convention is to write the risks in the format 'there is a risk that x… resulting in y', where x is the event that could occur, and y is the potential impact, as this helps avoid the risk being ambiguous. For example, 'there is a risk that design information may be lost, resulting in delays to construction activities' is better than 'design information'.

It is also important to note the distinction between a risk and an issue. A risk is an event that has not yet occurred, and might not ever occur, whereas an issue is a problem which has occurred or is occurring now.

Risk Ownership

Following identification, potential owners of the risk should be identified. At this stage, this may be a list of several owners. The list can be reduced to one owner as the extent of the risk becomes known.

Owners should have the authority to enable mitigation of the risk, however it is important to recognise that in some instances senior management may not be able to dedicate sufficient time to risk management activities.

Risk Evaluation

Risks should be assessed in terms of their impact and their likelihood of occurrence.

The impact of some risks can be evaluated in quantitative terms (for example, the College may have to spend an additional £100,000 if the project is delayed), while others can only be evaluated in subjective ways (for example, the College may suffer damage to its reputation if the project is delayed).

Impact and likelihood should be assessed using the following sliding scales:

Impact
Catastrophic
Major
Moderate
Minor
Insignificant
Negligible

Likelihood
Certain
Likely
Possible
Unlikely
Rare
Impossible

These scales are replicated in the Capital Projects Office's standard risk log template.

An additional factor to be borne in mind is the proximity of the risk, in other words, *when* it is likely to occur. Consideration of the risk's proximity is useful in targeting management actions on those risks which require the most urgent mitigating actions.

Risk Responses

Suitable responses to risk can be drawn from the following categories:

Prevention	Terminate the risk by doing things differently and thus removing it entirely where it is feasible to do so. For example: remove the risk of long term respiratory damage by replacing solvent based paint with water based paint
Reduction	Treat the risk by taking the action to either reduce the likelihood or the impact on the project, or both. For example: reduce the risk of a task not finishing on time by assigning additional resource to complete it
Transference	A specialist response where the management of the risk is passed to a third party. For example: under a PFI contract, certain risks may be transferred to the supplier; insurance is also another example of transference of risk
Acceptance	Tolerate the risk, perhaps because nothing can be done at reasonable cost to mitigate it, or the likelihood and impact of a risk occurring are at an acceptable level. For example: accepting the risk that VAT rates may change during the course of a project as there is no action the College can take to avoid it

Table 7 Categories of Risk Response

For each of these responses there will be an associated action or a series of actions. These should be captured and tracked in the risk log.

An additional response is Contingency or Containment. This involves invoking actions which are planned and organised to come into force as and when the risk occurs. When planning

containment actions, there should be a trigger identified which will lead to the actions being invoked.

Monitoring and Reporting

In terms of control of project risk, the risk log is the most important tool available to the project manager. All risks should be held in the risk log, and regular reviews of the information contained in it should be carried out as part of the project reporting and stage control processes.

Monitoring activities may include checking that the execution of planned actions is having the desired effect, or watching for the early signs that a risk is developing.

10.3. Benefits Management

A benefit can be defined as a positive outcome of a change. The proposed benefits to be delivered by a project are the compelling part of the investment appraisal process and are stated in the project's business case. Benefits can take many forms, for example:

- Financial benefits, in the form of reduced expenditure or additional revenue
- Strategic benefits, by moving the organisation towards one of its strategic aims
- Intangible benefits, such as improved public perception of the College.

Benefits Management is a series of activities designed to ensure that the outputs of projects deliver sustainable benefits and value for money to an organisation. Moreover, in the public sector, demonstrating that benefits are routinely managed and subsequently realised is a key assurance for the likes of central government and commissioning authorities.

Benefits management is typically considered as a component of programme management, but there are links with the project management lifecycle, as shown in the diagram below.

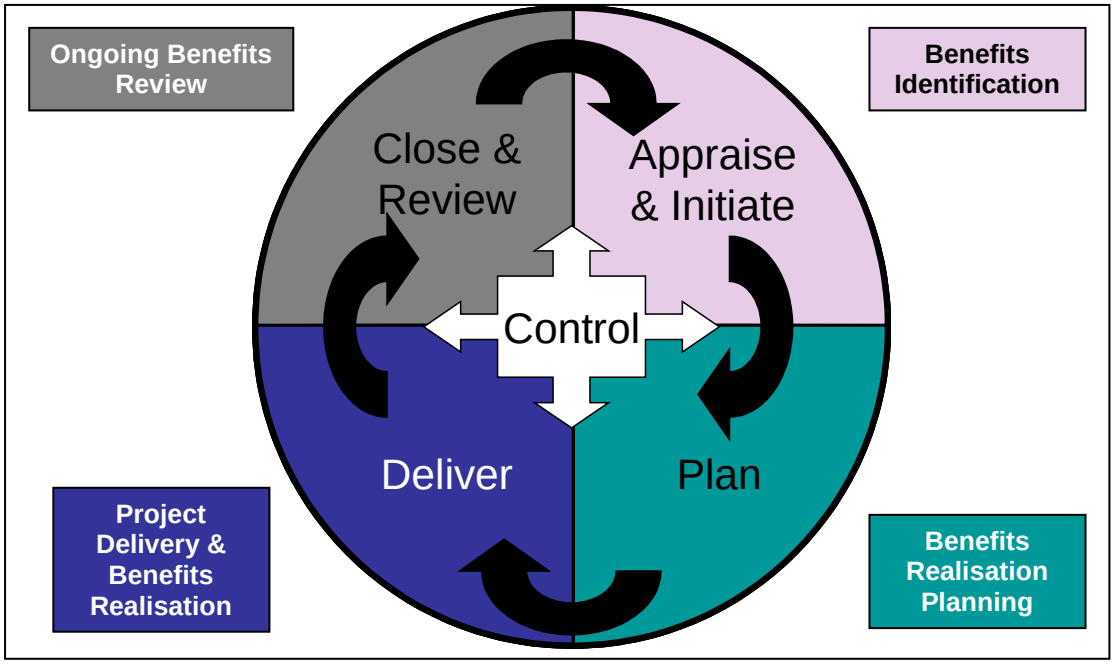


Figure 27 - Benefits Management and Project Management Lifecycle

Benefits Identification

The identification of benefits should occur during the initiation of the project. Projects should only be undertaken if they deliver a benefit to the organisation, and as such, assessment of the proposed benefits contained in the project proposal and/or business case is a key factor in authorising the project.

Benefits Realisation Planning

During the planning phase of a project, the project manager, in scheduling the development activity, should consider when the benefits of the project will be achieved, as well as when the products will be delivered. Additional activities which will be needed to realise benefits should also be planned at this stage. As benefits management is a component of programme and project management, this planning work should be carried out in conjunction with members of the project team and should involve members of the service or operational area.

Project Delivery and Benefits Realisation

It is important to note that delivery of projects in themselves do not provide benefits. Benefits are only realised when the outputs of a project are delivered to the organisation and these outputs are used effectively. For example, the benefit of reduced administrative costs by way of a reduction in data entry can only be obtained when the new automated system is delivered to users and is used on a day-to-day basis. Therefore, the delivery phase of the project should also include activities to ensure that products are correctly handed over and accepted.

Activities such as those mentioned above, which are undertaken to realise benefits, should be owned and completed by members of the service or operational area. For tracking purposes they may be held in the project plan, provided they occur within the timescales of the project. Otherwise it is more usual for benefits realisation activities to be monitored at the programme level using the programme plan.

Ongoing Benefits Review

Following completion of the project, it is vital to ascertain the effectiveness of its outputs in realising benefits. A review of the actual against the planned benefits should be conducted at the same time as the project review. However, as there can be a lag between product delivery and actual benefits realisation, it is important to note that benefits reviews should occur at regular intervals following the end of the project.

The Capital Projects Office is able to supply further detail on benefits management and programme management, including a range of templates, on request.

Appendix A Checklists and Supporting Materials

This section contains checklists to assist with project management activities and documents

A-1. Outline Business Case

This checklist includes the key content required for submission of an Outline Business Case to external commissioning or approval bodies, such as the HEFCE or the Department for Education and Skills.

Executive summary

A brief self-standing statement of:

- The service objectives of the scheme
- A summary of the shortlisted options
- The results of the economic and financial appraisals
- A statement of the preferred option (including reasons for its superiority)
- A statement of commissioner involvement and unequivocal support for the scheme

Strategic context

- Provide an overview of the Education strategy for the local higher education system
- Assessment of the case for change in the pattern of services needed to meet, for example, commissioning Non Department Public Bodies (NDPB) requirements and future demand
- Description of the College and the catchment area and catchment population for its services
- Description of the College's business objectives.
- The current activities of the College and the range, broad case-mix and quantity of courses it provides.
- Assessment of the College's current financial position and cost structure.
- Assessment of the College's resources (assets and manpower) and their current utilisation in service provision (including their functional suitability).
- Assessment of current service performance relative to both commissioning
- Explanation of the key assumptions which underlie the assessment of future services and functions.

Project objectives and scope

- Description of project objectives and their link to the College's strategy and overall business objectives
- Description of the desired benefits and why these cannot be delivered under the current configuration of the estate
- Identification of any constraints on the means of achieving the objectives of the project
- Description of the new services covered in the proposed scheme
- A brief summary of the output specification for the project (including desired outputs and outcomes, quantity and quality of services, facilities and desired performance standards for facilities and services)

Formulation and shortlisting of options

- Description of the long-list of options (both capital and non-capital, including do-nothing or do-minimum) for meeting the project objectives
- Criteria by which options assessed
- Reasons for early rejection of options

- Description of the shortlisted options
- Identification, timing and assessment of quantifiable benefits associated with shortlisted options
- Identification and assessment of non-quantifiable benefits associated with shortlisted options (using weighting and scoring techniques)
- Identification and assessment of capital and revenue costs associated with shortlisted options over the life span of the scheme
- Identification and high-level assessment of risks and uncertainties associated with shortlisted options (a formal risk quantification is only required for the preferred option or shortlisted options with materially different risk profiles)
- Details of key assumptions underlying the assessment of costs, benefits and risks, and the results of sensitivity analysis on these
- Results of the economic appraisal of the shortlisted options

The preferred option

- Detailed description of the preferred option
- Key factors responsible for its superiority (and why other options are inferior)
- Precise nature of any benefits obtained at higher costs than other options
- Sensitivity of costs to variations in assumptions
- Details of the statutory consultation undertaken, and the College's own dialogue with external and internal parties (summary of major issues and how they were addressed)

Risk analysis

- A full description of the risks associated with the preferred option, indicating their nature, timing and potential impact
- A risk allocation matrix indicating the likely risk allocation and contractual arrangements between the College and its suppliers
- Estimate of the cost of the risks associated with the preferred option
- Description of the methodology used to quantify and value risks
- Results of sensitivity analysis on the key assumptions underlying the risk evaluation
- Description of risks which are likely to be retained by the public sector and how they will be managed

Affordability

- Results of the financial appraisal showing the revenue implications of the preferred option
- Descriptions of key assumptions made for the financial appraisal and explanation of the methodology used to project income and expenditure
- Details of key assumptions underlying the financial appraisal, and the results and sensitivity analysis on these
- Explanation of how the cost of risk has been factored into the financial appraisal
- Assessment of whether there is flexibility to fund any additional revenue requirements and likely source of funding (for example, the disposal of surplus land or estate)

Project timetable and management arrangements

- Summary of the project plan from development of the OBC to completion of the new facility, including key milestones
- Description of how the Project Governing Group intends to manage the various phases of the project

A-2. Project Charter

In agreeing this Project Initiation Document it confirms that:

- All Project Board members and the Project Manager fully understand and support the objectives of the project as outlined in the Project Initiation Document (PID) and/or Business Case
- All Project Board members understand their individual role on and the collective role and responsibilities of the Board as described in the Handbook for Project Board Members
- If this project is part of a Programme, the relationship to the Project Board, accountabilities and authority levels are understood and agreed
- All Project Board members are aware of their time commitments for this project and will commit their time for planned board activities (as identified in the PID) and to make some contingency time available if and when needed
- This Project Initiation Document (PID) clearly defines the scope, cost, time, and deliverables for the project
- Project risks, as currently identified, are understood by us and are considered manageable. We will continually identify other risks and these will be agreed, managed and monitored proactively as the project proceeds
- Lessons learned and relevant exception reports from previous projects of this type, as collated by the Project Manager, have been reviewed
- Sufficient resources, as described in the PID, are committed to successfully deliver the project
- Robust project tolerances have been agreed by the Project Board and are clear to the Project Manager
- This PID is approved and the project should continue

Signatures

Project Executive

Senior User(s)

Senior Supplier(s)

Project Manager

A-3. Risk Identification Checklist

The following lists some areas which should be considered during the identification of project risks.

Corporate/Commercial Risks

- Contractors or third party suppliers go out of business
- Failure of suppliers to meet contractual requirements

Economic/Financial/Market Risks

- Failure to meet projected revenue targets
- Inflation
- Interest rate/exchange rate instability

Legal and Regulatory Risks

- New or changed legislation invalidating assumptions upon which activity is based
- Failure to obtain approval (e.g. planning consent)
- Infringement of personal data protection criteria
- Freedom of information requirements

Organisational Management/Human Factors

- Inadequate corporate policies
- Untrained, poorly trained or under trained staff
- Lack of operational support
- Health and safety compromised

Political/Societal Factors

- Change of government policy
- Change of government
- Adverse public opinion/media intervention

Technical/Operational/Infrastructure Risks

- Inadequate design
- Use of new or unproven technologies
- Professional negligence
- Human error
- Security breaches (physical or information)
- Inadequate infrastructure to provide operational support
- Lack of or inadequacy of business continuity measures

A-4. Project Closure Notification Checklist

This notification confirms the formal closure of the above project. All activities listed below are confirmed as complete.

Closure Reason

Project has been cancelled ☐ Project has completed ☐

Products

All agreed products have been completed and accepted by the appropriate business or operational owner	
Any caveats to acceptance have been incorporated as follow-on actions	
Handover / warranty / post-implementation support period has been agreed and invoked, where required	
Service Level Agreements for ongoing support and maintenance have been defined, agreed and invoked, where required	

Resources

Provisions have been made for the release of project team members back into operational areas	
Provisions have been made for the release of any non-labour resources or shared facilities back into operational areas	

Financial/commercial

Final budget data including expenditure to date has been collated	
Provisions have been made for payment of any remaining invoices	
Provisions have been made for receipt of any remaining income	

Follow-On Actions and Documentation

All follow-on actions have been documented and assigned to owners	
All project documentation has been archived	

Project Review and Lessons Learned

The project has been reviewed and an End Project Review report completed and approved by this Project Board	
Lessons Learned have been captured and stored with the Capital Projects Office	

Signatures

Project Executive

Senior User(s)

Senior Supplier(s)

Project Manager

A-5. Sample RAG (Red-Amber-Green) Status Definitions

These definitions may be used when a RAG status is required for reporting purposes. Note that the criteria for each status should be agreed between Project Board and Project Manager as part of the Project Authorisation process (see section 5.8). Criteria which may be amended are shown in *italicised* text.

		Red	Amber	Green
Proposal	**Proposal Risk Rate**	The majority of risks associated with the proposal have a high likelihood of occurrence	A significant number of the risks associated with the proposal have a high likelihood of occurrence	Few or no risks associated with the proposal have a high likelihood of occurrence
Project Highlight Report	**Overall Status**	Any of the work streams are forecast to deliver more *then a week late and/or over 10%* of the agreed budget	Threat that any of the work streams will not complete on time or within the agreed budget	All work streams are due to complete on time and within the agreed budget
	Implementation Date	Project is forecast to deliver *more then a week late*	Threat that the project delivery date will not be met	Project is due to deliver within the agreed timescale
	Expenditure	Forecast overspend of the agreed budget of *over 10%*	Threat that the project will not deliver within the agreed budget	Project is due to deliver within the agreed budget
	Financial Benefit	Forecast of financial benefit has *reduced by 10% or more* of the original agreed benefit	Threat that upon completion the project will not receive the agreed amount of financial benefits	Upon completion the project is due to receive the agreed amount or more of financial benefits
	Other Benefits	None of the forecast benefits for the project are achievable within the constraints of the current project plan and budget	Some of the forecast project benefits may not be realised within the constraints of the current project plan and budget	All forecast project benefits are on track for realisation
Workstream Checkpoint Report	**Overall Status**	Work packages are forecast to deliver *more then a week late and/or over 10%* of the agreed budget	Threat that any of the work packages will not complete on time or within the agreed budget	All work packages are due to complete on time and within the agreed budget

		Red	Amber	Green
	Milestone Dates*	Key milestone is forecast to deliver *more then a week late*	Threat that the key milestone delivery date will not be met	Key milestone is due to deliver within the agreed timescale

*Mark a milestone as Blue if it has been completed.

Appendix B Glossary

Baseline	A snapshot of a project taken at a specific point in time (for example following approval of the Project Initiation Document) to give a starting point for the measurement of progress
Baselined	Denoting a product or document which has been produced and is subject to change control
BAU	Business As Usual
Benefit	A positive outcome the project is being undertaken to deliver
Benefits Management	Activities which ensure benefits are identified, planned, delivered and reviewed
Business Case	Information that describes the reason for setting up and continuing a project
Change Control	Activities which ensure that amendments to products and documents are effectively controlled
Checkpoint Report	A report which describes progress taken by a project workstream
Commissioning Body	A group, function or committee which commissions and approves project proposals
Contingency (1)	Additional effort, duration or budget which is added to a task or activity during planning to cater for unforeseen delays or expenditure
Contingency (2)	A risk response whereby a series of actions are implemented when a risk materialises
Critical Path	The tasks in a project or stage plan which if delayed will delay the whole project or stage
SMT	Goldsmiths Senior Management Team
Deliverable	An item that a project has to create. Also known as a 'product'
End Stage Review	A review conducted by the Project Board and Project Manager at the end of a stage
Feasibility Study	An early study of a problem to assess if a solution is feasible.
FBC	Full Business Case
Gateway Review	A review of a programme or project carried out by review teams from third party (central government)
Highlight Report	A report from the Project Manager to the Project Board describing project progress
Issue	A problem, query or suggestion raised during a project
ITT	Invitation to Tender
M_o_R	Management Of Risk. The Office of Government Commerce's proprietary risk management framework
OBC	Outline Business Case

OGC	Office of Government Commerce
OJEU	Official Journal of the European Union
PBS	Product Breakdown Structure
PFD	Product Flow Diagram
PFI	Private Finance Initiative
PID	Project Initiation Document
PRINCE2	**Pr**ojects **in** a **C**ontrolled **E**nvironment. The Office of Government Commerce's proprietary project management methodology
Product	The PRINCE2 term for 'deliverable'
Product Description	A description of a product's purpose, derivation, composition and quality criteria
Programme	A suite of projects selected, planned and managed in a coordinated way
Project	A temporary organisation that is created to deliver one or more products according to a specified business case
Project Approach	How the project proposes to deliver its products
Project Assurance	The Project Management team role which provides independent oversight of the project to the Project Board
Project Board	The body which governs the project and provides direction to the Project Manager
Project Executive	The Project Management team role charged with overall responsibility for the project
Project Manager	The Project Management team role given day-to-day responsibility for the project on behalf of the Project Executive
Project Support	The Project Management team role which assists the Project Manager with the running and control of the project
Proposal	A document which describes a proposed project in outline terms in order to gain management approval and secure funding or resources
RAG	Red-Amber-Green
Risk	Uncertainty of outcome, expressed in terms of likelihood of occurrence and impact
Risk Management	Activities which are carried out to remove or lessen risk exposure
Senior Supplier	The Project Board role which represents the supplier's interests and provides supplier resources
Senior User	The Project Board role which represents the user's interests and provides user resources

Service Level Agreement	An agreement which stipulates the performance requirements of a delivered product
SLA	Service Level Agreement
SOC	Strategic Outline Case
SRO	Senior Responsible Owner. Also known as Project Sponsor. Always a member of the SMT
Stage	A component of the project schedule
Stage Plan	A plan of the activities to be undertaken and the products to be produced as part of a stage
Stakeholder	Anyone (person, function or organisation) with an interest in the outcome of the project
Tolerance	The permissible deviation from a plan without having to refer the matter to the next higher level of authority
CPO	Capital Projects Office
Work Package	The set of information relevant to the construction of products

Appendix C Project Management Methodology and PRINCE2

The Methodology has been designed based on the best practice principles laid out by PRINCE2, but has been tailored to meet the specific needs of the College. In some cases, some of the PRINCE2 processes have been merged within one or more of the Project Management Methodology's processes. The following matrices show the mapping between the two methodologies:

		Appraise and Initiate							Plan					
	Starting Up a Project (SU) Initiating a Project (IP)	**Obtain project mandate**	**Create project proposal**	**Portfolio Prioritisation**	**Create PM Team**	**Register and Conduct Project Risk Assessment**	**Define Project Approach**	**SMT Approval**	**Create the Project Plan**	**Develop Communications Plan**	**Develop The Business Case**	**Create the Quality Plan**	**Set Up Project Controls**	**Develop The PID**
SU1	Appoint Executive and Project Manager	✓			✓									
SU2	Designing a Project Management Team				✓									
SU3	Appointing a Project Management Team				✓									
SU4	Preparing a Project Brief		✓											
SU5	Defining a Project Approach						✓		✓					
SU6	Planning an Initiation Stage													
IP1	Planning Quality								✓			✓		
IP2	Planning a Project								✓					
IP3	Refining the Business Case and Risks										✓			
IP4	Setting Up Project Controls									✓			✓	
IP5	Setting Up Project Files												✓	
IP6	Assembling a PID										✓			✓

		Approve and Initiate	Plan		Delivery							Close and Review
	Controlling a Stage (CS) Directing a Project (DP) Managing Stage Boundaries (SB) Managing Product Delivery (MP)	**SMT Approval**	**Create the Project Plan**	**Authorise the Project**	**Manage Delivery**	**Manage Risks**	**Manage Issues**	**Manage Change**	**Manage Quality**	**Report Progress**	**Review A Stage**	**Carry Out Closedown Actions**
CS1	Authorising Work Packages				✓							
CS2	Assessing Progress									✓	✓	
CS3	Capturing Project Issues						✓					
CS4	Examining Project Issues						✓					
CS5	Reviewing Stage Status									✓	✓	
CS6	Reporting Highlights									✓		
CS7	Taking Corrective Action						✓				✓	
CS8	Escalating Project Issues						✓					
CS9	Receiving Completed Work Packages				✓							
DP1	Authorising Initiation											
DP2	Authorising a Project	✓		✓							`	
DP3	Authorising a Stage or Exception Plan											
DP4	Giving Ad-hoc direction											
DP5	Confirming Project Closure											✓
SB1	Planning a Stage		✓									
SB2	Updating a Project Plan										✓	
SB3	Updating a Project Business Case										✓	
SB4	Updating the Risk Log					✓	✓				✓	
SB5	Reporting Stage End									✓	✓	
SB6	Producing an Exception Plan									✓	✓	
MP1	Accepting a Work Package				✓							

		Approve and Initiate	Plan		Delivery							Close and Review
	Controlling a Stage (CS) Directing a Project (DP) Managing Stage Boundaries (SB) Managing Product Delivery (MP)	**SMT Approval**	**Create the Project Plan**	**Authorise the Project**	**Manage Delivery**	**Manage Risks**	**Manage Issues**	**Manage Change**	**Manage Quality**	**Report Progress**	**Review A Stage**	**Carry Out Closedown Actions**
MP2	Executing a Work Package				✓							
MP3	Delivering a Work Package				✓							

		Close and Review			
	Closing a Project (CP)	**Review A Project**	**Identify Follow On Actions**	**Review Lessons Learned**	**Carry Out Closedown Actions**
CP1	Decommissioning a Project				✓
CP2	Identifying Follow-On Actions		✓		
CP3	Project Evaluation Review	✓		✓	

		Plan
	Planning (PL)	**Create the Project Plan**
PL1	Designing a Plan	✓
PL2	Defining and Analysing Products	✓
PL3	Identifying Activities and Dependencies	✓
PL4	Estimating	✓
PL5	Scheduling	✓
PL6	Analysing Risks	✓
PL7	Completing a Plan	✓