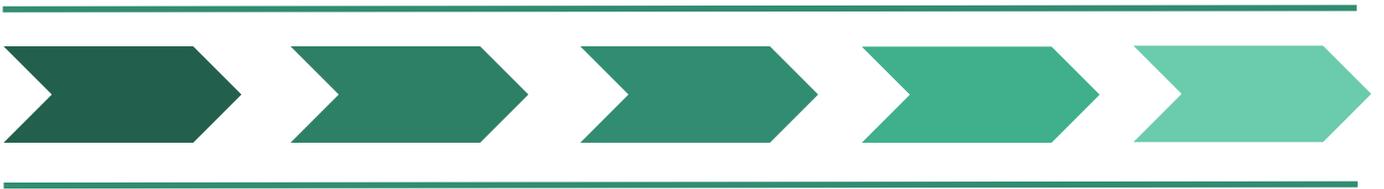


Project Management Handbook for the Civil Service



December 2016



Preface

Increasingly the work of civil servants comprises of sets of projects; projects to evaluate how services and polices are working, projects to introduce new services and policies, projects to change how existing services and policies are implemented and managed, and projects to deliver once-off programmes and events. In a world of competing priorities, tight deadlines and scarce resources, the art and skill of project management is now a core competency for all managers.

The purpose of this handbook is twofold. First to support managers by giving them an easy reference guide to the core principles and methodologies of project management and second, to promote a standardised and consistent approach to project management across the civil service. The handbook has been designed for use by Government Departments¹ but can be used by any organisation.

The handbook also provides a standardised five step framework for a phased approach to the proposal, initiation, planning, execution and closure of projects within the Civil Service. It is based on proven models currently in use across the Civil Service, on recognised best-practice in the field of project management and international standards. It should be used as an important reference and resource, coupled with experience, professional judgment and initiative.

This handbook also recognises that a 'one size fits all' approach is not appropriate as Departments are not uniform in their structure, size, functions, locations etc. and therefore each must make pragmatic decisions in applying this core guidance to reflect their own responsibilities and

¹ The Civil Service comprises all Departments as defined by the Public Service Management Act 1997, all offices or branches of the Public Service specified in Part I or in Part II of the Schedule to that Act and 'Vote Holding' bodies under the aegis of those Departments and Offices

circumstances. However, a common language and an approach on certain project management issues must exist across Departments. In this regard, this handbook should be considered in its entirety to ensure a comprehensive perspective.

Table of Contents

Foreword	8
1 Core Components of Project Management	9
1.1 Project Management Definitions and Pre-Requisites.....	9
1.1.1 Definitions.....	9
1.1.2 Pre-Requisites	10
1.2 Project Management Principles for the Civil Service	12
1.3 Applicability	15
1.4 Relevant Legislation, Standards and Guidelines	18
1.5 Definitions/Terminology	19
2 Project Portfolio Management Framework (PPM), Project Lifecycle and Project Management Phase Gate Approval Process	20
2.1 PPM Overview	20
2.2 Project Life Cycle	21
2.3 The Phase Gate Approval Process.....	24
2.4 Phase Gate Reviews and Expected Gate Outputs.....	29
3 Governance, Roles and Responsibilities	31
3.1 Governance Overview	31
3.2 Project Roles and Responsibilities.....	34
3.3 Project Decisions	37
4 Stakeholder Engagement and Communication Management	38
5 Scope Definition and Management	40
6 Work Breakdown Structure (WBS) and Project Scheduling	42
7 Project Cost and Procurement Management	45
7.1 Cost Management	45
7.2 Procurement Management.....	46
8 Project Risk and Issues Management	47
8.1 Risk Management.....	47
8.2 Issues Management	49

9	Project Reporting	50
10	Change Management	52
10.1	Integrated Change Control	52
10.2	Change in Organisations.....	52
11	Quality Management.....	54
	Typical Project Lifecycle Phase Overview.....	56
12	Pre-Project Phase Description.....	57
12.1	Phase Purpose	57
12.2	Key Activities, Inputs and Outputs	57
12.3	Key Deliverables	58
12.4	Key Roles and Responsibilities	58
12.4.1	Project Sponsor	58
12.4.2	Stakeholders (Internal)	58
12.4.3	PMO (where one exists).....	58
12.5	Expected Phase Gate Outputs.....	58
13	Initiation Phase Description.....	59
13.1	Phase Purpose	59
13.2	Key Activities, Inputs and Outputs	59
13.3	Key Deliverables	60
13.4	Key Roles and Responsibilities	60
13.4.1	Project Sponsor	60
13.4.2	Project Manager	60
13.4.3	Work Stream Leader	60
13.4.4	Stakeholders (Internal)	60
13.4.5	PMO	61
13.5	Expected Phase Gate Outputs.....	61
14	Planning Phase Description.....	62
14.1	Phase Purpose	62
14.2	Key Activities, Inputs and Outputs	62
14.3	Key Deliverables	63
14.4	Key Roles and Responsibilities	64
14.4.1	Project Sponsor	64

14.4.2	Project Manager	64
14.4.3	Work Stream Leader	64
14.4.4	PMO (where one exists).....	64
14.5	Expected Phase Gate Outputs.....	64
15	Execution Phase Description	65
15.1	Phase Purpose	65
15.2	Key Activities, Inputs and Outputs	65
15.3	Key Deliverables	66
15.4	Key Roles and Responsibilities	66
15.4.1	Project Sponsor	66
15.4.2	Project Manager	66
15.4.3	Work Stream Leader	67
15.4.4	PMO (where one exists).....	67
15.5	Expected Phase Gate Outputs.....	67
16	Closure Phase Description	68
16.1	Phase Purpose	68
16.2	Key Activities, Inputs and Outputs	68
16.3	Key Deliverables	69
16.4	Key Roles and Responsibilities	69
16.4.1	Project Sponsor	69
16.4.2	Project Manager	69
16.4.3	Work Stream Leader	69
16.4.4	Project Stakeholders	70
16.4.5	PMO (where one exists).....	70
16.5	Expected Phase Gate Outputs.....	70
	ICT Related Project Lifecycle Phase Overview	71
17	Plan and Analyse Phase Description.....	72
17.1	Phase Purpose	72
17.2	Key Activities, Inputs and Outputs	72
17.3	Key Deliverables	73
17.4	Key Roles and Responsibilities	73
17.4.1	Project Sponsor/Product Owner.....	73
17.4.2	Project Manager/ Scrum Master/Team Lead	74
17.4.3	Stakeholders	74

17.4.4	PMO (where one exists).....	74
17.5	Expected Phase Gate Outputs.....	74
18	Design Phase Description.....	75
18.1	Phase Purpose	75
18.2	Key Activities, Inputs and Outputs	75
18.3	Key Roles and Responsibilities	76
18.3.1	Project Sponsor/Product Owner.....	76
18.3.2	Project Manager/ Scrum Master/Team Lead	76
18.3.3	Project/Development Team	76
18.4.4	Stakeholders	77
18.3.5	PMO (where one exists).....	77
18.4	Expected Phase Gate Outputs.....	77
19	Build and Early Test Phase Description.....	78
19.1	Phase Purpose	78
19.2	Key Activities, Inputs and Outputs	78
19.3	Key Deliverables	79
19.4	Key Roles and Responsibilities	80
19.4.1	Project Sponsor/Product Owner.....	80
19.4.2	Project Manager/ Scrum Master/Team Lead	80
19.4.3	Project/Development Team	80
19.4.4	PMO (where one exists).....	81
19.5	Expected Phase Gate Outputs.....	81
20	Test and Integration Phase Description	82
20.1	Phase Purpose	82
20.2	Key Activities, Inputs and Outputs	83
20.3	Key Deliverables	83
20.4	Key Roles and Responsibilities	83
20.4.1	Project Sponsor/Product Owner.....	83
20.4.2	Project Manager/Scrum Master/Team Leader.....	84
20.4.3	Project/Development Team	84
20.4.4	PMO (where one exists).....	84
20.5	Expected Phase Gate Outputs.....	84
21	Deploy, Maintain and Evaluate Phase Description.....	85
21.1	Phase Purpose	85

21.2	Key Activities, Inputs and Outputs	85
21.3	Key Deliverables	86
21.4	Key Roles and Responsibilities	86
21.4.1	Project Sponsor/Product Owner.....	86
21.4.2	Project Manager/Scrum Master/Team leader	87
21.4.3	Project/Development Team	87
21.4.4	Project Stakeholders	87
21.4.5	PMO (where one exists).....	87
21.5	Expected Phase Gate Outputs.....	87
22	Fast Track Process	88
Appendix 1	Project Scaling Matrix	89
Appendix 2	Definitions/Terminology	92
Appendix 3	PM Toolkit available to support Handbook.....	105

Foreword

There isn't a person in our country who is not dependent in some way on the services designed, developed or delivered by the Civil Service. Whether it is in education or travel, security or defence, enterprise or welfare, taxation or agriculture, employment rights or health, arts or sport, housing or transport, everyday all of the people who live in Ireland and many of our citizens abroad benefit from the services that we design, develop or deliver on their behalf. To do this, we work with 35,000 colleagues to manage billions of euro worth of current and capital expenditure and oversee the activities of organisations that employ a further 300,000 people. And we account for the quality of our work to the Government, the Oireachtas, the Ombudsman and increasingly, through the Open Government agenda, to the public.

Well-managed projects are critical to how we work, to the successful achievement of Government priorities, to the management of public finances and, most importantly, to the delivery of high quality services to the public. Project Management supports the identification and establishment of milestones to be achieved across projects, it helps with the prioritisation of activities and the effective allocation of scarce resources, it enables the monitoring and the reporting of progress, and it provides a solid basis for sound financial management and control. The Civil Service Management Board has approved this Project Management Handbook to provide a common framework for the development, management and delivery of projects. This framework is based on key principles and recognised best-practice in the field of project management and international standards. It is designed to build on the existing project management skills and professionalism of the Civil Service, to improve the focus on outcomes and ensure a more consistent approach in the delivery of projects across the Civil Service.

Civil Service Management Board

1 Core Components of Project Management

1.1 Project Management Definitions and Pre-Requisites

1.1.1 Definitions

A generally accepted definition of a project is:

“A Project is defined as a temporary endeavour undertaken to create a unique product, service or result. The temporary nature of projects indicates a definite beginning and end.

The end is reached when the project’s objectives have been achieved or when the project is terminated because the objectives will not or cannot be met, or when the need for the project no longer exists.”²

Having regard to the varied activities carried out across the Civil Service, the Civil Service Management Board defines a project as follows:

“A project is a unique set of coordinated activities, with defined starting and finishing points, undertaken by an individual or team to meet specific outcomes and objectives within defined time, cost and performance parameters. A project may or may not be part of a wider programme.”³

The Civil Service Management Board also defines Project Management as follows:

“Project Management is the application of a methodology, knowledge, skills and techniques to effectively and efficiently execute a project.”

² A Guide to the Project Management Body of Knowledge - PMBOK Guide – Fifth Edition 2013 PMI

³ “Practical Programme Management Driving Public Service Reform” – Department of Public Expenditure and Reform November 2015 <http://www.reformoffice.per.gov.ie/wp-content/uploads/Practical-Programme-Management-final1.pdf>

1.1.2 Pre-Requisites

The Civil Service Management Board recognises that for effective project management, an organisation (and this can also be a temporary structure designed to implement the desired outcome) needs three things:

- **Governance**
- **Processes and**
- **People**



Governance

Sound governance is required to:

- ensure that there is clarity of purpose with regard to project/programme objectives
- prioritise projects (within a programme)
- set the right milestones and performance targets
- monitor progress and oversee project execution to ensure project adheres to the original scope and business case
- establish the right organisation approach and methods to project /programme oversight

Governance arrangements should be established that are proportionate and unambiguous and that align with the governance structures of the sponsoring/partnering organisations⁴.

Process

There is a need to recognise that good processes are those that enable anyone (in the organisations) involved in the project to:

- speak the same language with the same understanding as other project members
- understand how projects and project activities are ordered and managed in a structured, logical and organised way, following defined steps
- understand their role, responsibility and reporting line within the project
- have an understanding as team members of their inter-dependency on each other and the integrated nature of project work
- be informed as to progress against the project plan.

People

Projects should be resourced with sufficient people having a suitable mix of subject matter expertise and project management skills to enable the project to be delivered. Subject to this condition being satisfied, project assignments provide an opportunity to provide staff with a new developmental work experience and in particular where projects are cross-cutting/cross department in nature.

⁴ Corporate Governance Standard for the Civil Service – Department of Public Expenditure and Reform November 2015

1.2 Project Management Principles for the Civil Service

Building on these definitions and pre-requisites, the Civil Service Management Board has identified the following ten principles to guide project management within the civil service. The precise approach in which each principle should, in practice, be applied is proportionate to the scale and nature of the project in question.

1. **Project Governance:** Project Governance provides a comprehensive and consistent method of controlling projects and ensuring their success. Sound governance requires an agreed, appropriate and proportionate decision making structure through which the objectives of a project are set, implementation approach is agreed and performance is monitored. The governance structure should also ensure that lines of communication are established and work well between members of the project and that all parties are well briefed on the project objectives, the project approach and the project progress. These parties include the project management team, the project sponsor, the permanent client/organisation and other key stakeholders including, if appropriate depending on the nature of the project, the Government, other public bodies, affected individuals and businesses⁵. Depending on the scale and complexity of the project the project governance structure may include a full-time project management office (PMO).
2. **Roles and Responsibilities:** It is important that adequate time is spent to ensure that precise roles and responsibilities are well defined and assigned to appropriately skilled and experienced people, with lines of authority, responsibility and accountability clearly identified and defined in the project organisational structure to avoid gaps in ownership and risk to delivery.

⁵ Draft Consultation Principles/Guidance for Public Consultation-Department of Public Expenditure and Reform July 2015

3. **Objectives and Benefits**⁶: The purpose of any project is to achieve specified outcomes. In most cases, once the work is complete, the work will be handed over to a permanent client organisation for the day-to-day operations. It is therefore vital that the project goals and objectives are clearly defined, measurable and achievable. They should also be agreed at the outset of the project between the client organisation, the project sponsor and the project team. Once objectives have been established, they should be clearly communicated to all staff and stakeholders involved with the project. Record the benefits sought, draw up a plan to deliver them and evaluate success. At the conclusion of the project the project should be handed-over to the client organisation with a statement of goals/objectives achieved and benefits realised. It is not always possible to assess benefits at the time the project is closed as these benefits will continue to be derived into day to day operations. These should be recorded to inform future business decisions on similar projects.
4. **Business case**: A business case should be prepared and formally approved to identify, record and evaluate the project objectives, the options for meeting these objectives, the anticipated cost and timeframe for each option, and the expected financial and other benefits associated with each option. Once an implementation option is selected, the cost, timeframes and benefits should be updated with actual versus planned/anticipated outcomes as part of the governance approach.
5. **Time Management**: A detailed schedule should be prepared at the outset of the project listing all of the project activities, the dependencies between them, the resources and time required to achieve them, the start and finish date for each activity, the activity time, key milestones dates, the critical path and the assurance and

⁶ Work is underway to develop a Draft Benefits Management Handbook for Public Sector Projects - A Guide to Benefits Management by Department of Public Expenditure and Reform

review activities (e.g. governance/project team meetings). Subject to the scale and complexity of the project this schedule should be revised and updated on an ongoing basis by the project team to record the actual against the planned. One of the keys to a successful project is the planning phase. Time well spent in the early planning stages will help improve the probability of project success.

6. **Risk Management:** Effective risk management supports good governance as it assists in analysing uncertainties, in clarifying accountabilities and in demonstrating how the public interest is best served⁷. Project risk management is the structured process of understanding the risks inherent in a project and their likely impact. It involves identifying, analysing, assigning ownership and responding through mitigating actions to risk factors throughout the life of a project. Each project should undertake a formal risk assessment (identified risks being ranked according to their probability and impact) and depending on scale construct a risk register for review at each project team/project governance meeting.
7. **Resource Management:** Each project should identify the financial and other resources, inside and outside the organisation, required to meet objectives and ensure they are managed, monitored and utilised. Projects should be resourced with sufficient people having a suitable mix of subject matter expertise and project management skills to enable the project to be delivered.
8. **Stakeholder Engagement:** Effective stakeholder management is critical to the effective development, specification and delivery of all projects. Projects should include a stakeholder management plan to identify and set out an engagement approach for those people/organisations most

⁷ Risk Management Guidance for Government Departments and Offices – Department of Public Expenditure and Reform February 2016;

“Risk Management Handbook for Public Service Reform” Department of Public Expenditure and Reform 2013
<http://www.reformoffice.per.gov.ie/wp-content/uploads/Risk-Management-Handbook.pdf>

interested in or affected by the project. Effective, clear and concise communication is also critical for stakeholder engagement, for motivating a project team and for performance reporting. Manage and plan communications throughout the project to satisfy the requirements of and resolve issues with project stakeholders.

9. **Continuous Improvement and Lessons Learnt:** Continuous improvement is a principle of the project's quality management criteria and should be a component part of every project. The approach taken during the project should be reviewed regularly to ensure all lessons learned, suggestions and findings are taken into account to continuously improve the quality of project management processes and procedures used to assess project progress and quality. Each project should, subject to scale considerations, record lessons learnt not just for the current project but to be shared with others, including through the project managers' network, so project managers and team members across the civil service may learn from each other's experience.
10. **Project Closure:** Each project manager and project sponsor is responsible for ensuring that the transition to business as usual maximises benefits, that operational delivery is efficient and effective and that information required to support the business as usual environment is documented and readily available.

1.3 Applicability

The ten project management principles set out above can be applied to any project or activity regardless of its scale or complexity, for example:

- strategically important programmes at a Department-wide level;
- activity required for the achievement of a strategic goal(s);
- the implementation of approved White Papers/Policy documents;

- cross departmental projects;
- any project encompassing the delivery of ICT;
- projects with a projected cost in excess of a defined monetary threshold (determined by each Department);
- projects with a projected duration in excess of a time threshold (determined by each Department).

Similarly the Five Phase lifecycle detailed in **Section 2.2** can be applied to any project. However the level of detail with which the approach is applied can vary depending on the scale and complexity of the project in question. Accordingly the approach to the use of the ten principles set out above and the application of the Five Phase lifecycle should be agreed at the outset with the Project Sponsor, Project Manager and a PMO where one exists, (considering its function) who will have regard to the type of project i.e. small, medium or large and the degree of project control required. In considering the principle of proportionality, a Project Scaling Matrix is presented in **Appendix 1** which sets out criteria that could be used to assign projects as small, medium or large and to determine the full application of this handbook guidance and project methodology and to apply control commensurate with project complexity. Whatever set of project assets are created should still be of good quality as the detailed project plan is a valuable asset that will repay the initial effort over time.

It is also recognised that some projects, by their nature, need to be fast tracked through the process. It is recommended that any 'fast-track' approach is set out in the Project Charter and agreed through the appropriate governance structure within the organisation and after the first Pre-Project Phase following a review of a completed Project Charter and Stakeholder Register. When fast tracking a project (parallel running of project phases) is required, a process for agreeing this is set out in this handbook (see **Section 22** below).

This handbook is aimed at the management of individual projects as opposed to programme management⁸ (management of programmes that contain interrelated projects) or portfolio management (management of that both programs and projects) - see **Appendix 2** for definitions. It also places an emphasis on ICT related projects given their prominence and investment in delivering organisational change.

Furthermore, it is not intended to apply to [project management guidance](#) that already exists for the purpose of facilitating the implementation of the Government's reforms in construction procurement, within the ambit of the Capital Works Management Framework (CWMF)⁹ (the procurement of traditional and design-and-build projects) by Authorities as developed by the Office of Government Procurement Department of Public Expenditure and Reform. That project management guidance is intended primarily for Sponsoring Agencies embarking on the procurement of traditional and design-and-build projects and should be promoted by Sanctioning Authorities as best practice for Sponsoring Agencies to follow throughout all the major stages in the delivery of a public works project. Its purpose is to give an overview of the project management structures, processes and procedures that are best equipped for projects using the new forms of Public Works Contracts and Conditions of Engagement for Consultancy Services (Technical) for capital works.

⁸ [Practical Programme Management Driving Public Service Reform](#) – Department of Public Expenditure and Reform
November 2015

⁹ Capital Works Management Framework - [Construction Procurement](#), Office of Government Procurement

1.4 Relevant Legislation, Standards and Guidelines

It should be noted that these Guidelines do not negate the duties and statutory obligations of the Sponsoring Organisation or the Project Team. Responsibility for ensuring that the project is progressed in accordance with applicable legislation, standards and guidelines remains with the Project Team.

This handbook should also be read in conjunction with the following guidance/documentation:

“Capital Works Management Framework”

<http://constructionprocurement.gov.ie/capital-works-management-framework/>

“Capital Works Management Framework Guidance Note Project Management GN 1.1”

<http://constructionprocurement.gov.ie/guidance-notes/>

“The Public Spending Code Expenditure Planning, Appraisal and Evaluation in the Irish Public Service: Standard Rules and Procedures”

<http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/09/The-VFm-Code-except-D-03-Print-Version.pdf/>

“Guidance for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector” Department of Finance

<http://etenders.gov.ie/Media/Default/SiteContent/LegislationGuides/8.%20Capital%20Appraisal%20Guidelines.pdf/>

“Risk Management Guidance for Government Departments and Offices, Department of Public Expenditure and Reform” <http://govacc.per.gov.ie/wp-content/uploads/2016/02/Risk-Management-Guidance-February-2016.pdf/>

“Value for Money Code” Department of Public Reform”

<http://publicspendingcode.per.gov.ie/000-value-for-money-code/>

“Circular 02/16: Arrangements for Digital and ICT-related Expenditure in the Civil and Public Service” <http://circulars.gov.ie/pdf/circular/per/2016/02.pdf/>

“Public Financial Procedures” <http://govacc.per.gov.ie/public-financial-procedures-booklet-by-section/>

“General Procurement Guidance” e-tenders Public Procurement
<http://www.etenders.gov.ie/generalprocguide.aspx/>

Public Procurement refer to <http://www.procurement.ie> and
<http://simap.ted.europa.eu/>

Circulars refer to <http://www.circulars.gov.ie/>

Legislation refer to <http://www.irishstatutebook.ie/>

Readers should also refer to any relevant organisational specific internal Notices/Policies.

1.5 Definitions/Terminology

A list of key abbreviations, definitions and terminology is provided to ensure that the wording of this handbook is clear and unambiguous and can be found in **Appendix 2**.

2 Project Portfolio Management Framework (PPM), Project Lifecycle and Project Management Phase Gate Approval Process

2.1 PPM Overview

Projects are the implementation tools of the business strategy of an organisation and every project should contribute to its strategic plan. Implementation of these strategies requires actions and the completion of tasks. In order to ensure that the implementation of these strategies is managed effectively Departments can apply a Project Portfolio Management Framework (PPM) that is strategically orientated and encompasses a Project Management Phase Gate Approval process. This will support a well-managed portfolio of projects that are critical to the successful achievement of an overall strategy and which centres on *“doing the right projects right”*. This framework will ensure the following:

- A project selection and priority system to ensure strong linkages between projects and the strategic plan (Selecting, Registering and Prioritisation).
- Executing the work requires allocation of resources such as funds, people, and equipment. When organisational resources are limited and multiple goals frequently impose conflicting demands on resources, it provides a mechanism for allocating resources based on organisational priorities.
- Project management processes for planning, executing, and controlling are essential to ensure that we are able to implement strategies effectively and efficiently. This is supported by implementing a standard Project Management Methodology (as described in this PM Handbook) publication.

- Implementation requires a standard project organisation and a governance model that supports projects.
- Implement a Business Case/Benefits Realisation process (Post Project Review).
- Develop strategic resourcing process (capacity and resource planning).
- Standard approach to risk management.

2.2 Project Life Cycle

The Project Life Cycle refers to a series of activities which are necessary to fulfil project goals or objectives. Projects vary in size and complexity, but, no matter how large or small, all projects can be mapped to the following life cycle structure:

- Starting the project
- Organising and preparing
- Carrying out project work
- Closing the project

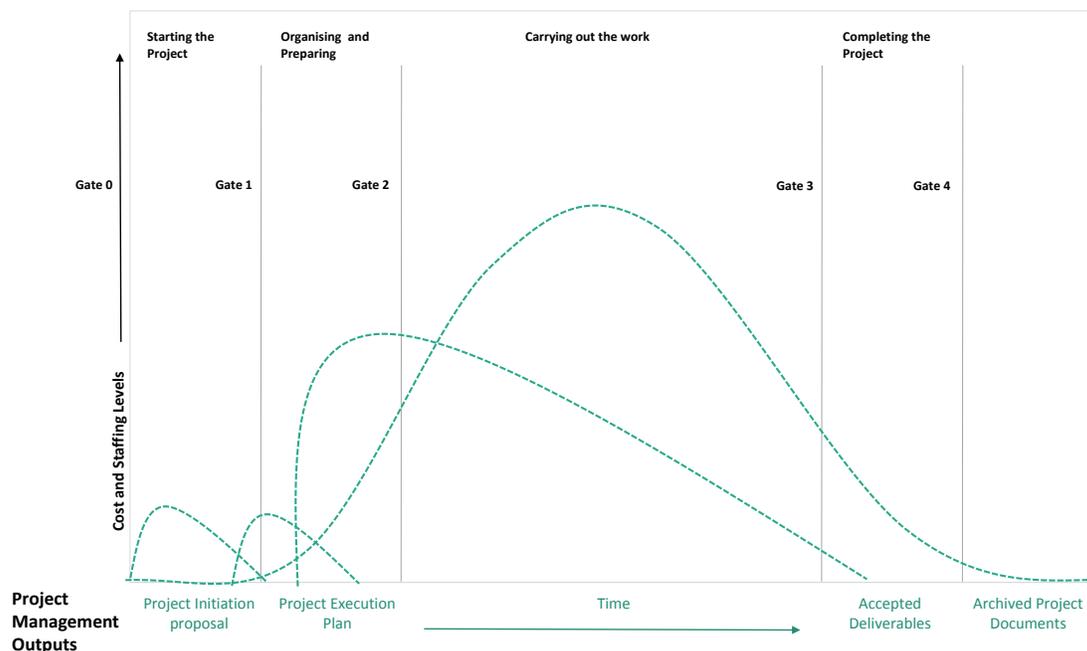


Figure 2.2a: Project Life-Cycle – Typical Project

Projects are broken down into phases so that extra control can be applied to effectively manage the processes. These phases are further divided into subsets for easy management, control, and planning.

The Project Life Cycle has been divided into five phases:

- Pre-Project
- Initiation
- Planning
- Execution
- Closure

These phases are shown in **Figure 2.2b** and **Figure 2.2c** and each phase has activities associated with it. Each activity has an activity definition, guidelines and may have plan templates. These components facilitate the activities performed by the Project Manager. The number of activities recommended depends upon the scope and duration of the project. A Basic project will involve only a few of these activities while a Major project may involve all the activities in the framework for more effective control over deliverables. In considering the principle of proportionality, a Project Scaling Matrix is presented in **Appendix 1** which sets out criteria that could be used to assign projects as small, medium or large and to determine the full application of this guidance and project methodology and to apply control commensurate with project complexity.

Pre-project	Initiation	Planning	Execution	Closure
Needs assessment	Goals	Budget	Implementation	Closure Report
Business case	Objectives	Schedule	Status Reports	Lessons Learned
Benefits	Deliverables	Resources	Changes	Acceptance
Management	PIP	Communication	Forecasts	
Project Charter		Plan	Resources Calendars	
		Risks	Project Execution Plan	
		Issues	Updates	
		PEP		

Figure 2.2b: Project Life-Cycle – Typical Project

Pre-Project Plan and analyse	Initiation Design	Planning Build	Execution Test	Closure Deploy, Maintain and Evaluate
Needs assessment Business case Product Build PIP	Design Deliverables Final Business Case Sprint Building	System/Product release Burndown Charts Use Training and Communication Plan PEP	Project Progress Status Requests Test Analysis Reports Project Execution Plan updates	Closure Report Lessons Learned Handover Documents

Figure 2.2c: Project Life-Cycle –ICT related project

2.3 The Phase Gate Approval Process

This handbook also details a 'Phase Gate Approval' process which Departments may choose to apply to the evolution and progression of all initiated projects (Typical and ICT related) into five Phases. These phases are presented in **Figure 2.3a** for a **Typical Project** and in **Figure 2.3b** for **ICT Related Projects** using either the Waterfall or the Agile project lifecycle (as described later). Each phase is presented in a step-by-step manner but with provision made for flexibility in the ordering of phases or where the need for an iterative or incremental approach is needed with the agreement of the relevant Governance or Oversight Body in recognising business needs.

The purpose of each Phase Gate is to ensure that a project has met certain requirements and is fully ready to proceed to the next phase and can also act as an organisational hold-point requiring decision before further commitments are entered into. The Phase Gate review process is in addition to the routine reporting and monitoring arrangements described later in the Handbook. The Phase Gate model also allows Departments to manage project portfolios by comparing projects instead of evaluating projects on an individual basis.

Each phase is presented in a step-by-step manner. In the **sections 12-21**, the lifecycle of a Project is described by phase as presented in **Figure 2.3a** and **2.3b**, each phase concluding with a Gate. If fast tracking (see **Section 22**) is agreed as part of the first Phase Gate review, the arrangement of these Phases and Gates should be reviewed and revised in agreement with and through the appropriate governance structure within the organisation and the PMO (where one exist) who will determine any such project specific arrangements, as appropriate.

For ICT related projects, the main difference between the Waterfall and Agile lifecycles is that the waterfall process is a more predictive project lifecycle that applies a more traditional sequential development process and begins

with a well thought-out plan and defined set of requirements, i.e. the project scope, schedule and budget can generally be predicted and defined early in the project lifecycle and subsequent changes tightly controlled. The project moves from phase to phase only when the preceding one is complete and the entire product is deployed at the same time. Waterfall lifecycles are usually applied when the end product to be delivered by the project is well understood and/or it is required to be delivered fully in order to realise value for its stakeholders.

Agile is a more adaptive project lifecycle that is intended to respond to high levels of change and ongoing customer interactions and collaboration. Agile methods are generally preferred when dealing with a rapidly changing environment, where requirements and scope are difficult to define in advance and when it is possible to define incremental improvements that will deliver value to stakeholders/customers. Agile is an iterative and incremental delivery approach and begins with less stringent guidelines and then makes adjustments as needed throughout the process. Agile development is known for its ability to quickly translate an application that is in development to a full release at nearly any stage, making it well suited for applications that are updated frequently. While there are several Agile methodologies they are all founded in the following core principles; focus on user needs, deliver iteratively, keep improving how your team works, manage challenges, overcome challenges and learn quickly and keep planning.

ICT project phases depicted in **Figure 2.3b** may not all occur sequentially and some projects may necessitate revisiting or reworking parts of earlier phases as new issues emerge. Examples include conducting reviews at multiple points during the projects lifecycle and revising development tasks following results of testing. In summary, Pre-Project, Initiation and Closure phases are the same for all ICT projects, it is only at the Planning and Execution phases that ICT projects differ and that is where predictive (waterfall) or adaptive

(agile) delivery methods come into play i.e. in the planning and delivery of the work to be done.

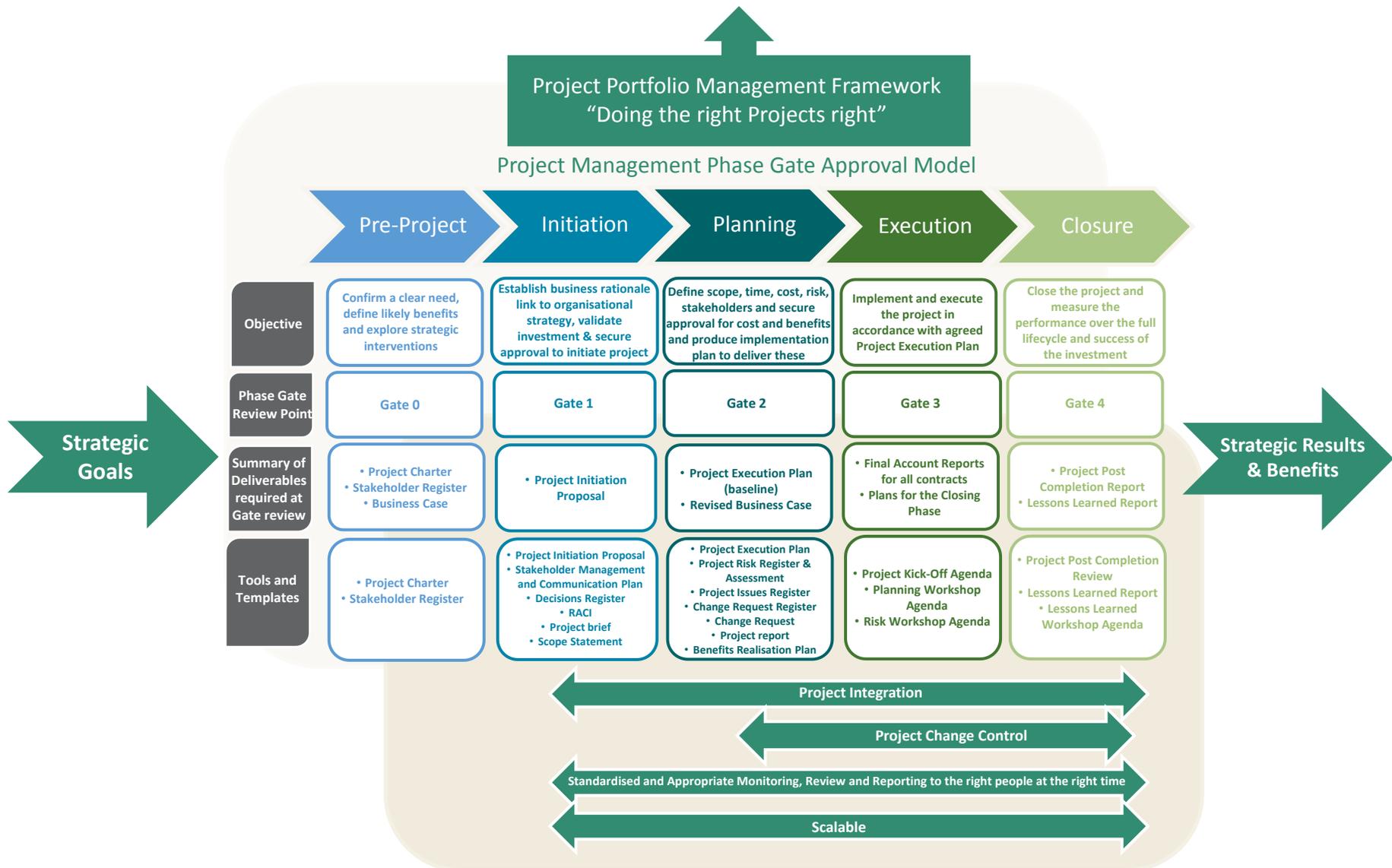


Figure 2.3a PM Phase Gate Approval Model for Typical Projects

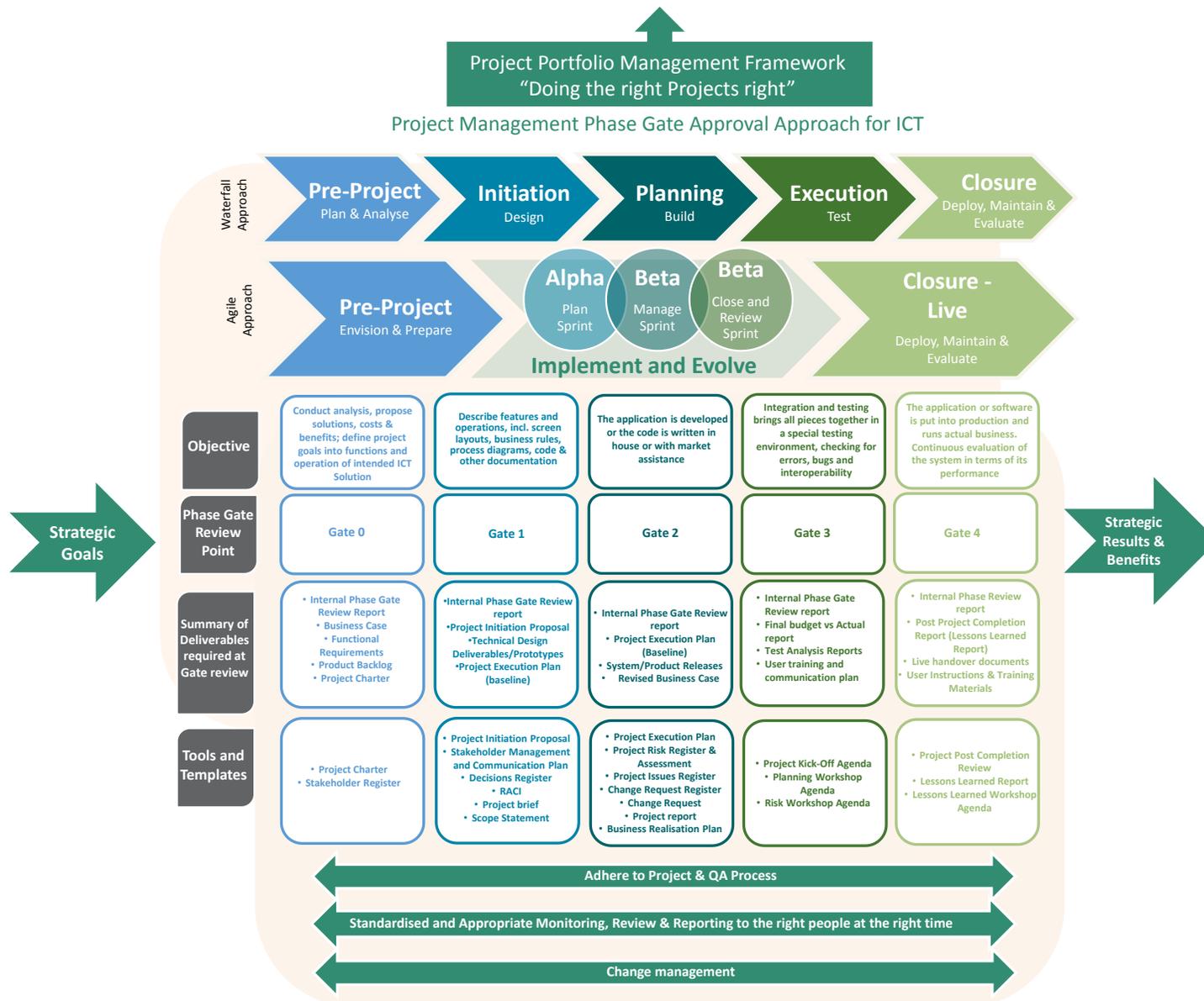


Figure 2.3b PM Phase Gate Approval Approach for ICT Related Projects

2.4 Phase Gate Reviews and Expected Gate Outputs

Where gate reviews are used, the project organisation presents Phase Gate deliverables or milestones to the Project Governing or Oversight Committee for review and verification of the quality of deliverables. The suggested deliverables are demonstrated in **Figure 2.4**.

The Phase Gate Review should include but not be limited to:

- Current progress measured against planned;
- Key project issues and risks and how they can be mitigated;
- The Project Manager's reasoned recommendation (e.g. for the Phase Gate to be passed).

Each Phase Gate will have an expected output and may have follow up actions and priorities for the project team to follow for the next Phase.



Figure 2.4 Phase Gate Deliverables

3 Governance, Roles and Responsibilities

3.1 Governance Overview

As stated earlier, Project Governance provides a comprehensive consistent method for controlling projects and ensuring their success. Sound governance requires an appropriate framework to be put in place to provide the conditions to allow good relationships to exist between all the parties to the project, including:

- The project's management team;
- The project's Sponsor;
- The permanent organisation (as opposed to the temporary project organisation);
- Key stakeholders – including other public bodies, affected individuals and businesses and, importantly, our citizens.

Sound governance also leads to sound processes within the management structure of a project, provides a structure through which the objectives of a project are set, and the means of attaining those objectives and monitoring performance. The civil service is concerned with ensuring that the following guiding principles are in place for the execution of all projects within its remit:

- A set of project management governance principles;
- A governance framework;
- A definition of decision-making authority;
- A consistent and standardised project management approach;
- Transparency and oversight.

The project governance arrangements are developed in the Initiation Phase of the project and must fit within the larger programme/portfolio or the specific Department's organisational arrangements. The project governance

arrangements are confirmed in the Planning Phase and formally recorded in the Project Execution Plan that sets out composition and responsibilities, authority levels, reporting and meeting frequency. In certain projects these governance arrangements will require the representation of key stakeholders. **Figure 3.1** illustrates a typical Project governance structure.

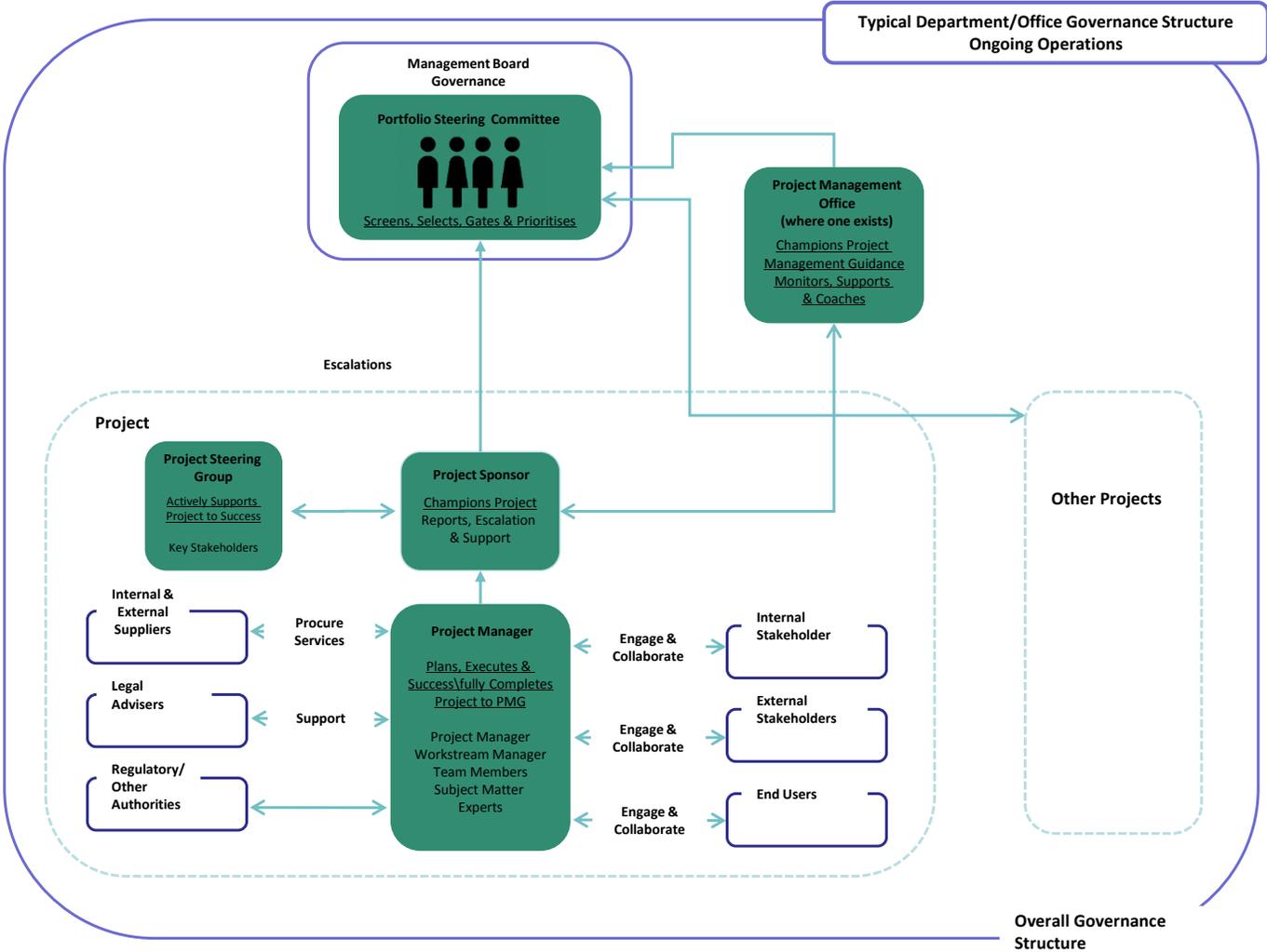


Figure 3.1 Typical Project Governance Structure

3.2 Project Roles and Responsibilities

Having brought a project team together, the motivation and performance of the team members can be directly affected by role clarity. Lack of role clarity is where project team members are unsure of their day-to-day roles and responsibilities, the objectives of the project, their level of authority for spending or directing others and the formal reporting structures. This may result in confusion, overlapping effort by project team members, work not being completed and can also result in the erosion of project team member's desire to be part of the team and deliver on additional commitments that may be required.

In addition to the ongoing developing of a project team to ensure a suitable mix of subject matter expertise and project management skills it is important also that roles and responsibilities are well defined, with lines of authority and accountability clearly identified in the project organisational structure to avoid gaps in ownership and risk to delivery. A RACI matrix/chart is very useful in showing which members of the project team, and which external stakeholders, are responsible or accountable for the various elements of the project, as well as who needs to be consulted or informed when tasks are being carried out. A standard RACI-matrix is referenced in **Appendix 1**.

The RACI uses the following definitions:

- **R (Responsible):** The person who does the work to achieve the task. They have responsibility for getting the work done or decision made; examples might be a business analyst, application developer or technical architect.
- **A (Accountable):** The person who is accountable for the correct and thorough completion of the project. This should be one person and is often the project sponsor.
- **C (Consult and Support):** The people who provide information for the project and with whom there is two-way communication. This is usually several people, often subject matter experts.

- **I (Informed):** The people who are kept informed about progress and with whom there is one-way communication. These are people that are affected by the outcome of the tasks so need to be kept up-to-date.

The following provides an overview of the main project roles referenced throughout this handbook.

- **Management Board or (Sub-Committee):** The senior group that reviews the project portfolio on a regular basis to ensure that it is correctly aligned and balanced to deliver the Department's strategy.
- **Project Sponsor or Senior Responsible Officer (SRO):** The person or group that champions the project within the permanent organisation, provide support for the project, is accountable for its successful completion and for realisation of the project objectives and benefits. The sponsor usually controls the project funding.
- **Project Board/Steering Group:** A group of key stakeholders (comprising of the Project Sponsor, the Project Manager and other key stakeholders) that champions the project and actively supports the realisation of the project objectives and benefits. The composition of the wider Project Board/Steering Group may change as the project moves across phases and the terms of reference for, and initial membership of, the Steering Group should be defined in the Initiation Phase.
- **Project Manager:** The person assigned that is responsible to achieve the project objectives on time and within budget with the agreed Project Execution Plan parameters.
- **Work stream Manager:** The person assigned responsibility for delivering a component of the project Work Breakdown Structure on time and within budget with the agreed Project Execution Plan parameters.
- **Business/Product Owner:** The person with knowledge and experience of the specific subject matter area with direct involvement in the project. As a key stakeholder, the Business/Product Owner will specifically benefit from a successful project outcome and has a keen interest for ensuring the project plan is developed and implemented appropriately. They are also required to

be consulted on the progress and effectiveness of the project plan. The Business Owner is responsible for implementing and coordinating the necessary organisational change management in the business environment.

- **Project Stakeholder:** Person or organisation that is actively involved in the project or whose interest may be positively or negatively affected by the execution or completion of the project. They may also exert influence over the project or its deliverables.
- **Project Management Office (PMO):** Where one exists, the Department's PMO works to ensure that projects proceed on the basis of their strategic alignment to the goals of the Department. A PMO can be created for the specific purpose of supporting the Department's ongoing portfolio of programmes/projects. There are typically 3 different types of PMO, which are briefly summarised below:
 - Directive (Enterprise PMO Model): High level of control and influence held by the PMO who has direct oversight over projects and manages projects directly
 - Controlling (Project Coach Model): Moderate level of control and influence held by the PMO who provide general support to the organisation's projects and requires compliance with standard methodologies or governance dictated by the PMO.
 - Supportive (Project Repository): Low level of control and influence held by the PMO who offers consultative services in the form of best practices, training, templates, lessons learned and project management information.

Other services provided by a PMO can include:

- Establishing and facilitating project selection criteria aligned with the Civil Service statement of strategy business objectives and direction
- Encouraging a project environment focused on performance and execution
- Delivering successful projects
- Building Project Management discipline and professionalism among staff
- Keeping Management and the Project Management community informed

- Serving as the authority on Project Management methods and practices and tailoring this to specific Department needs
- Collecting, refining and disseminating lessons learned

3.3 Project Decisions

As a project progresses through the phases of the project life-cycle (see **Figure 2.2a**), many decisions or milestones are reached, many of which may be recorded in the documents approved and listed in the documents referenced in **Appendix 3**. A record of these key decisions is invaluable to inform the organisation or future projects. Therefore a Decision Register, maintained by the Project Manager, could be produced for each project, recording the decision, the decision maker, the relevant dates and referencing any related issues in the decision making process.

The Decisions Register will form a requirement of the Project Execution Plan and decision management will form part of the project reporting. A Decisions Register template is referenced in **Appendix 3**.

4 Stakeholder Engagement and Communication Management

A Stakeholder is a person or organisation (internal or external) that is actively involved in the project or whose interest may be positively or negatively affected by the execution or completion of the project. They may also exert influence over the project or its deliverables. Effective stakeholder management is critical to the effective development, specification and delivery of all projects. Each project will be expected to place great importance in the development of healthy and proactive relationships with stakeholders at the relevant stages of the project life cycle. Effective, clear and concise communication is also critical for stakeholder engagement, for motivating a project team and for performance reporting. Therefore it is important to manage and plan communications throughout the project to satisfy the requirements of and resolve issues with project stakeholders.

Some of the steps required to manage stakeholders are as follows:

- **Step 1 Stakeholder Identification and Analysis:** The Project Manager in conjunction with the project team members commences the process of identifying all potential people or organisations (internal or external) impacted by the project, and documenting relevant information regarding their interests, expectations, degree of involvement relating to the project purpose. A Stakeholder Register is developed.
- **Step 2 Assessment and Classification:** Once all potential stakeholders are identified the project team assess the impact or influence each stakeholder could generate, and classifies them in order to develop an appropriate communication strategy to meet their expectations. Simple methods or sophisticated models can be used for undertaking this stakeholder analysis and mapping.

- **Step 3 Plan and Distribute Communications:** This step involves preparing a communications plan¹¹ that responds to the information needs of the stakeholder in terms of who, what (type and format), when and how. Once the plan is prepared, project resources are used to communicate information that contributes to success, or where a lack of communication can lead to project failure. This will require the consideration of the appropriate communication channel, method and frequency and determine ownership for communication with each stakeholder.
- **Step 4 Manage Stakeholder Expectations:** This is the process of communicating and working with stakeholders to meet their needs and address and resolve issues as they occur. This may also require anticipating concerns that may not have become issues, so that any associated risks or issues can be assessed. Once identified these issues should be clarified and resolved in the interests of the project. The resolution may also introduce a change that is to be managed and reported in the project progress reporting and incorporated into the overall project execution plan. A Stakeholder Management and Communications Plan may be prepared for each Project in accordance with the template referenced in **Appendix 3**.

¹¹ "Communications Planning Handbook" Department of Public Expenditure and Reform 2013
http://www.reformoffice.per.gov.ie/wp-content/uploads/Communications-Handbook_PORTAL.pdf

5 Scope Definition and Management

Scope definition is the process to ensure that the project includes only the required work to complete the project successfully in order to achieve specified outcomes. Scope management is primarily concerned with defining, documenting, verifying and controlling what is and what is not included in the project. This process is integrated with the other project management processes so that the project will deliver the intended scope.

Some of the steps required to manage scope are as follows:

- **Step 1 Collect Requirements:** The Project Charter developed prior to attaining Phase Gate 0 approval, together with the Stakeholder Register, is used to define the project requirements (objectives and deliverables) that are aligned to the Department's Statement of Strategy.
- **Step 2 Define Scope:** Once defined these requirements are then used to develop a Scope Statement that describes in detail the project's deliverables and the work required to create these deliverables. The Scope Statement can also be used to confirm the project stakeholder's expectations. The scope statement will also comprise of deliverables, a detailed description of the scope, assumptions, exclusions, constraints and acceptance criteria. A Project Scope Statement is to be prepared for each Project in accordance with the templates references in **Appendix 3**.
- **Step 3 Create WBS:** When finalised the scope statement is used to generate the project Work Breakdown Structure (WBS). See **Section 6** for further detail.
- **Step 4 Verify Scope:** This step involves obtaining formal acceptance of the completed project deliverables by the Project Sponsor.
- **Step 5 Monitor and Control:** The Project Scope Statement and accompanying WBS are used as the baseline to monitor the progress of the project against and may be revised to reflect realistic project conditions. This Project Scope Statement is also used to support the Project Execution Plan and is one of the overall set of tools integrated by the project team to ensure successful

delivery of the project objectives and deliverables e.g. risk register, resource plan, stakeholder management and communication plan etc.

6 Work Breakdown Structure (WBS) and Project Scheduling

A Work Breakdown Structure (WBS) breaks the entire project into its various phases and subdivides these into smaller, more manageable components in a descending hierarchical format (Decomposition) (see **Figure 6.1**). Each level of the WBS represents an increasingly detailed definition of the project work and splits it into work packages or work activities. These principles hold true for ICT related projects noting that for projects delivered using the Agile methodology, the focus is on User Stories and the Product Backlog to deliver functionality iteratively. The WBS represents all the project work including the project management work. When developing the WBS, regard is given to the project scope statement, assumptions, objectives and requirements, internal policies and procedures, previous projects and lessons learned.

Once created, the WBS is created and used to develop the project schedule in the following steps:

- **Step 1 Organise Project Objectives and Deliverables:** The overall Project Objectives and deliverables are organised into the various phases.
- **Step 2 Organise Workstreams:** These Phase Objectives and Deliverables are then organised into Workstreams and a Workstream Manager is assigned to deliver these workstream deliverables on time and within budget.
- **Step 3 Define Activities:** The Project Manager in conjunction with the Workstream Manager and project team members use their experience and judgment to elaborate the workstream deliverables into activities. These activities are then arranged into a logical sequence that takes into consideration the interdependencies between the activities i.e. finish to start (FS), start to finish (SF), finish to finish (FF), and start to start (SS). A Planning Workshop Agenda is referenced in **Appendix 3**.
- **Step 4 Estimate Resource and Duration:** A resource effort estimate (based on availability and capability needed) and time duration (based on constraints, assumptions and previous experiences) are then assigned to

each activity. It is important to be able to distinguish between both effort and duration estimates; the effort estimate to derive costs and the effort / duration difference to indicate where the PM might achieve greater efficiencies through optimisation of duration and the implications thereof.

- **Step 5 Develop Overall Project Schedule:** An overall Project Schedule is then developed based on activity duration, key milestones, resources availability, constraints and interdependencies. This development may be iterative to develop an acceptable schedule with planned dates for completing project activities.
- **Step 6 Monitor and Report against Project Schedule:** This Project Schedule is used as the baseline to monitor the progress of the project against and may be revised to reflect realistic project conditions. This Project Schedule is also used to support the Project Execution Plan and is one of the overall set of tools integrated by the project team to ensure successful delivery of the project objectives and deliverables e.g. risk register, resource plan, stakeholder management and communication plan etc. Good practice would not recommend adjusting the baseline unless in seriously delayed projects, where you are effectively starting again. Therefore there is a need to record actuals against planned with no going back to modify baseline. If you do this the value of any lessons learned exercise may be undermined.

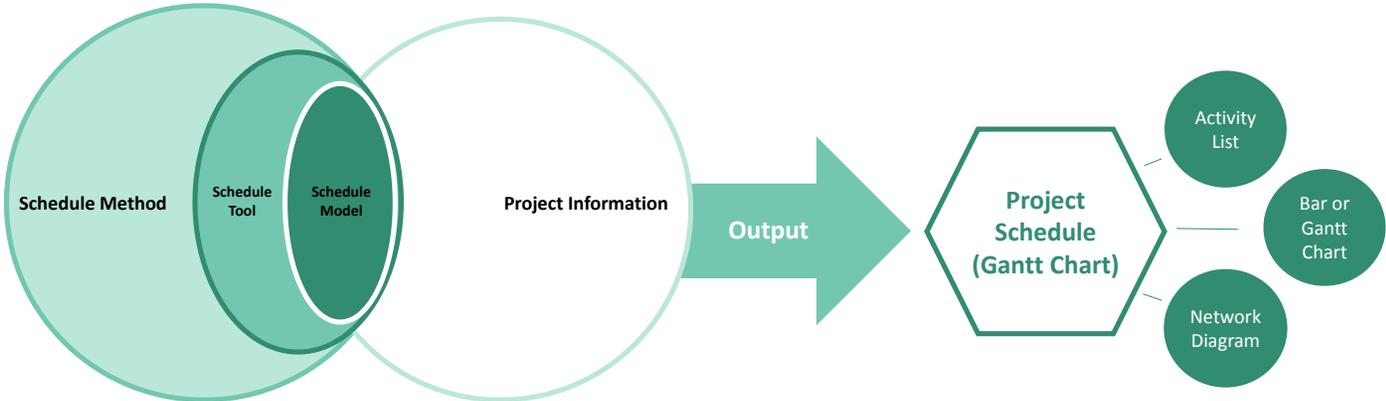
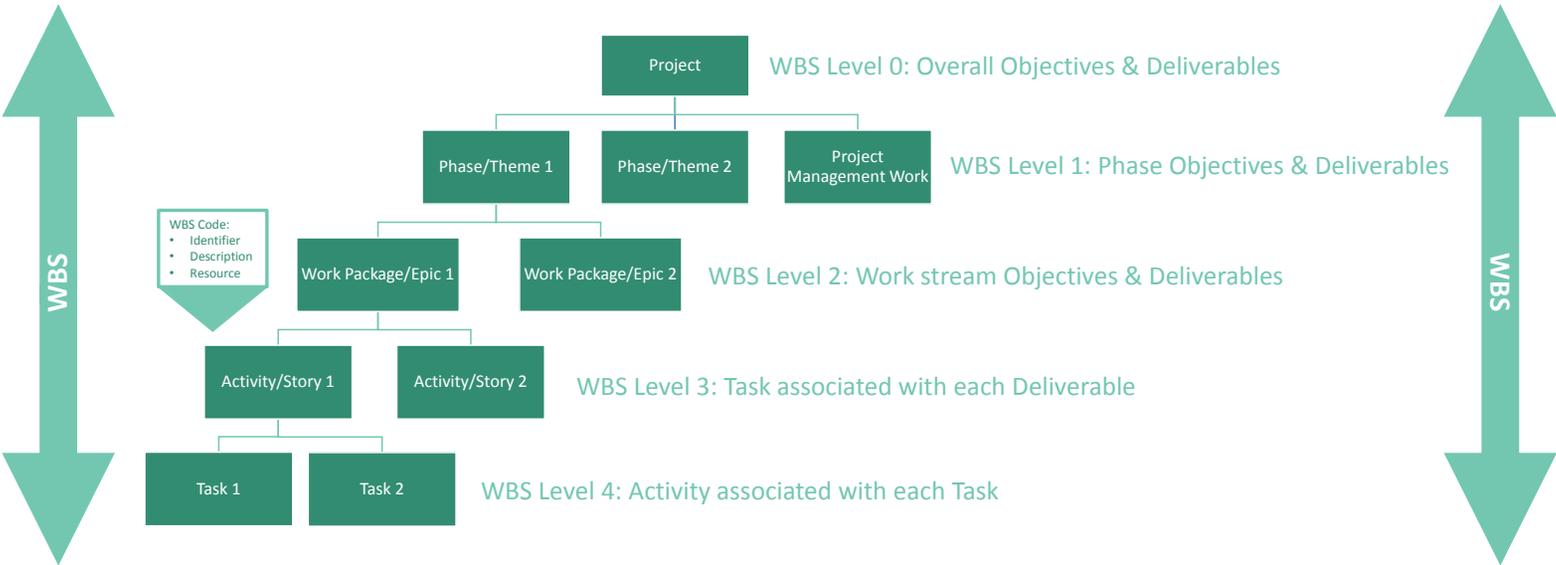


Figure 6.1 Project Work Breakdown Structure (WBS) and development of Project Schedule

7 Project Cost and Procurement Management

7.1 Cost Management

To ensure the successful delivery of any project, it is important that cost requirements and parameters are set early on in the process and then monitored on an ongoing basis. The process for recording and monitoring spend and cost requirements should be agreed and signed off on at the initial project meetings, and the Project Manager should put arrangements in place for ensuring effective cost management. In developing a project budget and a supporting business case, costs should be identified as either project build costs or future operational costs as follows:

Build costs: All of the costs associated with the implementation and deployment of the project, including capital/current procurement of services and equipment and staff costs associated with the project implementation. Contingency may need to be provided for when identifying the project build costs.

Operational costs: Any additional and ongoing costs that will be incurred by the Service after the project has been implemented: additional staff, building upkeep, insurance, maintenance, licence fees, etc.

A Business Case is issued to allow the costs and benefits relating to a project to be compared in order to ascertain the viability of the project itself, bearing in mind that the benefits could be non-financial.

7.2 Procurement Management

Many projects will require the procurement of goods and services and outside suppliers. It is important that project budgets and actual costs are determined and documented correctly, and that this information is concisely reflected in specifications and statements of work in supply contracts. The individual contracts themselves should have clear performance requirements and a method for measuring contractor performance, as well as specific requirements for progress reporting, tied closely with payments to the contractor. Consideration should be given to contracts requiring the supplier to provide a detailed project plan for the delivery of products to the project and for integrated monitoring and control jointly with the main project plan. If services are being supplied to the project, then KPIs should be in place. Consultants should work under same conditions as project staff. The Office of Government Procurement (OGP) has produced a suite of documents to be used in Procurement Management across the Civil Service.

The Office of Government Procurement (OGP) provides centralised procurement services to all public service bodies. The OGP has produced a suite of information leaflets for buyers and suppliers which can be found on <https://procurement.ie/publications/2659>. Public bodies may be required to use the OGP's (or other designated central purchasing bodies in the State) procurement arrangements including use of frameworks or dynamic purchasing system.

8 Project Risk and Issues Management

8.1 Risk Management

Risk can be defined as “An uncertain event or condition that, if it occurs, has a positive or negative effect on at least one project objective such as time, cost, scope or quality” (PMBok®). Risk can be thought of as a possible loss or other adverse consequence that has the potential to interfere with the Department’s ability to achieve its objectives and fulfil its mission, miss project deadlines or priorities. Risks to the achievement of objectives can be due to both internal and external events.

Effective risk management offers the Department a means of improving our strategic, operational and financial management. It can also help to minimise financial losses, service disruption, adverse publicity, and threats to public health or compensation claims.

Risk Management is the structured process of identifying, analysing and responding to risk factors throughout the life of a project in order to provide a rational basis for better decision making through understanding the risks inherent in a project and their likely impact.

The benefits of formal risk management¹² are:

- It focuses the team on managing risk effectively by examining direct and indirect risk and defining scenarios and mitigants to ensure that the threat to a project’s success is minimised;
- Confidence in the project outcome is increased;

¹² “Risk Management Handbook for Public Service Reform” Department of Public Expenditure and Reform 2013
<http://www.reformoffice.per.gov.ie/wp-content/uploads/Risk-Management-Handbook.pdf>;
Risk Management Guidance for Government Departments and Offices – Department of Public Expenditure and Reform February 2016

- It provides a mechanism for reporting risk on a regular basis to senior management and escalating severe risk issues to appropriate levels; and
- Projects can be considered on the basis that risks will be considered rationally.

Proper risk management implies the control of possible future events, and is proactive rather than reactive; it is embedded in to the project planning process. It will reduce not only the likelihood of an event occurring, but also the magnitude of its impact. The following are some of the steps that can be taken to manage risks effectively:

- Step 1:** Identify the risks early on in your project
- Step 2:** Communicate about these risks within the project team and stakeholders
- Step 3:** Consider opportunities as well as threats
- Step 4:** Assess the risks based on likelihood and impact
- Step 5:** Prioritise the risks based on likelihood and impact
- Step 6:** Develop response or mitigation plans to the risks
- Step 7:** Develop the preventative measure tasks for each risk
- Step 8:** Develop the contingency plan for each risk
- Step 9:** Register project risk, likelihoods, mitigants and plans
- Step 10:** Monitor risks and associated tasks

A Risk Workshop Agenda is referenced in **Appendix 3**. A Risk Register template is also referenced in **Appendix 3** designed to capture the key risks, describing risk details, possible impact and likelihood, mitigation action and responsibility. This register is to be maintained and reported as determined in the project execution plan.

8.2 Issues Management

In order to ensure the success of the project, all key issues will be identified and reported through the reporting process. When appropriate issues arise they will be assigned a priority according to the extent and severity of their impact. These issues should be assigned to the appropriate personnel to ensure their resolution and take whatever actions are necessary. Issues will be proactively managed until resolved.

An Issues Register (see template referenced in **Appendix 3**) of the key issues, describing issue, possible impact, action and responsibility may be maintained and reported as determined in the project execution plan.

9 Project Reporting

Project Reporting is based on continuous assessment by the Project Manager of the project performance against the Project Execution Plan baseline. This includes the identification and management of risks and issues and reporting to the Project Sponsor, the Project Steering Committee and the Project Management Office where one exists. The Project Execution Plan sets out the frequency and details of reports that will be generated and it is expected that periodic reporting to Senior Management will be part of the PM arrangements applied. In addition, the Project Execution Plan will ensure that reporting lines are clear and as short as possible, and that the content, style and timing of its reports are designed to suit the nature of the Project. Robust reporting on projects not only deals with tracking Plan versus Actual status, but it also embraces the requirement to forecast the outcome of tasks and the overall project itself. Forecasting is a valuable tool to identify both budget and schedule pressures that can allow a project manager to take timely corrective action. In order to ensure reporting consistency across a Department's Portfolio, the periodic progress report can be based on the following content;

- Introduction
- Programme Progress Report/Dashboard
 - Planned versus actual to date
- Budget Dashboard
- Project Scope Updates
- Budget
 - Planned versus Actual to date
 - Planned Total at Completion versus Revised/Re-estimate at Completion
- Programme
 - Planned versus Actual – preferably via Earned Value
- Risk/Contingency – Top 3
- Resources (people, hardware, etc.)

- Issues – New, Closed, Open + Trend
- Stakeholder, Communication and Decisions required - Progress Report/Dashboard

To ensure consistency of approach Project Reporting templates are referenced in **Appendix 3**.

10 Change Management

10.1 Integrated Change Control

Integrated Change Control is the process to ensure that all elements of the Project Execution Plan are integrated including the core elements of the project (cost, scope, time and quality) and the enabling elements (risk, procurement, resources and communications).

All key elements are related to each other and it is essential that when changes are made which impact one element all other elements are reviewed by the Project Manager for consistency. This requires that a holistic assessment of the impacts (time, cost and resources) of proposed changes is carried out by the Project Manager. A change request is produced by the Project Manager and approved in accordance with the project governance arrangements. When approved all elements of the Project Execution Plan are updated by the Project Manager to reflect approved changes in a consistent manner. If the change request is not approved, the relevant stakeholders need to be informed of the decision and the full implications of it.

10.2 Change in Organisations

When an organisation undertakes projects or initiatives to improve performance, take opportunities or address key issues, they often require changes; changes to processes, job roles, organisational structures and types and uses of technology. Change management¹³ provides a structured approach for supporting the employees in the organisation to move from their own current states to their own future states. It is projects or initiatives where employees embrace and adopt changes required by the department and the department's wider strategy that will deliver the expected results. Organisational change management is complementary to project

¹³ "Change Management - An introduction to change management" Department of Public Expenditure and Reform 2013 <http://www.reformoffice.per.gov.ie/wp-content/uploads/Change-Management-Introductory-Guide.pdf>

management. Project management ensures a project's solution is designed, developed and delivered, while change management ensures a project's solution is effectively embraced, adopted and used. In this way, both the business owner and the project manager have responsibilities to ensure a successful outcome.

11 Quality Management

A Project's Quality Management criteria can be considered to have three main components: quality assurance, quality control and quality improvement. Quality Management not only applies to the product that a project may deliver but also to the methods, process and tasks used to deliver. The project quality systems, plans and procedures will be reviewed regularly to ensure all lessons learned, suggestions and discoveries from audits are taken into account to continuously improve the project quality management processes and procedures.

Continuous improvement, which is a principle of the Project's Quality Management criteria, will be facilitated through the completion of a Post Project Review and the capturing of lessons learned. The purpose of a Post Project Review is to find out:

- whether the expected benefits of the project have been realised
- what lessons can be learned from the project for both the current and future projects, such as:
 - successful elements to reinforce in future processes
 - aspects of the current project requiring remedy
 - ways of improving the management of future projects

An important outcome of project evaluation is to make the fullest use of the experience gained for managing future projects. Therefore, any evaluation should be constructive and identify both successful aspects of a project and identify where improvements can be made that will benefit future projects.

While the benefits of an investment may appear self-evident, an evaluation is necessary to determine the relative cost/benefit outcome. This feedback is essential for effective organisational learning about project planning, implementation and ongoing project management.

Lessons learned should be facilitated through workshops with relevant project and functional managers before implementation teams are

demobilised and while the memory of issues encountered are still recent. This is to ensure that the Department can continue to build on experience gained through implementing successive projects. A Lessons Learned Report should be compiled to facilitate formal information sharing within the Department and to facilitate the more efficient delivery of future projects. A Post Project Review, Lesson Learned workshop agenda and a Lessons Learned Report template are referenced in **Appendix 3**.

Typical Project Lifecycle Phase Overview



12 Pre-Project Phase Description

12.1 Phase Purpose

The purpose of the Pre-Project Phase is to perform those activities required in order to gain project approval by the Project Sponsor, project stakeholders and the Project Steering Committee (PSC). Put simply, these decision-makers ultimately need to know the answers to two key questions: Q. 1) Is there a need for the project? Q. 2) What will success look like and can the project be delivered successfully? This decision is based on the Project Charter that sets out to establish a clear need, define likely benefits/outcomes and explore strategic interventions by outlining project parameters covering objectives and deliverables, outline scope, outline key stakeholders and understand their expectations, outline project risks/assumptions/constraints/dependencies (RCAD), outline budget cost and programme and performance metrics.

12.2 Key Activities, Inputs and Outputs

- Project Charter production
- Decision on initiating the Project Initiation Proposal

Inputs	Outputs
<ul style="list-style-type: none"> • Business Justification 	<ul style="list-style-type: none"> • Internal Phase Gate 0 Review report
<ul style="list-style-type: none"> • Organisational factors 	<ul style="list-style-type: none"> • Project Charter
<ul style="list-style-type: none"> • Identification of Stakeholders 	<ul style="list-style-type: none"> • Business Case
<ul style="list-style-type: none"> • Historical Data 	
<ul style="list-style-type: none"> • Statement of Strategy 	

12.3 Key Deliverables

The Project Charter will include the following non-exhaustive elements:

- Project Background
- Objectives and Deliverables
- Outline Scope
- Risks, Assumptions, Constraints, Dependencies
- Identification of Stakeholders
- Outline Budget/Cost and Programme
- Project Control and Reporting
- A Project Charter template is referenced in Appendix 3

12.4 Key Roles and Responsibilities

12.4.1 Project Sponsor

- Produce the Project Charter (or delegate)
- Attain PSC approval
- Assign Resources

12.4.2 Stakeholders (Internal)

- Approve the Project Charter
- Assign Resources for the next Phase

12.4.3 PMO (where one exists)

- Register the Project Charter

12.5 Expected Phase Gate Outputs

- Internal Phase Gate 0 Review Report
- Project Charter



13 Initiation Phase Description

13.1 Phase Purpose

The purpose of the Initiation Phase is to perform those activities required in order to gain project approval by the Project Sponsor, Project Stakeholder and the Project Steering Committee (PSC). Their decision will be based on the Project Initiation Proposal that sets out the project business case rationale covering background, objectives and deliverables linked to the Department’s strategy, governance structure, outline scope, project risks/assumptions/ constraints/dependencies (RACD), budget cost and programme. During this phase consideration is also given to how much project management is required to ensure that the project is properly planned, tracked and controlled (see Appendix 1). In acquiring resources, it is also essential for the Project Manager to calculate team member’s real availability.

13.2 Key Activities, Inputs and Outputs

- Production of Project Initiation Proposal
- Decision on planning the Project

Inputs	Outputs
<ul style="list-style-type: none"> • Project Charter 	<ul style="list-style-type: none"> • Project Initiation Proposal (PIP) or Document (PID)
<ul style="list-style-type: none"> • Business Case Justification 	
<ul style="list-style-type: none"> • Organisation factors 	
<ul style="list-style-type: none"> • Historical Data 	
<ul style="list-style-type: none"> • High level Programme 	

13.3 Key Deliverables

The Project Initiation Proposal Document will include the following non-exhaustive elements:

- Project Background and Details
- Objectives and Deliverables
- Outline Scope
- Risks, Assumptions, Constraints, Dependencies
- Stakeholders Management and Communication
- Project Governance Structure
- Project Schedule
- Project Budget/Cost
- Project Control and Reporting

13.4 Key Roles and Responsibilities

12.4.1 Project Sponsor

- Produce the Project Initiation Proposal (PIP) or Project Initiation Document (PID) or delegate
- Assign the Project Manager
- Attain Project Steering Committee approval
- Assign Resources

13.4.2 Project Manager

- If appointed produce the PIP

13.4.3 Work Stream Leader

- If appointed, support the production of the PIP

13.4.4 Stakeholders (Internal)

- Approve the Project Charter

- Assign Resources for the next Phase
- Approve the PIP

13.4.5 PMO

- Register the PIP

13.5 Expected Phase Gate Outputs

- Internal Phase Gate 1 Review report
- Project Initiation Proposal or Document



14 Planning Phase Description

14.1 Phase Purpose

The purpose of the Planning Phase is to perform those activities required to establish the total scope of the project effort (scope, time, cost, risk, stakeholders, quality, communications, and procurement), define and refine the objectives and develop the course of action to deliver those benefits. Once approval for the scope of the project is gained from the Project Sponsor, Project Stakeholder and the Project Steering Committee, a Project Execution Plan is developed to deliver these. During this phase, it is essential to estimate both work/effort (amount of work units required to complete any given task) and duration (the calendar time required to execute any given task) in building a properly estimated plan. As more information or project characteristics are understood the project execution plan may be revised indicating the iterative nature of the planning phase “rolling wave planning.” Another key task during this phase is to make allowance for contingency into the plan based on the analysis applied during risk management. Once finalised, the Project Execution Plan will serve as the baseline that project progress is monitored and reported against.

14.2 Key Activities, Inputs and Outputs

- Production of Project Execution Plan (baseline)
- Decision on executing the Project

Inputs	Outputs
<ul style="list-style-type: none"> • Project Initiation Proposal and supporting project documents/ information 	<ul style="list-style-type: none"> • Project Execution Plan (baseline) and supporting

Inputs	Outputs
	project documents/ information
<ul style="list-style-type: none"> • Define Scope (Scope Statement) 	<ul style="list-style-type: none"> • Reporting
<ul style="list-style-type: none"> • Develop WBS 	<ul style="list-style-type: none"> • Revised Business Case (if necessary)
<ul style="list-style-type: none"> • Estimate Costs/Budget & Plan Procurement 	
<ul style="list-style-type: none"> • Develop WBS and Project Schedule & Estimate Resources 	
<ul style="list-style-type: none"> • Plan Stakeholder Management and Communications & Acceptance Criteria 	
<ul style="list-style-type: none"> • Plan Monitoring and Reporting 	
<ul style="list-style-type: none"> • Plan Risk and Issues Management 	
<ul style="list-style-type: none"> • Plan Change Control and Integration 	

14.3 Key Deliverables

The Project Execution Plan will include the following non-exhaustive elements:

- Project Introduction, Background and History
- Project Definition & Objectives
- Project Scope
- Project Interfaces
- Project Assumptions

- Project Dependencies
- Project Governance, Roles, Responsibilities and Authority
- Project Schedule Management
- Project Budget/Cost Management
- Risk and Issues Management
- Project Procurement
- Quality Management
- Project Administration
- Stakeholder Management

A Project Execution Plan template is referenced in Appendix 3.

14.4 Key Roles and Responsibilities

14.4.1 Project Sponsor

- Approves the Project Execution Plan
- Secure Resources for the Execution Phase

14.4.2 Project Manager

- Prepare the Project Execution Plan

14.4.3 Work Stream Leader

- Support the Project Manager in developing the Project Execution Plan

14.4.4 PMO (where one exists)

- Review and register the Project Execution Plan (A Project Execution Plan template is referenced in **Appendix 3**)

14.5 Expected Phase Gate Outputs

- Internal Phase Gate 2 Review report
- Project Execution Plan (Baseline)
- Project Business Case (Definition and Benefits Case)



15 Execution Phase Description

15.1 Phase Purpose

The purpose of the Execution Phase is to perform those activities required to complete the effort required in the Project Execution Plan to deliver the project objectives. This phase involves coordinating people and resources as well as integrating and performing the activities of the project in accordance with the Project Execution Plan. In order to determine whether the project is meeting its objectives it will be necessary to track progress. This requires the project team to track actual progress against their baseline elements set out in the project execution plan e.g. the schedule's critical path, progress to achieving key milestones. Robust and appropriately tailored project reporting to the right people at the right time is fundamental during this phase of the project life-cycle (a number of templates are provided in Appendix 3).

15.2 Key Activities, Inputs and Outputs

- Acquire the Project Team for this phase
- Directing and managing the project in accordance with the Project Execution Plan
- Reporting to the right people at the right time.
- Close contracts and budgets

Inputs	Outputs
<ul style="list-style-type: none"> • Project Execution Plan (baseline) 	<ul style="list-style-type: none"> • Project Execution Plan updates and project documents/information
<ul style="list-style-type: none"> • Procurement or Contract documents 	<ul style="list-style-type: none"> • Contracts
<ul style="list-style-type: none"> • Project Documents 	<ul style="list-style-type: none"> • Project Document updates
<ul style="list-style-type: none"> • Project team members requirements 	<ul style="list-style-type: none"> • Resource Calendars
<ul style="list-style-type: none"> • Decision requests 	<ul style="list-style-type: none"> • Change Control Records
<ul style="list-style-type: none"> • Business Case 	<ul style="list-style-type: none"> • Project Status Reports
<ul style="list-style-type: none"> • Change Assessments 	
<ul style="list-style-type: none"> • Risk Assessments 	
<ul style="list-style-type: none"> • Issues Assessment 	

15.3 Key Deliverables

- Project implementation as per the Project Execution Plan
- Reports on the project implementation

15.4 Key Roles and Responsibilities

15.4.1 Project Sponsor

- Review and approve project deliverables
- Review and report to the Project Steering Committee

15.4.2 Project Manager

- Manage the project implementation in accordance with the Project Execution Plan
- Review and report on achievement of project deliverables

15.4.3 Work Stream Leader

- Manage the implementation of the work activities to support the Project Manager in successful implementation of the Project Execution Plan

15.4.4 PMO (where one exists)

- Support the Project to ensure that projects proceed on the basis of their Project Execution Plan and that the project is successfully completed and delivers on its objectives

15.5 Expected Phase Gate Outputs

- Internal Phase Gate 3 Review report
- Final Account reports for all contracts
- Plans for the closing phase



16 Closure Phase Description

16.1 Phase Purpose

The purpose of the Closure Phase is to perform those activities required to finalise all activities to formally complete the project. This phase, when completed, also verifies that the project execution plan is completed, formally establishes that the project is complete and that the project objectives are realised. This phase is also used to capture any learnings gained from the project while the memory of issues encountered are still recent. This is to ensure that the Department can continue to build on experience gained through implementing successive projects.

16.2 Key Activities, Inputs and Outputs

- Compile Post Project Review, Post-Implementation Review and Lesson Learned Report to demonstrate Business Case
- Compile Project File
- Close any remaining Budgets, Procurements and Contracts
- Release resources back to the organisation

Inputs	Outputs
<ul style="list-style-type: none"> • Project Execution Plan 	<ul style="list-style-type: none"> • Project Status Reports
<ul style="list-style-type: none"> • Procurements and Contracts 	<ul style="list-style-type: none"> • Close Procurements or Contracts
<ul style="list-style-type: none"> • Project Documents 	<ul style="list-style-type: none"> • Scope Acceptance: Obtain Acceptances from End-user and stakeholders

Inputs	Outputs
<ul style="list-style-type: none"> Performance Reports 	<ul style="list-style-type: none"> Post Project Review, Post Implementation Review and Lessons Learned Report
<ul style="list-style-type: none"> Accepted Deliverables 	<ul style="list-style-type: none"> Apply updates to Organisational factors where appropriate
	<ul style="list-style-type: none"> Completed Project File

16.3 Key Deliverables

- Project Post Completion Review and Lessons Learned Report

16.4 Key Roles and Responsibilities

16.4.1 Project Sponsor

- Review and approve the Post Project Review and Post-Implementation Report
- Review and report to the Project Steering Committee

16.4.2 Project Manager

- Ensure the project team members participate in completion and lessons learned workshops
- Produce the Post Project Review and Post Implementation Reviews including achievement of project deliverables

16.4.3 Work Stream Leader

- Ensure the Work Activities team participate in completion and lessons learned workshops
- Support the Project Manager in producing the Project Post Completion Review and Post Implementation Review

16.4.4 Project Stakeholders

- Review and approve the Post Project Review and Post Implementation reviews

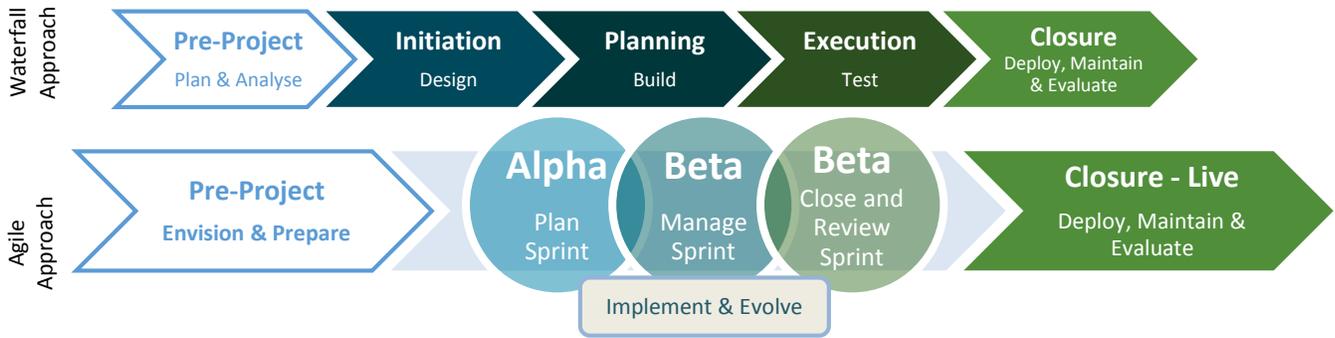
16.4.5 PMO (where one exists)

- Register the Post Project review and post-implementation reviews (A Project Post Completion Review and Lessons Learned template is referenced in **Appendix 3**)

16.5 Expected Phase Gate Outputs

- Internal Phase Gate 4 Review report
- Post Project Review and Post Implementation Review and Lessons Learned Report

ICT Related Project Lifecycle Phase Overview



17 Plan and Analyse Phase Description

17.1 Phase Purpose

For Waterfall delivery, the purpose of the Plan and Analyse Phase is to define project goals into defined functions and operation of the intended application. This phase is used to analyse end user requirements, conduct a preliminary analysis, propose alternative solutions, describe costs and benefits and submit a preliminary plan with recommendations to the project decision maker. It involves the process of gathering and interpreting facts, diagnosing problems and recommending improvements to the system.

For Agile delivery the Discovery phase is used to research the needs of the service users, with an early focus on identifying high-level requirements, which are referred to as ‘User Needs’.

17.2 Key Activities, Inputs and Outputs

- Proposal is created
- Define scope and project boundaries, consider resources
- Feasibility Study and production of Preliminary Business Case
- Develop the Product Backlog

Inputs	Outputs
<ul style="list-style-type: none"> • Business justification 	<ul style="list-style-type: none"> • Business Case

<ul style="list-style-type: none"> • Organisational factors 	<ul style="list-style-type: none"> • Functional Requirements Document
<ul style="list-style-type: none"> • Identification of stakeholders 	<ul style="list-style-type: none"> • Project Initiation Plan
<ul style="list-style-type: none"> • Historical data 	<ul style="list-style-type: none"> • Product Backlog
<ul style="list-style-type: none"> • Statement of strategy 	
<ul style="list-style-type: none"> • User Requirements 	

17.3 Key Deliverables

The Project Initiation Plan will include the following non-exhaustive elements:

- Project Background
- Objectives and Deliverables
- Outline Scope
- Risks, Assumptions, Constraints, Dependencies
- Identification of Stakeholders
- Outline Budget/Cost and Programme Benefits
- Project Control and Reporting

The Product Backlog is an ordered list of everything that might be needed in the product and is the single source of requirements for any changes to be made to the product.

17.4 Key Roles and Responsibilities

17.4.1 Project Sponsor/Product Owner

- Produce the Project Initiation Plan or product Backlog (or delegate)
- Attain organisational approval
- Assign Resources/Development Team

17.4.2 Project Manager/ Scrum Master/Team Lead

- Conduct a feasibility test
- Assemble Team, manage project kick-off and confirm infrastructure readiness

17.4.3 Stakeholders

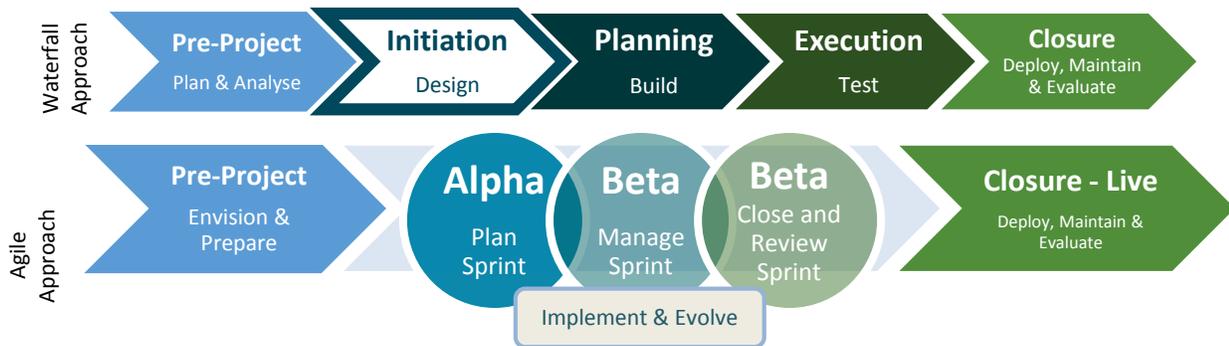
- Contribute to Project Kick-off meeting and approve the Project Charter/Product Backlog
- Assign Resources for the next Phase

17.4.4 PMO (where one exists)

- Register the Project Charter/ Project Initiation Plan (A Project Charter template is referenced in **Appendix 3**)

17.5 Expected Phase Gate Outputs

- Internal Phase Gate Review Report
- Preliminary Business Case
- Project Initiation Proposal
- Functional Requirements
- Product Backlog



18 Design Phase Description

18.1 Phase Purpose

For Waterfall delivery the purpose of the Design Phase is to determine the goals that need to be accomplished by the software or system and whether a set of definite requirements can be developed. This involves describing desired features and operations in detail e.g. screen layouts, business rules, process diagrams, code and other documentation.

For Agile delivery the Alpha phase is where solutions are prototyped to meet identified user needs. Developing a prototype provides early feedback, which confirms user needs and test initial solution designs.

During this phase consideration is also given to how much project management is required to ensure that the project is properly planned, tracked and controlled (see Appendix 1). In acquiring resources, it is also essential for the Project Manager to calculate team member's real availability.

18.2 Key Activities, Inputs and Outputs

- Develop Project Plan
- Decision on executing the Project
- Develop and elaborate design deliverables to confirm user requirements

- Develop Sprint Backlog

Inputs	Outputs
<ul style="list-style-type: none"> • Functional Requirements Document 	<ul style="list-style-type: none"> • Technical Requirements Document
<ul style="list-style-type: none"> • Project Initiation Plan 	<ul style="list-style-type: none"> • Project Initiation Plan
<ul style="list-style-type: none"> • Procurement or Contract documents 	<ul style="list-style-type: none"> • Contracts
<ul style="list-style-type: none"> • Product Backlog 	<ul style="list-style-type: none"> • Sprint Backlog
<ul style="list-style-type: none"> • Live Handover Approach 	<ul style="list-style-type: none"> • Prototypes
<ul style="list-style-type: none"> • Team and Infrastructure readiness 	<ul style="list-style-type: none"> • User needs

18.3 Key Roles and Responsibilities

18.3.1 Project Sponsor/Product Owner

- Agree the Project Scope
- Agree Functional and Technical Design with the Business
- Confirm the Product Backlog and set Sprint Goal

18.3.2 Project Manager/ Scrum Master/Team Lead

- Develop the Project Plan
- Consult with stakeholders and confirm Functional and Technical Design to meet end user requirements
- Ensure Sprint Planning to define Sprint Backlog, hold Daily Scrum/estimation meetings and manage Sprint Reviews/Retrospectives

18.3.3 Project/Development Team

- Input to overall Project Plan

- Produce the Sprint Backlog (the set of Product Backlog items selected for the Sprint, plus a plan for delivering the product Increment and realising the Sprint Goal).
- Contribute to Scrum (Status/Issues/Actions) meeting
- “Do” Sprint Increments and contribute to Sprint Review/Retrospectives

18.4.4 Stakeholders

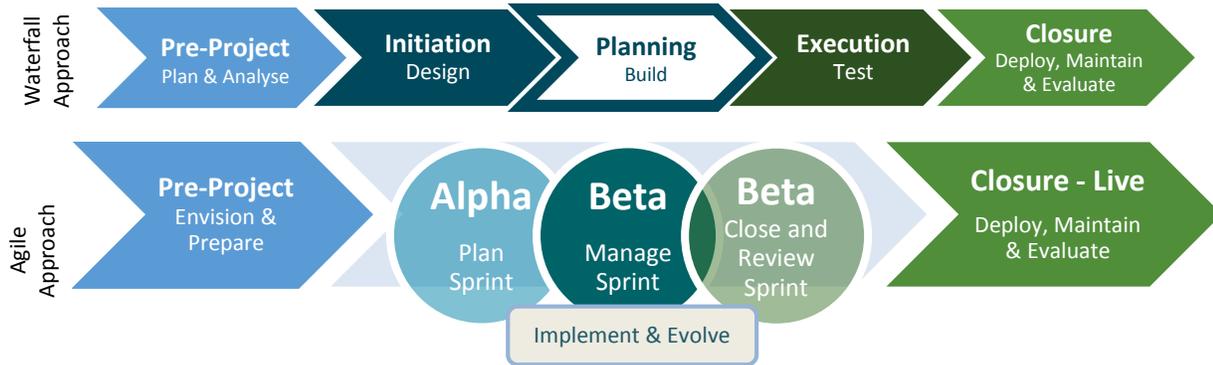
- Approve the Product Backlog
- Approve the Functional and Technical Design to meet end user requirements
- Assign Resources for the next Phase

18.3.5 PMO (where one exists)

- Register the Execution Plan (A Project Initiation Proposal template is referenced in **Appendix 3**)

18.4 Expected Phase Gate Outputs

- Internal Phase Gate Review report
- Final Business Case / Project Initiation Plan
- Technical Design Deliverables/Prototypes
- Sprint Backlog



19 Build and Early Test Phase Description

19.1 Phase Purpose

The Purpose of the Build and Early Test Phase is where the design is converted into a system, where an application is developed or where code is written. This phase also conforms test readiness using a controlled environment prior to wider testing and integration.

For Agile delivery, the Beta phase is focussed on developing against the demands of a live environment and understanding how to build and scale while meeting user needs.

During this phase, it is essential to estimate both work/effort (amount of work units required to complete any given task) and duration (the calendar time required to execute any given task) in building a properly estimated plan. Another key task during this phase is to make allowance for contingency into the plan based on the analysis applied during risk management.

19.2 Key Activities, Inputs and Outputs

- Procurement Activities
- Develop and Build and test application components
- Test application components
- Business Impact Analyses

- Develop User training plans

Inputs	Outputs
<ul style="list-style-type: none"> • Project Initiation Proposal and supporting project documents/ information 	<ul style="list-style-type: none"> • Project Execution Plan (baseline) and supporting project documents/ information
Define Scope (Scope Statement) and Design Deliverables	<ul style="list-style-type: none"> • Revised Business Case (if necessary)
<ul style="list-style-type: none"> • Estimate Schedule and Costs/Budget 	<ul style="list-style-type: none"> • Progress Reporting
<ul style="list-style-type: none"> • Procurement or Contract documents 	<ul style="list-style-type: none"> • Confirmed Schedule and Costs/Budget
<ul style="list-style-type: none"> • Product Increments 	<ul style="list-style-type: none"> • Contracts
<ul style="list-style-type: none"> • Prototype tested 	<ul style="list-style-type: none"> • Test Reports confirming User needs
	<ul style="list-style-type: none"> • User Training Plan

19.3 Key Deliverables

The Project Execution Plan will include the following non-exhaustive elements:

- Project Definition
- Project Introduction, Background and History
- Project Objectives
- Project Scope
- Project Interfaces
- Project Assumptions
- Project Dependencies
- Project Governance, Roles, Responsibilities and Authority

- Project Schedule Management
- Project Budget/Cost Management
- Risk and Issues Management
- Project Procurement
- Quality Management
- Project Administration
- Stakeholder Management

19.4 Key Roles and Responsibilities

19.4.1 Project Sponsor/Product Owner

- Approves the Project Execution Plan
- Secure Resources for the Execution Phase
- Clarify selected product Backlog items and maintain focus on Sprint Goals

19.4.2 Project Manager/ Scrum Master/Team Lead

- Prepare the Project Execution Plan
- Maintain product Backlog and lead development and early testing of design solution
- Manage Sprint (Sprint/Release/Product progress), Daily Scrum/estimation meetings and Sprint Reviews/Retrospectives

19.4.3 Project/Development Team

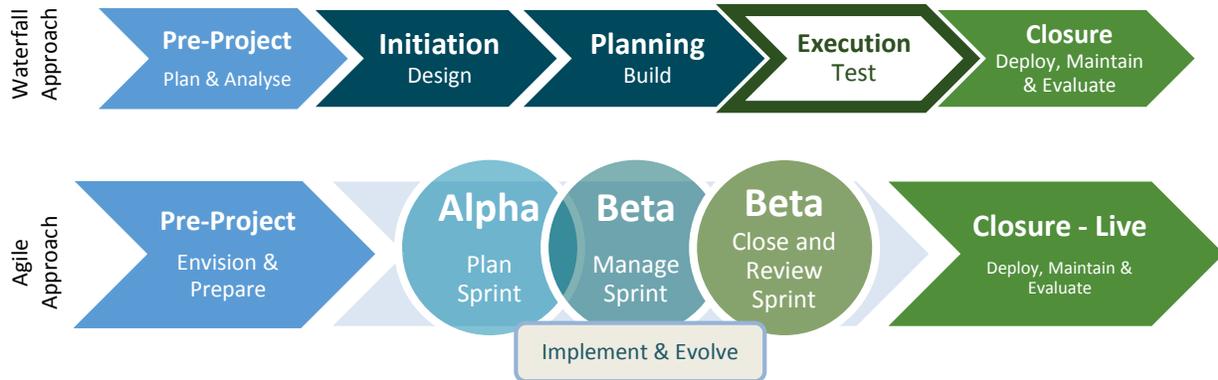
- Support the Project Manager/Team Leader in developing the Project Execution Plan
- Conduct Build/Development and Test readiness tasks, manage defects
- Contribute to Daily Scrums and Sprint Reviews/Retrospectives

19.4.4 PMO (where one exists)

- Review and register the Project Execution Plan (A Project Execution Plan template is referenced in **Appendix 3**)

19.5 Expected Phase Gate Outputs

- Internal Phase Gate Review report
- Project Execution Plan (Baseline)
- System/Product Releases
- Burndown Charts
- Use Training and Communication Plan



20 Test and Integration Phase Description

20.1 Phase Purpose

For Waterfall delivery the purpose of the Test and Integration Phase is to confirm that the user requirements set out in functional requirements have been met, the actual engineering and writing of the application is completed and/or the software is designed and produced, while attempting to accomplish all of the requirements established in the previous stage. This phase brings all the pieces together into a special testing environment, to allow checks for errors, bugs and interoperability.

For Agile delivery, once the software is deemed secure enough for use, this Public Beta or Full Release Phase involves implementing software in an environment to test real-world usability.

In order to determine whether the project is meeting its objectives it will be necessary to track progress. This requires the project team to track actual progress against their baseline elements set out in the project execution plan e.g. the schedule's critical path, progress to achieving key milestones.

20.2 Key Activities, Inputs and Outputs

- Execute System standalone and integrated tests
- Performance monitoring and testing
- Operational Readiness testing
- User Training

Inputs	Outputs
<ul style="list-style-type: none"> • Project Execution Plan (baseline) 	<ul style="list-style-type: none"> • Project Execution Plan updates and project documents/information
<ul style="list-style-type: none"> • Project Documents 	<ul style="list-style-type: none"> • Project Document updates
<ul style="list-style-type: none"> • Project team members requirements 	<ul style="list-style-type: none"> • Resource Calendars
<ul style="list-style-type: none"> • Decision requests 	<ul style="list-style-type: none"> • Change Control Records
<ul style="list-style-type: none"> • Project Business Case 	<ul style="list-style-type: none"> • Project Status Reports
<ul style="list-style-type: none"> • Change Assessments 	<ul style="list-style-type: none"> • Design Deliverables signed off/Test Analysis Reports
<ul style="list-style-type: none"> • Issues and Risk Assessments 	<ul style="list-style-type: none"> • Sprint Review/ Retrospective

20.3 Key Deliverables

- Project implementation as per the Project Execution Plan
- Reports on the project implementation testing

20.4 Key Roles and Responsibilities

20.4.1 Project Sponsor/Product Owner

- Review and approve project deliverables
- Review and report back to the Business

20.4.2 Project Manager/Scrum Master/Team Leader

- Manage the project implementation in accordance with the Project Execution Plan
- Review and report on achievement of project deliverables
- Manage Daily Scrum/estimation meetings and Sprint Reviews/Retrospectives, Close Sprint

20.4.3 Project/Development Team

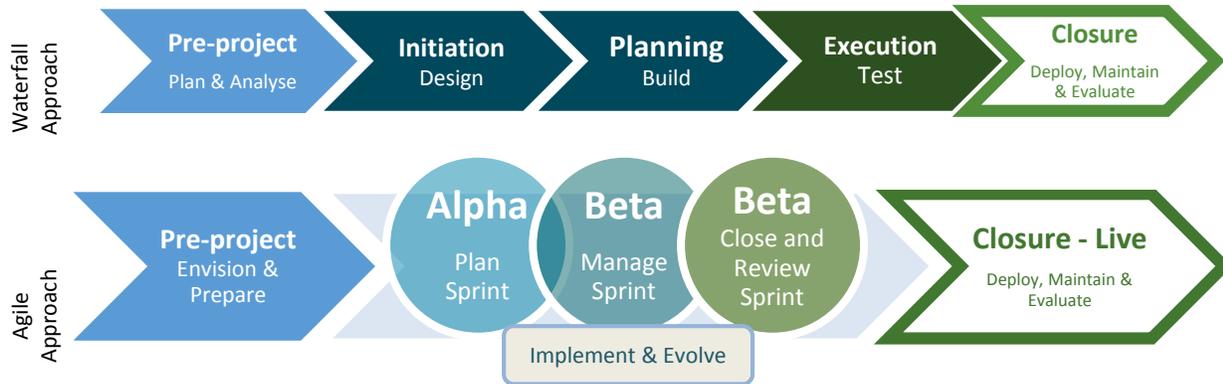
- Manage the implementation of the work activities to support the Project Manager/Team Leader in successful implementation of the Project Execution Plan
- Conduct Test and Integration tasks
- Contribute to Daily Scrums and Sprint Reviews/Retrospectives

20.4.4 PMO (where one exists)

- Support the Project to ensure that projects proceed on the basis of their Project Execution Plan and that the project is successfully completed and delivers on its objectives

20.5 Expected Phase Gate Outputs

- Internal Phase Gate Review report
- Final Account Budget vs Actual report
- Test Analysis Reports
- User training and communication plan



21 Deploy, Maintain and Evaluate Phase Description

21.1 Phase Purpose

For Waterfall delivery the purpose of the Deploy, Maintain and Evaluate phase is where the software or system is put into production and runs actual business and where the system is assessed to ensure it does not become obsolete. It involves continuous evaluation of the system in terms of its performance. If there are any aspects of the entire process, or certain stages, that management is not satisfied with, this is the time to improve them.

For Agile delivery, the Live phase is where the project team will iteratively improve the service, to react to new needs and demands whilst meeting and exceeding targets set during the development beyond the point where the service is live.

This phase is also used to capture any learnings gained from the project while the memory of issues encountered are still recent. This is to ensure that the Department can continue to build on experience gained through implementing successive projects.

21.2 Key Activities, Inputs and Outputs

- Compile Post Project Review and Lesson Learned Report to demonstrate Objectives/Benefits Realisation

- Compile Project File
- Close any remaining Budgets, Procurements and Contracts
- Release resources back to the organisation
- Continue Users testing and training, iteratively improve the service

Inputs	Outputs
<ul style="list-style-type: none"> • Project Execution Plan 	<ul style="list-style-type: none"> • Project Status Reports
<ul style="list-style-type: none"> • Procurements and Contracts 	<ul style="list-style-type: none"> • Close Procurements or Contracts
<ul style="list-style-type: none"> • Project Documents 	<ul style="list-style-type: none"> • Scope Acceptance: Obtain Acceptances from End-user and stakeholders
<ul style="list-style-type: none"> • Performance Reports 	<ul style="list-style-type: none"> • Project Post Completion Review and Lessons Learned Report
<ul style="list-style-type: none"> • Accepted Deliverables 	<ul style="list-style-type: none"> • Apply updates to Organisational factors where appropriate
	<ul style="list-style-type: none"> • Completed Project File & User Instruction and Training Material

21.3 Key Deliverables

- Project Post Completion Review and Lessons Learned Report

21.4 Key Roles and Responsibilities

21.4.1 Project Sponsor/Product Owner

- Review and approve the Project Post Completion Review Report
- Review and report to the Project Steering Committee/Business

21.4.2 Project Manager/Scrum Master/Team leader

- Ensure the project team members participate in completion and lessons learned workshops
- Produce the Project Post Completion Review
- Review and report on achievement of project deliverables

21.4.3 Project/Development Team

- Ensure the Work Activities team participate in completion and lessons learned workshops
- Support the Project Manager in producing the Project Post Completion Review
- Conduct Users testing and training, iteratively improve the service

21.4.4 Project Stakeholders

- Review and approve the Project Post Completion Review Report

21.4.5 PMO (where one exists)

- Register the Project Post Completion Review and Lessons Learned Report (A Project Post Completion Review and Lessons Learned template is referenced in **Appendix 3**)

21.5 Expected Phase Gate Outputs

- Internal Phase Review report
- Project Post Completion Report (Lessons Learned Report)
- Live handover documents
- User Instructions and Training Materials

22 Fast Track Process

This project management guidance has been broadly written on the assumption that each Phase should be discrete and able to be progressed independently of any other Phase. Nevertheless, there may still be times when certain projects, due to time constraints, will need to be fast-tracked, and Phases overlapped e.g. need to undertake work on different phases in parallel in order to optimise use of resources. Any decision to fast-track a project for either reason should generally be made in the first Phase, and with the consent of the appropriate governance structure within the organisation. It is essential that careful thought is given to the processes to be carried out and that they are appropriate for this approach before a project organisation embarks on fast-tracking a Scheme.

The PMO (where one exists) shall also determine what special monitoring arrangements are required when it is agreed to fast-track a Project. Consideration of the following may be given:

- Agreement, in advance, of the timeframe and sequencing for delivery of project management and project appraisal deliverables with the Project Steering Committee
- Appointment of a dedicated fast-track Project Coordinator to trouble shoot areas of conflict in an effort to maximise time available
- Commitment to the Project Sponsor of a project team comprising of members working solely on the specific project until completion

Fast tracking does not mean that the discipline of analysis for the various phases is not carried out. It means a paralleling of processes with Phase Gate Reviews applied in an appropriate manner to the fast-tracked procedure.

Appendix 1 Project Scaling Matrix

Every project goes through the same basic project management lifecycle and processes, but different types of projects require different amounts of management control and project documentation. The application of this Project Management Guidance depends on the type of project – whether the project is classified as small, medium or large. Large, complex projects obviously need greater management effort to ensure they are properly planned, tracked and controlled, whereas smaller projects will need less.

The following criteria can be used to assist in the classification of your typical project/ICT related project as small, medium or large to guide to guide you as to the level of governance, management and documentation required (criteria and scores can be tailored by individual Departments).

Criteria	Criteria Score (1-4)				Enter Score
	1	2	3	4	
Cost	€10,000 - 50,000	€50,000-100,000	€100,000 to 1,000,000	Over €1,000,000	
Duration (months)	<3	3-6	6-12	>12 (months)	
Strategic Targets	No dependency	Contributing to other work that is linked	Direct contribution to a strategic target	Direct contribution to more than one strategic target	
Impact on Organisation	None or very minimal	Significant re-structure of processes and work areas	Some new business processes and possibly some re-training	Transfer of staff or outsourcing	
Risk	Low	Medium – Internal Dependencies?	Medium – External Dependencies?	High	
Policy or Legislation	No link to work that is delivering policy or legislation	Some links to other work that is delivering policy or legislation	Direct links to policy or legislation	Fundamental to achievement of policy or legislation	
Stakeholders	Internal and within one business unit	Internal across more than one business unit	Mainly external	Internal and external stakeholders	
Contract Complexity	No contracts required	Single contract with known supplier	Multiple contracts with known suppliers	Contract(s) with new supplier(s)	
Track Record	Have done this before many times	Have done this before once or twice	Have done similar before, but not the same	Have not done anything like this before	
No. of Resources	1-3	3-10	10-20	20+	
Total Score					

Scale of project:

10 – 15	Small
16 – 25	Medium
26+	Large

The following is a guideline as to what documentation is considered core or recommended depending on the project type, small, medium or large.

	Small	Medium	Large
Project Templates			
Project Charter	X	X	X
Stakeholder Management and Communication Plan	X	X	X
Decisions Register	Recommended	Recommended	X
RACI (Word and Excel)	Recommended	X	X
Project Brief	Recommended	X	X
Scope Statement	Recommended	X	X
Project Initiation Proposal	Recommended	X	X
Project Execution Plan	X	X	X
Project Risk Register (Word and Excel)	Recommended	X	X
Project Issues Register (Word and Excel)	Recommended	Recommended	X
Change Request Register	Recommended	X	X
Change Request	Recommended	X	X
Project Report – Quad	X	X	X
Project Report - Full	-	Recommended	X
Project Completion Report	X	X	X
Lessons Learned Report (Word and Excel)	X	X	X
Project Meeting Templates			
Project Kick-Off Agenda	X	X	X
Planning Workshop Agenda	X	X	X
Risk Workshop Agenda	Recommended	X	X
Lessons Learned Workshop Agenda	X	X	X

Appendix 2 Definitions/Terminology

Term	Definition
Agile	<p>Agile is an iterative delivery approach and begins with less stringent guidelines and then makes adjustments as needed throughout the process. Agile development is known for its ability to quickly translate an application that is in development to a full release at nearly any stage, making it well suited for applications that are updated frequently. While there are several Agile methodologies they are all founded in the following core principles; focus on user needs, deliver iteratively, keep improving how your team works, fail fast and learn quickly and keep planning.</p>
Bar Charts or Gantt Charts	<p>Types of scheduling Tools and Techniques where each activity is illustrated as a bar or line, its length represents its duration and it is listed against a suitable time line on the horizontal axis. The dependencies of each activity can be shown as well as other supporting information.</p>
Benefits Management or Benefits Realisation Management (BRM)	<p>Benefits Management enhances normal project management techniques through a focus on outcomes (the benefits) of a project rather than products or outputs. This can help to reduce the risk of a completed project being a failure by delivering agreed upon requirements/outputs but failing to deliver the benefits of those requirements.</p>

Term	Definition
	Benefits realisation is a type of post-implementation review that focuses on the realisation of the anticipated business benefits.
Build costs	All of the costs associated with the implementation and deployment of the project, including capital expenditure, procurement of services and equipment and staff costs associated with the project implementation.
Business Case	The Business Case documents the justification for undertaking a project. It is usually based on the estimated cost of development and implementation against the risks and the anticipated business benefits and savings to be gained. It is reviewed and updated in Phases 2 and 3, in accordance with relevant Guidelines.
Change Management	Change management provides a structured approach for supporting the employees in the organisation to move from the current state to a future state.
Contingency	The contingency is a budgetary provision to cover unknown risks informed by experience of similar projects and by reference to social, political, historical and economic considerations particular to the proposed location.
Dashboards	A Dashboard is a progress report that provides at-a-glance views of information relevant to a particular objective or business process. It can contain a mix of headlines and narratives as

Term	Definition
	well as graphs and charts and it is usually an easy to read, often a single page/screen, real-time user interface, showing the current status and historical trends of a project's key performance indicators. It is used to support and enable instantaneous and informed decisions to be made at a glance.
Decomposition	Decomposition is an important technique used in WBS creation (Scope Management) and definition of activities (Time Management). In scope management, project deliverables are subdivided into smaller and more manageable components until the work and deliverables are defined to the work package level. This is called as decomposition.
Decision Register	The decision register records the decision, the decision maker, the relevant dates and references any related issues in the decision making process.
Fast tracking	The acceleration and, on specified occasions, concurrent progression of a project through project phases.
Final Business Case	The Final Business Case is the outcome of the post-tender appraisal validation process, where the Detailed Business Case is updated to take account of the tender prices received, and any changes to the Scheme or its outputs and benefits.
Functional Requirements	Functional requirements may be calculations, technical details, data manipulation / processing and other specific functionality that define what a system is supposed to

Term	Definition
	accomplish. A function is described as a set of inputs, the behaviour, and outputs.
Integrated Change Control	Integrated Change Control is the process to ensure that all elements of the Project Execution Plan are integrated including the project cost, scope, time, quality, risk, procurement, resources and communications.
Issues Register	An issues Register contains a list of ongoing and closed issues of the project. As well as a way to track errors in a project, it can be used to order and organise the current issues by type and severity in order to prioritise issues.
Lessons Learned Workshop	The lessons learned Workshop is a management tool for capturing the knowledge learned while implementing a project. The objective is to prepare the project team and future individuals with information that can better set them up for success. By building on past experiences, everyone will be more efficient and effective.
Lessons Learned Report	Lessons Learned Report records any insights gained during a project that can be usefully applied on future projects i.e. encourage the recurrence of positive outcomes and deter undesirable ones.
Management Board	The senior group that reviews the portfolio on a regular basis to ensure that it is correctly balanced to deliver the strategy of the Department.
Milestone Chart	Milestone Chart is a tool to mark specific points along a project timeline. Milestones are

Term	Definition
	key events (project start and end date), key deliverables and major progress points that must be reached to achieve project success. In many instances, milestones do not impact project duration.
Operational costs:	Any additional and ongoing costs that will be incurred by the Service after the project has been implemented: additional staff, building upkeep, insurance, maintenance, licence fees, etc.
Phase Gate	A stage in the project life cycle usually between project phases which must be passed to proceed to the next phase.
Phase Gate Approval Process	Phase Gate Approval Process is a project management technique in which a project is divided into stages or phases, separated by gates. At each gate, the continuation of the process is decided by a manager and/or a steering committee. The decision is based on the information available at the time, including the business case, risk analysis, and availability of necessary resources (e.g., money, people with correct competencies).
Portfolio	A Portfolio refers to projects, programmes, sub portfolios, and operations managed as a group to achieve strategic objectives. The projects or programs of the portfolio may not necessarily be interdependent or directly related.
Post-Implementation Review	A post-implementation review occurs as part of final Gateway review and it examines what the project achieved. It compares the post-

Term	Definition
	implementation objectives, observations and measurements with those outlined in the business case. It also identifies lessons learned.
Post Project Review	A post-project review examines how the project team and the project manager performed and identifies what aspects of planning and review went well and what didn't go so well.
Programme	A set of Projects that have some particular common objectives, characteristics, interfaces or other linkages in terms of their business cases, implementation or operation which mean that they are better considered together than in isolation.
Project	A Project is defined as all phases of a temporary endeavour undertaken to create a unique product, service or result. The temporary nature of projects indicates a definite beginning and end. The end is reached when the project has achieved the intended results or when the project is terminated because the objectives will not or cannot be met, or when the need for the project no longer exists.
Project Brief	The Project Brief sets out all that is known from the Appraisal stage about the proposed project categorised under the sixteen project parameters. It should list alternative ways of satisfying the needs, and should set out the parameters and constraints that informed the approval-in-principle.

Term	Definition
Project Charter	<p>A project charter also referred to as 'project definition' or 'project statement' is a statement of the scope, objectives, and participants in a project. The project charter is usually a short document that refers to more detailed documents and should:</p> <ul style="list-style-type: none"> • Contain the essence of the project; • Provide a shared understanding of the project; • Act as a contract between the project sponsor, key stakeholders and the project team.
Project Execution Plan (PEP)	<p>A core document produced by the Project Manager (with input from the project team) and approved by Project Sponsor during the Planning phase. It details how the project is to be managed throughout its life cycle. The document will include the policies, standards, procedures and controls to be used and provides a concise description of the project scope and objectives.</p>
Project Initiation Proposal (PIP) or Project Initiation Document (PID)	<p>Project Initiation Proposal captures and records basic information needed to correctly define and plan a project. It states what the project is aiming and planning to achieve, the reason for meeting these aims, and lists people who are participating in the project development including their roles and responsibilities.</p>

Term	Definition
Project Management Guidance	A structured and documented approach, comprising sets of behaviours, methods and techniques, designed to ensure the successful delivery of a Project to prescribed standards in a cost effective and scheduled manner.
Project Management Office (PMO)	A Project Management Office (PMO) defines and maintains standards for project management within the organisation and strives to standardise and introduce economies of repetition in the execution. There are typically 3 different types of PMOs: <ul style="list-style-type: none"> • Directive - Enterprise PMO Model; • Controlling - Project Coach Model; and • Supportive - Project Repository.
Project Manager	The person assigned that is responsible to achieve the project objectives on time and within budget with the agreed project execution plan parameters.
Project Outcome	Project Outcome relates to the impact of the project and what are the short, medium and long term results.
Project Output	Project outputs are the tangible things the project intends to produce.
Project Portfolio Management Framework (PPM)	Project Portfolio Management (PPM) is the centralised management of the processes, methods, and technologies used by project managers and project management offices (PMOs) to analyse and collectively manage current or proposed projects based on numerous key characteristics. The objectives of PPM are to determine the optimal resource

Term	Definition
	<p>mix for delivery and to schedule activities to best achieve an organisation’s operational and financial goals, while honouring constraints imposed by customers, strategic objectives, or external real-world factors.</p>
Project Schedule	<p>A planned schedule of events or activities, which are organised to ensure the successful delivery of a Project, or part of a Project, within a specified timeframe.</p>
Project Sponsor or Senior Responsible Officer (SRO)	<p>The person or group that champions the project within the permanent organisation, provide support for the project, is accountable for its successful completion and for realisation of the project objectives and benefits.</p>
Project Steering Committee (PSC)	<p>A project Steering Committee is the key body within the governance structure which is responsible for the business issues associated with the project that are essential to ensuring the delivery of the project outputs and the attainment of project outcomes. This includes approving the budgetary strategy, defining and realising outcomes, monitoring risks, quality and timelines, making policy and resourcing decisions, and assessing requests for changes to the scope of the project.</p>
RACI Chart	<p>RACI Chart is a responsibility assignment matrix (RAM) which describes the participation of various roles in completing tasks or deliverables for a project. It clarifies roles and responsibilities in projects.</p>

Term	Definition
Risk Management	Risk management runs for the entire lifetime of a construction project, and seeks to minimise exposure to events that might increase the cost or extend the time-span of the works.
Risk Register	A risk register is a risk management tool that acts as a repository for all risks identified and includes additional information about each risk, e.g. nature of the risk, reference and owner, mitigation measures.
Risk Workshop	Risk workshop is a structured approach to identifying and analysing risks as part of risk management process. It also promotes the role and value of risk policy and the risk management function.
Scope	The work elements of which the project is comprised - which can be expressed in relation to time, cost and quality.
Scope Change	Changes to the work and supply elements included in a project which affect time, cost or quality/outputs as defined in Sections 5, 6 and 7 of these Guidelines.
Scope Statement	The scope statement details the project deliverables and describes the major objectives. The objectives should include measurable success criteria for the project.
Stakeholder	Stakeholder is a person or organisation (internal or external) that is actively involved in the project or whose interest may be positively or negatively affected by the execution or completion of the project

Term	Definition
Stakeholder Register	A stakeholder register is a project management document which contains the information about the project's stakeholders. In this register you may find their names, titles, roles, interests, power, requirements, expectations, and type of influence, etc.
Stakeholder analysis	Simple classification models (driver, supporter and observer) can be used or more sophisticated models such as power/interest grid, Saliency model or Kruger's iceberg model can be used.
Statutory Approval	Any kind of consent or approval that is required by any Irish law or statute enacted by the legislature.
Software Test Plan	A software project test plan is a document that describes the objectives, scope, approach, and focus of a software testing effort. The process of preparing a test plan is a useful way to think through the efforts needed to validate the acceptability of a software product.
Systems Design Lifecycle	SDLC stands for software development lifecycle. A software development lifecycle is essentially a series of steps, or phases, that provide a model for the development and lifecycle management of an application or piece of software.
Waterfall	A Waterfall process is a more traditional sequential development process and begins with a well thought-out plan and defined set of requirements. The project moves from phase to phase only when the preceding one

Term	Definition
	is complete and the entire product is deployed at the same time.
Work Breakdown Structure (WBS)	Work Breakdown Structure is a key project deliverable, developed during planning phase, that organises the team's work into manageable sections to accomplish the project objectives and create the required deliverables. It is a tree structure, which shows a subdivision of effort required to achieve an objective. The WBS is developed by starting with the end objective and successively subdividing it into manageable components in terms of size, duration, and responsibility.
Work Stream Manager	The person assigned responsibility for delivering a component of the project Work Breakdown Structure on time, within budget and within the agreed project execution plan parameters.
Value Management	Value management is a practice that involves continually monitoring project development to determine if there are any alternative ways of proceeding or any innovative solutions that can reduce the costs while delivering the same outputs or enhance the value of the project without increasing the cost. Value management is the process of striving to attain improved value in this manner.

Appendix 3 PM Toolkit available to support Handbook

The following presents a number of sample templates that can be tailored for use by Project Teams over the project lifecycle.

Project Templates – Small and Medium Projects	
Project Charter	
<ul style="list-style-type: none"> ▪ Project Charter ▪ Project Charter 2 ▪ Business Case 1 ▪ Business Case 2 ▪ Business Case 3 	
Stakeholder Management and Communication Plan	
<ul style="list-style-type: none"> ▪ Stakeholder Engagement and Communications Template ▪ Stakeholder Register Template ▪ Communications Plan Template 	
Project Execution Plan	
<ul style="list-style-type: none"> ▪ Project Execution Plan ▪ Project Initiation Plan Template 	
Project Report	
<ul style="list-style-type: none"> ▪ Project Quad Report ▪ Project Progress Report ▪ Project Summary Report ▪ Programme Summary Report 	
Post Project Completion Review	
<ul style="list-style-type: none"> ▪ Post Project Completion Review Template 	
Lessons Learned Report	
<ul style="list-style-type: none"> ▪ Lessons Learned Report Template ▪ Lessons Learned Report Template 2 	

Project Templates – Large Projects	
Project Charter	
<ul style="list-style-type: none"> ▪ Project Charter ▪ Project Charter 2 	
Stakeholder Management and Communication Plan	
<ul style="list-style-type: none"> ▪ Stakeholder Engagement and Communications Template ▪ Stakeholder Register Template ▪ Communications Plan Template 	
Decisions Register	
<ul style="list-style-type: none"> ▪ Decisions Register Template 	
RACI	
<ul style="list-style-type: none"> ▪ RACI 	
Project Brief	
<ul style="list-style-type: none"> ▪ Project Brief/Workplan 	
Scope Statement	
<ul style="list-style-type: none"> ▪ Scope Statement Template 	
Project Initiation Proposal	
<ul style="list-style-type: none"> ▪ Project Initiation Plan Template ▪ Project Initiation Proposal Template 	
Project Execution Plan	
<ul style="list-style-type: none"> ▪ Project Execution Plan 	
Project Risk Register and Assessment	
<ul style="list-style-type: none"> ▪ Project Risk Register Template 	
Project Issues Register	
<ul style="list-style-type: none"> ▪ Project Issues Register Template 	
Change Request Register	
<ul style="list-style-type: none"> ▪ Change Control Register and Log 	
Project Report	
<ul style="list-style-type: none"> ▪ Project Quad Report 	

<ul style="list-style-type: none"> ▪ Project Progress Report ▪ Project Summary Report ▪ Programme Summary Report
Post Project Completion Review
<ul style="list-style-type: none"> ▪ Post Project Completion Review Template
Lessons Learned Report
<ul style="list-style-type: none"> ▪ Lessons Learned Report Template ▪ Lessons Learned Report Template 2

Project Templates – ICT Specific
Internal Phase Gate Review Report
<ul style="list-style-type: none"> ▪ Phase Gate Review Report Template
Project Initiation Proposal
<ul style="list-style-type: none"> ▪ Project Initiation Proposal Template
Product Backlog
<ul style="list-style-type: none"> ▪ Backlog Template
Technical Design Deliverables/Prototypes
<ul style="list-style-type: none"> ▪ Technical Design Deliverables/Prototypes Template
Sprint Backlog
<ul style="list-style-type: none"> ▪ Sprint Backlog Template
Burndown Charts
<ul style="list-style-type: none"> ▪ Burndown Charts Template
System/Product Releases
<ul style="list-style-type: none"> ▪ System/Product Releases Template
Test Analysis Reports
<ul style="list-style-type: none"> ▪ Test Analysis Report Template
User training and communication plan
<ul style="list-style-type: none"> ▪ Training and Communication plan Template

Lessons learned report
▪ Lessons Learned report template
User instructions and training materials
▪ User instructions and training materials example

Meeting Agenda Templates
Project Kick-Off Agenda
▪ Kick-Off Agenda Template
Planning Workshop Agenda
▪ Planning Workshop Template Agenda
Risk Workshop Agenda
▪ Risk Workshop Template Agenda
Lessons Learned Workshop Agenda
▪ Lessons Learned Workshop Template Agenda

Notes

Government Buildings,
Upper Merrion Street,
Dublin 2,
D02 R583
Ireland.

Tithe an Rialtais
Sráid Mhuirfean Uacht
Baile Átha Cliath 2
D02 R583
Éire.