

An Roinn Caiteachais Phoiblí agus Athchóirithe Department of Public Expenditure and Reform

# **Public Spending Code**

A Guide to Evaluating, Planning and Managing Public Investment

Investment Projects and Programmes Office www.gov.ie/en/publication/public-spending-code

December 2019

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The Public Spending Code will be periodically updated to reflect the evolution of leading practice or relevant changes to administrative or institutional arrangements should they occur.

This Guide sets out the arrangements for the evaluation, planning and management of public capital investment as at December 2019. The website of the Department of Public Expenditure and Reform and the specific webpages for the Public Spending Code (https://www.gov.ie/en/publication/public-spending-code/) should be consulted for future changes to arrangements.

# Foreword

Well-planned and well-executed public capital investment offers a wide range of social and economic benefits: it enhances well-being and quality of life, underpins better connectivity, improves productivity, and enables more environmentally sustainable development.

But for capital investment to be truly effective it is imperative that all such projects are prepared and delivered with maximum value for money. It is not enough for a proposal to be a good use of funds – for a project to proceed it must be the best means to a particular policy goal. Those entrusted with public expenditure decisions must continue to hone their focus on preparing interventions that can meet this test.

Investment decisions must be clearly linked to core national policy objectives, informed by early consideration of the options available, firmly set in the context of available resources and – crucially – based on a detailed consideration of the potential impact of unexpected events on project performance.

This revised and updated Public Spending Code brings these questions into the spotlight, assisting Ministers and public servants in prioritising the best capital investment interventions to deliver important public policy goals.

The present document builds on good practice developed in the last edition of the Code (2013) and its forerunner, the Capital Appraisal Guidelines (1994 and 2005). As the next evolution of guidance for the evaluation, planning and management of public investment projects, this edition introduces a new project life-cycle, tightens the arrangements for project decision-making, clarifies the roles of parties involved and reflects leading practice in this field in Ireland and internationally. The Guide will be kept under review and will be updated to keep pace with developments in the area.

As we continue to expand the national capital stock, it is as important as ever to ensure that investment decisions are underpinned by a clear policy rationale, that costs are well understood, that procurement, contracting and implementation are executed with professional rigour and that lessons learned from completed projects inform all future investment decisions.

The application of this Guide will help achieve these objectives and allow the promise of public investment to be pursued within a sustainable financial setting.

Refar whet

**Robert Watt** Secretary General Department of Public Expenditure & Reform

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# Introduction

Evaluating, Planning and Managing Public Investment



### 1.1 Scope of this Guide

This Guide sets out the value for money requirements for the evaluation, planning and management of public investment projects in Ireland. The Guide replaces the Public Spending Code requirements for capital expenditure as notified by the Department of Public Expenditure and Reform (DPER) Circular 13/13 The Public Spending Code: Expenditure Planning, Appraisal & Evaluation in the Irish Public Service – Standard Rules & Procedures on 2<sup>nd</sup> September 2013. The arrangements set out here apply to all public bodies and all bodies in receipt of Exchequer capital funding<sup>1</sup>. This Guide has been informed by a consultation process with the public sector.<sup>2</sup>

It is the responsibility of each government department to ensure that departments and agencies draw up their own sector-specific procedures for evaluating, planning and managing public investment which align with the Public Spending Code.

The Guide is rooted in the need to obtain maximum value for money through disciplined project evaluation, preparation and implementation. Accordingly its focus derives from principles of public financial management. The Guide is designed to be sufficiently detailed to aid better decision-making and improved value for money; but sufficiently broad to apply to the spectrum of investment areas that make up the public capital programme. The Guide therefore does not seek to describe all necessary steps in delivering capital projects across all sectors - for example the planning process or statutory consents. Within the framework of the arrangements set out here, government departments and state agencies must ensure that all necessary procedures are followed.

# **1.2 Who should read this Guide**

This Guide sets out the requirements for evaluating, planning and managing public capital investment, including purchase or acquisition of assets or shareholdings, in Ireland. It is aimed at a wide audience:

- Public officials developing capital projects and programmes to be funded by public monies;
- Public officials reviewing and approving capital projects and programmes to be funded by public monies;
- Anyone delivering capital projects and programmes funded by public monies;
- Public officials monitoring capital projects and programmes funded by public monies;
- Public officials overseeing the performance of capital projects and programmes funded by public monies;
- Specialists contracted to appraise, plan or deliver a project or programme which will be funded through public monies;
- Academics working in the area of public investment appraisal and management; and
- Members of the public who wish to be informed of the requirements in place for evaluating, planning and managing public capital investment in Ireland.

<sup>1</sup> In the case of Commercial State bodies not in receipt of public funding, the Board must satisfy itself annually that the Commercial State Body is in full compliance with the Code. Where the full scope of the Capital Works Management Framework does not apply to a body, the principles set out will continue to be of benefit.

<sup>2</sup> This was achieved by way of a call for submissions in response to an initial consultation paper (Proposed Reforms to the Public Spending Code Evaluating, Planning and Managing Public Investment, April 2019), followed by a Preliminary Working Draft of the updated Guide to Evaluating, Planning and Managing Public Investment (July 2019) and complemented with a series of workshops and individual consultation sessions. The Department of Public Expenditure and Reform would like to thank all colleagues who provided valuable input into the process.

### **1.3 Introduction to the Project Lifecycle<sup>3</sup>**

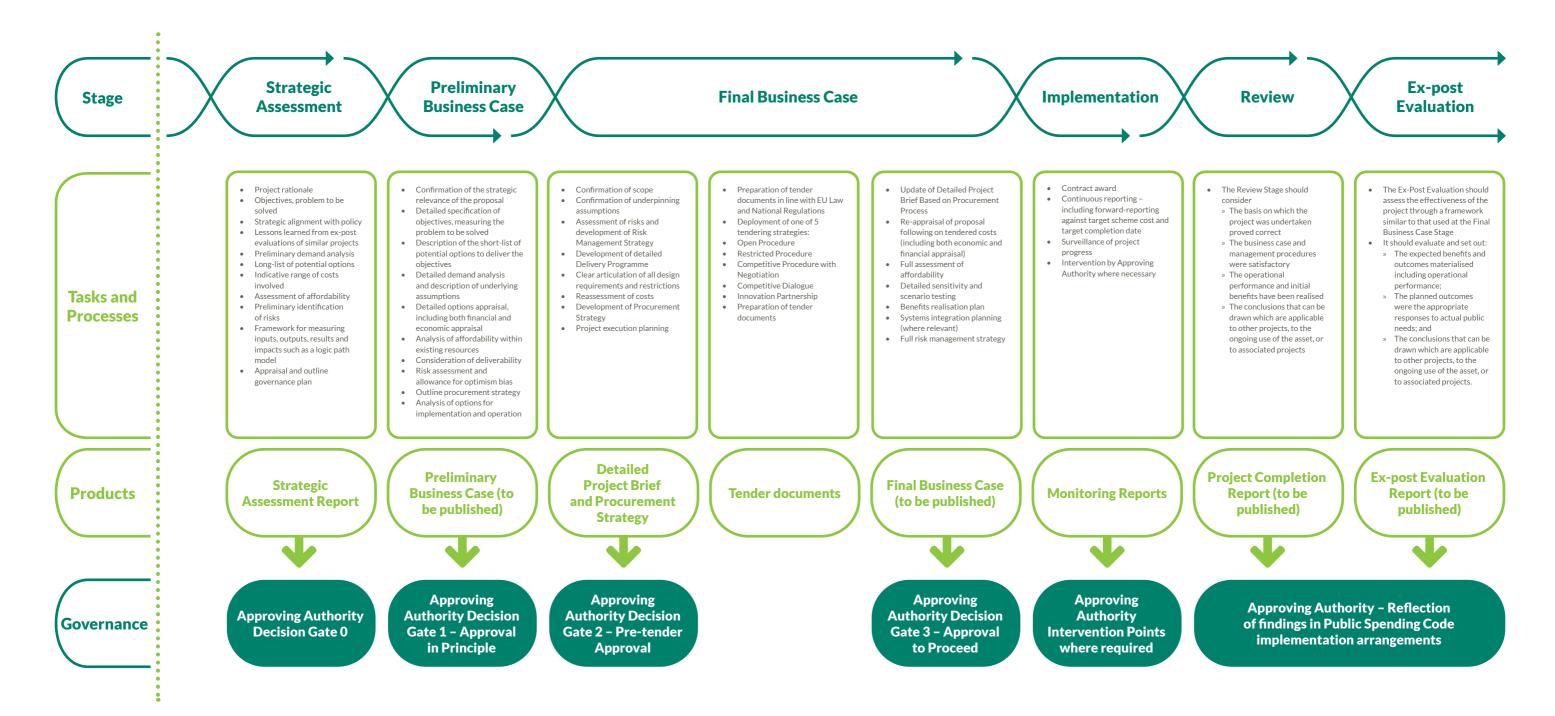
The Project Lifecycle refers to the series of steps and activities which are necessary to take the proposal from concept to completion and evaluation. Projects vary in size and complexity but all projects can be mapped to the following project lifecycle structure. There are six stages in the lifecycle:

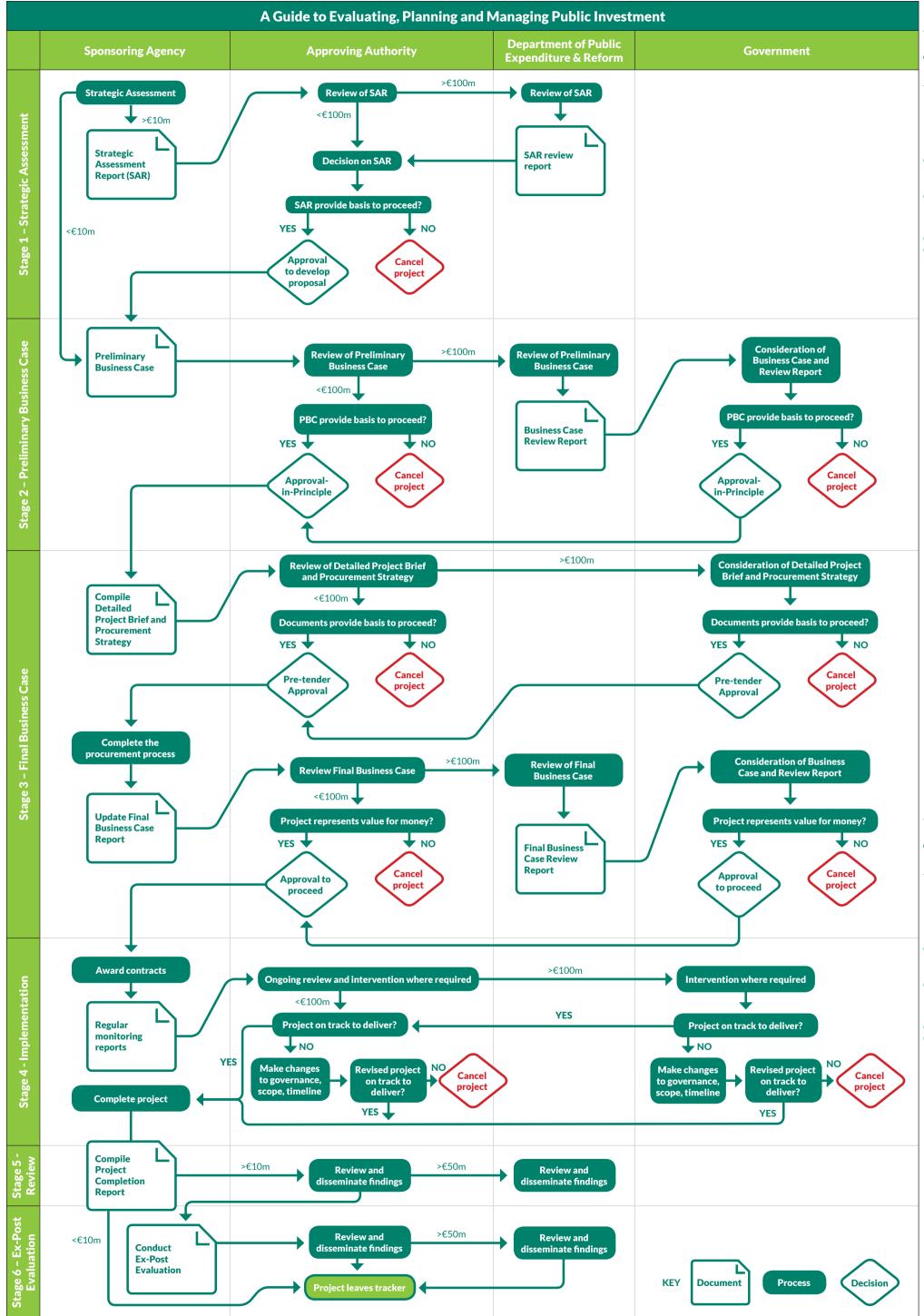
- Strategic Assessment
- Preliminary Business Case
- Final Business Case (including design, procurement strategy and tendering)
- Implementation
- Review
- Ex-Post Evaluation

Previous guidance referenced a four stage project lifecycle. This Guide reflects a revised lifecycle which better aligns with the realities of project delivery. Previous guidance was focused primarily on the economic appraisal of capital projects. This Guide maintains the focus on appraisal but broadens to highlight the importance of rigorous project preparation, earlier engagement with aspects of design and delivery, more informed approaches to costing and fuller consideration of risk. There is also a greater focus on affordability and financial feasibility. Finally, the revised lifecycle will facilitate better central monitoring of public investment delivery and alignment with the Investment Projects and Programmes Tracker.

<sup>3</sup> For simplicity, this Guide refers primarily to investment 'projects' – temporary organisations designed to meet a particular public policy goal. It is recognised that many public investment initiatives may be better described as programmes. The principles set out here will nonetheless apply in those cases and will be augmented by specific arrangements for programme preparation and selection as part of the ongoing review of the Public Spending Code.

# Public Spending Code lifecycle and Decision Gates





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Public Spending Code | Guide to Evaluating, Planning and Managing Public Investment

# **1.4 Structure**

This Guide sets out the value for money requirements for the evaluation, planning and management of public investment projects. The structure is as follows:

- Section 1 sets out the scope and structure of the Guide and provides an introduction to the project lifecycle.
- Section 2 sets out the roles and responsibilities for Sponsoring Agencies and Approving Authorities in evaluating, planning and managing capital expenditure projects and the wider roles and responsibilities for departments and the Department of Public Expenditure and Reform.
- It provides more detail on the project lifecycle including approval thresholds and how to apply proportionality in implementing the Public Spending Code requirements at each point in the project lifecycle.
- Section 3 sets out the purpose of the Strategic Assessment Stage of the project lifecycle, how to prepare a Strategic Assessment Report, and how to review a Strategic Assessment Report at Decision Gate 0.
- Section 4 sets out the purpose of the Preliminary Business Case Stage of the project lifecycle, how to prepare a Preliminary Business Case Report including robust options appraisal, and how to review a Preliminary Business Case at Decision Gate 1.
- Section 5 sets out how to prepare and review a Detailed Project Brief including Design Brief and Procurement Strategy as part of the Final Business Case Stage at Decision Gate 2.
- Section 6 sets out the steps in compiling the Final Business Case Report (building on the breadth of project preparation tasks completed by that stage) and how to review the Final Business Case at Decision Gate 3.

- Section 7 describes the Implementation Stage of the project lifecycle.
- Section 8 sets out the purpose of the Review Stage of the project lifecycle, how to prepare a Project Completion Report, and how to review and disseminate its findings.
- Section 9 sets out the purpose of the Ex-post Evaluation Stage of the project lifecycle, how to prepare an Ex-Post Evaluation Report, and how to review and disseminate its findings.
- Appended to this Guide are a Glossary of Terms and the General Conditions of Sanction for Multiannual Capital Envelopes.

A fundamental tenet of the approach is the incremental approvals process. To prevent lock-in, protect scarce Exchequer resources and ensure maximum value for money, proposals should only be approved to advance to the next stage in the process. Proposals must continue to reflect value for money and Sponsoring Agencies, Approving Authorities and the Government must retain the right to abandon a proposal if it ceases to reflect the best use of resources in the pursuit of a policy goal.



# Roles, Responsibilities and the Project Lifecycle

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### 2.1 Roles and responsibilities

The Public Spending Code sets out the requirements for the organisations involved in public investment projects. The Guide operates within the framework of the Public Financial Procedures. For the purposes of appraising and delivering public investment, the Guide makes a distinction between two administrative roles: the Sponsoring Agency and the Approving Authority. This section sets out the requirements of each actor along with the roles of the parent department and the Department of Public Expenditure and Reform.<sup>4</sup>

#### 2.1.1 The Sponsoring Agency

The Sponsoring Agency has primary responsibility for evaluating, planning and managing public investment projects within the parameters of the Public Spending Code. The key responsibilities of the Sponsoring Agency are set out in Box 2.1.

The Sponsoring Agency may be a government department, local authority, state agency, higher education institute, cultural institution or other state body.<sup>5</sup> The Sponsoring Agency must obtain the necessary approvals from the Approving Authority at each point in the process and ensure that the project proceeds along the lines approved by the Approving Authority.

Sections 3 to 9 elaborate on the requirements of the Sponsoring Agency at each point in the project lifecycle.

All capital projects being sponsored by a state body must be specifically approved by the Board of the body or, by management in accordance with any delegated authority from the Board. In the case of a PPP project, the Sponsoring Agency is the public body or agency proposing the project, subject to subsequent assignment of responsibilities under PPP contractual arrangements.

Proposals may be initiated by bodies other than those which will be responsible for them. Submissions and research documentation coming from such sources may provide some of the information required for project identification and to inform the business case. However, the Sponsoring Agency must satisfy itself that such information is accurate and objective.

#### 2.1.2 The Approving Authority

The Approving Authority was known as the Sanctioning Authority in previous iterations of the Public Spending Code. The Approving Authority has ultimate responsibility for the project.

#### Box 2.1 – Responsibilities of the Sponsoring Agency

- Preparing the Strategic Assessment Report for the project and submitting it to the Approving Authority for approval to proceed to Preliminary Business Case development at Decision Gate 0;
- Developing a Preliminary Business Case for the project including conducting appropriate financial, economic and sensitivity appraisal and submitting it to the Approving Authority for Approval in Principle at Decision Gate 1, i.e. approval to move into Final Business Case Stage;
- As part of the Final Business Case Stage, Project Design and Planning, and preparation of a Procurement Strategy for the project - preparing a Detailed Project Brief which includes detailed costs, a detailed design brief, a Risk Management Plan, a Benefits Realisation Plan, commercial and management arrangements; and a Procurement Strategy. The Detailed Project Brief to be submitted to the Approving Authority for approval at Decision Gate 2 to proceed to tender;
- Procuring the project in line with national procurement guidance and, where applicable, the Capital Works Management Framework (CWMF)<sup>6</sup> and updating the Final Business Case to take account of all the new information arising from the tender including cost and scope before seeking approval of the Approving Authority (at Decision Gate 3) to award the contract;
- Monitoring and managing the Implementation Stage of the project in line with approval given including regular reporting to the Approving Authority and robust management of the contract. If developments occur that impact on the viability of the project, the Sponsoring Agency is responsible for notifying the Approving Authority immediately;
- Planning and conducting a review of the project, incorporating lessons learned into processes and guidance, and submitting a Project Completion Report to the Approving Authority as the project concludes; and
- Planning and conducting an ex-post evaluation of the project, incorporating lessons learned into processes and guidance, and submitting an Ex-post Evaluation Report to the Approving Authority.

<sup>4</sup> The arrangements set out here are administrative and do not serve to dilute the roles of Ministers or Accounting Officers in any way. The arrangements set out here operate within the parameters of the legal components of the Public Financial Procedures.

<sup>5</sup> Where the Office of Public Works (OPW) is undertaking a project in response to a request from a government department or office it is the responsibility of the relevant Approving Authority to clarify with the OPW at an early stage who the Sponsoring Agency is and to clearly set out responsibility for project roles.

<sup>6</sup> The CWMF is the national framework for procuring capital works in Ireland. It is mandatory for use on all projects delivered under the Exchequer funded element of the public capital programme.

#### Box 2.2 - Responsibilities of the Approving Authority

- Assessing the Strategic Assessment Report and deciding whether or not to approve a project at Decision Gate 0 to proceed to the development of a business case;
  - » In the case of projects estimated to cost over €100 million, forward the Strategic Assessment Report to the DPER for technical review in advance of a decision being taken;
- Assessing the Preliminary Business Case for a project against this Guide, sectoral guidance where appropriate, and clear value for money criteria. Deciding whether or not to grant Approval in Principle at Decision Gate 1, i.e. approve to move into Final Business Case Stage;
  - » In the case of projects estimated to cost over €100 million, forward the Preliminary Business Case to the DPER for technical review in advance of a decision being taken.
- Assessing the Detailed Project Brief and Procurement Strategy against this Guide, and where appropriate, sectoral guidance, the Capital Works Management Framework, and clear value for money criteria. Deciding whether or not to give approval at Decision Gate 2 to proceed to Tender;
- Assessing the Final Business Case including the updated information on costs and scope from the tender process against this Guide, sectoral guidance and clear value for money criteria to decide whether or not to approve the project at Decision Gate 3 to award the contract;
  - » In the case of projects estimated to cost over €100 million, forward the Final Business Case to the DPER for technical review in advance of a decision being taken.
- Monitoring the project as it is implemented and reviewing whether or not the project should progress should major developments occur that threaten the viability of the project;
- Updating the Investment Projects and Programmes Tracker, at all points in the process;
- Reviewing the Project Completion Report incorporating lessons learned into processes and guidance, and submitting it to the DPER for review and dissemination;
- Reviewing the Ex-Post Evaluation Report incorporating lessons learned into processes and guidance, and submitting it to the DPER for review and dissemination.

Sections 3 to 9 elaborate on the requirements of the Approving Authority at each point in the project lifecycle.

It is the responsibility of the relevant Accounting Officer/Accountable person to ensure compliance with the relevant requirements of the Public Spending Code.<sup>7</sup> This is part of the overall Accounting Officer role in terms of accountability, delivery, regularity, propriety, and ensuring value for money.

Government approval is required for proposals with an estimated cost over €100 million. Government approval should be sought through a Memorandum for Decision.<sup>8</sup> The day-to-day Approving Authority functions in those instances remain the responsibility of the relevant public body which is funding the proposal. Government approval is required at:

- Preliminary Business Case Government approval must be secured at Decision Gate 1
- Design & Planning and Procurement -Government approval must be secured at Decision Gate 2 to proceed to tender

• Final Business Case - Government approval must be secured at Decision Gate 3 to award the contract.

It is the responsibility of the Approving Authority to notify the Government should adverse developments occur, including unforeseen cost increases or changes to the project scope, which call into question the desirability or viability of the project. This should be routed through the parent department if necessary. The Approving Authority should submit a report at the earliest possible moment to Government detailing the necessary measures to rectify the situation.

#### 2.1.3 The Parent Department

It is the responsibility of the relevant government department to ensure that procedures are in place to ensure compliance with the Public Spending Code within their department/office and within the bodies under the aegis of their department.

<sup>7</sup> In the event that there is a co-funding arrangement with a body that is not a public body, it is required that the Approving Authority retain certain Approving Authority functions through the project lifecycle as appropriate to the level of public investment. The specific arrangements should be clearly set out in the project governance arrangements.

<sup>8</sup> For projects that fall into this category, the Memorandum for Decision should be brought at Decision Gates 1, 2 and 3 as set out in this Guide. Further guidance on additional governance checks for projects of this scale will be issued as part of the ongoing development of the Public Spending Code.

It is a matter for each Accounting Officer to decide whether processes in place in his/her department/ office/body and associated agencies are appropriate to:

- Ensure compliance with the Public Spending Code;
- Manage capital budgets overall; and
- Manage budgets at an individual project level.

These arrangements should take account of the requirement in Section 8.25 of the 2016 Code of Practice for the Governance of State Bodies which requires the Chairperson of each State body to confirm in its Annual Report that the organisation is adhering to the relevant aspects of the Public Spending Code.

The Accounting Officer is responsible for managing his/her overall capital budget in compliance with the conditions of the multi-annual delegated capital sanction as issued by the DPER. The standard conditions from the delegated capital sanction are set out in the Appendix.

The delegated sanction states that no contractual capital commitments that give rise to a commitment beyond the ceilings detailed in the delegated sanction can be entered into without the explicit sanction of the Minister for Public Expenditure and Reform. If a project costs more than the anticipated budget, this must be managed within the existing capital ceiling. The general conditions of sanction explicitly require programme and project contingency provision to meet unforeseen demands or additional costs.

It is the responsibility of each government department to ensure that departments and agencies draw up their own sector-specific procedures for management and appraisal of capital projects and programmes as appropriate. This sector-specific guidance must be consistent with the principles set out in this guidance and will provide further detailed guidance for the sector.

The department should engage with the DPER to ensure that sector-specific guidelines comply with the principles and guidance set out in the Public Spending Code.

It is the responsibility of the department to facilitate seeking Government approval for projects estimated to cost over €100 million in voted expenditure for bodies under their aegis where they are not the Approving Authority.

It is the responsibility of the department/office to update the Investment Projects and Programmes Tracker for all capital projects and programmes in their sector and to disseminate ex-post project reviews and appraisals.

# 2.1.4 The Department of Public Expenditure and Reform<sup>9</sup> General arrangements

The Department of Public Expenditure and Reform's (DPER) responsibility in overseeing effective and efficient public investment is to:

- Set the overall multi-annual capital expenditure ceilings for each Ministerial Vote Group;
- Settle with each department how these multiannual ceilings are reflected and refined in the annual Estimates, which are voted annually by the Dáil;
- Issue the delegated capital sanction letter on behalf of the Minister for Public Expenditure and Reform;
- Monitor actual aggregate spend against monthly expenditure profiles based on information submitted by departments to the DPER's relevant Vote Section. The DPER does not approve expenditure at the individual project level;
- Maintain the national frameworks within which departments operate to ensure appropriate accounting for and value for money in public expenditure such as the Public Financial Procedures and the Public Spending Code; and
- Gather information from departments relating to project and programme progress and compile the overall Investment Projects and Programmes Tracker and related outputs.

The Public Spending Code sets out a further role for the DPER in the conduct of technical reviews of Strategic Assessment Reports and Business Cases for projects estimated to cost over €100 million. The technical reviews conducted by the DPER focus on the quality of the analysis under consideration by reference to methodological norms including those set out in the Public Spending Code. The reviews focus on the individual elements of the business case and whether the overall appraisal is robust and the analysis supports the conclusions drawn.

These reviews differ from the assessment of business cases conducted by Approving Authorities in that they are policy neutral and their purpose is to support consistent application of the Public Spending Code across all sectors.

It is expected that the reviews conducted by Approving Authorities will focus on:

- Compliance with the Public Spending Code
- Compliance with sector-specific appraisal guidance
- Appropriate policy and programme fit.

<sup>9</sup> The Office of the Government Chief Information Officer has a role in relation to ICT projects as set out in Circular 02/16: Arrangements for Digital and ICT-related Expenditure in the Civil and Public Service

The technical reviews conducted by the DPER also differ from those conducted by Approving Authorities in that they are not an approval stage but rather function as an input into the Approving Authority's decision making.

## 2.2 Project Lifecycle – Stages, Proportionality and Approvals

#### 2.2.1 Project lifecycle Stages

Subject to approval each project must work its way through the project lifecycle. For a project which is successfully delivered from concept to completion, this would entail:

- Prepare a Strategic Assessment Report;
- Develop a Preliminary Business Case;
- Complete a Detailed Project Brief and Procurement Strategy as part of the Final Business Case Stage;
- Prepare tender documents and conduct the required public procurement in compliance with relevant procedures, and where applicable the Capital Works Management Framework;
- Update the Final Business Case to take into account information from the tender process;
- Award the appropriate contract, actively implement the project, and regularly report to the Approving Authority;
- Complete and disseminate a Project Completion Report incorporating lessons learned as required into sectoral guidance; and
- Complete and disseminate an Ex-Post Evaluation report incorporating lessons learned as required into sectoral guidance.

These stages can occur over a significant time period meaning that active management of the project is required throughout to ensure the project outcomes are achieved and value for money secured.

The project lifecycle is designed to function as and complement project management tools, aiding public bodies as they work to address specific policy problems and deliver identified outcomes.

Project management principles set out in existing guidance, such as the Capital Works Management Framework and the Civil Service Project Management Handbook, and best practice models for the direction and management of portfolios, projects and programmes should be utilised to ensure the successful, timely and cost effective delivery of policy outcomes. The project lifecycle is not necessarily linear. Projects do not move in one direction from strategic assessment through to ex-post evaluation. Projects can move sequentially through the stages or loop back at different points as issues arise with the project or circumstances change.

The project lifecycle sets out a model for evaluation, planning and delivery of project. In reality, there may be overlap between the different stages. Fulfilling the requirements in the project lifecycle can require different inputs from different stages in the lifecycle depending on the individual project.

The project lifecycle and associated guidance as set out in this document is focused primarily on the evaluation, planning and management of capital projects. However the principles and processes set out in this document apply to all capital expenditure including capital programmes. An additional guidance document focusing specifically on capital programmes will follow.

# 2.2.2 Project lifecycle and approvals

Approval at any stage in the project life cycle constitutes approval to the next stage rather than overall project approval. It is approval to a commitment of the level of resources required for the next stage in the lifecycle. This allows the commitment of relatively limited resources to the project only as required with the budgetary commitment increasing as the project moves through the lifecycle. While there may be a commitment in principle to the policy objectives being pursued, departments and public bodies should be prepared at any stage, despite costs having been incurred in appraising, planning and developing a project, to abandon it if on balance, continuation would not represent value for money.

# 2.2.3 Project lifecycle and proportionality

The scale and detail of evaluation, planning and management of public investment should be commensurate with the scale of the proposal under consideration. As a general provision, the principles and processes set out here apply to all forms of public investment. At the same time it is necessary to reflect a degree of proportionality in arrangements. The following parameters may be used to guide the application of this Guide:<sup>10</sup>

- For proposals with an estimated capital cost of less than €10 million, Approving Authorities may commence a project at Decision Gate 0, i.e. without need for a Strategic Assessment Report;<sup>11</sup>
- All proposals are required to be financially appraised. For proposals with an estimated capital cost less than €10 million, Approving Authorities should engage with Sponsoring Agencies as to whether an economic appraisal is required and the appropriate type of economic appraisal. This should be set out in sector-specific guidance where relevant;
- For proposals with an estimated capital cost less than €10 million, Approving Authorities are not required to conduct Ex-Post Evaluations on all projects, a representative sample will suffice;
- For proposals with an estimated capital cost less than €100 million, Approving Authorities may themselves undertake the technical review of the Strategic Assessment Report, Preliminary Business Case and Final Business Case without recourse to the DPER;
- For proposals with an estimated capital cost in excess of €100 million, the Government is the Approving Authority;<sup>12</sup> and
- For proposals with an estimated capital cost in excess of €100 million a separate project challenge and assurance mechanism will be introduced as part of the ongoing reform of the public investment management system.

These thresholds will be reviewed periodically and updated where appropriate.

<sup>10</sup> Financial thresholds set out here relate to full capital cost estimates of projects including all elements – land costs, VAT, professional fees etc.

<sup>11</sup> However the Preliminary Business Case must clearly document the strategic case, rationale and objectives of the proposal.

<sup>12</sup> In such cases, the day-to-day functions of the Approving Authority must be carried out by the relevant public body funding the project.





The Strategic Assessment Stage is the first stage of the project lifecycle and is critical for early scrutiny of objectives, consideration of options and identification of risks. This stage must critically examine the specific problem to be addressed. The Stage forms an important element of the bridge between the *policy* and the *project*. The Strategic Assessment Stage must happen as early as possible in the concept phase of a proposal in order to meaningfully inform key decision points and should be informed by lessons learned on earlier schemes.

### 3.1 Purpose

The purpose of the Strategic Assessment Stage is to examine the rationale for potential policy interventions and ensure the strategic fit of potential projects and programmes with government policy, in particular the National Planning Framework and National Development Plan.

A common cause of problems in projects in Ireland and internationally (and common to the private and public sectors) is a failure to clearly specify objectives and desired outcomes at the outset. The introduction of the Strategic Assessment Stage is designed to guard against this and ensure early engagement with and scrutiny of potential public investment projects and programmes.

Where programmes of investment are composed of a high number of similar or replicable schemes – for instance social housing developments or urban regeneration initiatives - it may be appropriate to undertake the strategic assessment for the programme as a whole. Arrangements may be stipulated in sectorspecific appraisal arrangements and the approach must be agreed with the DPER in advance.

# 3.2 The Strategic Assessment Report

The output of the Strategic Assessment Stage is the Strategic Assessment Report (SAR). The Report should set out:

- Investment rationale
- Objectives
- Strategic alignment with government policy in particular the National Planning Framework and National Development Plan
- Preliminary demand analysis
- The long-list of potential options
- The potential range of costs involved, both financial and economic
- An assessment of affordability in the context of available resources (including the Medium-Term Capital Envelope in the case of Exchequer funded proposals)<sup>13</sup>
- An identification of risks
- A framework for determining key performance indicators for the proposed intervention such as a logic path model
- An appraisal plan
- An outline governance plan

These elements are discussed in turn in the following sections.

<sup>13</sup> In some sectors it may be optimal to conduct early stage project preparation to ensure that there is a wider pipeline of projects which have undergone strategic assessment. This can aid the portfolio management of sectoral investment and mitigate the dependence of the achievement of sectoral policy on a small number of projects. In these cases investment proposals may have spending implications beyond the existing Exchequer envelope. While full assessment of affordability may not therefore be feasible, early stage project preparation in these cases does not confer any commitment to future funding.

### 3.2.1 Project rationale

Rationale is concerned with establishing why a public policy intervention is necessary in a given area. It requires consideration of the public policy objectives of a project or programme and the reasons for public sector provision or involvement. It is closely linked to the economic concept of market failure. Market failure is considered in more detail in Box 3.1 but in simple terms, it exists where private individuals or firms do not produce the optimal level of a good or service from a societal perspective. A practical example of market failure is the need for subsidised bus services on socially desirable yet uneconomic routes. The rationale criterion usually also extends to whether the design of the programme or project is the most appropriate means of achieving the identified public policy objectives.

### 3.2.2 Objectives

Having established the specific rationale for a potential investment proposal, the SAR must clearly set out its objectives. Objectives must be rooted in the specific problem to be addressed as set out in the SAR.

Among the leading causes of problems with public investment projects and programmes is a failure to adequately specify objectives at the outset. Objectives must be SMART – specific, measureable, attributable, realistic and time-bound.

A clear statement of objectives is a fundamental platform from which to appraise potential options and, should a proposal proceed, a key input to the process of planning, delivering and reviewing the investment. The objectives should also frame the assessing of options as described in 3.2.5.

#### Box 3.1 Rationale and market failure

#### **Public Goods**

A public good is a type of market failure. It is a good or service for which it is not possible or convenient to charge all beneficiaries. Making it available for one effectively makes it available for many (e.g. public lighting). Private producers will tend to undersupply such goods or services relative to what is socially optimum. As a result, it is appropriate for the Government to act to ensure that such goods or services are made available.

#### **Externalities**

Externalities arise where the actions of one individual or firm affect other individuals or firms without appropriate compensation being paid i.e. where one individual or firm imposes a cost on others but does not compensate them (e.g. air and water pollution), or alternatively, where one individual or firm confers a benefit on others but does not reap a reward for providing it (e.g. rehabilitation of a derelict house which contributes to neighbourhood regeneration).

#### Redistribution

Redistribution-based interventions are intended to deliver what society considers as being a "fair" distribution of wealth and income among its members (e.g. welfare spending and regional development programmes).

#### Merit Goods

Merit goods constitute another form of market failure. Merit goods arise if individuals or firms underestimate the personal or private benefits derived from consuming a good or service (e.g. compulsory education). In other words, due to gaps in their information, individuals or firms attribute insufficient value to the good or service. This market failure can be addressed, inter alia, by schemes to improve information and/or subsidising the price paid for the merit good.

#### **Market Power**

In perfectly competitive markets, firms have no market power. Where markets are not competitive, market power represents the extent to which firms can raise the price of a good or service over marginal cost. The most commonly discussed example of market power is monopolies. This market failure is usually addressed through regulation and the establishment of an independent regulator, for example, for utilities and public transport.

Strategic Assessment Reports must set out the specific rationale for the proposal. The Report should also consider whether and to what extent a potential intervention could of itself create adverse incentives or other unintended consequences.

### 3.2.3 Strategic alignment

The Strategic Assessment Report must clearly document the strategic fit of the proposal with public policy. This should be tightly defined and should consider the alignment of a proposal with:

- Public investment policy as set out in the National Development Plan or analogous policy document. In this regard it is not sufficient that a project be listed in a national investment programme

   the SAR must clearly document the linkages, consistencies and complementarities with national policy goals.
- National planning policy as set out in the National Planning Framework. Specifically, assumptions underpinning the strategic assessment must be rooted in assumptions about future spatial development and population growth in affected cities, towns and rural areas.
- National Policy on climate action.
- Specific and up-to-date sectoral policy including adoption of European policy measures.

#### 3.2.4 Preliminary Demand Analysis

The preliminary demand analysis should set out – at a high level - current demand and forecast future demand for the services resulting from an investment proposal. Preliminary demand analysis should be evidencebased and draw on quantitative data to the maximum extent possible. This is a critical step in understanding both the need for a proposed investment and the appropriate scale of intervention required in order to ensure maximum efficiency.

# 3.2.5 Establishing and assessing the long-list of options

The Strategic Assessment Report should set out the long-list of potential options which could address the needs to be met. The long-list should include all the feasible options which can achieve the desired outcomes and this should include options which may not involve capital investment.

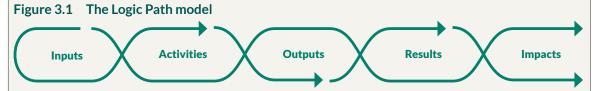
Potential options should be given wide consideration and the process of developing the long-list could include workshops with stakeholders and consultation with experts. At this point in the process it is important to avoid 'picking winners' or 'pet projects'. While some approaches may be ruled out at this point for reasons of feasibility, it is important that the long-list be made up a wide range of potential solutions. Over-specification of any option should be avoided.

The long-list of options should be described and assessed through a consistent framework, for instance a multi-criteria model, a logic path model or a balanced scorecard. Box 3.2 provides further discussion of potential approaches.

#### Box 3.2 Frameworks for considering the long-list and gathering metrics

#### The Logic Path Model

This is a framework for considering the inputs, outputs, performance and impacts of proposed interventions. It can provide a common lens through which to understand options and assess the relative performance of options in achieving the desired objectives.

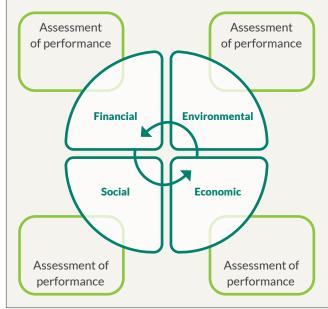


The Logic Path Model maps out the shape and logical linkages of a programme or project and provides a systematic and visual way to present and share understanding of the cause-effect relationships between inputs, activities, outputs and outcomes (results and impacts). It is used in planning, implementation, monitoring and evaluation of projects and programmes. Adoption of the Logic Path Model can enable options to be described and analysed in terms of inputs, activities or processes, outputs, and outcomes that are arranged to achieve specific strategic objectives.

Through the Logic Path Model, the Sponsoring Agency will identify at a high level the key performance indicators for the inputs, outputs, performance and impacts required for and from the proposal. These will form the basis for the monitoring and evaluation plan that will be developed as part of the business case and rolled out during project implementation.

#### **The Balanced Scorecard**

The balanced scorecard approach is a tool to assist in gathering metrics and understanding performance across a number of dimensions. Areas of focus may include economic, financial, social and environmental.



#### Figure 3.2 The Balanced Scorecard

The type of model facilitates the consideration of options and gathering of data across a number of dimensions of performance.

#### Multi-criteria framework

A multi-criteria framework can also be used to assist in gathering data on project options and comparing the long-list. The approach considers options by reference to an explicit set of criteria derived from the objectives of the proposal and factoring affordability and value for money.

The approach uses weighting and scoring of the relevant criteria reflecting their relative importance to the objectives and the performance of each option against each criterion.

In some cases detailed multi-criteria analysis (MCAs) is an important element of the options appraisal as part of the business case.

### 3.2.6 Costs and risks

The Strategic Assessment Report should give early consideration to costs and risks. While anchoring around one option must be avoided, the stage should nonetheless assess the range of potential costs associated with meeting the identified objectives and solving the problem identified.

To the extent that costs are known they should be presented as indicative and subject to considerable variation as proposals are developed and progress through the stages of the life-cycle. Under no circumstances should funding commitments be made on the basis of early indications of cost ranges. Care must also be taken in communicating early estimates of project costs and the level of uncertainty attaching should be explicitly highlighted.

In considering costs, the Report should also give an early assessment of affordability and intended sources of funding. This assessment should consider affordability in the context of available resources (including the Medium Term Capital Envelopes in the case of Exchequer funded proposals), the timing of payments, and the opportunity cost of investments.

Similarly the spectrum of potential risks and their mitigations should be covered. While these will be reasonably high level at this early stage, they should nonetheless be meaningful and relevant to the proposal in question.

The Strategic Assessment Report should identify lessons learned from previous similar projects (as communicated in Project Completion Reports and Ex-Post Evaluations) which should be translated into changes in how the proposed project should be evaluated, planned and managed.

### 3.2.7 The Appraisal Plan

The Strategic Assessment Report should set out how the project will be appraised including the proposed methodology for:

- Deriving a short-list from the long-list of options
- Financial appraisal
- Economic appraisal
- Sensitivity and scenario analysis
- Approach to pricing risk and factoring in optimism bias

The rationale for the choice of appraisal methodology should be clearly set out. The appraisal plan should also detail:

- Data to be used
- Assumptions underpinning the analysis to be conducted
- Technical parameters to be used in the analysis.

The Appraisal Plan should detail the methodology to be used as part of the economic appraisal. As a general rule, major projects should be subject to full cost benefit analysis (CBA). In some cases however, CBA is less straightforward or in some cases less useful as an aid to decision-making. In these instances it may be more appropriate to use cost effectiveness analysis (CEA) or multi-criteria analysis (MCA).

Table 3.1 highlights sectors for which different approaches can be considered. In all cases however, the specific approach should be agreed with the Approving Authority.

Table 3.1         Economic appraisal methodologies and	nd investment sectors
Sectors for which CBA may be more suitable:	Sectors for which CEA and/or MCA may be more
• Energy	suitable:
Transport	Housing
Enterprise & Innovation	Health (replacement and refurbishment)
Health (new capacity)	Urban and regional development
Environmental infrastructure (including flood	Public Buildings
defence)	Culture
• Agri-food	Schools
Communications	
Tourism	
Higher Education	

In all cases a financial appraisal must form part of the appraisal, including a full assessment of affordability. A cost benefit analysis should form part of the economic appraisal of all projects with an estimated cost in excess of  $\in$ 100 million.<sup>14</sup>

Where significant resources will be involved in developing the business case, this should be outlined in the Appraisal Plan.

## 3.2.8 The Outline Governance Plan

The Strategic Assessment Report should set out an outline governance plan identifying the Sponsoring Agency and Approving Authority for developing the proposal further and setting out, at a high level, key structures should the project proceed. The outline governance plan should consider – at a high level project roles and responsibilities and how these would operate for different delivery options. The plan will be built upon in the business case stages as more detailed consideration is given to implementation.

### 3.3 Reviewing the Strategic Assessment Report

The Strategic Assessment Report should be sent to the Approving Authority for review. The Approving Authority must check the completeness of the Report in terms of the requirements set out here and the quality of the material in relation to:

- Integrity of the proposal rationale
- Policy relevance and specificity of objectives
- Alignment with national policy
- Completeness of the long-list of options
- Basis of the demand analysis
- Consideration of the range of potential costs and risks
- Affordability
- The quality and completeness of the framework used to determine key performance indicators for the proposal and assess the long list of options
- The appropriateness of the Appraisal Plan.

The review should take an overall view of the viability of a proposal.

# 3.4 Decision Gate 0

If the Approving Authority is satisfied that the SAR meets the required standards and that there is a justification for developing the proposal further, it can approve the project to proceed to the next stage of the lifecycle, Preliminary Business Case.

For proposals where the likely final cost will exceed €100 million, the SAR should be sent to the Department of Public Expenditure & Reform for review before a decision is taken but only once the Approving Authority is satisfied that it meets the requirements set out above and that the proposal is viable.

The Department of Public Expenditure & Reform will review the SAR and provide feedback to the Approving Authority through the responsible department, where appropriate. The actions available to the Approving Authority at this point are:

- Abandon the proposal
- Seek refinement or further development of SAR
- Approve the proposal to proceed to the next stage, Business Case development.

The next Section sets out the requirements for the Preliminary Business Case Stage.

<sup>14</sup> In some limited cases, it may still be more appropriate to conduct a cost effectiveness analysis but this must be agreed with the DPER as part of an appraisal plan.





The Preliminary Business Case Stage aims to develop further the strategic case for the project, consider in more detail the range of options available and decide whether there is a case for proceeding with the proposal. The Preliminary Business Case incorporates detailed options appraisal and when finalised will also incorporate assessments of risk along with the proposed approach to implementation of the proposal.

### 4.1 Purpose of the Preliminary Business Case

The Preliminary Business Case process is a critical stage in the assessment of potential project proposals:

- For the Sponsoring Agency it provides a framework to assess costs, benefits, affordability, deliverability, risks and sensitivities associated with potential project options.
- For the Approving Authority it provides the information required to inform decisions on the viability and desirability of public spending proposals.

The Preliminary Business Case process is iterative and should be viewed as both a *process* and a *product*. In the event that a proposed project progresses through the lifecycle stages, the business case should be updated continuously as new information becomes available. The business case will therefore inform key decisions for the Approving Authority at various points of the project lifecycle.

### 4.2 Content of the Preliminary Business Case

The Preliminary Business Case should build on the Strategic Assessment and serve as a detailed appraisal of available options. It should lead to the clear articulation of a preferred option for the proposed project, enumerate associated risks and set out a proposed implementation strategy for the investment proposal.

The Preliminary Business Case should include the following elements<sup>15</sup>:

- Confirmation of the strategic relevance of the proposal and detailed specification of the objective of the proposal
- Description of the short-list of potential options to deliver the objectives set out
- Detailed demand analysis and description of underlying assumptions
- Options appraisal, including
  - » Financial appraisal
  - » Economic appraisal
  - » Sensitivity Analysis
- Assessment of affordability within existing resources
- Risk assessment, allowance for optimism bias and full risk management strategy
- Proposed approach to procurement
- Proposed approaches to implementation and operation
- Assessment of delivery risk
- Plan for monitoring & evaluation including key performance indicators
- Recommendation to the Approving Authority

The Sections below discuss some of these requirements in greater detail as well as setting out a number of general principles to be followed in the development of the business case.

<sup>15</sup> This list is designed to show the required elements rather than represent a prescriptive table of contents for the Preliminary Business Case Report.

# 4.3 Principles to be followed

# 4.3.1 Optimism bias and behavioural influences

All elements of the business case process are prone to distortion by cognitive or behavioural biases. Awareness of these can help guard against forecasts being unduly optimistic or costs and risks being undervalued. Box 4.1 provides further detail.

# Box 4.1 Selected Behavioural Biases and Influences<sup>16</sup>

#### **Confirmation Bias**

People favour information that confirms previously existing beliefs or biases. This manifests in searching for, interpreting and weighing information and has implications for how the evidence base and analysis to inform project evaluation and management is conducted.

#### Defaults

Default choices and settings are used as reference points; the status quo matters. This makes it harder to consider alternative choices which are further from the status quo.

#### **Optimism Bias**

People tend to overestimate the likelihood of positive events. In the case of capital projects, this can lead to an underestimation of cost, overestimation of benefits and inadequate consideration of potential risks.

#### **Present Bias**

Immediate effects are given too much weight while future impacts are undervalued.

#### **Loss Aversion**

People strongly prefer avoiding losses rather than acquiring gains. This has particular implications for ending ongoing investment programmes and cancelling projects irrespective of sunk costs.

#### **Cognitive Limitations and Framing**

Humans can process limited amounts of information at one time. Too much information and too much choice can lead to confusion and procrastination. How information is presented and framed impacts on people's choices and interacts with their biases. The Preliminary Business Case should factor the potential impact of biases on forecasts of demand, costs, delivery programme and risks. Optimism bias occurs when project analysts overestimate the benefits and/or underestimate the costs and timings for a project. Internationally, there is a large body of evidence pointing to a systemic tendency for optimism bias across all project types in both the private and public sectors.

Standard examples of optimism bias include forecasts of demand which far exceed actual usage levels, unrealistically short delivery schedules and underestimates of project costs.

Project appraisals should include a comprehensive approach to addressing optimism bias. Forecasts should draw on outturn data for similar projects in Ireland or elsewhere and the evidence base for assumptions such as demand forecasts, cost estimates and delivery schedules. Box 4.4 discusses techniques which can assist in de-biasing cost estimates of investment projects.

Appraisals should systematically test low benefit outturns against highest cost outturns for the critical variables as part of the sensitivity analysis.

# 4.3.2 Additionality and the investment counterfactual

The business case must be based on the principle of additionality. This means that only the specific costs and benefits that are directly attributable to the proposal can inform the decision. To understand the net additional impact of a project, the Public Spending Code requires the careful consideration of what would happen without the proposal – the investment counterfactual.

The counterfactual requires assumptions about the outcomes that will arise in the absence of the proposal. Counterfactuals include 'do-nothing' or 'do-minimum' options. In many cases, counterfactuals based on the do nothing scenario are often unrealistic as there are generally certain costs or risks associated with current arrangements which must be incurred in any case (See Box 4.2) However the impact of the do nothing must always be understood and interrogated as part of the appraisal process.

<sup>16</sup> Box 4.1 is informed by The Department of Public Expenditure & Reform's *Behavioural Economics* publication in 2014 - <u>https://igees.gov.ie/wp-content/uploads/2013/10/Behavioural-Economics-1.pdf</u>

#### Box 4.2 The 'Catastrophic Do-Nothing'

Under certain circumstances, the do-nothing scenario will lead to adverse policy outcomes which are not acceptable to the Government. For example in the case of a contaminated drinking water source, the do-nothing option may lead to unavailability of drinking water or threats to public health.

Choosing this scenario as the counterfactual may mean that the net impact of the proposed project will be artificially improved in the appraisal process. In such a scenario, a more realistic counterfactual is the do-minimum, which might involve a basic level of remediation of water supply.

While the impact of the do-nothing must always be understood and interrogated as part of the appraisal process, an unrealistic do-nothing scenarios should not be used as the project counterfactual as it will artificially inflate the incremental benefit of undertaking more ambitious projects.

#### 4.3.3 The Appraisal Time Horizon

The appropriate time horizon should be used for the appraisal of elements of the business case. This should be set at the useful economic life of the asset being proposed. This may vary according to the sector under consideration and should be set in sector-specific guidance. Sector-specific appraisal thresholds have already been established in some investment areas.

For illustrative purposes, Table 4.1 sets out the EU Commission's proposed time horizons or reference periods by sector<sup>17</sup>.

Table 4.1 European Commission's reference periods by sector					
Sector	Reference period (years)				
Railways	30				
Roads	25-30				
Ports and airports	25				
Urban Transport	25-30				
Water supply/sanitation	30				
Waste management	25-30				
Energy	15-25				
Broadband	15-20				
Research and innovation	15-25				
Business Infrastructure	10-15				
Other sectors	10-15				

Longer time horizons may be considered to incorporate the long-term impacts and costs of particular projects, for example, to reflect climate impacts. This approach should be agreed as part of the appraisal plan with the Approving Authority and the DPER.

### 4.3.4 Aid to Good Decision Making

The business case should be an aid to inform decision making. It does not constitute a final decision in and of itself. Its purpose is to gather and analyse the relevant data to support better investment decisions. Proposals for public sector investment invariably exceed the resources available so choice and priority setting are crucial. Analysis should be objective to inform decisions on how to achieve better outcomes.

# 4.4 Updating the strategic relevance

The overall strategic relevance, rationale and objectives of the proposal should be reconsidered at this point. Since the approval of the Strategic Assessment Report there may have been developments – both internal and external to the policy area which have undermined the case for change.

The Preliminary Business Case must reassess the consistency of the proposal with:

- National and regional planning policy
- National public investment policy
- Specific sectoral policy
- Climate action policy

The Preliminary Business Case should reassess the objectives of the proposal as set out in the Strategic Assessment Report.

#### 4.5 Detailed Demand Analysis

The detailed demand analysis should build upon the preliminary demand analysis conducted as part of the Strategic Assessment Report which set out current demand and forecast future demand for the services resulting from an investment proposal.

The demand analysis should be evidence-based and subject to independent, expert validation where necessary. It should focus on incremental demand and reflect projected actual demand as opposed to potential demand. Demand should be analysed separately for distinct user groups. Demand analysis should be undertaken in the context of available capacity.

It should be noted that the pattern and pace of demand take-up may vary over time depending on a variety of circumstances including the business cycle, employment levels, population growth, etc. Demand forecasting techniques include among others multiple regression models, extrapolation methods, and consultation with experts. The choice of technique(s)

17 European Commission, Guide to Cost-Benefit Analysis of Investment Projects Economic Appraisal Tool for Cohesion Policy 2014-2020, December 2014 will depend on the sector, available data, and the nature of the investment.

All underlying assumptions should be clearly set out in the analysis with reference to the supporting evidence base.

# 4.6 Establishing the short-list of options

Building on the analysis set out in the Strategic Assessment Report, the Preliminary Business Case should arrive at a short-list of options which can deliver the objectives of the proposal. This should be done in a structured way drawing on frameworks such as multi-criteria analysis, balanced scorecards, or SWOT analysis. The short-listing process should take account of factors including affordability, scope and deliverability. The short-list of options can then be subject to a detailed financial and economic appraisal.

# 4.7 Financial Appraisal

# 4.7.1 Focus of the Financial Appraisal

All projects – irrespective of scale or cost – must be subject to financial appraisal. The financial appraisal must answer a range of questions. While the primary focus of the economic appraisal is on value for money (taking account of wider costs and benefits) the primary focus of the financial appraisal is on affordability and financial impact.

Sponsoring Agencies and Approving Authorities are required to consider both value for money and affordability. In the case of some proposals, the strategic assessment and the economic appraisal may show a strong case for change on account of positive wider economic and social benefits. Such analysis must be accompanied by a clear exposition of the financial impacts of a proposal. There is little point in pursuing a worthy project if it cannot be paid for.

Throughout the project lifecycle, Sponsoring Agencies must pay careful attention to forecasting all costs of a proposal and taking account of the spectrum of potential risks which may impact viability and deliverability.

#### Box 4.3 Public Private Partnerships

Public Private Partnerships are an alternative way of financing a project. A PPP is an arrangement between the public and private sectors (consistent with a broad range of possible partnership structures) with clear agreement on shared objectives for the delivery of public infrastructure and/or services by the private sector that would otherwise have been provided through traditional public sector procurement.

A PPP has the potential to offer value for money and timely delivery of infrastructure when applied to projects of the right scale, risk and operational profile. For projects with particular characteristics, Sponsoring Agencies may wish to explore the potential to progress the project as a public private partnership with the National Development Finance Agency (NDFA).

The NDFA is the financial advisor to state authorities, agencies, and departments. The NDFA's advice should, in general, be sought and at an early stage on a) all PPP projects and b) all projects with a capital value exceeding €75 million. The NDFA's functions include advising public bodies on the optimum means of financing the cost of public investment projects to achieve value for money and providing advice in relation to all aspects of financing, aswell as the provision of technical, design and construction advice. The NDFA is also available to provide financial advice on projects below €75 million as appropriate.

The separate Guidelines<sup>18</sup> on Public Private Partnerships should be followed when considering the PPP option.

# 4.7.2 Content of the Financial Appraisal

The Financial Appraisal should incorporate a discounted cashflow analysis (DCF) of the shortlist of project options. Cashflows should include all annualised inflows and outflows, including operating, capital, labour, tax, own resource income generated by the project, etc. The DCF must be based on the incremental approach, showing inflows and outflows over and above those set out in the investment counterfactual. The appropriate financial discount rate must be used in order to appropriately compare inflow and outflows occurring in different time periods. The rate<sup>19</sup> to be used in the Financial Appraisal is set from time to time by the Department of Public Expenditure & Reform in consultation with the National Development Finance Agency.

<sup>18</sup> https://ppp.gov.ie/

<sup>19</sup> https://www.gov.ie/en/policy-information/1a0dcb-project-discount-inflation-rates/

The Financial Appraisal Should clearly set out:

- The total investment costs
- Total operating costs
- Future maintenance and renewal costs
- Forecast revenue streams arising

#### Box 4.4 Considerations in forecasting project costs

The cost of a proposal should be forecast throughout the project lifecycle. At strategic assessment, this is a high level range of costs based on what is known about the long-list of options to meet the stated objectives. As the scope of the project and the assumptions underpinning it become clearer through business case, project brief development and preparation for tender, the forecasts of costs should become more definitive.

Costing information should be based on market costs, the most recent costs from similar projects, and informed by estimates of inflation and risks that have manifested in similar projects in the past. A number of tools should be considered and used throughout the project lifecycle, as appropriate, to improve the accuracy of estimated costs for capital projects. These tools include external peer review, benchmarking and reference class forecasting. Deployment of these approaches can assist in mitigating the risks of optimism bias.

At various points in the process, project sponsors should indicate the confidence attaching to estimates by using a probabilistic cost forecast.

#### **External Peer Review**

External peer review involves an objective external review of the project by an appropriately qualified expert. The extent of external peer review can range from an external expert checking one element of the project such as cost to a range of external experts working together to replicate the business case prepared for the project as part of a project challenge function to ensure that the assumptions, data and methodologies used in project appraisal and implementation are robust and independent.

#### Benchmarking

Benchmarking is the process of comparing projected or actual project cost and performance information against information from similar projects. Two types of benchmarking can be undertaken – top down and bottom up. Different types of benchmarks can be used throughout the project lifecycle.

Top down benchmarking starts with an estimated cost for a project which is broken down into its components which are then compared with similar components in other projects. It is useful for strategic decision making and looking at the overall benefit of the project. Bottom up benchmarking uses information which references units or elements of the project such as labour costs, materials costing, etc. An existing design is need to provide a bottom up benchmark.

Top down and bottom up benchmarks can be used in a complementary way at later stages in the project lifecycle to quality assure cost estimates.

#### **Reference Class Forecasting**

Reference class forecasting is a methodology to estimate project costs which attempts to mitigate optimism bias. It predicts the outcome of a planned action based on actual outcomes in a reference class of similar interventions to that being forecast.

It involves identifying a reference class of past similar projects, establishing a probability distribution for the selected reference class for the parameter that is being forecast, and then comparing the specific project with the reference class distribution. It is increasingly used in estimating costs for large scale capital projects.

Particular care should be taken to ensure the accuracy of investment costs. Estimates should adequately account for risks to the scope and delivery programme and inflation. To the maximum extent possible, estimates should be based on outturn costs of comparable projects. Box 4.4 discusses this in further detail. The results of the Financial Appraisal should be presented through a set of standard Key Performance Indicators (KPIs) including:

- Financial Internal Rate of Return (FIRR)
- Financial Net Present Value (FNPV)

While the DCF should be conducted on the incremental cashflows over and above the investment counterfactual, the Financial Appraisal must also include an assessment of affordability in gross terms. This should set out:

- The envelope of total investment required (irrespective of the investment counterfactual),
- The timing of costs
- Costs relating to ongoing operation and maintenance
- Impact on the general government balance

The Public Spending Code provides separate guidance on financial analysis here.<sup>20</sup> This will be updated and added to as part of the ongoing development of the Public Spending Code.

### 4.8 Economic Appraisal

Economic appraisal assesses the desirability of a project from the societal perspective. This form of appraisal differs from financial appraisal because financial appraisal is generally done from the perspective of a particular stakeholder e.g. an investor, Sponsoring Agency or the Exchequer. Economic appraisal takes a wider view and considers non-market impacts. The economic appraisal must take account of the level of deadweight and displacement associated with a proposal.

There are different economic appraisal methodologies. The most appropriate should be used depending on the type, scale and complexity of the project. Sponsoring Agencies and Approving Authorities should engage on the choice of appropriate appraisal methodology as part of the discussion on the appraisal plan during the Strategic Assessment Stage. Choice and application of methodology should be in line with sectoral guidance and with the Public Spending Code.

Wherever possible, cost benefit analysis should be used. In some cases this may not be possible or desirable and cost effectiveness or multi-criteria analysis may be used. In these instances the analyses must be rigorous, adhere to best practice and be supported by a deep evidence base. Where CBA is clearly not feasible, the Sponsoring Agency should set out the reasons why and the appropriateness of using another form of appraisal. Combinations of methodologies can often be the most appropriate way to robustly assess a project. MCA can be used effectively in conjunction with other methodologies such as CBA to give full consideration to the quantitative and qualitative elements of the project.

The Public Spending Code provides separate guidance on a number of aspects of economic appraisal including:

- Standard analytical techniques
- Cost benefit analysis
- Technical parameters for use in Economic Appraisal

These will be updated and added to as part of the ongoing development of the Public Spending Code.

The results of the Economic Appraisal should be presented through a set of standard Key Performance Indicators (KPIs) including:<sup>21</sup>

- Economic Rate of Return (ERR)
- Economic Net Present Value (ENPV)
- Economic Benefit : Cost Ratio (EBCR)
- Economic Payback Period (EPP)

### 4.9 Risk and uncertainty in the financial and economic appraisal

Project appraisal involves forecasting the values of costs and benefits using the best information available. The estimated values of costs, benefits or delivery schedules may not materialise as expected due to uncertainty and risk. The risks of adverse conditions and the potential uncertainty associated with each option should be identified and factored in to the decision making process. Realistic assumptions should be put in place.

It is important that steps are taken to manage risk and uncertainty as part of the appraisal process. The assessment of risk and uncertainty is one the most important components of an appraisal and should be given significant attention.

#### 4.9.1 Risk

Risks should be initially identified in the Strategic Assessment Report and assessed in the Preliminary Business Case. The assessment of risk should form an integral part of the proposed intervention as it moves through the project lifecycle. There are a number of key steps which should be taken in the Preliminary Business Case:

• Ensuring the data and assumptions underlying the estimation of costs and benefits are reliable and realistic

<sup>20</sup> https://www.gov.ie/en/publication/public-spending-code/

<sup>21</sup> The glossary provides definitions of each of these.

- Developing the identification of risks e.g. examining each variable to assess the likelihood of the risk materialising
- Using risk assessment techniques to assess the level of risk and the impact of risk on project performance including such techniques as:
  - » Expected values
  - » Monte Carlo analysis
- Devising a risk management strategy including measures to contain, avoid and mitigate risks, as appropriate
- Communicating the risk management strategy to relevant stakeholders

In all cases, Sponsoring Agencies must seek an 'outside view' of proposals. This can help anticipate the likely risks and uncertainties that may arise. This will be most useful if informed by experience with a selection of similar projects already completed.

#### 4.9.2 Uncertainty

The appraisal must also include detailed sensitivity analysis. Sensitivity testing should show the variability of potential outcomes based on changes in key assumptions such as costs, growth rates, demographics, etc. Sensitivity testing assesses how vulnerable delivery options are to unavoidable future uncertainties and tests the robustness of the ranking of options in the appraisal.

Scenarios are useful in considering how options may be affected by future uncertainty and should be developed to illustrate the impact of changes in combination of inputs. In particular, it should show negative swings in combinations of outputs which could impact on project delivery and operations for the different options being appraised. The inputs chosen and the extent of the change tested in the scenario analysis should be informed by the most likely increases and decreases in input factors.

### 4.10 Procurement and implementation

Evidence shows that early consideration of potential procurement strategies, approaches to construction and implementation management and issues relating to operation can lead to better outcomes in the event that a proposal proceeds.

The Preliminary Business Case should give early consideration to:

- Options for procurement
- Implementation timescales
- Capacity of the Sponsoring Agency to deliver the project and the capacity of the industry to supply the project

- Arrangements for governance of the project
- Arrangements for commercial management of contracts

The Preliminary Business Case should provide early stage options for implementation (including governance structures) and operation of investment proposals, should it progress to that stage. Advanced engagement with these issues can ensure fuller treatment of risks, early identification of potential obstacles and smoother execution of later stages of the project lifecycle.

# 4.11 Plan for Monitoring and Evaluation

The Preliminary Business Case should set out the plan for monitoring and evaluation of the proposal. The plan should set out the key performance indicators by which the impact of the proposal will be measured against its stated objectives. The Logic Path Model discussed in Box 3.2 is a useful tool for understanding the linkages between objectives, outputs and impacts and for determining appropriate key performance indicators.

### 4.12 Reviewing the Preliminary Business Case Report

The Preliminary Business Case should be sent to the Approving Authority for review. The Approving Authority must check the completeness of the Preliminary Business Case in terms of the requirements set out here and the quality of the material in relation to:

- Specificity of objectives
- Alignment with national policy
- Completeness of options appraisal
- Technical soundness of the options appraisal including assumptions, economic parameters, evidence base used, etc.
- Affordability. In the case of Exchequer funded projects this should be assessed in light of the available Medium Term Capital Envelopes and existing commitments
- The relative merit of the proposal in comparison to competing proposals
- Consideration of the range of potential costs and risks
- Consideration of the detailed delivery programme
- Assessment of procurement strategy and commercial arrangements including capacity of the promoter to deliver

For proposals where the likely final cost will exceed €100 million, the Preliminary Business Case should be sent to the Department of Public Expenditure & Reform for review before a decision is taken but only once the Approving Authority is satisfied that it meets the requirements set out above. Where relevant, the responsible department's Irish Government Economic and Evaluation Service section may be involved in reviewing the Preliminary Business Case.

The Department of Public Expenditure & Reform will review the Preliminary Business Case and provide feedback to the responsible department.

### 4.13 Decision Gate 1 – Approval in Principle

If the Approving Authority is satisfied that the Preliminary Business Case meets the required standard, that there is a justification for the proposed project, that it is affordable within funding constraints and that it is a high priority relative to competing proposals, it can approve the preferred option to proceed to Design, Planning & Procurement Strategy in the Final Business Case Stage. This is Approval in Principle and represents Decision Gate 1 in the lifecycle.

In some sectors, Approval in Principle may occur later in the project lifecycle, for instance, in the case of major transport infrastructure it can occur at the point of entering the statutory planning process. This should be clearly set out in the agreed sectoral framework(s).

Accordingly the actions available to the Approving Authority at this point are:

- Abandon the proposal
- Seek refinement or further development of Preliminary Business Case
- Approve the proposal in principle to proceed to Design, Planning & Procurement Strategy in Final Business Case Stage.

The next Section sets out the requirements for Design, Planning & Procurement Strategy as part of the Final Business Case Stage.

# 5

# Project Design, Planning and Procurement Strategy



Project Design, Planning and Procurement Strategy - as the first group of tasks in the Final Business Case stage - follows the Approval in Principle. At this stage the preferred option is subject to more detailed scrutiny, assumptions are further tested and refined, risks are better understood and the design stage is sufficiently advanced to arrive at the Detailed Project Brief. This stage includes the development of the procurement strategy and project execution plan.

The Final Business Case stage should not simply be regarded as a document. Rather it should be treated as a live phase of further development of the body of knowledge relating to an investment project.

While the overall phase will result in the production of a Final Business Case document post tender, the phase should be understood as an ongoing process, continually updating as the proposed project is further developed and planned.

### 5.1 Purpose of Project Design, Planning and Procurement Strategy

Projects proceeding on incomplete or inaccurate project briefs will invariably require amendment after project design or construction has begun. Such changes inevitably give rise to delays or additional costs. The later the changes are made in the delivery process, the more expensive they become. To avoid unnecessary, unpredictable and uncontrolled changes in costs, Sponsoring Agencies are required to specify their output requirements accurately, precisely and comprehensively at the start or as early as possible in the project delivery process – this is the primary purpose of Design and Planning.

Key tasks at this point include<sup>22</sup>:

- Developing further the governance structures that will be used throughout the life of the project;
- Reviewing and confirming assumptions and constraints on which the Approval in Principle was based, including budget estimates;
- Reviewing the assumptions which underpinned the preferred option;
- Preparing the Detailed Project Brief;

- Developing and refining the budget within the Detailed Project Brief;
- Developing a Project Execution Plan; and
- Deciding on a Procurement Strategy.

The Capital Works Management Framework is complementary and derives from the Public Spending Code. It contains key requirements and guidance for this stage. Of particular relevance to the Planning & Design Stage is guidance provided in relation to project management, project definition and the definitive project brief, and budget development.

The CWMF will be updated to reflect the specific provisions of the Public Spending Code. In the interim, it continues to provide support documentation which remains consistent with the principles that underpin the Code.

# Box 5.1 The Capital Works Management Framework

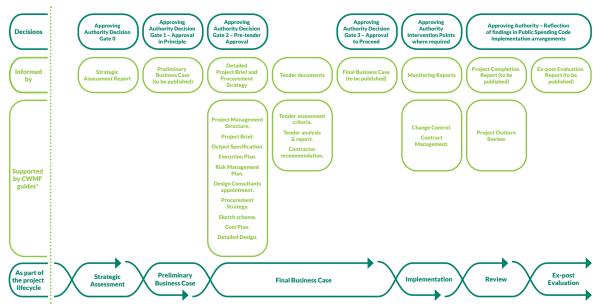
The Capital Works Management Framework<sup>23</sup> (CWMF) is the national framework for procuring capital works in Ireland. It consists of a suite of best practice guidance, standard contracts and generic template documents. It is maintained by the Construction Policy Unit of the Office of Government Procurement in consultation with the Government Contracts Committee for Construction.

The public works contract and the standard conditions of engagement (for works-related consultancy) are key components of the CWMF and are typically lump sum, fixed-price contracts. In addition to forms of contract, the CWMF also contains template documents for the prequalification and tender stages of the procurement process as well as extensive guidance material in relation to the management of public works and services contracts.

The CWMF is designed to support the Public Spending Code. As the Code evolves, the CWMF will be updated to ensure consistency. In the event that inconsistencies arise owing to the sequencing of updates, the Code has primacy.

<sup>22</sup> Guidance Note 1.1 of the Capital Works Management Framework provides further detail. 23 https://constructionprocurement.gov.ie/capital-works-management-framework/

## Public Spending Code and Capital Works Management Framework Alignment



\*The Capital Works Management Framework will be updated to reflect the updated Public Spending Code and some of these elements will change.

## 5.2 Making time for the Design and Planning Stage

Sponsoring Agencies should ensure that adequate time and appropriate resources are provided in the Design and Planning Stage, so that scarce resources are not wasted later undoing work that is not correct or under-developed. They should also ensure that clear and recognised cost planning and control procedures are operated throughout the planning stage, so that project costs are constantly monitored and regularly confirmed and benchmarked.

# 5.3 Governance and assurance

During the Planning and Design process the Sponsoring Agency must continue to develop and refine its arrangements for project governance and assurance.

Robust governance structure require that an appropriate framework is put in place to govern relationships between all parties to the project:

- The Project Manager and team
- The Project Board
- The key stakeholders public service delivery personnel and end users
- The Sponsoring Agency
- The Approving Authority

• The relevant government department (in the case of exceptions where it is not the Approving Authority)

This relationship should clearly assign roles, responsibilities and reporting arrangements. This phase drives forward the processes within the management structure of a project, and provides a framework for monitoring performance and delivery.

Throughout the planning stages of a project, the Sponsoring Agency needs to verify the continuing viability of the project, including:

- That the project needs have not changed
- That technology advances have not made the approach obsolete
- That private sector advancements have not altered the market
- That risks are being identified and actively managed
- That the project continues to be affordable and that it represents value for money in the context of constrained Exchequer resources
- That departmental priorities have not changed and that the project continues to be consistent with public policy

The Sponsoring Agency should report regularly to the Approving Authority and provide continual assurance in these matters. Should adverse developments occur in any of the above fields, the Sponsoring Agency and Approving Authority must review the ongoing viability of the proposal.

### 5.4 The Detailed Project Brief

Design and Planning requires the development of a Detailed Project Brief as part of the Final Business Case which will inform a decision to proceed to procurement or cancel the project.

Developing the Detailed Project Brief is a process that involves adding new information and continuous refinement of initial information made available at the Preliminary Business Case and Approval in Principle stage of a project (Decision Gate 1), leading to greater understanding and certainty as to what the project proposes to deliver and the actions necessary to achieve its objectives.

In the course of developing the Detailed Project Brief, the project team needs to:

- Confirm the assumptions upon which the Approval in Principle was based, including the budgetary estimates;
- Clarify and quantify all requirements precisely; and
- Draw up an output specification that is detailed and accurate.

The Detailed Project Brief is the full and complete statement of the project expressed in output requirements. It defines all design requirements for a project including performance standards and quality thresholds. It is the benchmark for measuring the development of the project and later becomes the basis for the construction contract.

## 5.5 The Project Execution Plan

The Project Execution Plan (PEP) is developed building on the consideration of delivery in the business case and in the light of new information emerging as other parameters are defined more precisely. The PEP shows the overall timescale for completions, the milestones for the design and construction elements of the project, how the project is to be implemented as well as the projected long term maintenance and major replacement requirements. The PEP is a live document and should address risk management.

### 5.6 The Procurement Strategy

## 5.6.1 Purpose of the Procurement Strategy

The purpose of procurement is to guide the considered acquisition of works, goods and services in a manner which maximises value for money, aids the achievement of project and programme objectives and is consistent with EU and national law and regulations.

Procurement by public bodies<sup>24</sup> is regulated through legislation and policy. At an EU level, the procurement directives establish clear rules with which contracting authorities in all Member States must comply when awarding public contracts and there are remedies available to tenderers where contracting authorities do not comply. The rules and procedures set out in the Directives typically apply to contracts above certain specified monetary thresholds<sup>25</sup>. However the *Treaty on the Functioning of the European Union* (TFEU) applies to all procurement activity by public bodies regardless of value.

#### Box 5.2 The Office of Government Procurement

The Office of Government Procurement (OGP) operates under the aegis of the Department of Public Expenditure and Reform. The OGP commenced operations in 2014 and along with four key sectors (Health, Defence, Education and Local Government), has responsibility for sourcing all goods and services on behalf of the Public Service.

The functions of the OGP are to:

- Integrate procurement policy, strategy and operations in one office;
- Strengthen spend analytics and data management;
- Secure sustainable savings.

The OGP has responsibility for procurement policy and procedures (including the Capital Works Management Framework).

<sup>24</sup> Defined as contracting authorities or contracting entities (utilities sector) please see Regulation 2 of SI 284 of 2016 for further information,

<sup>25</sup> These are revised every two years with new thresholds entering into force on 1 January in even years. e.g. 1 January 2016 – 31 December 2017, 1 January 2018 – 31 December 2019, etc.

## 5.6.2 General legal framework and Government policy on procurement

Public Procurement is governed by EU legislation and National rules and guidelines. The aim of these rules is to promote an open, competitive and nondiscriminatory regime which delivers best value for money.

EU procurement legislation is set out in a suite of directives which are transposed into national legislation as follows (collectively the Regulations):

- SI 284 of 2016<sup>26</sup> European Union (Award of Public Authority Contracts) Regulations
- SI 286 of 2016<sup>27</sup> European Union (Award of Contracts by Utility Undertakings) Regulations
- SI 203 of 2017<sup>28</sup> European Union (Award of Concession Contracts) Regulations.

At a minimum all public contracts that exceed a range of value thresholds for works, services and supplies must be advertised on the Official Journal of the EU and are open to all who meet the minimum pre-stated prequalification requirements.

All works projects delivered under the Exchequerfunded element of the National Development Plan (NDP) must be procured via the Capital Works Management Framework (CWMF).

Anticipated contract values that exceed national thresholds must be advertised on the national tendering portal <u>www.etenders.gov.ie</u>, if the value of the contract exceeds the EU thresholds the contracts must be advertised on the Official Journal of the EU (as set out above). Details of the most up to date thresholds are available on the website of the OGP.

### 5.6.3 Procurement procedures

There are five main procurement procedures set out in the Regulations governing the award of contracts which contracting authorities may use. All five procedures require applicants to be screened for suitability. The choice of procedure is determined in accordance with the regulations<sup>29</sup> and will depend on the nature of the works that are being procured. The five procedures are:

- 1. Open Procedure<sup>30</sup>
- 2. Restricted Procedure<sup>31</sup>
- 3. Competitive Procedure with Negotiation<sup>32</sup>

- 28 http://www.irishstatutebook.ie/eli/2017/si/203/made/en/pdf
- 29 Regulation 26 of SI 284 of 2016
- 30 Regulation 27 of SI 284 of 2016
- 31 Regulation 28 of SI 284 of 2016
- 32 Regulation 29 of SI 284 of 2016

4. Competitive Dialogue<sup>33</sup>

5. Innovation Partnership<sup>34</sup>

The negotiated procedure without prior publication<sup>35</sup> is only available in exceptional circumstances.

The open and restricted procedures are available for use on all procurements whereas there are specific circumstances that apply to the use of the other four procedures. The template prequalification and tender documents available under the CWMF are for the open and restricted procedures.

Public bodies have an obligation to ensure that value for money is achieved when awarding contracts, it is essential therefore that adequate competition is maintained while at the same time ensuring that those engaged have the capacity to perform the contract to the required standard. The selection of criteria and the standards that are applied to them plays a crucial role in determining the outcome of a procurement process.

Unless a Sponsoring Agency has resources in-house, generally the first procurement to be conducted for a capital works project contract is the procurement of expert services to inform the preparation of the design brief. The Capital Works Management Framework provides template documents and guidance for the procurement of both service providers and works contractors.

### 5.7 Reviewing Design, Planning and Procurement Strategy

The Detailed Project Brief and Procurement Strategy should be sent to the Approving Authority for review. The Approving Authority must check the completeness of the Detailed Project Brief and Procurement Strategy in terms of the requirements set out here and the quality of the material in relation to:

- Establishment of governance structures
- Confirming the scope of the project
- Reviewing assumptions, options, budget estimates, and affordability
- Articulating known risks
- Developing a Detailed Project Brief including a clear articulation of all design requirements and restrictions
- Development of a Project Execution Plan
- Development of an appropriate Procurement Strategy
- Ongoing viability of the proposal.

<sup>26</sup> http://www.irishstatutebook.ie/eli/2016/si/284/made/en/pdf

<sup>27</sup> http://www.irishstatutebook.ie/eli/2016/si/286/made/en/pdf

<sup>33</sup> Regulation 30 of SI 284 of 2016

<sup>34</sup> Regulation 31 of SI 284 of 2016

<sup>35</sup> Regulation 32 of SI 284 of 2016



### 5.8 Decision Gate 2 -Pre Tender Approval

As part of the Final Business Case process, the Detailed Project Brief and Procurement Strategy should be provided to the Approving Authority for its review. The Approving Authority can decide to:

- Abandon the proposal.
- Seek refinement or further development of Detailed Project Brief or Procurement Strategy.
- Approve the proposal to proceed to Tendering.

This is a critical milestone in the project lifecycle and it is imperative that the Approving Authority is satisfied with the project as designed. Any developments which have taken place at the design and planning stage must be considered within the parameters of the economic and financial appraisal and the appraisal should be reviewed where there have been material changes which may have undermined the basis on which Approval in Principle was granted at Decision Gate 1. The Approving Authority must be satisfied that the project continues to represent maximum value for money.

### 5.9 Tendering

Tendering is the final operational phase of procurement. In broad terms tendering involves four main steps as shown in Table 5.2.

Table 5.2Main steps in the tendering process	
1	<i>Preparation</i> – the detailed tender documentation is prepared for publication
2	Invitation – the tender documents are published and prospective contractors are invited to respond
3	<i>Evaluation</i> – the responses from prospective contractors are evaluated
4	Approval - the Approval to Proceed is sought from the Approving Authority. This requires the re-appraisal of the proposal using information from the tendering process and submission of Final Business Case

It is the responsibility of all Sponsoring Agencies to conduct public procurement processes in line with EU and national requirements.





## 6.1 Purpose of the Final Business Case

The purpose of the Final Business Case is to reassess the assumptions underpinning the Preliminary Business Case and reconsider the findings emerging. At this stage in the process there will be much greater understanding of a range of critical issues including costs, benefits, risks, delivery and affordability. The Final Business Case must reflect this enhanced body of knowledge relating to a proposal and reassess the ongoing validity of continuing with the investment.

As with the Preliminary Business Case, the Final Business Case is both a process and a product. The *process* encompasses gaining deeper understanding of the proposal which began with the Design, Planning and Procurement Strategy and continues with the reconsideration of the economic and financial case and examination of delivery programme and risks. The *product* is the Final Business Case report which sets out the full body of knowledge on the proposal and reflects a range of commercial and delivery issues which have emerged following the tendering process. Together these elements provide a basis on which to decide whether to proceed with a project.

In many cases diligent project preparation at the earlier phases of the project lifecycle will mean that there will be little change at this point and completion of the Final Business Case Report will be routine.

The Final Business Case should be regarded as a live process which will have been continuously refreshed following Approval in Principle. It should not be treated as a 'new' document to be completed *ab initio* post-tendering.

The Final Business Case Report must be completed and forwarded to the Approving Authority after the tendering process but before the award of the main construction contracts.

## 6.2 Content of the Final Business Case

The Final Business Case Report is an update and expansion on the Preliminary Business Case Report and must include the following elements:

- Final confirmation of the strategic relevance of the proposal and detailed specification of the objectives of the proposal.
- The Detailed Project Brief as set out in the Planning and Design Phase and as confirmed by the tendering process.
- Economic and financial appraisal using updated information from the tendering process as necessary.
- Re-examination of affordability within existing resources and with particular reference to the Medium Term Exchequer Capital Envelope for projects funded from Voted expenditure.
- Full risk assessment and consideration of remaining optimism bias.
- Detailed delivery schedule.
- Benefits Realisation Plan.
- Evaluation Plan.

## 6.3 Strategic Relevance and Objectives

The rationale, objectives and strategic relevance were set out in the Strategic Assessment Report and developed further in the Preliminary Business Case. At this point in the process these elements should be updated to take account of all external and internal developments which may impact on the continuing relevance of the proposal. The update should also reassess the project objectives and the extent to which they will be delivered based on both the outcomes of the tender process and any wider developments.

This update should take account of all relevant policy developments. For a project to proceed, it must continue to align with policy.

### 6.4 The Updated Detailed Project Brief

The Detailed Project Brief is the full and complete statement of the Sponsoring Agency's functional and operational requirements for a project expressed in output requirements. At this point in the process it should be updated to reflect the outcomes of the tendering process. The Detailed Project Brief should be set out in full in the Final Business Case.

## 6.5 Economic and Financial Appraisal

The Final Business Case must include an appraisal of the preferred option based on the up-to-date cost, benefit and delivery information that has emerged during the tendering process.

Where they have been included in the Preliminary Business Case, the appraisal should contain updated KPIs including:

- Financial Net Present Value (FNPV)
- Financial Internal Rate of Return (FIRR)
- Economic Net Present Value (ENPV)
- Economic Rate of Return (ERR)
- Economic Payback Period (EPP)
- Economic Benefit Cost Ration (EBCR)

## 6.6 Detailed Sensitivity and Scenario Analysis

The Financial Business Case should revisit and build upon as appropriate the detailed sensitivity and risk analysis conducted. Sensitivity testing should show the variability of potential outcomes based on changes in key assumptions and should show Switching Values for key parameters. Scenarios should also be developed to illustrate the impact of changes in combinations of inputs. In particular it should show negative swings in combinations of inputs which may arise during project delivery and operations.

## 6.7 Risk Management Strategy

The Final Business Case must include a detailed Risk Management Strategy. This should build on the content of the Preliminary Business Case and Detailed Project Brief.

# 6.8 Assessment of Affordability

The Sponsoring Agency must reassess the affordability of the proposal in light of:

- a. New cost information and timing of payments which has emerged during the tendering process
- b. The up-to-date position regarding the Medium-Term Exchequer Capital Ceiling
- c. Wider priorities with which the proposal under consideration must compete for scarce resources
- d. Ability to secure value for money in the context of the wider external environment

### 6.9 Benefits Realisation Plan

There should be a clear plan for delivering the positive change targeted by an investment project – in other words realising the benefits. The Benefits Realisation Plan should put in place the necessary arrangements to monitor the achievement of benefits and to take steps to ensure that all impacts are arising as planned.

The appraisal will have set out the measurable benefits arising from an investment proposal, these may be financial including cost savings or increased revenue; economic such as a move to higher value economic activities; environmental such as emissions reductions or wider socio-economic impacts. The Benefits Realisation Plan should provide a detailed activitybased programme for ensuring that these impacts materialise.

### 6.10 Evaluation Plan

The Final Business Case should present the arrangements to be put in place to ensure ongoing monitoring, review and ex-post evaluation upon completion. This should include arrangements to evaluate effectiveness of the investment.

## 6.11 Reviewing the Final Business Case

The Final Business Case should be sent to the Approving Authority for review. The Approving Authority must check the completeness of the Final Business Case in terms of the requirements set out here and the quality of the material in relation:

- Continuing alignment with national policy
- Completeness of the appraisal
- Affordability. In the case of Exchequer funded projects this should be assessed in light of the available Medium Term Exchequer Capital Envelopes and existing commitments

- The relative merit of the proposal in comparison to competing proposals
- Consideration of the range of potential costs and risks
- Consideration of the detailed delivery programme
- Assessment of the commercial arrangements for delivery

For proposals where the likely final cost will exceed €100 million, the Final Business Case should be sent to the Department of Public Expenditure & Reform for review before a decision is taken but only once the Approving Authority is satisfied that it meets the requirements set out above. Where relevant, the responsible department's Irish Government Economic and Evaluation Service section may be involved in reviewing the Final Business Case.

The Department of Public Expenditure & Reform will review the Final Business Case (with a particular focus on financial and economic viability) and provide feedback to the responsible department.

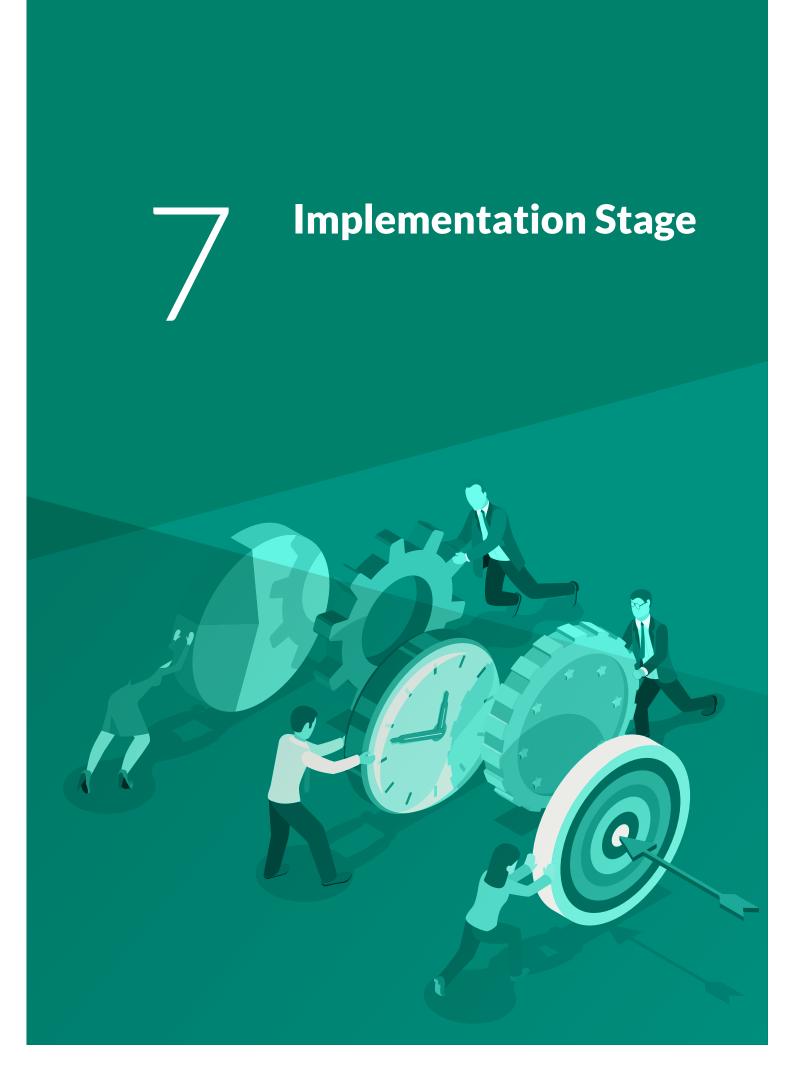
### 6.12 Decision Gate 3 – Approval to Proceed

If the Approving Authority is satisfied that the Final Business Case meets the required standard, that there is a justification for the proposed project, that it is affordable within funding constraints and that it is a high priority relative to competing proposals, it can approve the project to proceed. This represents Decision Gate 3 in the lifecycle.

Accordingly the actions available to the Approving Authority at this point are

- Abandon the proposal
- Seek refinement, further development or retendering of an amended scope
- Approve the proposal to proceed.

The next Section sets out the requirements for the Implementation Stage.





# 7.1 Purpose of the Implementation Stage

The Implementation Stage of a project begins once final approval for the award of a contract has been secured. The critical tasks at this stage are to award the contract, manage and monitor the project to ensure that it is executed satisfactorily, within budget, to standard and on time. Implementation of the project is the responsibility of the Sponsoring Agency while the Approving Authority must be satisfied that the Sponsoring Agency delivers the project as approved. Where the Government is the Approving Authority, the responsibility for ensuring delivery of the management and monitoring functions in the implementation stage will rest with the relevant public body funding the project.

### 7.2 Further Guidance

Detailed guidance for this phase of the lifecycle is set out in the Capital Works Management Framework which describes the key steps to be taken in works contract management which are designed to ensure smooth delivery which is:

- On time
- On budget
- To the required quality standard

Guidance is also provided in relation to:

- Roles and responsibilities regarding contract management
- Managing the works in progress
- Managing risks in progress
- Calculating price variation
- Project completion and handover

The CWMF will be periodically updated to ensure consistency with the procedures set out in this Guide.

## 7.3 Monitoring and reporting

All projects must be monitored on an on-going basis to ensure that they are being completed to the required cost, quality and time profiles. Progress should be kept under review so that account can be taken of changes in relevant circumstances. Regular management reports should be prepared by the Sponsoring Agency covering all significant developments relating to the project and its costs.

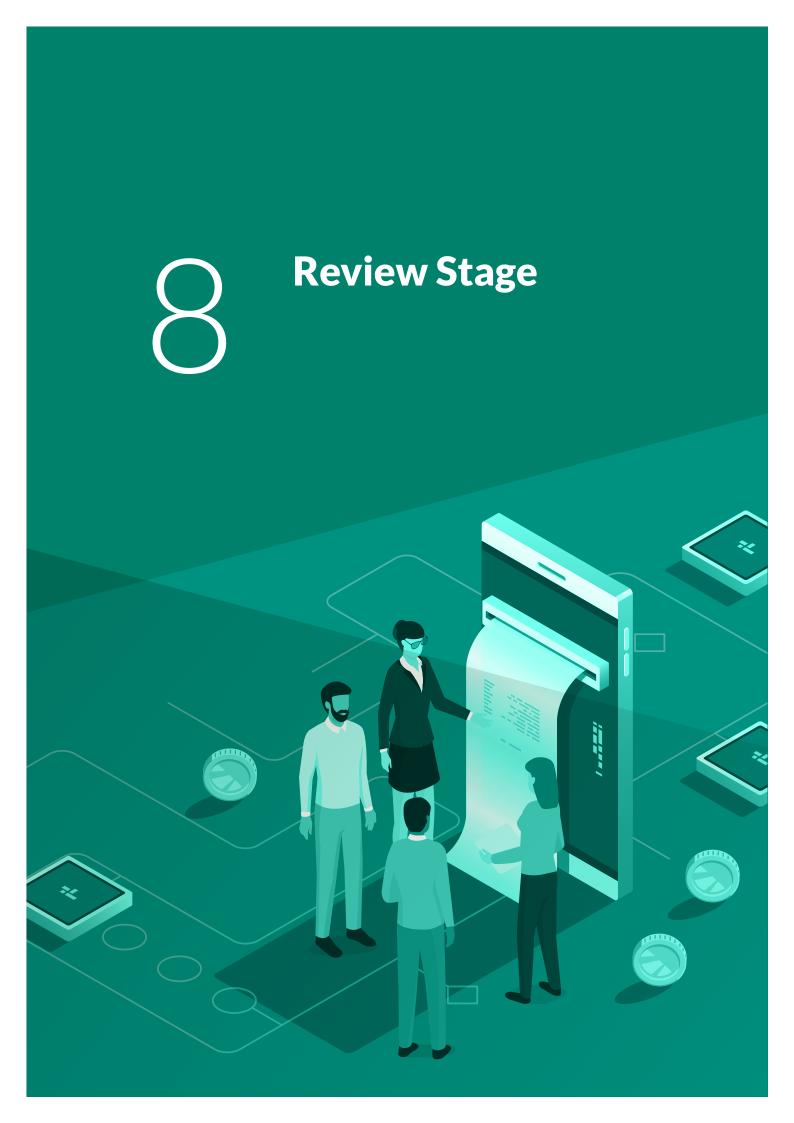
Ongoing monitoring and reporting is essential during the Implementation Stage. Reporting through the project governance structure should cover costs, delivery programme, benefits and all other relevant metrics. In addition to reporting on outturn metrics, reporting should be forward-looking – it should include an up-to-date report on the project against scheduled costs and delivery timeframes.

### 7.4 Intervention Points

Implementation must be closely monitored by the Approving Authority which should be prepared to step in and take action should circumstances necessitate within the context of any contractual arrangements in place. This may take a range of forms including:

- Changes to governance arrangements
- Changes to scope
- Changes to delivery timeframes
- Cancellation of the project
- Changes to wider external environment

This Stage must be closely monitored and all developments communicated to the Approving Authority and to the Government as necessary.





The Review Stage is the penultimate stage of the project lifecycle and is critical for identifying lessons learned and driving the process of continuous improvement in how public bodies evaluate, plan and manage public investment projects. The Stage translates the lessons learned from an individual project back into the bank of learning to inform sectoral and national guidance and future projects.

### 8.1 Purpose of the Review

The purpose of the review is to assess if a project was delivered in line with its intended scope and budget and in line with the Public Spending Code. The wider purpose is to ensure lessons learned from the project translate into improved knowledge for the sector and wider public service. Reviews should be done systematically and feed into sectoral and national guidance as appropriate. The output of the review is the Project Completion Report.

Public bodies should build up a baseline of data from Project Completion Reports to inform cost and risk profiling for similar projects and similar elements across projects. Standardisation of Project Completion Reports for similar sectoral projects would contribute to the development of common performance metrics and benchmarking tools. Each Approving Authority should identify project types which would benefit from a standard Project Completion Report template and develop and disseminate templates in their sectors.

### 8.2 Preparing a Project Completion Report

A Project Completion Report should be carried out on all projects. The aim of the review is to determine if:

- The basis on which the project was undertaken proved correct
- The business case and management procedures were satisfactory
- The operational performance and initial benefits have been realised
- The conclusions that can be drawn which are applicable to other projects, to the ongoing use of the asset, or to associated projects.

The review should assess whether the Public Spending Code and sector-specific requirements were met at each stage of the project lifecycle. The Project Completion Report should be conducted as the project is completing. It is important to conduct the review before final completion to allow the reviewer access to feedback from the contractor and project team as well as the monitoring reports.

The Project Completion Report should be carried out in line with the methodology set out in the project's Evaluation Plan. This methodology could include deskbased analysis of monitoring reports, review of project documentation, revisiting the financial and economic appraisals in the Final Business Case to see if the assumptions were correct and if the estimated costs and provisional benefits materialised, interviews with key stakeholders, and focus group workshops with key stakeholders.

The review should utilise the data on the project's key performance indicators first set out in the Strategic Assessment Report and developed during the business case stages. This data should be available from monitoring reports such as unit costs, duration of different project stages, project specification, and characteristics which impacted on costs and scope.

The following subsections set out the type of considerations and questions that should be answered in the project completion report.

### 8.2.1 Basis for the project

The Project Completion Report should consider if the project objectives and project scope were correctly identified. The review should assess if the project is strategically aligned with government policy (nationally and/or regionally).

The key performance indicators should be reviewed to determine if the metrics chosen were appropriate and sufficient to measure implementation and performance of the project to date.

## 8.2.2 Business case and management procedures

Table 8.1 sets out some of the key questions that should be considered in the assessment of the efficiency and effectiveness of business case and management procedures as part of the Project Completion Report.

Table 8.1 Considerat	tions in assessing the Business Case and management procedures
Business Case	Were the requirements of the Public Spending Code and sector-specific guidance met? Were all necessary approvals obtained at key decision points?
	Was the appropriate appraisal methodology chosen?
	How accurate was the financial analysis and profiling of project costs?
	How accurate were the project assumptions as set out in the business case?
	Was there sufficient identification of feasible options to achieve the objective? Did other potential options become apparent as the project developed?
	How effective was scenario analysis in anticipating potential changes to the project conditions?
	Were the requirements of the Public Spending Code and sector-specific guidance met? Were all necessary approvals obtained at key decision points?
Design & Planning	Was the scope as set out in the Detailed Project Brief fully implemented? Was there active management of scope change?
	Were all statutory requirements including planning obligations and state aid rules complied with?
	Were project design requirements fully met?
	Was the Procurement Strategy appropriate? Was the Procurement Strategy implemented in line with EU and national rules?
	Were the requirements of the Public Spending Code and sector-specific guidance met? Were all necessary approvals obtained at key decision points?
Implementation	Was the project delivered in line with the time and cost milestones set out in the Project Execution Plan?
	Were budget contingencies used and why?
	Did project governance and management structures function in an effective manner? Were reporting lines clear? How long did it take for potential issues and issues to be identified, discussed and resolved?
	How effectively was contact with and between the Sponsoring Agency and Approving Authority managed?
	Were monitoring reports timely and comprehensive; were they forward looking?
	Was the contract actively managed? Were all contract obligations met? How effective was post-contract cost control?
	Was there active management of risk and implementation of risk mitigation measures as set out in the Risk Register?
	Were dispute management procedures effective?

## 8.2.3 Operational performance and realisation of initial benefits

The review should assess the extent to which:

- the project objectives were achieved
- if the final output is "fit for purpose"
- the outputs as identified were achieved
- What the short term impacts were on project beneficiaries
- How successfully the delivered solution addressed the identified need.

The review should also assess if the value management criteria from the Project Execution Plan have been achieved and if any early benefits have been realised. For most projects, benefits will take longer to accrue and are more appropriately assessed at Ex-Post Evaluation.

## 8.2.4 Conclusions that are applicable to other projects

Where a lessons learned log has been maintained by the Project Manager, this will form the basis for setting out the conclusions that are applicable to other projects. As part of the review, any other findings with wider applicability should be identified in the report to support ease of dissemination to the sector and across the wider public service.

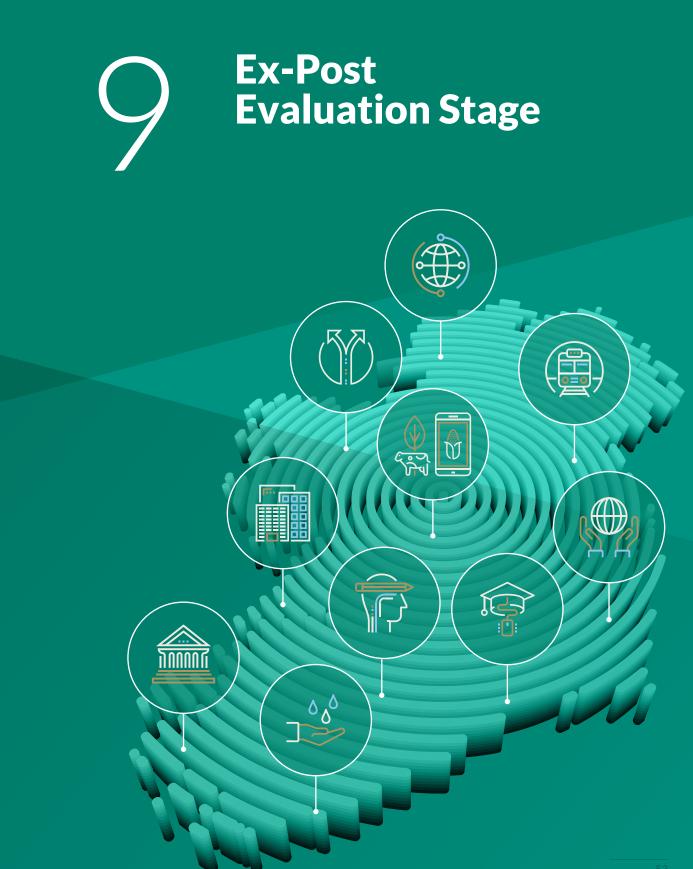
### 8.3 Reviewing the Project Completion Report

The Project Completion Report should be sent to the Approving Authority for review. The Approving Authority must check the completeness of the Report in terms of the requirements set out here and relevant sector specific guidance.

The Project Completion Report should be considered by the Management team or Management Board in both the Sponsoring Agency and Approving Authority. Where appropriate, the findings and lessons learned from the review should be incorporated into sectoral guidance.

Project Completion Reports should be published and disseminated to support a culture of continuous improvement in the evaluating, planning and managing of public investment. It is recommended that a library of sectoral Project Completion Reports is hosted with by each department with its sector-specific guidance.

For projects over €50 million, the Project Completion Report should be sent to the DPER for dissemination and the findings and lessons learned will be incorporated into the Public Spending Code as appropriate.





The Ex-Post Evaluation Stage is the last stage of the project lifecycle and is critical for identifying lessons learned and driving the process of continuous improvement in how public bodies manage public investment, particularly the identification, appraisal and development of capital projects.

### 9.1 Purpose of the Ex-Post Evaluation

The purpose of the Ex-Post Evaluation is to determine if the intended benefits and outcomes materialised and to judge the impact of the project or intervention. The wider purpose is to translate the lessons learned on investment projects into sectoral and national guidance to support public bodies in delivering public investment projects with the desired identified outcomes.

Public bodies should build up a baseline of data from Ex-Post Evaluations to inform outcome profiling and performance metric identification for similar projects and similar elements across projects. Standardisation of Ex-Post Evaluations for similar sectoral projects would contribute to the development of common performance metrics and benchmarking tools. Each Approving Authority should identify project types which would benefit from a standard Ex-Post Evaluation template and develop and disseminate templates in their sectors.

### 9.2 Preparing an Ex-Post Evaluation

#### 9.2.1 Approach

The aim of the evaluation is to determine whether:

- The expected benefits and outcomes materialised including operational performance
- The planned outcomes were the appropriate responses to actual public needs
- The conclusions that can be drawn which are applicable to other projects, to the ongoing use of the asset, or to associated projects.

For capital projects benefits will not be seen until after the project is completed. The Ex-Post Evaluation should be conducted once sufficient time has elapsed for the benefits and outcomes to materialise. Depending on the project, this could vary from three to five years after completion of the project. The Ex-Post Evaluation should be completed in line with the methodology set out in the project's Evaluation Plan. This methodology could include a combination of:

- Revisiting the financial and economic appraisal in the Final Business Case to see if the assumptions were correct and if the anticipated benefits and costs materialised over time
- Use of Value for Money Review or Focused Policy Assessment methodologies to look at the efficiency, effectiveness and/or impact of the project
- Interviews with key stakeholders and/or focus group workshops with key stakeholders.

The review should utilise the project's key performance metrics for the project, developed in the project's monitoring and evaluation plan, and collected and reported on as the project was implemented.

The following subsections set out the type of considerations and questions that should be answered in the Ex-Post Evaluation.

## 9.2.2 Expected benefits and outcomes

The Ex-Post Evaluation should assess if the expected benefits and outcomes materialised:

- Were the outcomes, operational performance and benefits as identified in the Final Business Case, Detailed Project Brief and Benefits Realisation Strategy achieved?
- How effective was the benefits management process?
- Was the benefits management process proportionate to the size and scale of the project?
- How accurate were the benefits models and assumptions?
- Did the management of risk have an impact on expected benefits and outcomes:
- What the medium to long term impacts were on targeted beneficiaries
- Lessons learned for other projects/sectoral and/or national guidance

## 9.2.3 Outcomes as the appropriate responses to public needs

The Ex-Post Evaluation should reveal if the type of intervention chosen was effective, efficient and the appropriate response to public needs.

The Ex-Post Evaluation should revisit the Project Completion Report and particularly the assessment of the basis for the project. The evaluation should reassess if the project objectives and scope were correctly identified and if the project was strategically aligned with government policy given the time that has passed since project completion.

The Ex-Post Evaluation should also reassess whether the key performance indicators were the appropriate metrics and sufficient to measure implementation and performance of the project in respect of outcomes and impacts.

## 9.2.4 Conclusions that are applicable to other projects

As part of the Ex-Post Evaluation, any findings with wider applicability should be identified in the report to support ease of dissemination sectorally and in the wider public service. The findings of Ex-Post Evaluations should inform future decision making.

### 9.3 Reviewing the Ex-Post Evaluation

The Ex-Post Evaluation should be sent to the Approving Authority for review. The Approving Authority must check the completeness of the report in terms of the requirements set out here and relevant sector-specific guidance.

The Ex-Post Evaluation should be considered by the Management team or Management Board in both the Sponsoring Agency and Approving Authority. Where appropriate, the findings and lessons learned from the report should be incorporated into sectoral guidance.

Ex-Post Evaluations should be published and disseminated to support a culture of continuous improvement in the evaluating, planning and managing of public investment. It is recommended that a library of sectoral evaluations is hosted with by each department with its sector-specific guidance.

For projects over €50 million, the Ex-Post Evaluation should be sent to the DPER for dissemination and the findings and lessons learned will be incorporated into the Public Spending Code as appropriate. The findings should also be incorporated into the Strategic Assessment Report of the next similar proposal in the sector.

**Appendix** General Conditions of Sanction for Multi-Annual Capital Envelopes

### Appendix

Capital investment allocations are typically made on a multi-annual basis by the Government, so that government departments can undertake proper medium-term planning for the cost-effective delivery of investment projects. Sanction from the Department of Public Expenditure & Reform to each other department for the multi-annual investment framework is subject to the following conditions:

#### (a) Contractual commitments

The level of contractual commitments (meaning formal legal contract, contractually binding grant approval or any other form of binding commitment) made in the current year (n) will not exceed, in respect of each of the subsequent three year's allocation:

- n+1 (75%),
- n+2 (60%), and
- n+3 (50%).

These limits will be rolled over each year.

No contractual capital commitments beyond these ceilings can be entered into without the explicit sanction of the Minister for Public Expenditure and Reform.

#### (b) Virement

The Multi-Annual Investment Framework does not affect the normal rules for operation of virement between Vote subheads. Virement between capital and current sub-heads should only occur in exceptional circumstances and with the prior approval of the Department of Public Expenditure & Reform. Virement from capital to current should not be used as a tool of expenditure management.

Where Public Private Partnerships (PPPs) are concerned, a separate subhead has been established in your Vote to meet unitary payments arising under those contracts. Unitary payments from this subhead under contracts in respect of projects delivered by PPP will be "ring fenced" and regarded as non-discretionary capital expenditure, to be met from your Vote's capital envelope.

Virement will not apply to the carryover sums at (g) below.

#### (c) Programme contingency provision

The Department will make a contingency provision within its overall envelope to meet any unforeseen demands or additional costs which might emerge for the programme as a whole.

#### (d) Project contingency

In making provision for each project, account should be taken not just of the contract price but limited provision should also be made for likely price increases for inflation for projects with a construction duration of more than 3 years, and unforeseeable variations that might arise during project construction. In this respect, the project contingency shall have regard to the extent of risk that is retained by the contracting authority having undertaken adequate risk analysis prior to tender.

#### (e) Project costings

Departments must in their evaluation of a project satisfy themselves that any staffing and other current costs arising are consistent with Government policy on staffing and should be fully consistent with the figures in the Employment Control Framework (ECF). Given current and foreseeable budgetary circumstances, resources are and will be very limited and departments must take account of this.

## (f) Grants to private companies, individuals and community groups

An appropriate contractual arrangement must be put in place by the department or its agencies for all significant grants of public funding to private companies and individuals or community groups relating to the State's interest in the asset. In such cases they should, in particular, have in place a written contract to safeguard the Exchequer interest in the event of a change of ownership. The contractual provisions should also provide for the repayment of such grants where the terms are not adhered to and in the event of sale of the asset Departments should also take account of the requirements set out in Circular 13/2014 – Management of and Accountability for Grants from Exchequer Funds effective from 1<sup>st</sup> January 2015.

#### (g) Carryover of unspent annual allocations

Any proposal by a department to carryover unspent capital will be subject to a ceiling of 10% of the current year's Voted capital allocation (excluding Dormant Accounts capital funding) as adjusted by any pertinent Government decision. Any such sums approved for carryover will be lodged to the credit of the Department's PMG Account and may, in accordance with the provisions of Section 91 of the 2004 Finance Act, be spent in the following year upon approval by the Dáil of the Ministerial Order specifying the amounts by subhead. Any sum which is carried over and not spent in the following year will be surrendered to the Central Fund. Capital carryover will not be allowed into year n+1 where a department is in receipt of a substantive supplementary estimate in year n. Any unspent capital should in the first instance be used to reduce the burden of the supplementary estimate on the Exchequer.

## (h) Supplementary Estimates and Multi-Annual allocations

The overall multi-annual capital expenditure allocations agreed in the National Development Plan have been established. The allocations allow departments to plan and manage their multi-annual contractual commitments within the terms of their capital sanction.

In future any request for a capital supplementary estimate will only be sanctioned on the understanding that the amount will be repaid by the requesting department from their future multi-annual capital allocations. This will ensure that the overall capital ceiling is adhered to and also ensure that Departments seeking supplementary estimates will better manage their allocations knowing they will be obliged to repay any advance on their allocations.

The only exception to this control measure is in the case where Government decide to increase the overall multi-annual expenditure allocations on foot of extraordinary circumstances.

#### (i) Land Development Agency

Government agreed on September 12th, 2018 to establish the Land Development Agency (LDA) to ensure a strategic approach to the management and development of state and other publicly owned lands, delivery of housing and securing sustainable urban development in line with the National Planning Framework. The Government also agreed to a new public lands affordability requirement whereby a minimum of 30% of all publicly owned lands will be reserved for affordable housing purposes, as appropriate for such development, within the meaning of the provisions of relevant housing legislation and any further affordable housing mechanisms and schemes approved by the Government.

Prior to seeking Ministerial approval to dispose of lands and buildings on the open market, all non-commercial State bodies must first consult with the Land Development Agency in relation to the appropriate disposal of those lands having regard to the policy agreed by Government last September. Departments/ Agencies must confirm with D/PER vote sections that they have consulted with the LDA in the event of requests for Ministerial consent to land disposal (whether under State Property Act, other legislation or the Code of Practice).

#### (j) Reporting requirements

The Department should make arrangements:

- to report regularly (at least every six months) to its MAC on the appraisal of capital projects prior to approval, the management of capital projects and on progress on its capital programmes; and
- 2. to highlight variances against the agreed budget.

## (k) Adherence to National and EU requirements in relation to capital appraisal, public procurement etc.

The Department will comply fully with:

- The Department of Public Expenditure & Reform's Public Spending Code including:
  - » the requirements at each stage of the project lifecycle from Strategic Assessment,
     Preliminary Business Case, Final Business Case,
     Implementation, Review and Ex Post Evaluation,
  - » the requirement that the Strategic Assessment Report and Business Cases for projects over €100 million are submitted to the DPER for technical review, and
  - » the requirements of the new two stage external review process for projects estimated to cost over €100 million which will be developed and brought into effect in 2020;
- Public Procurement Procedures both National and EU including the Public Spending Code requirement to:
  - » consult with the National Development Finance Agency on all PPP projects and all projects with a capital value exceeding €75 million;
- Tax clearance requirements as laid down by the Revenue Commissioners.

#### (I) North-South commitments

Departments will fulfil all commitments entered into in respect of the North-South Bodies established under the Good Friday Agreement.

# **Glossary of terms**

#### Accountable Person

The governing legislation establishing most State bodies makes the CEO of the State body accountable to the Committee of Public Accounts (PAC) of the Oireachtas. This is on the basis that the financial statements of the State body are audited by the Comptroller & Auditor General and laid before the Oireachtas in accordance with the provisions of the State bodies governing legislation.

#### Accounting Officer

A senior official (normally the Secretary General) in each Department or Office who is specially and personally charged with signing the Appropriation Account and who is accountable for the propriety of the Department's expenditure, the accuracy of the account and for prudent and economical administration.

#### Additionality

The project/programme outcomes above and beyond what would have happened anyway.

#### Affordability

Affordability refers to the extent to which the budget is available to fund the proposed intervention in the context of competing and overall priorities.

#### Appraisal

Appraisal is the analysis conducted before a spending proposal is approved. It usually refers to a financial, economic, and sensitivity analysis of options designed to inform the selection of the most efficient option to achieve the stated objectives and desired outcomes.

#### **Approval in Principle**

Approval from the Approving Authority after consideration of the Preliminary Business Case for the proposal to move to Design, Planning & Procurement Strategy as part of the Final Business Case stage of the project lifecycle.

#### Approving Authority (AA)

The Approving Authority has ultimate responsibility for the project or programme. It is responsible for granting approval for a project or programme to proceed under the management and oversight of another body. It assesses the proposal at the key decision gates in the project lifecycle. It is responsible for funding and ensuring the project or programme is delivered as approved.

#### **Behavioural bias**

Research from psychology, economics and other disciplines showing that peoples' decisions are strongly influenced by mental shortcuts and habitual, often automatic, responses to their immediate environment. These shortcuts and habits allow people to interact more efficiently with their environment but, in some contexts, they can create 'biases' where people make decisions which they later regret – or which create problems for others or society in general. This has implications for policy, e.g. optimism bias where people overestimate the likelihood of positive events and underestimate the likelihood of negative events.

#### Benchmarking

Benchmarking is a process of 'self-evaluation' - of comparing your processes and your performance against good practice or benchmarks in similar organisations.

#### **Benefits Realisation**

The collective process of identifying benefits at the outset of a project and ensuring, through purposeful actions during implementation, that the benefits are realised and sustained once the project ends.

#### **Business Case (BC) - Preliminary**

Formal assessment of a spending proposal after the concept has been approved at Decision Gate 0. It is an aid to decision making setting out the evidence base and analysis conducted to inform the selection of the most efficient delivery option to achieve the desired outcome. It should include: consideration of strategic alignment, objectives, demand analysis, options appraisal (financial, economic, sensitivity), assessment of affordability, risk assessment, procurement strategy, proposed approach to implementation, monitoring & evaluation plan, and a recommendation.

#### **Business Case - Final**

The Final Business Case is more detailed than the Preliminary Business Case given that more information should be available at this later stage in the project. It is conducted after approval at Decision Gate 2. It must include the final confirmation of the strategic relevance of the proposal, project objectives, a detailed project brief, full economic and financial appraisal including demand analysis, re-examination of affordability, full risk assessment, detailed delivery schedule, benefits realisation plan, and an evaluation plan.

#### **Capital Expenditure**

Capital expenditure relates to the acquisition, construction or enhancement of significant fixed assets including land, buildings, and equipment that will be of use or benefit for more than one financial year.

#### **Capital Works Management Framework**

The Capital Works Management Framework is the national framework for procuring capital works in Ireland. It consists of a suite of best practice guidance, standard contracts, and generic templates documents.

#### Contingency

Contingency is an integral part of the total estimated costs of a project. It is specific provision for unforeseeable elements of cost within the defined project scope.

#### Cost Benefit Analysis (CBA)

An economic appraisal methodology used to assess whether or not the social and economic benefits associated with a project are greater than its social or economic costs. CBA attempts to put monetary values on as many of the project impacts (positive and negative) as possible.

#### **Cost Effectiveness Analysis (CEA)**

An economic appraisal methodology used to compare the alternative approaches to delivering the same or similar policy outcomes. CEA is often undertaken when benefits associated with a proposal cannot be quantified.

#### Counterfactual

An assessment of the likely developments which would occur in the absence of a policy intervention. A welldefined and supported counterfactual is required in order to assess the additionality of a project proposal.

#### Deadweight

The outcomes that would have occurred anyway, in absence of the intervention.

#### **Decision Gate**

The formal milestones at which the Approving Authority must decide whether or not to approve the project to progress to the next stage, seek refinement or abandon the proposal. There are four Decision Gates (0-3).

#### **Detailed Project Brief**

The Detailed Project Brief is the full and complete statement of the project expressed in output requirements. It defines all design requirements for a project including performance standards and quality thresholds. It is the benchmark for measuring the development of the project and later becomes the basis for the construction contract.

#### **Demand Analysis**

An assessment of the forecast use of a new asset, defined against the backdrop of the quality and capacity of existing public infrastructure and informed by the main drivers of future demand including demographics.

#### **Discounted Cashflow Analysis**

Discounted cash flow is a valuation method used to estimate the value of an investment based on its future cash flows.

#### Discounting

Discounting allows benefits and costs that occur in different time periods to be compared by expressing their values in present terms.

#### Displacement

Displacement occurs when the creation of new output in one area leads to the loss of output in another.

#### **Double Counting**

Double counting occurs where a cost or benefit has been included more than once in the analysis.

#### Economic Benefit Cost Ratio (EBCR)

The ratio of economic benefits to economic costs calculated in a cost benefit analysis. If the benefit : cost ratio is greater than one, then the project has more benefits than costs. The formula used is: sum of present value of benefits divided by sum of present value of costs. The EBCR is a useful measure for ranking projects.

#### Economic Net Present Value (ENPV)

The Economic Net Present Value is the sum of discounted cashflows over the appraisal period.

#### **Economic Payback Period (EPP)**

The payback period refers to the amount of time it takes to recover the cost of an investment. The payback period is the length of time until an investment reaches a breakeven point.

#### Economic Rate of Return (ERR)

The economic rate of return is the discount rate at which the cost and benefits of a project, discounted over its life, are equal.

#### **Evaluation**

The process of systematically assessing an intervention (ex ante or ex post) to determine efficiency and effectiveness in achieving a stated objective.

#### Financial Benefit Cost Ratio (FBCR)

A benefit-cost ratio (BCR) is an indicator used in financial analysis to show the relationship between the relative costs and benefits of a proposed project. A financial benefit cost ratio uses the costs and benefits calculated as part of the financial analysis.

#### Financial Internal Rate of Return (FIRR)

The financial internal rate of return is the discount rate at which the cost and benefits of a project, discounted over its life, are equal. This refers to the costs and benefits calculated in the financial analysis.

#### Financial Net Present Value (FNPV)

The Net Present Value is calculated by summing the total discounted financial benefits and subtracting the total discounted financial costs. The NPV can be compared to assess options.

#### **General Government**

General Government is defined by Eurostat<sup>36</sup> as consisting of institutional units which are non-market producers whose output is intended for individual and collective consumption, and are financed by compulsory payments made by units belonging to other sectors, and institutional units principally engaged in the redistribution of national income and wealth. It consists of four subsectors – central government, state government, local government and social security funds.

#### Implementation

Implementation is the process that turns strategies and plans into actions in order to accomplish strategic objectives and goals.

#### **Investment Projects and Programmes Tracker**

The Investments Project and Programmes Tracker<sup>37</sup> published by the Department of Public Expenditure and Reform provides a composite update on the progress of all major investments that make up the Public Capital Programme.

#### Key Performance Indicators (KPIs)

A Key Performance Indicator is a measurable value that demonstrates how effectively an intervention is achieving key objectives.

#### Logic Path Model

Logic models map out the shape and logical linkages of a programme or project and provides a systematic and visual way to present and share understanding of the cause-effect relationships between inputs, activities, outputs and outcomes (results and impacts).

#### Medium Term Exchequer Capital Envelopes

These are rolling multi-annual capital allocations which provide government departments and public bodies with greater certainty in regard to their medium term budget and enable them to improve planning and management of capital programmes and projects. The envelopes are determined by Government and set out the commitment of Exchequer capital allocations for each Ministerial Group of Votes for each of the years over the period of the envelope.

#### **Monte Carlo Analysis**

Monte Carlo simulations are used to model the probability of different outcomes in a process that cannot easily be predicted due to the intervention of random variables. It is a technique used to understand the impact of risk and uncertainty in prediction and forecasting models.

#### Multi Criteria Analysis (MCA)

An economic appraisal methodology used to compare a set of options. This method establishes preferences between project options by reference to an explicit set of criteria, weightings, and objectives. It is useful for comparing quantitative and qualitative costs and benefits.

#### National Development Plan

The National Development Plan 2018-2027 sets out a strategic vision for Ireland's public capital infrastructure priorities over 10 years and is aligned with the National Strategic Outcomes for Ireland's spatial strategy contained in the National Planning Framework.

#### Non Voted Public Expenditure

Non-voted expenditure represents expenditure which the Oireachtas has declared by law is to be paid from the Central Fund without annual reference to the Dáil.

#### **Opportunity Cost**

The value of a resource in its most productive alternative use.

#### **Optimism Bias**

The tendency to underestimate adverse outcomes (such as cost overruns) and overestimate favourable outcomes (such as benefits attributable to projects and programmes).

<sup>36</sup> https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:General\_government\_sector

<sup>37</sup> https://www.gov.ie/en/publication/6db7c4-investment-projects-and-programmes-tracker/

#### **Procurement Strategy**

The method selected by a sponsoring agency to achieve its project and/or programme objectives, in a manner that maximises value for money whilst being consistent with EU and national law and regulations. It is identified following a consideration of factors which should, at a minimum, include the commercial or contractual arrangements to be used to deliver the project and/or programme; the sponsoring agency's capacity and that of potential suppliers.

#### **Project Completion Report**

The Project Completion Report is the output from a review conducted to assess if a project was delivered in line with its intended scope and budget and in line with the Public Spending Code.

#### **Project Execution Plan (PEP)**

The Project Execution Plan shows the overall timescale for completions, the milestones for the design and construction elements of the project, how the project is to be implemented as well as the projected long term maintenance and major replacement requirements. The PEP is a live document and should address risk management.

#### **Project Lifecycle**

The project lifecycle describes the stages a project goes through as it progresses from start to finish. A well-defined lifecycle brings order and structure to the project.

#### Proportionality

The complexity of the appraisal or evaluation of a project or programme and the methods used will depend on the size and nature of the project or programme and should be proportionate to its scale. The resources to be spent on appraisal or evaluation should be commensurate with the likely range of cost, the nature of the project or programme and with the degree of complexity of the issues involved.

#### **Public Capital Programme**

The planned capital investment programme for a given year of all government departments, local authorities, and state bodies.

#### **Public Financial Procedures**

The Constitution, Legislation and Circulars provide the framework in which the financial information of Central Government is to be accounted for and reported on. The Public Financial Procedures ("the Blue Book") summarises many of the arrangements for public financial management.

#### Public Private Partnership (PPP)

A structured arrangement between the public sector and a private sector organisation to secure an outcome delivering good value for money.

#### Public Spending Code (PSC)

The Public Spending Code sets out the value for money requirements for the evaluation, planning, and management of public expenditure in Ireland.

#### **Reference Class Forecasting**

Reference class forecasting is a methodology to estimate project costs which attempts to mitigate optimism bias. It assesses the outcome of a planned action based on actual outcomes in a reference class of similar interventions to that being forecast.

#### Risk

The likelihood, measured by its probability that a particular event will occur.

#### **Risk Management Strategy**

The Risk Management Strategy consists of a series of management actions designed to mitigate risks. The actions should be assigned to an action owner and have specific completion dates assigned for each management action.

#### Sensitivity analysis

An analytical technique to assess the impact of changes in critical variables on the project outcomes.

#### Sponsoring Agency

The Sponsoring Agency is responsible for proposing and implementing a project or programme. It has primary responsibility for evaluating, planning and managing public investment projects and engaging at the decision gates with the Approving Authority for approval to proceed to the next stage of the project lifecycle.

#### **State Body**

State body as set out in the Code of Practice for the Governance of State Bodies.<sup>38</sup>

#### Strategic Assessment Report (SAR)

The Strategic Assessment Report is the first phase of the project lifecycle and is critical for early scrutiny of rational and objectives, consideration of options and identification of risks associated with a potential investment proposal.

#### Switching value

The required change in a given input to render the project NPV-neutral (or some other stated result).

<sup>38</sup> https://govacc.per.gov.ie/wp-content/uploads/Code-of-Practice-for-the-Governance-of-State-Bodies.pdf

#### Uncertainty

The situation when it is not possible to attach probabilities to the range of potential outcomes.

#### Virement

The use, with the approval of the Department of Public Expenditure and Reform, of savings on one or more subheads to meet excess expenditure on another subhead or subheads within the same Vote.

#### **Voted Expenditure**

Voted expenditure refers to the ordinary services of Government Departments and Offices, both capital and non-capital, the money for which is voted by the Dáil on an annual basis. Expenditure is provided for under Votes, one or more covering the functions of each Department or Office.





**An Roinn Caiteachais Phoiblí agus Athchóirithe** Department of Public Expenditure and Reform

Investment Projects and Programmes Office