Better Business Cases

International Guide to developing the Programme Business Case

Final Draft Version 4.0

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Chapter 1: Introduction

A programme management approach and supporting business case is essential for ensuring the successful delivery of a set of related projects.

This guidance has been prepared for:

- Senior managers and executives responsible for designing, delivering and approving programmes, including senior responsible owners (SROs), programme directors, programme managers and business case practitioners and reviewers.

It will also be of interest to:

- Members of Senior Management Boards with responsibility for approving business cases, and

- Directors of Finance, Planning and Procurement and others with responsibility for operational aspects of the programme.

What is a programme?

A programme is a series of planned measures, related events and co-ordinated activities in pursuit of an organisation's long-term goals.

Managing Successful Programmes (MSP), an international standard for programme management, defines a programme as "a temporary, flexible organisation created to co-ordinate, direct and oversee the implementation of a set of related projects and activities in order to deliver outcomes and benefits related to the organisation's strategic objectives".

Large projects are often referred to as programmes. In practice, the key differences between programmes and projects are:

- programmes focus on the delivery of outcomes and projects on the delivery of outputs

- programmes comprise of enabling projects and activities

- programmes usually have a longer life span and may consist of a number of tranches that take several years to deliver, and

- programmes are usually more complex and thus require an umbrella under which their enabling projects can be co-ordinated and delivered.

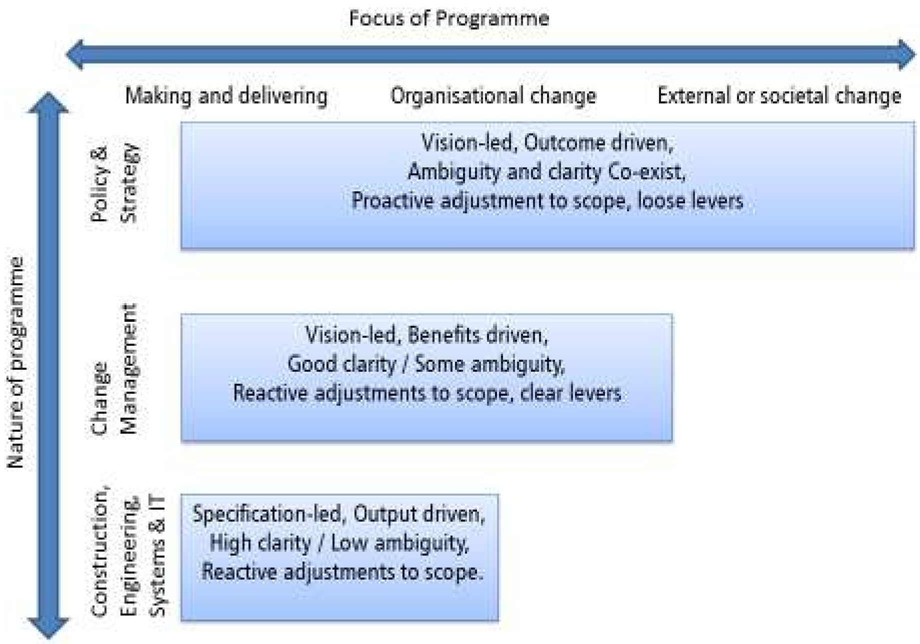
There are different types of programmes and the content of the supporting business case will be influenced by the nature of the change being delivered and the degree of analysis required.

Different types of Programmes

Programmes may be set up to deliver change in parts of an organisation, across the entire organisation, across several organisations, or within the environment in which the organisation operates. A programme may be used to deliver a range of different types of change.

Figure 2 illustrates how different types of change provide a different focus for the programme.

Figure 2



Making and delivering: where the change being delivered is based on making and delivering new facilities, the programme will tend to be led by the specification of the outputs required – *Figure 2, bottom left*. There will be relatively low levels of ambiguity about what the programme is to deliver. The scope will be reasonably well defined and adjusted according to circumstances.

Organisational change: where the change is more focused on changing the way an organisation works, the programme will tend to be led by a vision of the desired outcome and the benefits it will deliver – *Figure 2, middle*. There will typically be some level of ambiguity about what the precise changes are and how they will be delivered; but there are fairly clear levers that can be employed to achieve the vision.

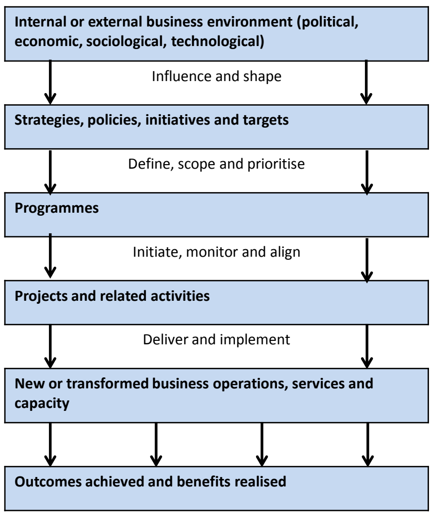
External or societal change: where the change is focused on interventions and improvements in society, the programme will be driven by the desired outcome, but will typically be highly ambiguous and complex to define in terms of what it will involve – *Figure 2, top right*. The scope may need to be adjusted as ambiguities are clarified over time.

Developing a Programme Business Case applies to all types of programmes and needs to be undertaken by trained people who have the capabilities and competencies to undertake the tasks involved.

How does a programme align with the strategic planning process?

A programme is a major undertaking for most organisations and that involves significant funding and change for the parties involved.

Figure 1 shows a typical environment for programme management.



Organisations achieve their vision and mission through business strategies, policies, initiatives and targets that are influenced and shaped by the political, economic, sociological, technological, and legal environment in which they operate.

These business strategies consist of strategic portfolios that scope, define and prioritise the programmes needed to deliver the agreed business changes, outcomes and benefits.

The programmes within these strategic portfolios, in turn, initiate, align and monitor the projects and activities required to deliver the necessary outputs.

These outputs may consist of new products and services, new processes and service capabilities, or changes to business operations. But it is not until the projects deliver and implement the required outputs into business operations, to improve organisational capabilities and achieve outcomes, that the full benefits of the programme can be achieved.

A continual process of alignment is required to ensure that the programme remains linked to strategic objectives, because even as programmes are implementing changes and improvements to business operations, they may need to respond to changes in strategies or to accommodate new initiatives and policies.

A case study showing the relationship between strategy, programmes and projects is provided at Annex A.

What is the importance of the Programme Business Case using the Five Case Model?

The programme business case is important because programmes will only deliver their intended outcomes and benefits if they are properly scoped, planned and cost justified from the outset.

Preparing a project business case using the five case model provides decision makers and stakeholders with a proven framework for structured "thinking" and assurance that the programme:

- **Provides strategic fit and is supported by a compelling case for change**.

  This dimension of the five cases focuses on business planning and is the "strategic case" section within the programme business case.

- **Will maximise public value to society through the selection of the optimal combination of projects and related activities.**

  This dimension of the five cases focuses on options appraisal and is the "economic case" section within the programme business case.

- **Is commercially viable and attractive to the supply side.**

  This dimension of the five cases focuses on the development and procurement of the potential Deal and is the "commercial case" section within the programme business case.

- **Is affordable and is fundable over time.**

  This dimension of the five cases focuses on the whole life costs of the proposed Deal and is the "financial case" section within the programme business case.

- **Can be delivered successfully by the organisation and its partners.**

  This dimension of the five cases focuses on the implementation arrangements for the proposal and is the “management case” section within the programme business case.

What are the advantages of the Programme Business Case?

The programme business case provides management with a tool for transparent and evidenced based decision making and a framework for the co-ordination, delivery, monitoring and evaluation of the resultant outputs, outcomes and benefits.

A well prepared programme business case:

- enables the organisation and its key stakeholders to understand and influence the direction of the programme early on in the planning process

- improves decision making through early consideration of the key issues and available evidence base and assists decision makers to avoid committing resources to projects that should not proceed

- facilitates benefits realisation and risk management for the entire programme rather than a single project

- demonstrates the continuing viability of the programme to senior management and stakeholders, and

- streamlines the tasks and resources required for the preparation of supporting project business cases.

When should the Programme Business Case be developed and how should it be maintained?

A programme business case is recommended best practice and should be prepared following senior management’s approval to the organisational strategy, mandate and brief for the programme.

The organisational strategy provides the rationale and context for the programme and is of crucial importance, because experience shows that a programme begins most effectively when it is launched as part of a clear organisational strategy.

The programme mandate provides the formal trigger for the start of the programme. The programme brief develops the concept for the programme and provides the basis for an initial assessment of the programme's viability and achievability.

The programme's mandate and brief should be prepared in accordance with a recognised programme management methodology and are dependent upon the organisation's senior executives and top management team having already defined and agreed the policies and business strategies for the organisation.

Governance and reporting

Following approval of the programme brief and mandate, a plan for regular review of the programme's progress must be made and agreed with the authorising body. This plan should include arrangements for reporting key milestones, monitoring progress and regular reviews meetings with the Authority responsible for authorising expenditure.

The programme business case development process

The Programme Business Case using the Better Business Cases process is developed as follows:

The Strategic Assessment
Step 1: determining the strategic context
The Strategic Case
Step 2: making the case for change
The Economic Case
Step 3: exploring the preferred way forward
Step 4: determining potential VFM
The Commercial Case
Step 5: preparing for the potential deal
The Financial Case
Step 6: ascertaining affordability and funding requirement
The Management Case
Step 7: planning for successful delivery

The programme business case is a working document which must be revisited and updated upon completion of each tranche of the programme, prior to obtaining approval to commence a further tranche.

The actions to be undertaken in conjunction with these key steps are explained in this guidance, together with the recommended use of supporting workshops and programme assurance.

Annex B provides an overview of the key activities.

What is programme Assurance?

Programme assurance provides independent and impartial confirmation that the programme, or any one of its key projects and activities, is on track. It also confirms that the programme is applying best practice and that the business rationale for the programme remains aligned with the organisational strategy.

Experience shows that there is significant value in an organisation subjecting its programmes to rigorous assurance, since the resources saved by re-focussing or cancelling a programme far outweighs its continued cost.

Programme assurance tests whether the stakeholders' expectations of the programme are realistic in terms of the costs, outcomes, resource needs, timetable and general achievability and provides independent and impartial confirmation that:

- the programme's purpose and scope have been adequately researched
- there is a clear and shared understanding of what is to be achieved by the main players and of the timescales for delivery
- the programme fits within the organisation's overall policies, strategies and priorities
- the programme's governance arrangements – structure, monitoring and resources - are appropriate, and there is a realistic possibility of securing the resources required
- the programme is organised effectively – in tranches and projects - to deliver its overall objectives
- the risks that could affect delivery have been identified and counter measures planned.

Chapter 2: An Overview of the Five Case Model

Introduction

This chapter provides an overview of the Five Case Model Methodology for the preparation of business cases.

The Five Case Model is applicable to policies, strategies, programmes and projects and comprises of five key dimensions:

- The Strategic Case
- The Economic Case
- The Commercial Case
- The Financial Case
- The Management Case

The Strategic Case

The purpose of the strategic dimension of the business case is to make the case for change and to demonstrate how it provides strategic fit.

Demonstrating that the scheme provides synergy and holistic fit with other projects and programmes within the strategic portfolio requires an up-to-date organisational business strategy that references all relevant local, regional and national policies and targets.

Making a robust case for change requires a clear understanding of the rationale, drivers and objectives for the spending proposal, which must be made SMART – specific, measurable, achievable, relevant and time constrained - for the purposes of post evaluation.

Key to making a compelling case for intervention is a clear understanding of the existing arrangements (the status quo), business needs (related problems and opportunities), potential scope (the required organisational capabilities) and the potential benefits, risks, constraints and dependencies associated with the proposal.

The challenges are:

- to explain how further intervention and spend on key “inputs” will deliver “outputs” that improve the organisation’s capability to deliver better outcomes and benefits to stakeholders and customers, while recognising the associated risks

- to ensure the organisation's proposals focus on business needs that have been well researched and are supported by service demand and capacity planning

- to ensure schemes are planned and delivered as part of an approved organisational strategy that has a well defined portfolio of related programmes and projects.

Box 1: Contents of the Strategic Case

Strategic Context
Organisational overview
Business strategy and aims
Other relevant strategies

The Case for Change
Spending objectives
Existing arrangements
Business needs – current and future
Potential scope and service requirements
Main benefits and risks
Constraints and dependencies

The Economic Case

The purpose of the economic dimension of the business case is to identify the proposal that delivers best public value to society, including wider social and environmental effects.

Demonstrating public value requires a wide range of realistic options to be appraised ("the long list"), in terms of how well they meet the spending objectives and critical success factors for the scheme; and then a reduced number of possible options ("the short list") to be examined in further detail.

The "short list" must include the status quo, a realistic and achievable "do minimum" that meets essential requirements, the preferred way forward (if this is different) and any other options that have been carried forward. These options are subjected to cost benefit analysis (CBA) or cost effectiveness analysis (CEA), where more appropriate, to identify the option that offers best public value to society.

The challenges are:

- to begin by selecting the "right" options for scope, solution, service delivery, implementation and funding, otherwise options will represent sub-optimal value for money from the outset

- to cost justify higher cost options in relation to the “status quo” and the “do minimum”.

- to measure and monetise the benefits and risks.

Box 2: Contents of the Economic Case

Critical Success factors

Long listed options
Preferred Way Forward

Short listed options (including the “status quo” and “do minimum”)
NPC/NPV findings
Benefits appraisal
Risk assessment
Sensitivity analysis
Preferred option

The Commercial Case

The purpose of the commercial dimension of the business case is to demonstrate that the preferred option will result in a viable procurement and a well structured Deal between the public sector and its service providers.

Demonstrating a viable procurement requires an understanding of the market place, knowledge of what is realistically achievable by the supply side and research into the procurement routes that will deliver best value to both parties.

Putting in place a well structured Deal requires a clear understanding of the services, outputs and milestones required to be achieved and of how the potential risks in the design, build, funding and operational (DBFO) phases of the scheme can best be allocated between the public and private sectors and reflected in the charging mechanism and contractual arrangements.

The challenge for the public sector is to be an “intelligent customer” and to anticipate from the outset how best public value can continue to be secured in during the contract phase in the face of inevitable changes to business, organisational and operational requirements.

Box 3: Contents of the Commercial Case

Procurement strategy and route

Service requirements and outputs
Risk allocation
Charging mechanism
Key contractual arrangements
Personnel implications
Accountancy treatment

The Financial Case

The purpose of the financial dimension of the business case is to demonstrate the affordability and funding of the preferred option, including the support of stakeholders and customers, as required.

Demonstrating the affordability and fundability of the preferred option requires a complete understanding of the capital, revenue and whole life costs of the scheme and of how the Deal will impact upon the balance sheet, income and expenditure and pricing arrangements (if any) of the organisation.

The challenge is to identify and resolve any potential funding gaps during the life span of the scheme.

Box 4: Contents of the Financial Case

Capital and revenue requirements
Net effect on prices (if any)
Impact on balance sheet
Impact on income and expenditure account
Overall affordability and funding
Confirmation of stakeholder/customer support (if applicable).

The Management Case

The purpose of the management dimension of the business case is to demonstrate that robust arrangements are in place for the delivery, monitoring and evaluation of the scheme, including feedback into the organisation's strategic planning cycle.

Demonstrating that the preferred option can be successfully delivered requires evidencing that the scheme is being managed in accordance with best practice, subjected to independent assurance and that the necessary arrangements are in place for change and contract management, benefits realisation and risk management.

The challenges are:

- to manage the risks in the design, build, funding and operational phases of the scheme and put in place contingency plans
- to deal with inevitable business and service change in a controlled environment, and
- to ensure that objectives are meet, anticipated outcomes delivered and benefits evaluated.

Box 5: Contents of the Management Case

Programme management governance arrangements (roles, responsibilities, plans etc)
Project management governance arrangements
Use of specialist advisers
Change and contract management arrangements
Benefits realisation arrangements (including plans and register)
Risk management arrangements (including plans and register)
Post implementation and evaluation arrangements
Contingency arrangements and plans

Chapter 3: The Strategic Assessment

Introduction

The purpose of the strategic assessment is to determine the strategic context for the programme, because a programme begins most effectively when it is launched in the context of a clear business strategy that explains:

- Where we are now?
- Where we want to be?
- How we will get there?
- How performance will be measured?

All organisational strategies must be reviewed regularly and in advance of a new programme to verify continued fit with the organisation's overarching policies and goals and other programmes and projects within the strategic portfolio

Step 1	**Determining the strategic context**
Action 1	Ascertain strategic fit

Undertake a strategic assessment to confirm how the programme:

- supports national, regional, local or organisational policies, initiatives and targets

- fits within the organisation's business strategy and plans for the achievement of these goals, and

- aligns with the other programmes and projects within the organisation's strategic portfolio.

Completing a strategic assessment provides the Organisation and its key stakeholders with an early opportunity to influence the direction, scope and content of the programme and requires:

- a clear understanding of the critical path for the delivery of the programmes and projects within the strategic portfolio: anticipated outcomes, outputs, milestones, timescales, benefits and risks

- validating that the programmes and projects within the strategic portfolio are well structured, organised and funded; and that the required governance, standards, resources, competencies and capabilities are in place for successful delivery

- a detailed understanding of the business needs and service opportunities that the programme is seeking to address.

Related activities

Consideration should be given to the following activities at this stage:

- Undertaking a review of organisational policies and strategies and further research prior to the commencement of the programme, if this is required.

- The completion of a mandate and brief for the programme, using a recognised programme management methodology.

- A workshop for undertaking the strategic assessment, consisting of the senior responsible owner (SRO), key stakeholders, members of the senior management team and other personnel with the required business, technical and user input.

  Consideration should be given to holding this workshop in conjunction with Workshop Stage 1 – the Case for Change.

- The completion of a scoping document for the potential coverage and technical content of the programme business case, which can then be shared with the approving authority to make the most appropriate use of the guidance and assist early approval of the programme.

  The business case development process is scalable and the guidance should be used proportionately.

  Annex C provides a template for the Programme and Project Scoping Document together with guidance on how the business case process may be tailored and streamlined in certain circumstances.

Checklist for Step 1

There should now a clear understanding of the strategic context for the programme and how it fits with other programmes and projects within the strategic portfolio to achieve organisational goals.

Senior management and key stakeholders should now have a high degree of confidence that the programme is required, deliverable and deserving of a supporting business case.

Chapter 4: Preparing the Strategic Case

Introduction

The purpose of the strategic case is to confirm and agree the strategic context for the programme and to make the case for change.

Completing the strategic case requires the following:

Step 2	**Making the case for change**
Action 2	Agree the strategic context
Action 3	Determine the spending objectives, existing arrangements and business needs
Action 4	Determine the potential scope for the programme
Action 5	Determine programme benefits, risks, constraints and dependencies

A facilitated workshop is recommended for the completion of Step 2.

Action 2: agree strategic context

Agree the strategic context for the programme by providing an overview of the sponsoring organisation and explaining how the programme is strategically placed to contribute to the delivery of organisational goals.

Draw on the findings of the strategic assessment for completion of this section of the business case.

Organisation Overview

Provide a brief overview of the organisation.

This summary introduces the organisation to the reader of the business case and can assist post evaluation of the programme at a later stage, because public sector organisations are often re-organised and renamed before their programmes deliver all of their outcomes.

The key areas to focus upon include:

- The purpose of the organisation, including its vision and mission statements, strategic goals, business aims and key stakeholders

- The range of services presently being provided, including key customers, service levels, current demand and annual turnover

- The organisational structure, including staffing and governance arrangements

- The organisation's existing financial position, including funding streams and levels of spend.

This information may be gleaned from existing documents, including annual reports. These should be briefly summarised or attached to the Programme Business Case.

Alignment to existing policies and strategies

Describe how the programme supports the existing policies and strategies of the organisation and will assist in achieving the business goals, strategic aims and business plans of the organisation.

This section should explain:

- all relevant international, national, regional, sector and local policies, initiatives and targets, as required, and focus on those that which are most relevant to the programme.

- how the organisation's policies, strategies and work programmes support these policies, as required

- the relationship between the proposed programme and other programmes and projects within the organisation's strategic portfolio, including relevant milestones and timescales on the critical path for delivery

Any linkages and interdependencies with another organisation's programmes and projects should be explained, especially where the proposed programme is intended to contribute to shared outcomes across multiple organisations.

This information may be gleaned from existing documents, including organisational strategies and business plans. These should be briefly summarised or attached to the Programme Business Case.

Action 3: determine spending objectives, existing arrangements and business needs.

A robust case for change requires a clear understanding of:

- What we are seeking to achieve (the SMART spending objectives)?
- What is currently happening (the existing arrangements or status quo)?
- What is required to close the gap (the business needs)?

Analysing a proposal in this way helps to establish a compelling case for change based on business needs, rather than the contention it is “a good thing to do and will deliver benefits”.

Determining spending objectives

Specify spending objectives for the programme that focus on the outcomes we are seeking to achieve in support of the organisation’s business strategy.

Setting robust spending objectives is essential for post evaluation.

The programme’s spending or investment objectives should be:

- aligned with the underlying policies, strategies and business plans of the organisation and bound by the strategic context for the programme
- SMART – specific, measurable, achievable, relevant, and time-constrained – to facilitate options appraisal and post evaluation
- customer focused and distinguishable from the means of provision, so focus is on what needs to be achieved rather than the potential solution
- defined so as not to preclude important options or to cause unrealistic options to be considered at the options appraisal stage
- focused on the vital outcomes, since a single or large number of spending objectives can undermine the clarity and focus of the programme.

The setting of clear, concise and meaningful SMART spending objectives is an iterative exercise and will driven by the nature and focus of the programme.

The programme’s spending objectives will typically address one or more of the following generic five drivers for spend. These are:

- to improve the **quality** of public services by delivering better social outcomes **(effectiveness**). For example, by meeting new policy initiatives and operational targets

- to improve the delivery of public services by the better use of inputs and outputs **(efficiency).** For example, by improving the throughput of services whilst reducing unit costs
- to reduce the cost of public services **(economy)**. For example, by spend on innovative technologies
- to meet statutory, regulatory or organisational requirements and accepted best practice **(compliance).** For example, new health and safety legislation or building standards
- to re-provide services in order to avert service failure **(replacement).** For example, re-procurement of an existing service or replacement of an asset.

The key is to consider what the organisation is seeking to achieve through intervention in terms of identifiable and measurable social, economic and environmental outcomes.

Determining existing arrangements

Set out the existing arrangements for the service explaining:

- how services are currently organised and provided to customers on behalf of stakeholders
- the associated throughput and turnover and existing cost
- current asset availability, utilisation and condition

Providing a summary of the organisation's current model of service delivery provides the baseline for identifying business needs and measuring future improvements.

A clear picture of the existing arrangements also provides an evidential base against which to challenge current perceptions of what are the difficulties. Any critique of the difficulties associated with existing arrangements should be provided separately in order not to muddy the clarity of the evidential base.

Identifying business needs

Specify the organisation's business needs in terms of the improvements and changes that are required for the programme to fulfil its agreed spending objectives.

This requires a clear understanding of the problems and difficulties associated with existing arrangements and a clear understanding of the opportunities for bridging any existing or future gaps in business operations and service provision.

Specifying the business needs and drivers for the programme helps to identify the potential scope for the programme, and to ensure that it is predicated on operational needs rather than potential benefits.

This analysis should take service demand and capacity planning into consideration and include:

- confirmation of the continued need for existing business operations with supporting evidence
- projections of the nature and level of demand for future services, including customer demographics and alternative sources of supply

A useful technique for framing this section of the programme business case is to complete the following template for each of the programme's spending objectives:

Fig:

Spending objective	Outcome we are seeking to achieve
Existing arrangements	Current situation
Business needs	The opportunities and problems associated with the current situation.

Action 4: Determine potential business scope and key service requirements

Identify the potential scope of the programme in terms of the operational capabilities and service changes required to satisfy the identified business needs.

Consider the range of business functions, areas and operations to be affected and the key services required to improve organisational capability on a continuum of need, where:

- the "core" coverage and services required represent the "essential" changes without which the programme will not be judged a success.
- the "desirable" coverage and services required represent the "additional" changes which the programme can potentially justify on a cost/benefit and thus value for money basis.

- the "optional" coverage and services required represent the "possible" changes which the programme can potentially justify on a marginal low cost and affordability basis.

This will assist in avoiding "scope creep" during the options appraisal stage of the programme.

A table for the use of workshops and capturing this information is provided below.

Table:

Range	Core	Desirable	Optional
Potential scope			
Key service requirements			

Action 5: Determine benefits, risks, constraints and dependencies

Identify the benefits, risks, constraints and dependencies in relation to the agreed scope and key service requirements for the programme.

This assists with the early appraisal of the options for delivery of the programme and the preparation of supporting economic appraisals.

Identifying the main benefits

Specify the main benefits of the programme to be delivered by:

- Benefit category – type
- Beneficiary – to whom it will be of value
- Benefit class – how the benefit will be measured

The approach to benefits identification and measurement should be prudent, proportionate and appropriate. Focus on the 20% of the benefits which are likely to provide 80% of the programme's benefit value.

Benefit category and beneficiary

The categorisation of benefits can be undertaken in different ways and depends upon the nature and focus of the programme.

Consider linking the anticipated benefit to each of the programme's spending objectives and the beneficiaries that it supports.

Benefits categories and classes

The benefits should be appraised from the standpoint of UK society, which includes two main categories:

- Public Sector benefits – those falling to the spending organisation, over which it has direct control of their realisation (Direct Benefits) and those falling to other parts of the public sector (Indirect Benefits).

- Wider Social benefits – those other indirect benefits falling to other sectors, including the private sector.

These benefits will fall into the following classes:

- cash releasing benefits (CRB)
- non cash releasing benefits (non CRB)
- Quantifiable (or quantitative) benefits (QB)
- Qualitative (non quantifiable) benefits (Qual)

Cash releasing benefits (CRB) can be monetised, by definition, and include improved economy.

Non cash releasing benefits (non CRB) can be monetised and include improved efficiency.

Quantifiable benefits (QB) can be measured but not (meaningfully) monetised

Qualitative benefits (Qual) cannot be measured nor monetized (meaningfully).

The prudent presumption should be to avoid defining benefits that cannot be measured or for which there is no real evidence base.

The figure below provides an indication of the most likely values, timescales and benefit classification for some generic types of benefit.

Type	Relative value	Relative timescale	Benefits classes
Strategic - wider social, economic and environmental related	High	Long-term	Wider Social Benefits Indirect Qualitative Non-cash releasing
Tactical - organisational and management related	Medium	Medium-term	Public Sector Benefits Indirect and direct Quantitative Cash-releasing Non-cash releasing
Job – task related	Low	Short-term	Organisation Benefits Direct Quantitative Cash-releasing Non-cash releasing

All benefits can be measured and estimated in some form. The extent to which it is prudent, realistic, proportionate and necessary to do so depends on the focus and nature of the programme and should be agreed between the programme and the approving authority prior to the commencement of the programme business case. The scoping document should be used for this purpose.

Examples of the different classes of benefits criteria are:

Benefit Classification		**Example**
Cash releasing (CRB)		Reductions in operating cost Increases in revenue stream
Non-cash releasing (non CRB)		Re-deployment of existing resources, including staff and infrastructure onto other business Reduction in unit costs – more for less.
Quantifiable (QB)		Improved social outcomes Improved retention of trained staff Customer satisfaction
Qualitative (Qual)		Managing future risk by retaining service flexibility.

Capture your supporting analysis and assumptions in the preliminary benefits register for the programme (to be made more detailed later).

Identify the main risks

Specify the main risks associated with the achievement of the programme's outcomes and the proposed counter measures for mitigation and management.

Risk is the possibility of a "negative" event occurring that adversely impacts on the programme or one or more of its projects. Focus on the 20% of the risks which are likely to provide 80% of the programme's risk values.

Identifying, mitigating and managing the key risks is crucial to successful delivery, since the key risks are likely to be that the programme will not deliver its intended outcomes and benefits within the anticipated timescales and spend.

Consider the following key categories of risk in relation to the scope of the programme:

Risk categories	**Description**
Business risks	These risks remain with the organisation (100%), cannot be

	transferred by the organisation and include political and reputational risks.
Service risks	These risks associated fall within the design, build, financing and operational phases of the programme and may be shared with the others from outside of the organisation.
External Non Systemic risks	These risks affect all society and are not connected directly with the proposal. They are inherently unpredictable and random in nature. They include technological disruption, legislation, general inflation and catastrophic risks.

The extent to which it is necessary and prudent to provide indicative values for these risks depends on the nature of the programme and should be agreed between the programme and the approving authority prior to the commencement of the business case. The scoping document should be used for this purpose.

Adopt a prudent and evidence based approach and capture supporting analysis and assumptions in a preliminary risk register for the programme (to be made more detailed later).

Identify the constraints

Specify any constraints that have been placed on the programme.

Constraints are the external conditions and agreed parameters within which the programme must be delivered, over which the programme has little or no control.

These can include policy decisions, ethical and legal considerations, rules and regulations, and timescales within which the programme must be delivered. Affordability constraints may include agreed limits on capital and revenue spend.

Constraints on the programme need to be managed from the outset, since they will constrain the options that can be considered for programme delivery.

Identifying the dependencies

Specify any dependencies outside the scope of the programme upon which the ultimate success of the programme is dependent.

These should include:

- Inter-dependencies between other programmes and projects.

These are the dependencies that are external to the programme but are still within the perimeters of the organisation's programme and project management environment, and most likely linked to the scope of another programme or project within the strategic portfolio.

- External dependencies outside the programme environment.

These are the dependencies that extend beyond the boundaries of all the programmes into other parts of the organisation or even other organisations. These dependencies are outside the control of the programme management environment; potentially in business operations, partnering organisations and include external dynamics, such as legislation, strategic decisions and approvals.

A useful technique for completing the strategic case section of the programme business case is to build upon the earlier recommended template for each spending objective (step 2, action 3) as follows:

Stage1	
Spending objective	Outcome we are seeking to achieve
Existing arrangement	Current situation
Business need	Opportunities and problems associated with the current situation
Stage 2	
Potential scope and services	What we need to put in place to address our needs
Potential benefits	The anticipated benefits as a result
Potential risks	The risks that might arise
Potential constraints	The limitations we face
Potential dependencies	The things that must be in place and/or managed elsewhere

Workshop Stage 1 – Case for Change

At least one workshop is recommended for the completion of this section of the Programme Business Case, so that the key stakeholders are engaged earlier on, can challenge and assist to shape the direction of the programme. This may comprise more than one actual workshop depending on need.

The purpose, objectives, key participants and outputs of this workshop are as follows:

Workshop Stage 1	**Determining the Case for Change**
Objectives	• to identify and agree spending objectives, existing arrangements, business needs, and potential scope for the programme • to identify the key service requirements for the programme, related benefits and risks, constraints and

	inter-dependencies
Key participants	• Senior Responsible Owner • Board Members • Programme Director • Programme Manager and team members • External stakeholders and commissioners • Customer and/or user representatives • Technical adviser(s) • Financial adviser(s) • Facilitator
Outputs	• SMART spending objectives • Business needs and potential scope for the programme • Key benefits and risks, constraints and dependencies

Checklist for step 2

There should now be a clear understanding of the programme's:

- spending objectives
- existing arrangements and related business needs
- potential scope and service requirements
- potential benefits, risks, constraints and dependencies

Output from step 2

The strategic case section of the Programme Business Case is now complete and must be kept under review.

Chapter 5: Preparing the Economic Case

Introduction

The purpose of the economic case is to identify and appraise the options for the delivery of the programme and to recommend the option that is most likely to offer best value for money, or public value, to society, including wider social and environmental effects as well as economic value.

This is achieved in two steps: first, by identifying and appraising a wide range of realistic and possible options ("the long list" – step 3); and second, by identifying and appraising a reduced number of possible options in further detail ("the short list" – step 4 refers).

It should be noted that the "preferred way forward" for the programme emerges from the appraisal of the long list (step 3) and the "preferred option" for the programme from the appraisal of the short list (step 4).

Completing the first stage of the economic case requires the following:

Step 3	**Exploring the preferred way forward**
Action 6	Agree critical success factors (CSFs)
Action 7	Determine long list options and SWOT analysis
Action 8	Recommend a preferred way forward

A facilitated workshop is recommended for the completion of Step 3.

Action 6: agree critical success factors for the programme

Identify and agree the critical success factors (CSF's) for the programme.

These are the attributes essential for successful delivery of the programme, against which the initial assessment of the options for the delivery of the programme will be appraised, alongside the spending objectives.

The critical success factors for the programme must be crucial, not merely desirable, and not set at a level which could exclude important options at an early stage of identification and appraisal.

Table: a starting point for identifying and agreeing the critical success factors based on the Five Case Model.

Key Critical Success Factors	Broad Description
Strategic fit and business needs	How well the option: • meets the agreed spending objectives, related business needs and service requirements, and • provides holistic fit and synergy with other strategies, programmes and projects
Potential value for money	How well the option: • optimises public value (social, economic and environmental), in terms of the potential costs, benefits and risks.
Supplier capacity and capability	How well the option: • matches the ability of potential suppliers to deliver the required services, and • is likely to be attractive to the supply side
Potential affordability	How well the option: • can be funded from available sources of finance • aligns with sourcing constraints.
Potential achievability	How well the option: • is likely to be delivered given the organisation's ability to respond to the changes required, and • matches the level of available skills required for successful delivery.

Action 7: determine the long list options and undertake SWOT analysis

Identify a wide range of possible options for achieving the programme's business needs, potential scope and service requirements, and undertake an assessment of how well each option meets the spending objectives and critical success factors agreed for the programme.

Provide a full description of each option, together with an assessment of its strengths, weaknesses, opportunities and threats (SWOT analysis) and a conclusion in terms of how well it meets the spending objectives and critical success factors agreed for the programme.

Identifying options

A wide range of realistic and possible options for the delivery of the programme must be identified. The recommended number is in the order of a dozen options. This is known as the "long list".

The long list must include an option that provides the baseline for measuring improvement and value for money. This option is known as the "status quo". It must also include a realistic "do minimum" based on the core functionality and essential requirements for the programme.

These options should be generated through facilitated brain storming exercises undertaken by workshops comprising of senior managers and stakeholders (business input), customers (user input) and specialists (technical input) amongst other interested parties (as required) – see workshop 2.

Options may be ruled out for ethical, legal, financial or political reasons. In such cases, it is important to ensure that these constraints have not been imposed artificially.

When identifying options for the programme consider:

- researching existing reports and consulting widely with practitioners and experts to gather the set of data and information relevant to the objectives and scope of the problem

- analysing the data to understand significant dependencies, priorities, incentives and other drivers

- identifying from the research, best practice solutions, including international examples, if appropriate

- the full range of issues likely to affect the spending objectives

- the full range of policy instruments or projects that may be used to meet the programme's objectives. This may span different sorts or scales of intervention; regulatory (or deregulatory) solutions may be compared with self-regulatory, spending or tax options

- radical options. These may not become part of the formal appraisal but can be helpful to test the parameters of feasible solutions. Well-run brainstorming sessions can help to generate such ideas.

- undertaking a feasibility study.

The Options framework

The options framework provides a systematic approach to identifying and filtering a broad range of options for delivering policies, strategies, programmes and projects (Flanagan JC 2006 refers).

This tool and technique has been used on a wide range of public sector schemes and proven useful in getting senior management, stakeholders and customers signed up to an agreed preferred way forward early on in the scoping and planning stage in the development of schemes.

The options framework identifies and filters these choices for the operational scope, service solutions, service delivery vehicles, implementation timeframes and funding mechanism for the programme.

Key dimensions	Description
Scope	The "what", in terms of the potential coverage of the programme. Potential scopes are driven by business needs, service requirements and the scale of organisational change needed to improve service capabilities. Examples include coverage in terms of: business functions, levels of service, geography, population, user base and other parts of the business.
Service solution	The "how" in terms of delivering the "preferred" scope for the programme. Potential service solutions are driven by available technologies, recognised best practice and what the market place can deliver. These solutions provide the potential "**outputs"** and key activities for the programme, and as such the <u>portfolio of enabling projects and activities</u> required.
Service delivery	The "who" in terms of delivering the "preferred" scope and service solution for the programme. Potential options for service delivery are driven by available resources, competencies and capabilities - both internal and external to the organisation Examples include: in-house provision, outsourcing, alliances and strategic partners.
Service implementation	The "when" in terms of delivering the "preferred" scope, solution and service delivery arrangements for the programme. Potential implementation options are driven by deadlines, milestones, dependencies (between outputs), economies of scale, benefit realisation and risk management. The optimal option provides the <u>critical path for delivery of the agreed projects and activities</u> and the basis for the programme plan. Options for implementation include: piloting, modular delivery, big bang and phasing (tranches).
Funding	The "funding" required for delivering the "preferred" scope, solution, service delivery and implementation path for the programme. Potential funding options are driven by the availability and

	opportunity cost of public funding, value for money and the characteristics of the programme. Potential funding options include the public or private capital, the generation of alternative revenue streams, operating and financial leases, and mixed market arrangements.

Using the Options framework to identify the long list

The options framework should be used as follows:

1. **Convene at least one workshop** comprising of senior managers (business), customers and stakeholders (users) and experts in relevant fields (technical) to be facilitated by an experienced and trained practitioner.

2. **Confirm the spending objectives and potential scope for the programme,** as set out in the strategic case section.

3. **Agree the critical success factors** for the programme.

4. **Identify potential "scopes"** for the coverage of the programme, ranging from the status quo, through to the "do minimum" and "do maximum" and intermediate options.

   These options focus on the scale of potential change required. To avoid "scope creep", they must not exceed the potential scope for the programme as defined within the strategic case section: if they do, the "case for change" requires revisiting and updating.

   The "do minimum" scope must be a realistic option that meets the "core" scope and essential business needs of the programme. The "do maximum" is predicated on meeting the full scope of the programme and all needs. The intermediate options focus on key differences in relation to the desirable and optional scopes for the programme.

   Be pragmatic: scoping options discounted for delivery in the short to medium terms may be retained in the strategic portfolio for delivery in the longer term.

i. Subject each option to SWOT analysis – noting advantages and disadvantages and how well it meets the agreed spending objectives and CSF's.

ii. Discount unrealistic options. Carry forward (C/F) possible options, including the status quo and "do minimum" scopes.

iii. Identify the preferred way forward (PWF) – the "scope" which is considered most likely to optimise public value.

Scopes identified for the programme that are more ambitious than the "do minimum" must be justified on their potential for optimising benefits in relation to costs.

Consider numbering the options and colour coding the results. The case study below is summarised for illustrative purposes.

Case study: for a service improvement programme where the "scope" for change has been defined in terms of organisational coverage: the number of departments and functions that might be affected by the change within the Organisation.

The workshop identified and appraised the options as follows:

Programme	Status Quo	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
1.Service scope – as outlined in strategic case section	1.0 All Departments	1.1 **Dept A (Front Office)**	1.2. Dept A **plus Dept B and C**	1.3 Dept A, B, C **plus Dept D**	1.4 **All** Dept A, B, C, D plus **E**
	Carried forward	Carried forward	Preferred Way Forward	Carried forward	Discounted

5. **Identify potential "solutions"** for improving organisational capabilities within the programme's preferred way forward for potential scope, ranging from the status quo through to the "do minimum" and "do maximum" and intermediate options.

   These options focus on the outputs, activities and potential projects required.

6. The "do minimum" solution must be a realistic option that meets the "core" requirements and essential business needs of the programme. The "do maximum" solution must not exceed the agreed scope for the programme as agreed within the strategic case section (which must be revisited if it does). Limit intermediate options to those that have key differences in relation to their desirable and optional outputs and activities.

   Be innovative and think in terms of what other organisations have achieved, what is likely to work, and what is available in the market place.

i. Subject each option to a structured SWOT analysis – noting advantages and disadvantages and how well it meets the agreed spending objectives and CSF's.

ii. Discount unrealistic solutions. Carry forward (C/F) possible options, including the status quo and "do minimum" solutions.

iii. Identify the preferred way forward (PWF) – the "solution" which is likely to provide optimal outcomes in terms of the potential projects required.

Solutions identified for the programme that are more ambitious than the "do minimum" must be justified on their potential for delivering additional value.

Case study: for a service improvement programme where "service solution" relates to the number of outputs and activities – potential projects - that might be required within the programme.

The workshop identified and appraised the options as follows:

Programme	Status Quo	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
2. Service Solution – in relation to the preferred scope (Option 1.2 above refers)	2.0 Current Services	2.1 Core: **Quality Management System (QMS) + training**	2.2 Core & Desirable plus: **New services and IT**	2.3 Core & Desirable plus: **Refurbished Office**	2.4 Core, Desirable & **New Offices**
	Carried forward	Carried forward	Carried forward	Preferred Way Forward	Discount

7. **Identify potential options for "service delivery"** of the programme's preferred way forward in relation to potential scope and service solution.

   These options focus on the delivery of the outputs, activities and potential projects required.
   In this instance, the "do minimum", intermediate, and "do maximum" choices relate to the varying levels and degrees of "ambition" for service delivery, so a "do maximum" is not necessarily required.

   Be innovative and challenge whether the organisation is currently sourcing and delivering the services it provides in the most efficient and cost effective way.

i. Subject each option for service delivery to SWOT analysis – noting advantages and disadvantages and how well it meets the agreed spending objectives and CSFs.

ii. Discount unrealistic options. Carry forward (C/F) possible options, including the status quo and "do minimum" solutions.

iii. Identify the preferred way forward (PWF) – the method of “service delivery” which is likely to provide the optimal outcome in terms of programme and operational delivery.

Case study: for a service improvement programme where “service delivery” relates to how the required outputs and activities or potential projects might be provided within the programme.

The workshop identified and appraised the options as follows:

Programme	**Status Quo**	**Less ambitious**	**Intermediate Option**	**Intermediate Option**	**More ambitious**
3. Service Delivery - in relation to preferred scope and solution (Options 1.2 and 2.3 above refer)	3.0 Current arrangements	3.1 In-house	3.2 Outsource	3.3 Mix in-house & Outsource	3.4 Strategic Partner
	Carried forward	Carried forward	Discount	Preferred Way Forward	Discount

8. **Identify potential options for “implementation”** of the programme’s preferred scope, service solution and method of service delivery.

   These options focus on the sizing, sequencing and phasing of the potential outputs, activities and projects required.

   In this instance, the “do minimum”, intermediate, and “do maximum” choices relate to the varying levels and degrees of “ambition" for implementation, so a “do maximum” does not necessarily apply.

   - Create tranches that provide synergies, holistic fit and sufficient critical mass for delivering economies of scale and **size** accordingly.

   - Focus on the critical path for delivering the required outputs and activities and **sequence** accordingly.

   - Design and build projects that optimise benefits delivery whilst managing the risks and **phase** accordingly.

i. Subject each implementation option for the sizing, sequencing and phasing of the potential projects within the programme to SWOT analysis – noting advantages and disadvantages and how well it meets the agreed spending objectives and CSF’s.

ii. Discount unrealistic options for implementation. Carry forward (C/F) possible options, including the status quo and “do minimum” option.

iii. Identify the preferred way forward (PWF) – the approach to the sizing, sequencing and phasing of potential projects that is most likely to deliver successful outputs and outcomes.

Case study: for a service improvement programme where "implementation" options relate to how the required outputs and activities might be delivered over time.

The workshop identified and appraised the options as follows:

Programme	Status Quo	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
4.Implementation – in relation to preferred scope, solution and method of service delivery (Options 1.2 , 2.3 and 3.3 above refer)		**4.1 First tranche** **Project A** - QMS & training **Project B** – refurbished offices & new IT **Second tranche** **Project C** – new services 1 & 2 **Project D** – new services 3 & 4 **Phased 3 years**	**4.2 First tranche** **Project A** – refurbish offices & new IT **Project B** – QMS & training **Second tranche** **Project C** – new services 2 & 4 **Project D** – new services 1 & 3 **Phased 2 years**	**4.3 Single tranche** **Project A** - QMS & training **Project B** – refurbished offices & new IT **Project C** – new services 1, 2, 3 & 4 **Big bang** **1 years**	
	N/A	Carried forward	Preferred Way Forward	Discount	

9. **Identify possible "funding options"** for resourcing of the programme's preferred scope, solution, method of service delivery and implementation.

   These options focus on the range of different ways in which the programme's portfolio of projects and activities could be funded, including both traditional and innovative sources of finance.

   In this instance, the "do minimum", intermediate, and "do maximum" choices relate to the varying levels and degrees of "ambition" for funding the service, so a "do maximum" does not necessarily apply.

I. Subject each funding option for the delivery of the programme to SWOT analysis – noting advantages and disadvantages and how well it meets the agreed spending objectives and CSF's.

II. Discount unrealistic options for funding. Carry forward (C/F) possible options.

III. Identify the preferred way forward (PWF) – the funding option which is most likely meet the requirements of the programme, to optimise value for money and be affordable.

Case study: for a service improvement programme where potential projects and activities could be funded in their design, build and operational phases through a number of sources.

The workshop identified and appraised the options as follows:

Programme	Status Quo	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
5.Funding – in relation to preferred scope, solution, method of service delivery and implementation	5.0 N/A	5.1Public funding	5.2 Private finance	5.3 Mixed public & private	
		Carried forward	Discount	Preferred Way Forward	

The options framework is a useful tool, because in this simplified case study for a service improvement programme over twenty main options have been considered – for scope, solution, service delivery, implementation and funding - and indirectly over a thousand possible combinations of different options.

Use of the options framework also provides senior management with a single page summary of the options that have been considered.

Figure: Summary of the long list using the Options framework.

Programme	Status Quo	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
1.Service scope – as outlined in strategic case	1.0 All Departments	1.1 **Dept A (Front Office)**	1.2. Dept A **plus Dept B and C**	1.3 Dept A, B, C **plus Dept D**	1.4 **All** Dept A, B, C, D plus **E**
	Carried forward	Carried forward	Preferred Way Forward	Carried forward	Discounted
2. Service Solution – in relation to the preferred scope	2.0 Current Services	2.1 Core: **Quality Management System (QMS) and training**	2.2 Core & Desirable plus: **New services and IT**	2.3 Core & Desirable plus: **Refurbished Office**	2.4 Core, Desirable & **New Offices**
	Carried forward	Carried forward	Carried forward	Preferred Way Forward	Discount
3. Service Delivery - in relation to preferred scope and solution	3.0 Current arrangements	3.1 In-house	3.2 Outsource	3.3 Mix in-house & Outsource	3.4 Strategic Partner
	Carried forward	Carried forward	Discount	Preferred Way Forward	Discount
4.Implementation – in relation to preferred scope, solution and method of service delivery	4.0 N/A	**4.1 First tranche Project A** -QMS & training **Project B** – refurbished offices & new IT **Second tranche Project C** – new services 1 & 2 **Project D** – new services 3 &4 **Phased 3 years**	**4.2 First tranche Project A** – refurbish offices & new IT **Project B** – QMS & training **Second tranche Project C** – new services 2 & 4 **Project D** – new services 1 & 3 **Phased 2 years**	**4.3 Single tranche Project A** -QMS & training **Project B** – refurbished offices & new IT **Second tranche Project C** – new services 1, 2, 3 & 4 **Big bang 1 years**	
		Carried forward	Preferred Way Forward	Discount	
5.Funding – in relation to preferred scope, solution,	5.0 N/A	5.1.Public funding	5.2 Private finance	5.3 Mixed public & private	
		Carried forward	Discount	Preferred Way	

method of service delivery and implementation				Forward	

Drafting the long list

Consider using the following headings for recording the relevant details and facts in relation to the appraisal of the long listed options in the Programme Business Case

Heading	**Rationale**
Description	Full details of the option under consideration with reference to a category of choice within the options framework.
Main advantages	Strengths and opportunities in terms of the critical success factors
Main disadvantages	Weaknesses and threats in terms of the critical success factors.
Conclusions	Overall assessment of how well the option meets the programme spending objectives and critical success factors and whether it is the preferred way forward, should be carried forward or discounted in respect of the short list.

Action 8: recommend a preferred way forward

Identify the preferred way forward for the programme - scope, solution, service delivery, implementation and funding – together with the short listed against which the preferred way forward will be appraised.

Note: the preferred way forward is NOT the preferred option at this stage. The preferred option is identified from the appraisal of the short listed options.

Short listed options

The Programme Business Case should identify a minimum of three to four shortlisted options for further appraisal. These should include:

- the status quo – the benchmark for value for money
- the 'do minimum' option – a realistic way forward that also acts as a further benchmark for value for money, in terms of cost justifying further intervention.
- the "recommended" preferred way forward at this stage.

- one or more other possible options based on realistic “more ambitious” and “less ambitious” choices that were not discounted at the long list stage.

Care must be taken to avoid “rigging” and “retro-fitting” options that have been pre-determined. The programme should seek guidance from its reviewers if it finds itself in this position.

Using the options framework to filter the shortlist

The options framework can be used to filter the options considered at the long list stage to generate the potential short list for the programme, as illustrated below.

Case Study: the options workshop for the service improvement programme generated the following short list of options on the basis of the summary of the long list using the options framework for further consideration and appraisal.

Options	Status Quo	“Do Minimum”	Preferred Way forward (PWF)	Less ambitious PWF	More ambitious PWF
Programme scope	1.0	1.1	1.2	1.1	1.3
Programme solution	2.0	2.1	2.3	2.2	2.3
Service Delivery	3.0	3.1	3.3	3.1	3.3
Programme implementation	N/A	4.1	4.2	4.1	4.2
Programme funding	N/A	5.1	5.3	5.1	5.3

Drafting the shortlist

The short listed options should be described and a further assessment of their strengths, weaknesses, opportunities and threats undertaken, as required.

The format used for drafting the long list can be used for this purpose – see action 7.

A summary of the short listed options can usefully be provided and colour coded as follows:

Fig: - Summary assessment of options

Reference to:	Option …	Option…	Other Options…	Option

Description of option:	Status Quo	Do Minimum	Intermediate	Maximum
Spending objectives				
1.	x	?	✓	✓
2.	x	?	✓	✓
3.	x	?	✓	✓
4.	?	?	✓	✓
5.	x	?	✓	✓
Critical success factors				
Business need	x	?	✓	✓
Strategic fit	x	x	✓	✓
Benefits optimisation	x	?	✓	?
Potential achievability	✓	✓	?	?
Supply-side capacity and capability	✓	✓	✓	?
Potential affordability	x	✓	?	X
Summary	Discounted	Possible	Preferred	Discounted

Indicative costs and delivery arrangements

Indicative costs and benefits for each of the above short-listed options should be provided this stage to test the affordability of the programme before more detailed appraisal takes place.

The costs should include some allowance for 'optimism bias' and the "cost of risk" and together with the benefits be discounted to provide indicative net present values for the short listed options, as required – see the step 4, action 12.

Workshop Stage 2 – Identifying and assessing the options

At least one workshop is recommended for the completion of this section of the Programme Business Case, so as to ensure that the key stakeholders are engaged earlier on, can challenge and assist to shape the direction of the programme.

The purpose, objectives, key participants and outputs of this workshop stage are as follows:

Workshop stage 2	**Identifying and assessing the Options**
Objectives	• To identify the Critical Success Factors • To identify and appraise the long listed options • To identify and provide initial appraisal of the shortlisted options • To identify the potential costs, benefits and risks associated with the short-listed options

Key participants	- External stakeholders or commissioners - Director of finance - Economic adviser - Customer and/or user representatives - Project manager - Facilitator
Outputs	- Appraisal of the Long list - Short-listed options with preliminary assessment - Information and data for economic appraisal of the short listed option

Multi Criteria Decision Analysis (MCDA)

A form of multi criteria decision analysis, making use of a professionally trained facilitator to guide a team of expert representatives and stakeholders, can be useful for considering certain options at the long list stage. This kind of objective, consultative weighting and scoring should only be undertaken by experts and will require several long meetings, if undertaken to the required standards.

Checklist for Step 3

There should now be:

- a clear understanding of the programme's critical success factors
- a long list of options that has been subjected to SWOT analysis
- a preferred way forward for the programme
- a short list of options (minimum 4), including the status quo and realistic "do minimum option"
- Indicative net present values for the short listed options

Review Point

An early version of the Programme Business Case is now available. It is recommended at this stage that consideration should be given to:

- sharing the Programme Business Case with senior management and stakeholders, in order to obtain feedback and early agreement to the proposed way forward; and
- undertaking a further stage of programme assurance

Step 4: determining potential VFM

This next step in the development of the economic case appraises the social, environmental and economic costs, benefits and risks for the short listed options and identifies the preferred option: the option most likely to be offer public value for the delivery of the programme.

Whilst bringing together a variety of information on costs, benefits and risks to aid decision making, option appraisal should not be seen as unequivocally providing the ‘right’ answer. The goal is ‘optimal’: we are seeking to identify the option which best balances the expected costs in relation to the benefits and risks.

The main actions in this step are:

Step 4	**Determining potential VFM**
Action 9	Revisit and confirm the short list
Action 10	Prepare the economic appraisals for short-list options
Action 11	Undertake benefits appraisal
Action 12	Undertake risk appraisal
Action 13	Select preferred option and undertake sensitivity analysis

At least one facilitated workshop is recommended for the completion of Step 4.

Action 9 – revisit the short list

Revisit and refine the efficacy of the preferred way forward and other options in the short list, because more detailed information of the associated inputs, outputs and activities will be required for preparing the economic appraisals.

Review and test the recommended short list against the following ‘long list to short list’ criteria:

- Do any of the options fail to deliver the spending objectives and CSFs for the programme?
- Do any of the options appear unlikely to deliver sufficient benefits, bearing in mind that the intention is to deliver a positive net present value (NPV)?
- Are any options clearly impractical or unfeasible – for example, the technology or land are unavailable?

- Is any option clearly inferior to another, because it has greater costs and lower benefits?
- Do any of the options violate any of the constraints – for example, are any clearly unaffordable?
- Are any of the options sufficiently similar to allow a single representative option to be selected for detailed analysis?
- Are any of the options clearly too risky?

This action will help to avoid wasted effort while preparing the economic appraisals in support of short listed options. It should be undertaken in a structured way with the results recorded

Action 10 – prepare the economic appraisals for short-listed options

Calculate the discounted costs and benefits for the short listed options and record the discounted values and Benefit Cost Ratios (BCRs) for each option.

Estimating the costs and benefits for the economic appraisals

This section provides guidance on:

- the principles of economic appraisal
- the key differences between economic and financial appraisals
- relevant costs to include in the economic appraisals
- estimating benefits for the economic appraisals
- adjusting estimates of costs and benefits.

Principles of economic appraisal

The principles for the treatment of costs and benefits are that:

- the relevant costs and benefits to society of all the (short-listed) options should be valued and the net benefit and costs calculated. ‘Relevant’ in this instance means all those costs and benefits that can be affected by the decision at hand

- costs and benefits should cover the useful lifetime of the assets; or the contractual period for the purchase of the service outputs and outcomes

- the costs and benefits should be based on resource costs and reflect the best alternative uses (the ‘opportunity cost’) that the goods, assets and services could be put to

- the wider social and environmental costs – for which there is no market price – should also be taken into account

- the sources and assumptions underlying each cost and benefit line in the economic appraisals must be explained in full within an accompanying appendix

- the costs and benefits must be base year. The base year is defined as "year 0" and must be at real relative prices the same for all options.

Economic and financial appraisals

Practitioners sometimes confuse the appraisals of the economic case with those of the financial case. An explanation of the key differences is provided below.

Economic appraisals focus on public value from the perspective of society and take into account all social, economic, environmental costs and all effects on public welfare. Financial appraisals focus on affordability from the perspective of the public purse, often expressed in terms of public funding the programme.

The key differences can be summarised as follows:

Economic Appraisals	**Financial Appraisals**
Focus: • Net Present – Public value for money	Focus: • Funding and affordability – cash flow and stock
Coverage: • Society as a whole	Coverage: • Relevant public organisation(s) budget
Relevant standards: • National guidance • Agreed discount rate applied	Relevant standards: • Public sector accounting rules and standing orders
Analysis: • real (base year) prices • use of opportunity costs • includes all quantifiable welfare costs and benefits to society • includes environmental costs • excludes transfer payments • excludes general inflation • excludes sunk costs • excludes depreciation,	Analysis: • current (nominal) prices • benefits – cash releasing only • includes capital and revenue costs • includes transfer payments • includes inflation

impairment and capital charges.	

Relevant costs for the economic appraisals

The costs should be appraised from the standpoint of Ssociety, which includes two main categories:

- Public Sector costs – those falling to the spending organisation (Direct Costs) and those falling to other parts of the public sector (Indirect Costs).

- Wider Social costs – those other indirect costs falling to other sectors, including the private sector.

The following provides an overview of the costs which should be included in the economic appraisals. All are expressed in terms of real resource costs excluding transfer payments and any similar tax effects:

- **Capital costs**. These include the opportunity cost of existing assets such as buildings and land and can broadly be broken down into: land and property; construction and refurbishment costs; professional fees; equipment (furniture, fittings, lighting and wiring); technology and maintenance costs.

  Assets may require replacement, refurbishment or upgrading over the lifetime of the appraisal period. These 'life-cycle' costs should also be included as part of the whole life costs. The assumed maintenance policy on which costs are based must be explicitly and transparently set out and applied appropriately to all options.

- **Revenue costs**. These are the operational, running, management and overhead costs that it should not be assumed will remain unchanged over time.

  The assessment of revenue costs must:
  - distinguish and explain clearly the differences between alternative maintenance options;
  - include all the running costs, eg. utility bills;
  - explain the underlying assumptions, eg. in service performance, efficiency savings and real cost trends.

- **Fixed, variable, semi-variable and step costs**. These costs must be separately identified within the economic appraisals and their relationships explained:
  - fixed costs are constant over time; eg. the overhead costs of fixed capital assets;

- variable costs vary according to the volume of activity, eg. training costs and network usage;
- semi-variable costs include both fixed and variable components, eg. a combination of fixed maintenance contract costs and variable call-out charges; and,
- step costs for a pre-determined level of activity that eventually rise by a given amount – for example, the need for a new call centre after a certain volume of calls.

- **Opportunity costs**. These must be explored in full. In relation to land, buildings and manpower, they should be assessed against the most valuable alternative use rather than current use. Full time equivalents (FTE) costs should be used to estimate the costs of employees' time to the employer and must include all employment costs in addition to basic pay – for example, pensions and allowances etc.

- **Sunk costs**. These are amounts that have already been spent and cannot be recovered. They should be noted in the case and excluded from the economic appraisals.

- **Full economic costs**. The full costs (direct, indirect and attributable) of each option, rather than its net cost in relation to a baseline must be shown. This means 'bottom up' costing, which provides a better understanding of the cost differences between options and is more transparent.

- **Attributable costs**. These include the opportunity cost of staff time spent in relation to the implementation of the proposal. These costs are likely to be significant in relation to business change and business re-engineering programmes.

- **Organisational development**. These costs can form a significant proportion of the overall costs and should not be underestimated, because if insufficient resources are allocated to developing staff and changing working practices, the full benefits of the programme will not be achieved.

- **Avoided costs**. These should be included as a cost in the 'status quo' option and not as a benefit in the other options.

- **Inflation**. Some cash flows may be significantly out of line with general inflation. In such cases, the differential should be reflected in the economic appraisals.

- **Contingent liabilities**. Commitments to future expenditure if certain events occur should be included in the economic appraisals. For example, the cancellation costs for which a public sector body may be liable if it prematurely cancels a contract. Note that although redundancy costs are transfer payments, they can occasionally fall into this category. In such cases, the advice of an economist should be sought on measuring the wider social and economic consequences of these payments.

Estimating benefits for the economic appraisals

The purpose of valuing benefits is to ascertain whether an option's benefits are worth its costs, and to allow alternative options to be compared in terms of their net public value.

Every effort should be made to value the benefits of different options, building on the programme benefits identified earlier.

The approach to benefits measurement should be prudent, proportionate, and appropriate. Prudent, in terms of avoiding claiming for benefits that cannot be measured or assessed in any realistic way, because there is no real evidence base; proportionate, in terms of the resources required to cost justify the programme; and appropriate, in terms of the anticipated scope and spend of the programme.

The benefits for the programme must be appraised from the standpoint of UK society, which comprises of two main categories:

- Public Sector benefits – those falling to the spending organisation, over which it has direct control of their realisation (Direct Benefits) and those falling to other parts of the public sector (Indirect Benefits).

- Wider Social benefits – those other indirect benefits falling to other sectors, including the private sector.

These benefits will fall into the following classes:

- **cash releasing benefits (CRB)**. These benefits reduce the costs of organisations in such a way that the resources can be re-allocated elsewhere. This typically means that an entire resource is no longer needed for the task for which it was previously used. This can be staff, cash or other assets.

- **non-cash-releasing benefits (non-CRB).** This often involves reducing the time that a particular resource takes to do; but not sufficiently to re-allocate that resource to a totally different area of work

- **quantifiable benefits (QB).** These benefits can be quantified, but not always easily. The extent to which QBs are measured will depend on their significance. However, as a general rule every effort should be made to quantify benefits monetarily wherever possible

- **non-quantifiable benefits (non-QB).** These are the qualitative benefits, which are of value that cannot be quantified.

All the benefits – cash releasing and non-cash releasing – must be accounted for in the economic appraisals to derive the net present value (NPV) for the programme.

Any costs associated with benefits delivery should be taken into account. A cost is a predictable negative effect of the proposal and is the measurable reduction resulting from an outcome perceived as negative by one or more stakeholders, which detracts from one or more organisational objectives.

The cost of mitigating significant non quantifiable costs should be identified to see if it is regarded as a price worth paying.

Real or estimated market prices

Market prices, real or estimated, are the prime reference for the valuation of benefits. Where valuing at market prices is not possible, value based on forms of preference are the way in which public welfare values are calculated and include:

- stated preference which has two forms: willingness to pay and willingness to accept (i.e. estimation of a price by means of carefully constructed questionnaires and interviews to indicate how much people are prepared to pay for a thing or how much they would pay to avoid it; for example, improved access to services or to avoid undesirable outcomes), and

- revealed preference approach (i.e. inferring a price from consumer behaviour).

Adjustments required to the values of costs and benefits

While developing the proposal, all adjustments should be shown separately and clearly stated in supporting tables of data, and the rationale for their inclusion clearly set out.

Relative price changes

The costs and benefits presented in the economic appraisals must be expressed in ‘real relative prices’, as opposed to current prices. The term "real" means that although the effects of general inflation are removed; however, the term relative allows some prices that are expected to change relative to general inflation to be adjusted to allow these relative changes.

Where particular prices are expected to increase at significantly higher or lower rates than general inflation, the relative price change should be calculated and factored into the economic appraisals.

Other relevant values

These include Winners, Loser and Distributional Analysis and Regional and other Sub National issues.

Winners, Loser and Distributional Analysis

All interventions may produce winners and losers and on some occasions may have significantly unequal effects on welfare and income distribution.

Where a change in income distribution or some other retributive effect is the intention of a policy programme or project, then some form of objective analysis is clearly required to quantify these effects. Similarly, if a proposal involves, as a side effect, significant redistribution of welfare, then decision support analysis needs to show this.

Subject, as with all analysis to the principle of proportionality, where such distributional analysis is needed, then it should be undertaken as a separate analytical process. The results of this analysis should be shown separately from the public value figures, but should be included within the consideration of total public welfare. This improves transparency and avoids the possible swamping of these effects, which may be significant for a minority, but would be overshadowed and lost within the overall total. It also allows uncertainty in the estimation of welfare distribution to be reflected in the analysis.

The need to abide by ethical and legal standards and frameworks, such as legislation on equalities, also requires consideration of distributional effects where they are significant, and this is transparently supported by this approach.

There is, therefore, a need at both the long list and short list stages of options analysis to consider whether significant gains or losses to any groups within society appear likely.

Regional and other sub-national issues

Proposals targeted at producing localised effects within the nation state, whether at a regional, city, town village or rural level, cannot be best assessed by a framework that identifies only total national benefit. This is because local sub national policies are likely to contain a considerable element of resource and benefit and redirection to a specific location, as well as some overall "additionality" in national welfare.

A separate analysis of these local proposals should be carried out alongside the total national analysis and the results set out separately alongside the national net present value (NPV) in order for the local benefit of the proposal to be estimated and an appropriate option selection to be made.

Presenting the economic appraisals

Following the identification and measurement of the costs and benefits for each option, calculate the net present value (NPV) for each option, using the agreed national discount rate.

This section is concerned with compiling the economic appraisals for the short listed options – including the 'status quo' or 'do minimum' in their most basic format. Guidance is given on the following:

- discounting in the public sector
- calculating the NPV
- calculating the Benefit Cost Ratio (BCR)
- the treatment of privately financed schemes, if applicable
- tax differentials.

Discounting in the public sector - the Social Discount Rate and Time Preference.

There is a universal human tendency to discount the future by giving more weight to current values and events than to the future, which also applies to preference for current over future welfare.

The social discount rate is an annual percentage reduction that is applied to values in each year going forward and progressively reduces future values.

By recognising this human tendency to discount future values it is possible to compare alternative options for projects, programmes and policies with different lengths of life and different profiles over time by, in effect, putting them onto a common basis of present values thus allowing their whole life costs and benefits to be added and compared. This is known as their present value. Over time the discount rate is reduced to allow for increasing uncertainty in its estimation.

The use of Private Finance

The option of Public Private Partnerships (PPP) or any form of private finance for sourcing the programme should be considered strategically and as part of the long list appraised using the Options Framework filter.

This is because private finance provides service delivery as well as funding opportunities:

- Potential options for service delivery may include: strategic partnerships, alliances, and outsourcing arrangements.

- Potential options for funding may include: free standing projects, joint ventures, operating leases and services. All are fundamentally different approaches for the delivery of services and infrastructure in partnership with the private sector.

When the use of private finance is carried forward as an option into the short list of options for the programme, at least one of the other short listed options must be based on a comparable provision by the public sector. This enables the partnership option to be appraised fairly against a public sector comparator (PSC), as it is known, which should include the cost of the risks retained by the public sector during the design, build, funding and operational (DBFO) phases of the programme. Similarly, if different partnership options are being taken forward, alternative public sector comparators must be provided.

The following criteria provide a useful starting point for assessing a service's suitability for the use of private funding against a number of favourable characteristics.

Spending criteria	**High**	**Medium**	**Low**
1. Output/service-delivery driven			
2. Substantial operating content within the project			
3. Significant scope for additional/alternative uses of the asset			
4. Scope for innovation in design			
5. Surplus assets intrinsic to transaction			
6. Long contract term available			
7. Committed public sector management			
8. Political sensitivities are manageable			
9. Risks primarily commercial in nature			
10. Substantial deal			
11. Complete or stand alone operations to allow maximum synergies			

Tax differentials

The adjustment of market prices for taxes in economic appraisals is appropriate different tax treatment of the different options would otherwise bias the appraisal.

This should rarely be required given that identical or very similar tax regimes usually apply to different options. The tax differential may, however, be significant and so needs to be taken into account when comparing a publicly financed option to some privately financed option.

Action 11 - undertake qualitative benefits appraisal

Undertake an appraisal of the quantifiable and qualitative benefits and explain why these are important enough to affect the decision for the ranking of the options.

The main aim is to identify benefits that are quantifiable and can be expressed in monetary equivalent terms and to avoid defining benefits that cannot be measured, assessed or evaluated in any realistic way because there is no established evidence base.

Every reasonable attempt should be made to quantify benefits, even if they cannot be expressed in monetary equivalent terms. For example, the benefit of an intervention that increases people's propensity to exercise might be quantifiable but not readily expressible in monetary terms. Where quantification is particularly challenging, because the evidence base is spurious or the research costs would be disproportionate to the expenditure, it may be acceptable to express a benefit in qualitative terms; but even then it should be possible to provide evidence on the likely order of magnitude of the benefit.

When a qualitative or non monetised benefit is considered too important to be ignored in the decision, a separate calculation and judgement needs to be made about whether its cost is "a price worth paying" in terms of its additional value. This calculation provides the basis upon which alternative options without these benefits can be generated and appraised.

In all cases, the appraisal of benefits that cannot be expressed in monetary equivalent terms should be grounded in a review of the best available evidence. The evaluation of similar interventions previously undertaken usually provides a particularly important source of evidence.

The quantifiable (non monetised) and qualitative benefits must be recorded in the Benefits Register with their sources and assumptions.

Action 12 – undertake risk assessment and appraisal

Identify and quantify the risks associated with the options contained in the economic appraisals for the programme's short listed options.

The programme's service risks should be estimated and quantified in monetary terms, as equivalent likelihood values – that is the cost of mitigation multiplied by the likelihood of occurrence.

Early on in the process an initial allowance must be made for optimism bias. Later on in the process, service risks in the design, build and operational phases of the programme must be quantified for each project and key activity.

Optimism bias

Within both the public and private sectors, there is a demonstrated and systematic tendency for project appraisers to be optimistic. This is a worldwide phenomenon, whereby appraisers tend to overstate benefits, and understate timings and costs, both capital and operational.

To redress this tendency, appraisers are now required to make explicit adjustments for this bias. These will take the form of increasing estimates of the costs and decreasing and delaying the receipt of estimated benefits. Sensitivity analysis should be used to test assumptions about operating costs and expected benefits.

Adjusting for optimism provides a better estimate earlier on of key project parameters. Enforcing these adjustments for optimism bias is designed to complement, rather than replace, existing good practice in terms of calculating project specific risk. It is also designed to encourage more accurate costing. Accordingly adjustments for optimism bias may be reduced as more reliable estimates of relevant costs are built up and project specific risk work is undertaken.

Adjustments should be empirically based – for example, using data from past projects or similar projects elsewhere, and adjusted for the unique characteristics of the project. Guidance for generic projects is available (see below) and should be used in the absence of more specific evidence.

Guidance for generic projects

The definitions of project types are as follows:

- **standard building projects** – these involve the construction of buildings which do not require special design considerations (i.e. most accommodation projects – for example, offices, living accommodation, general hospitals, prisons, and airport terminal buildings)

- **non-standard building projects** – these involve the construction of buildings requiring special design considerations due to space constraints, complicated site characteristics, specialist innovative buildings or unusual output specifications (i.e. specialist/innovative buildings – for example, specialist hospitals, innovative prisons, high technology facilities and other unique buildings or refurbishment projects)

- **standard civil engineering projects** – these involve the construction of facilities, in addition to buildings not requiring special design considerations – for example, most new roads and some utility projects.

- **non-standard civil engineering projects** – these involve the construction of facilities, in addition to buildings requiring special design considerations due to space constraints or unusual output specifications – for example, innovative rail, road, utility projects, or upgrade and extension projects.

- **equipment and development projects –** these are concerned with the provision of equipment and/or development of software and systems (i.e. manufactured equipment, information and communication technology development projects or leading edge projects).

- **outsourcing projects** – these are concerned with the provision of hard and soft facilities management services – for example, information and communication technology services, facilities management and maintenance projects.

Applying adjustments for optimism bias

The table below provides adjustment percentages for these generic project categories that should be used in the absence of more robust evidence. It has been prepared from the results of an international study by Mott MacDonald into the size and causes of cost and time over-runs in past projects.

Project Type	Optimism Bias (%)			
	Works Duration		Capital Expenditure	
	Upper	Lower	Upper	Lower
Standard buildings	4	1	24	2
Non-standard buildings	39	2	51	4
Standard civil engineering	20	1	44	3
Non-standard civil engineering	25	3	66	6
Equipment/development	54	10	200	10
Outsourcing	n/a	n/a	41*	0*

* optimism bias for outsourcing projects is measured for operating expenditure.

Recommended steps

Apply the steps set out below to derive the appropriate adjustment factor to use for their projects:

- **Step 1 – decide which project type to use**

  Careful consideration needs to be given to the characteristics of a project within the programme portfolio when determining its project type. A project is considered 'non-standard', if it is innovative; has mostly unique characteristics; and Construction involves a high degree of complexity and/or difficulty.

  A programme or project which includes several project types (for example, an element of standard building, non-standard building, standard civil engineering, outsourcing and equipment/development) should be considered as a 'programme' with five 'projects' for assessment purposes

- **Step 2 – always start with the upper limit**

  Use the appropriate upper bound value for optimism bias (see above table), as the starting value for calculating the level of optimism bias

- **Step 3 – consider whether the optimism bias factor can be reduced**

  Reduce the upper bound level for optimism bias according to the extent to which the contributory factors have been managed.
  The extent to which these contributory factors are mitigated can be reflected in a mitigation factor. The mitigation factor has a value between 0.0 and 1.0. Where 0.0 means that contributory factors are not mitigated at all, 1.0 means all contributory factors in a particular area are fully mitigated and values between 0.0 and 1.0 represent partial mitigation.

  Optimism bias should be reduced in proportion to the amount that each factor has been mitigated. Ideally, the optimism bias for a project should be reduced to its lower bound before contract award. This assumes that the cost of mitigation is less than the cost of managing any residual risks

- **Step 4 – apply the optimism bias factor**

The present value of the capital costs should be multiplied by the optimism bias factor. The result should then be added to the total net present cost (or NPC) to provide the base case. The base case is the best estimate of how much a proposal will cost in economic terms, allowing for risk and optimism

- **Step 5 – review the optimism bias adjustment**

  Clear and tangible evidence of the mitigation of contributory factors must be observed, and should be verified independently, before reductions in optimism bias are made.

Presenting the results

Following these steps will provide an optimism bias adjustment that can be used to provide a better estimate of the base case. Sensitivity testing should be used to consider uncertainties around the adjustment for optimism bias. 'Switching values' (see below – action 13) should be shown where appropriate. If the adjustment for optimism is shown as a separate piece of analysis, sensitivity analysis should be used to show the range of potential outcomes, not just the single optimism bias adjustment.

Reducing optimism bias

Programme and project appraisers should review all the contributory factors that lead to a cost and time over-run, as identified by the research. The main strategies for reducing the bias are:

- full identification of stakeholder requirements (including consultation)
- accurate costing
- risk mitigation and management.

The lower bound values represent the optimism bias level to aim for in projects with effective risk management by the time of contract award.

Case study
The capital costs of a non-standard civil engineering project within a major change programme are estimated to be $50m NPC. No detailed risk analysis work has taken place at this stage, although significant costing work has been undertaken. The project team reports to the project board and applies an optimism bias adjustment of 66% showing that, for the scope of the work required, the total cost may increase by $33m to $83m in total. This is based on consultants' evidence and experience from comparable civil engineering projects at a similar stage in the appraisal process.

As this potential cost is unaffordable, the chief executive requests reductions in the overall scope of the project, and more detailed work. As the project progresses, more accurate costs and quantified risks are identified,. The adjustment for optimism bias is able to be reduced until there remains only a general contingency of 6% for unspecified risks.

Without applying optimism bias adjustments, a false expectation would have been created that a larger project could be delivered at a lower cost.

Operating costs and benefits

The application of optimism bias should also be considered for operating costs and benefits. If there is no evidence to support adjustments to operating costs or benefits, appraisers should use sensitivity analysis to check switching values (see below – action 13). This should help to answer key questions such as:

- By how much can we allow benefits to fall short of expectations, if the proposal is to remain worthwhile? How likely is this?
- By how much can operating costs increase, if the proposal is to remain worthwhile? How likely is this to happen?
- What will be the impact on benefits if operating costs are constrained?

Risk identification and measurement

There is always likely to be some difference between what is expected and what eventually happens, because of biases unwittingly inherent in the appraisal, and the risks and uncertainties that materialise during the design, build, and operational phases of the project. As a result, risk management strategies should be adopted for the appraisal and implementation of large policies, programmes or projects and the principles applied to smaller proposals. This is because things can always go better than expected (‘upside risk’) as well as worse (‘downside risk’).

A risk register should be developed from the beginning of the programme (see management case), updated and reviewed regular basis and used as the source for:

- identifying the main business and service risks (in the strategic case section)
- quantifying and appraising the business and service risks (in the economic case section)
- apportioning and transferring service risks (in the commercial case section)
- mitigating and managing risks over the entire life cycle of the scheme.

Risk identification

There are a number of techniques which may be used to identify the risks associated with programmes and projects. Three commonly used methods are:

- Structured review meetings – these involve the programme and project teams and encourage participation and ownership of the risks by key personnel

- Risk audit interviews – these are conducted by experienced managers and/or advisers, with all those involved in the programme or project with responsibility for risk, and

- Risk brainstorming workshops – these include all members of the programme and project teams and encourage imaginative ideas for the mitigation and management of risk.

General types of risk

Risks fall into three main categories: business, service and external non-systemic risks.

Business related risks remain with the public sector and can never be transferred. Service related risks occur in the design, build, funding and operational phases of a programme and may be shared between the public and private sectors. External systemic risks affect all society and are unpredictable and random in nature.

The generic types of risk that are likely to be encountered within these categories are set out in broad terms below:

Generic Risks	Description
Business risk	**The risk that the organisation cannot meet its business imperatives.**
Reputational risk	The risk that there will be an undermining of customer's/media's perception of the organisation's ability to fulfil its business requirements – for example, adverse publicity concerning an operational problem.
Service risk	**The risk that the service is not fit for purpose.**
Design risk	The risk that design cannot deliver the services to the required quality standards.
Planning risk	The risk that the implementation of a project fails to adhere to the terms of the planning permission or that detailed planning cannot be obtained; or, if obtained, can only be implemented

	at costs greater than in the original budget.
Build risk	The risk that the construction of physical assets is not completed on time, to budget and to specification.
Project intelligence risk	The risk that the quality of initial intelligence (for example, preliminary site investigation) will impact on the likelihood of unforeseen problems occurring.
Decant risk	The risk arising in accommodation projects relating to the need to decant staff/clients from one site to another.
Environmental risk	The risk that the nature of the project has a major impact on its adjacent area and there is a strong likelihood of objection from the general public.
Procurement risk	The risk that can arise from the contractual arrangements between two parties – for example, the capabilities of the contractor/ when a dispute occurs.
Operational risk	The risk that operating costs vary from budget and that performance standards slip or that a service cannot be provided.
Availability and performance risk	The risk that the quantum of service provided is less than that required under the contract.
Demand risk	The risk that the demand for a service does not match the levels planned, projected or assumed. As the demand for a service may be partially controllable by the public body concerned, the risk to the public sector may be less than perceived by the private sector.
Volume risk	The risk that actual usage of the service varies from the levels forecast.
Occupancy risk	The risk that a property will remain untenanted – a form of demand risk.
Maintenance risk	The risk that the costs of keeping the assets in good condition vary from budget.
Technology risk	The risk that changes in technology result in services being provided using sub-optimal technical solutions.
Funding risk	The risk that the availability of funding leads to delays and reductions in scope as a result of reduced monies.
Residual value risk	The risk relating to the uncertainty of the values of physical assets at the end of the contract period.
External non systemic and catastrophe risks	**The risks that affect all society, and are not connected directly to the programme or project**. These risks are accounted for in the discount rate and include, for example policy and technological disruption risks
Policy risk	The risk of changes in policy direction leading to unforeseen change.
Technological disruption risk	The risk of new techniques emerging that completely transform the way things are done, such as the appearance of affordable internet downloading and data sharing.

Risk quantification

It is good practice to quantify the cost of risk through a ‘risk premium’ which is added to the costs of the options to provide the full expected value of the options. As the appraisal proceeds, more specific risks will be identified, thus reducing the more general optimism bias.

An 'expected value' provides a single value for the expected impact of all risks. It is calculated by multiplying the likelihood of the risk occurring (probability) by the cost of mitigation and summing the results for all risks and outcomes.

Single point probability analysis

At its basic, a risk analysis could consist of an estimate of the cost of each risk occurring, multiplied by a single probability of that risk occurring in a particular year – see the example below.

Case study: single point analysis	
Annual cost of service	$2 million
Estimated mitigation for cost over-run	$200,000
Estimated probability of risk occurring	10%
Estimated value of risk = $200k x 10%	$20,000

Multi-point probability analysis

There is a range of possible outcomes for any risk. An output probability distribution provides a complete picture of the possible outcomes and recognises that some of these outcomes are more likely to occur than others. An 'expected outcome' is the average of all possible outcomes, taking into account their different probabilities. An example is given below:

Case study: expected costs of a construction project using multi point analysis

It is estimated that a particular facility will cost $50m to build. The expected costs associated with construction cost uncertainties have been calculated as follows:

Possible cost ($m)	Difference from estimated cost ($m)	Estimated probability of the event occurring	Risk value ($m)
45	-5	0.1	-0.5
50	0	0.6	0
55	+5	0.1	+0.5

60	+10	0.1	+1.0
65	+15	0.1	+1.5

The most likely outcome is that of no extra cost, as this outcome has the highest probability (60%). However, the expected outcome – the sum of each possible outcome multiplied by its probability – is an additional cost of $2.5 million. This needs to be calculated in NPV terms, taking into account the time period over which the risk occurs.

Decision trees

Decision trees can be useful ways of thinking about alternatives for the outcomes and so can and illustrate thinking about risk. They can be used to develop and show the key features of alternative scenarios where key variables external to the proposal under consideration are likely. In situations where there is a potential for learning over time to make better informed decisions, then delay can also have a positive value.

To help quantify such cases, decision trees have been developed into “real options analysis”. They are graphical representations useful in assessing situations where the probabilities of particular events occurring depend on previous events, and can be used to calculate expected outcomes in more complex situations. For example, the likelihood of a particular volume of traffic using a road in the future might depend on movements in the oil price. Different scenarios can be analysed in this way.

Monte Carlo

There are a variety of packages available that take the analysis of risk a step further, using probability distributions.

Monte Carlo analysis is a simulation technique that presents both the range as well as the expected value of the collective impact of various risks. It is useful when there are many variables with significant independent uncertainties. However, expert advice is required to ensure it is applied properly, especially when risks are not independent of each other. Sufficient data is also needed on the key input variables and outputs to support a stable numerical model with well estimated distribution functions.

Action 13 – select preferred option and undertake sensitivity analysis

Select the preferred option and undertake sensitivity analysis, thereby testing its robustness in relation to switching values and different scenarios for costs and the delivery of benefits

Identifying the preferred option

Selecting the preferred option should be reasonably straightforward in the decision making process if the required analyses has been rigorously undertaken.

The business case should present the information succinctly and clearly for each option to support clear decision making. The following format provides a summary of the costs and benefits by key category and class. While not all of the costs and benefits will apply to every proposal, it should be considered as a starting point for the presentation of cost benefit information.

Option	Undiscounted	Discounted
Costs in the Appraisal of Public Value		
1. **Total Direct Public Costs (to Originating Organisation)**	....	
1.1 Capital	....	
1.2 Revenue	....	
2. **Total Indirect Public Costs (to Wider Public Sector)**	....	
2.1 Capital	....	
2.2 Revenue	....	
3. **Wider Social Costs**	....	
3.1 Capital	....	
3.2 Revenue	....	
4. **Total risk costs**	....	
4.1 Optimism bias	....	
4.2 Estimated or Measured risk	....	
5. **Total of costs** (1,2,3,4 above)	....	....
Benefits in Appraisal of Public Value		
6. **Total Direct Public Sector Benefits**	....	
6.1 Cash releasing benefits (CRB)	....	
6.2 Non cash releasing benefits (NCRB)	....	
7. **Total Indirect Public Sector benefits**	....	
7.1 Cash releasing benefits (CRB)	....	
7.2 Non cash releasing benefits (NCRB)	....	
8. **Total Wider Social Benefits**	....	
8.1 Cash releasing benefits (CRB)	....	
8.2 Non cash releasing benefits (NCRB)	....	
9. **Total value of benefits** (6,7,8 above)	....	....
Net Public Value (9-5 above)		....
Benefit Cost Ratio (BCR) (9÷5 above)		....

The values of costs, benefits and risks are not always comparable, because some benefits and risks are not easily quantifiable or monetisable.

When an option has higher benefits, the decision needs to be made whether these benefits justify a higher net present cost. If the additional benefits are insufficient to justify the additional costs and risks, a lower cost and risk option should be selected.

Often the choice will remain between high cost/high benefit options and low cost/low benefit options. In these circumstances, a decision is required on the extent the higher benefits are worth paying for. Risk can also play a part in that a high cost/high benefit option may be considered too risky to undertake, and an intermediate option might show a more optimal balance of risk.

The final choice of the preferred option lies with senior management and their stakeholders, drawing on professional advice.

Sensitivity analysis

An expected value is a useful starting point for undertaking the impact of risk between different options. But however well risks are identified and analysed, the future is inherently uncertain. So it is also essential to consider how future uncertainties can affect the options.

Sensitivity analysis is fundamental to appraisal. It is used to test the vulnerability of options to unavoidable future uncertainties and to test the robustness of the ranking of the options. It involves testing the ranking of the options by changing some of the key assumptions. However, spurious accuracy should be avoided and it is essential to consider how the conclusions may alter, given the likely range of values that key variables may take.

Sensitivity analysis may not change the preferred option. However, if small changes in the assumptions alter the ranking, it is an indication that the investment process should proceed cautiously, because it has non-robust elements in it. This means that a more detailed analysis and testing of the costs, benefits and risks of some of the options should be considered.

Sensitivity analysis should be undertaken in two stages:

- switching values
- scenario analysis based on the best and worst possible outcomes

Switching values

This technique highlights the point at which the choice of the preferred option would switch to another option due to any uncertain costs and/ or benefits.

The calculation of switching values is carried out by showing other options in relation to the preferred option using percentages (the preferred option is zero). This indicates by how much a variable would have to fall (if it is a benefit) or rise (if it is a cost) to make it not worth undertaking the preferred option. In other words how much variables would have to change for the preferred option to be 'dislodged'. This should be considered a crucial input to the decision as to whether a proposal should proceed. It therefore needs to be a prominent part of the appraisal.

Scenario analysis

Alternative scenarios are useful in considering how options may be affected by future uncertainty and provide a valuable way of assessing risk, especially where there is a known risk of significant variations in external conditions.

Scenarios should be chosen to draw attention to the major technical, economic and political uncertainties on which the success of the proposal depends.

Careful consideration should be given before running the scenario analysis to the choice of circumstances, as sensitivity analysis does not simply involve changing costs, benefits and risks by an arbitrary 10 or 20%; but rather by the values that represent the most likely increases (or decreases) in cost etc. for documented reasons.

Scenario analysis may take the form of asking simple 'what if' questions for small and medium sise investments and extend to creating detailed models of 'future states of the world' for major programmes and projects. The expected NPV is then calculated for each scenario.

If the results for the scenario analysis are similar to the switching values, further work is required on the options to determine their robustness. Where appropriate, the sensitivity analysis of the economic appraisal findings should include the following:

Category	**Assumptions and Estimates**
Costs and benefits	Capital costs
	Lifecycle costs
	Costs of core services
	Costs of non-core services

	Benefits valued in monetary terms
Non monetary benefits	Quantifiable and Qualitative
Timing	Delays in the project

More specifically, examples of variables that are likely to be both inherently uncertain and fundamental to an appraisal are:

- the growth of real wages
- forecast revenues
- demand
- prices
- risk values.

A prior understanding of how costs fall into fixed, step, variable and semi-variable categories can help in understanding the sensitivity of the total costs of proposals.

Final selection of the preferred option

The preferred option should be that with the highest risk adjusted net present value (NPV), if a full cost benefit analysis (CBA) has been undertaken and the cost estimates are as accurate and reliable as possible.

Alternatively, the preferred option should be that with the lowest net present cost (NPC), if cost effectiveness analysis (CEA) has been undertaken, again assuming that the cost estimates are as accurate and reliable as possible.

A combination of proposals that best optimises the value of benefits should be selected if there is an affordability constraint. The ratio of the NPV to the expenditure falling within the constraint can be a useful guide to developing the best combination of proposals. However, it should not be automatically assumed that additional monies will be unforthcoming for funding a higher cost proposal which demonstrably offers better public value.

Other factors may also affect the selection of the preferred option; in particular, any unvalued costs, risks and non-monetised benefits. In these circumstances it is essential to involve stakeholders in the decision making process about whether any additional cost is a price worth paying.

The results for each short-listed option should be shown as follows:

Evaluation results	Option 1 Status Quo	Option 2 Do Minimum	Option 3	Option 4 etc

Net Present Values				
Qualitative benefits appraisal				
Qualitative risk appraisal				
Overall ranking				

Other methods – pay-back period and internal rate of return

The 'pay-back period' is sometimes put forward as a decision criterion. However, the pay back ignores the difference in values over time and the wider impacts of the proposal. These drawbacks mean it should not generally be used as a decision criterion.

The 'internal rate of return' (IRR) should also be avoided as the decision criterion; because whilst it is very similar to net present value (NPV) as a criterion, there are circumstances in which it will provide different answers. For example, IRR can rank projects that are mutually exclusive differently from NPV.

These techniques may, however, be of interest to some parts of the public sector in terms of assessing commercial and financial considerations.

Workshop Stage 3 – Assessing the Short listed Options

At least one workshop is recommended for the completion of this section of the Programme Business Case, so that the key stakeholders are engaged earlier on, can challenge and assist to shape the direction of the programme.

The purpose, objectives, key participants and outputs of this workshop are as follows:

Workshop 3	**Assessing the Short listed Options**
Objectives	• To validate the findings of cost benefit analysis (CBA)/ cost effectiveness analysis (CEA) to the short listed options • To appraise the qualitative benefits and risks. • To identify the preferred option for the programme that offers best public value.
Key participants	• External stakeholders or commissioners • Director of finance • Economic adviser • Customer and/or user representatives

	• Project manager • Facilitator
Outputs	• Identification of the preferred option for the delivery of the programme.

Checklist for step 4

There should now be a clear understanding of the preferred option, which is evidenced from:

- the economic appraisals (NPVs) for the short-listed options – risk adjusted and applying optimism bias
- an assessment of both the non-monetised (qualitative) benefits and risks
- an assessment of the uncertainties (sensitivity analysis)

Output from steps 3 and 4

The economic case section of the programme business case is now complete and must be kept under review.

Chapter 6: Preparing the Commercial Case

Introduction

The purpose of the commercial case is to set out the procurement arrangements for the programme's projects and key activities.

These arrangements need to be considered from the outset, in order to secure long term public value during the operational phase of the programme.

Completing the commercial case requires undertaking the following actions for the preferred option identified in the economic case.

Step 5	**Preparing for the potential deal**
Action 14	Determine procurement strategy
Action 15	Determine service streams and required outputs
Action 16	Outline potential risk apportionment
Action 17	Outline potential payment mechanisms
Action 18	Ascertain contractual issues and accountancy treatment

At least one facilitated workshop is recommended at this stage.

Action 14: Determine procurement strategy

Determine the procurement strategy and likely procurement routes for the programme's projects and key activities.

This requires considering how the required services, supplies or works can best be procured in accordance with established rules and regulations.

Key considerations are:

- the choice of procurement method and the degree to which early consultation with the supply side is required, and

- the extent to which the organisation should be acting as a single procurement entity or procuring more collaboratively with other public bodies in order to secure economies of scale and improved public value.

Collaborative procurements

These strategic arrangements at national, departmental, sector and local level offer significant flexibility and potential value for money (VFM), through economies of scale and considerable reductions in procurement costs, through pre-competition.

Collaborative procurements range from ‘pre-competed’ arrangements and prices at national level to departmental and more local arrangements involving ‘call-off contracts’ and management frameworks for specified services, supplies and works.

Ensure the procurement strategy is attached to the Programme Business Case.

Action 15: determine service streams and required outputs

Identify the programme’s service streams and required outputs (projects) and the scope and content of the potential Deals to be made with public and private sector service providers.

This should be undertaken on a project by project basis, as required.

Consider the following approaches:

- Framing the programme’s requirements in terms of the outcomes and outputs to be produced, so as to enhance innovation.

- Specifying the quality attributes of the services and outputs required, together with the performance measures against which they will be assessed.

- Scoping the potential deals in such a way as to permit potential service providers to suggest innovative ways of meeting the programme’s project requirements.

Services and required outputs

Summarise the programmes required services and outputs, by project, and the potential implementation timescales required.

Consideration should be given to capturing the following details for the programme and its projects:

- the business areas affected by the procurement
- the business environment and related activities
- the business objectives relevant to the procurement

- the scope of the procurement
- the required service streams
- the required outputs, including: phases, performance measures and quality attributes
- the stakeholders and customers for the outputs
- the options for variation in the existing and future scope for services
- the potential developments and further phases that may be required.

Procurement plan and proposed implementation timescales

The programme plan for the procurement of its key projects, outputs and activities should be outlined and/or attached to the Programme Business Case.

This should include timescales for the procurement of key projects.

Action 16: outline potential risk apportionment

Identify how the programme's service risks in the design, build, funding and operational phases of programme and project delivery may be apportioned between the public and private sectors.

The governing principle is that specific risks should be allocated to the party best able to manage it, subject to the risk premium. The intention is to optimise the allocation and sharing of risk rather than to maximise the number of risks to be transferred to potential service providers for delivery of the programme's projects.

Guiding principles

The following principles should be taken into account:

- the public sector should consider transferring risk to the private sector when the service provider is better able to influence the outcome than the procuring authority.

- the degree to which risks may be transferred depends on the specific proposal under consideration – hence the need to consider project by project.

- the successful negotiation of risk transfer requires a clear understanding by the procuring authority of the risks presented by a proposal; the broad impact that these risks may have on the service provider's incentives and financing costs (cost drivers); and the degree to which risk transfer offers value for money – hence the need to identify and cost individual risks

- the private sector should be encouraged to take the risks it can manage more effectively than the public sector; particularly where it has clear ownership, responsibility and control.

- the transfer of risks can generate incentives for the private sector to provide more timely, cost effective and innovative solutions.

Complete the following risk allocation for the programme and/or by key project as required. Illustrate the amount of risk to be shared by percentage point (%), if possible.

Risk Category	Potential allocation		
	Public	Private	Shared
1. Design risk			✓
2. Construction and development risk			✓
3. Transition and implementation risk			✓
4. Availability and performance risk			✓
5. Operating risk	✓		
6. Variability of revenue risks	✓		
7. Termination risks	✓		
8. Technology and obsolescence risks			✓
9. Control risks	✓		
10. Residual value risks	✓		
11. Financing risks	✓		
12. Legislative risks	✓		
13. Other project risks	✓		

Action 17: outline potential payment mechanisms

Identify how the programme intends to make payment for its key projects and services over the life span of any contracts.

Consider how best to 'incentivise' the service provider(s) to provide value for money over the life span of the programme and its operational phase. This will assist the organisation to deal with the inevitable need for "change" to services and operations in the future and to embed risk transfer and allocation within the charging mechanism for the programme.

The charging mechanism is the formula against which payment for the contracted services will be made. The underlying aim of the payment mechanism and pricing structure is to reflect the optimum balance between risk and return in the contract. As a general principle, the approach should be to relate the payment to the delivery of service outputs and the performance of the service provider.

Properly constructed payment mechanisms incentivise the service provider to deliver services in accordance with the business imperatives of the public sector in the following key phases of the service:

- the pre-delivery phase – up to the acceptable delivery of the service and commencement of the payment stream
- the operational phase – following acceptable delivery of the service up to the close of the primary contractual period
- the extension phase – post primary contract period.

The pre-delivery phase

Two charging mechanisms are important in the pre-delivery design and build phases – fixed price/costs and payment on the delivery of agreed outputs.

Fixed price/costs

The service provider must be given an incentive to deliver services to time, specification and cost. This element involves a fixed price for the delivery of 'agreed outputs' within a fixed timetable, with appropriate remedies in place for delays and cost over-runs.

Payment on the delivery of agreed outputs

This element links payment to the delivery of key service outputs and does not commence until the contracted services come on stream, as agreed.

These payments may be staggered against the delivery of key outputs within the overall implementation plan for the complete service. However, the guiding principle is that a revenue stream to the service provider should only commence when an off-setting benefit stream is realised on the part of the public sector.

Ultimately, a service that fails to perform could result in termination of all the payment streams and, in extreme circumstances, pass the rights to the underpinning assets for the service to the public sector.

The operational phase

A number of mechanisms are relevant here – each is discussed below. Any payment mechanism should be based on the principle of payment being made only when requirements/standards are met.

Availability payment

This element links a proportion of the payment stream to the availability of the service. For example, the contract could stipulate that the service must be available for a minimum of 95% of the time between contracted hours.

In such instances, the procuring authority will need to negotiate service level agreements (SLAs), which outline the availability criteria. In some cases, it may be appropriate to treat availability as a threshold which releases a payment stream based on a combination of other factors – for example, performance or throughput of service.

Failure on the part of the service provider to meet the agreed availability criteria should lead to reduced payments and, ultimately, to cessation of the service.

Performance payment

This element links a proportion of the payment mechanism to the performance of the service. Linking payments to specified performance targets helps to ensure that the service provider continues to deliver the agreed outputs throughout the life span of the service.

Transaction/volume payment

This element links a proportion of the payment mechanism to the achievement of business benefit – for example, the number of transactions or volume of business provided.

Linking payment to the productivity or usage of the service in this way gives the service provider the incentive to optimise the level of productivity and to invest further in the underlying infrastructure, if increased levels of productivity are required.

Incentive payment

This element of the payment mechanism is linked to potential improvements in the overall performance of the public sector's business processes; and encourages the service provider to deliver new ways of working and additional benefits that can be shared by both parties.

Cost of change

This element of the payment mechanism seeks to minimise the cost of change by encouraging the service provider to build flexible and adaptable solutions in the first instance.

The cost of change represents a major risk to the public sector and should be mitigated through the contractual obligation to benchmark and market test the contracted services at regular intervals.

If it is not possible to agree exact prices for anticipated changes at some future time, the process for agreeing the cost of change should be established at the outset.

Third party revenues

This element of the payment mechanism gives the service provider the incentive to develop and exploit alternative revenue streams and new business, wherever possible without prejudice to the standing of the public sector.

The price for core services will be reduced and overall value for money (VFM) improved, if the scope for these potential revenue streams has been recognised and agreed, in principle, at the outset.

The extension phase

Technological obsolescence

During the operational phase, the service provider is delivering the service for an agreed revenue stream and will naturally invest in alternative ways of working and new technologies if this allows overall costs to reduce and profit margins to improve.

Two contractual devices can be employed to encourage the service provider to consistently upgrade the core technology. First, various upgrades can be included in the initial price to ensure that the infrastructure underpinning the service is kept up-to-date; and second, a proportion of the service provider's initial recoverable investment could be deferred – with agreement – until the end of the contractual period.

Contract currencies

Contract currencies are the variable measures that make the payment mechanism meaningful and effective in the service contract – for example, the number of complaints received; the proportion of users of the service requiring assistance, time taken to answer phone, number of abandoned calls, etc.

The aim should be to choose contract currencies which demonstrate productivity and performance. In other words, comparative measures which provide service providers with the incentive to improve – a reduced payment for under performance and enhanced payments for performing in excess of the minimum requirement specified in the contract.

Action 18: ascertain contractual issues and accountancy treatment

Outline the contractual arrangements for the procurement of the programme's projects, including the use of a particular contract, the key contractual issues for the deal and its accountancy treatment and personnel implications (if any).

Use of contract

State the form of contract to be used.

In the case of a standard contract, state the title of the model contract to be used.

In the case of a bespoke contract, state why this is more advantageous than using a standard contract.

Key contractual issues

Contract management arrangements and key contractual issues should be considered and recorded in the Programme Business Case.

These will vary from project to project, but in most instances the main areas of the contract to be categorised are as follows:

- the duration of the contract(s) and any break clauses
- the service provider's and procuring authority's respective roles and responsibilities in relation to the proposed deal
- the payment/charging mechanism, including prices, tariffs, incentive payments etc
- change control (for new requirements and updated services)
- the organisation's remedies in the event of failure on the part of the service provider to deliver the contracted services – on time, to specification and price.
- the treatment of intellectual property rights
- compliance with appropriate regulations etc
- the operational and contract administration elements of the terms and conditions of service
- arrangements for the resolution of disputes and disagreements between the parties
- the agreed allocation of risk
- any options at the end of the contract.

Accountancy treatment

Provide details of the intended accountancy treatment for the programme's potential deals by stating on whose balance sheet – public or private sector, or both – the assets underpinning the service will be accounted for; and the relevant accountancy standard(s).

A letter supporting the balance sheet conclusion should be provided by the Finance Director or by an external auditor.

Personnel implications

Identify any personnel implications for the programme.

Public sector organisations are often obliged to involve their staff and their representatives in a process of continuous dialogue during significant projects involving considerable internal change. This also represents best practice in terms of human resources policies.

Workshop Stage 4 – Developing the Deals

At least one workshop is recommended for the completion of this section of the programme business case, so that the key stakeholders are engaged earlier on, can challenge and assist to shape the direction of the programme.

The purpose, objectives, key participants and outputs of this workshop are as follows:

Workshop 4	**Developing the Commercial Strategy and Deals for the programme**
Objectives	• To develop the service specification for the programme's projects • To apportionment of the service risks and explore the underpinning payment mechanisms • To develop the contractual arrangements
Key participants	• External stakeholders or commissioners • Director of finance • Economic adviser • Customer and/or user representatives • Project manager • Facilitator
Outputs	• Procurement and Commercial strategies for the programme • Preliminary risk allocation matrix (RAM) for the programme • Potential deals for the projects within the programme

Checklist for step 5

There should now be a clear understanding of the Programme’s:

- procurement strategy and routes
- potential deals and required services
- implementation timescales for potential projects
- supporting charging/payment mechanisms
- the contract(s) to be used and the key contractual issues

Output from step 5

The commercial case section of the Programme Business Case is now complete and must be kept under review.

Chapter 7: Preparing the Financial Case

Introduction

The purpose of the financial case is to ascertain the affordability and funding requirements of the preferred option and to demonstrate that the recommended programme and its supporting projects are affordable.

This involves determining the funding and affordability of the proposed programme and its supporting projects on the organisation's income and expenditure account, balance sheet and prices for its services (if applicable).

Completing the financial case requires undertaking the following actions.

Step 6	**Ascertaining affordability and funding requirement**
Action 19	Prepare financial model and the financial appraisals.

Focus of the financial appraisals

The focuses of the financial and economic appraisals are completely different. The economic appraisals focus on the value for money of the overall programme. The financial appraisals focus on the affordability and fundability of the programme and its constituent projects and activities.

The costs and benefits appraised in the financial case reflect an accountancy based perspective. Consequently, both resource and non-resource costs and benefits are factored into the analysis; so, for example, whereas transfer payments and depreciation are excluded from the economic appraisals, these costs are included in the financial appraisals, because they have a direct bearing on the affordability of the programme.

The key differences can be summarised as follows:

Economic Appraisals	**Financial Appraisals**
Focus: • Net Present – Public value for money	Focus: • Funding and affordability – cash flow and stock
Coverage:	Coverage:

• Society as a whole	• Relevant public organisation(s) budget
Relevant standards: • National guidance • Agreed discount rate applied	Relevant standards: • Public sector accounting rules and standing orders
Analysis: • real (base year) prices • use of opportunity costs • includes all quantifiable welfare costs and benefits to society • includes environmental costs • excludes transfer payments • excludes general inflation • excludes sunk costs • excludes depreciation, impairment and capital charges.	Analysis: • current (nominal) prices • benefits – cash releasing only • includes capital and revenue costs • includes transfer payments • includes inflation

The following financial statements are required for the programme's spend:

- **a budget statement** - which should show the resource costs over the life span of the programme.

- **a cash flow statement** - which should show the cash which will be spent on the lead option, if it goes ahead. The existing spend (if any) and the additional spend should be shown separately

- **a funding statement** - which should show which internal departments, partners and external organisations will provide the resources required. Where external funding is required, a written statement of support from the programme's stakeholders or commissioners is needed.

The above should include the contingencies necessary to ensure that there is sufficient financial cover for risks and uncertainties.

Financial modelling

For large, significant and complex programmes, a financial model of the proposed expenditure needs to be constructed.

The model will provide an informed best guess of the likely impact and outcomes of the proposed programme in its early stage of development. However, the reliability and robustness of the model will increase as it is kept under continuous review and updated to reflect the latest information.

Building the model may require specialist advice from accountants and financial advisers from outside of the organisation. In these circumstances, the organisation's Director of Finance and the Programme's Senior Responsible Owner must play a lead role in vetting and maintaining the integrity of the model, since responsibility for its use as a decision making tool ultimately falls to the organisation.

The minimum requirements for most programmes and projects are as follows:

Minimum requirements for a financial model

- recording a description of the model and the associated methodology
- agreeing and recording the underlying assumptions (for example, interest rates, inflation, taxation, capital charges, depreciation etc.)
- detailing the proposed funding structure
- preparing the inputs schedules (financial costs, cash-releasing benefits and risk contingencies)
- preparing the projected 'profit and loss'
- preparing balance sheet projections
- undertaking cash flow projections
- preparing funding schedules
- calculating project returns for the different elements of financing
- preparing supporting schedules – i.e. for loans, fixed assets, taxation, and payments

Capital and revenue requirements

Following on from the modelling exercise, a statement showing the capital and revenue requirements for the recommended programme should be prepared.

This should set out:

- the capital and revenue consequences of the preferred option for the programme over the life span of the service and/or contract period

- how this compares with the original capital ceiling for the scheme (if any)

- any shortfall in capital and revenue requirements (the 'funding gap').

This statement should also indicate the capital sum being requested and, ideally, that the organisation has sufficient income to meet the ongoing costs of the project. The minimum requirement is as follows:

Summary of financial appraisal

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 etc	Total
Preferred option:								
Capital								
Revenue								
Total								
Funded by:								
Existing								
Additional								
Total								

Net effect on prices

It may also be necessary to assess the impact of the proposed deal on any contract prices that the organisation charges for its services. Costs should be covered by income, year by year, and the organisation must be confident that existing customers will continue to contract for services, or that new purchasers will secure additional contracts.

The impact on prices of capital charges must also be considered, if applicable. Capital charges are significant when considering the affordability of a development and they must be included in year by year financial projections.

The benefits that the proposed deal will deliver and the prices that the organisation will charge as a result will have an impact on competitiveness. Organisations should, therefore, compare and benchmark the prices and quality levels of similar services offered by other providers.

The effect on prices should be analysed in sufficient detail for purchasers to ascertain how the scheme will impact them. This means considering the impact on:

- the organisation's prices as a whole
- the prices for individual services
- the prices of specific contracts.

Public sector investments are difficult to justify if they lead to an increase in prices for the organisation's services.

Impact on the income and expenditure account

The impact of the programme on the organisation's income and expenditure should be assessed. Both the current position and the likely outcome should be recorded in the programme business case by a qualified accountant who understands the programme and the organisation's business and supported by the Organisation's Director of Finance.

Impact on the balance sheet

The impact of the programme on the organisation's balance sheet must be assessed. Both the current position and the likely outcome should be fully recorded in the Programme Business Case by a qualified accountant who once again understands the programme and the organisation's business.

Where significant assets are an integral part of the investment, their accounting treatment will need to be examined (see commercial case). This will require an independent opinion from the organisation's auditors.

Stakeholder(s)/ commissioner(s) support

Affordability issues are one of the main reasons for delay at the point at which programme and project business cases are submitted for approval. The key principle here is that the sources of funding and the amounts required over time must be confirmed and the programme shown to be affordable throughout its life span.

A programme business case will only be successful and approved if consultation has been held between the organisation seeking spend for service improvement and its stakeholders/ commissioners/ purchasers, and other interested parties.

Agreement, in principle, must be obtained for the programme from the purchasers for the scheme. This should be in written form and included in the annex to the Programme Business Case.

The following provides an overview of the issues that should be addressed:

A commissioner's letter should:

- demonstrate that the main commissioner and other commissioners have been involved in developing the programme throughout the key stages
- confirm acceptance of the strategic aims and spending objectives of the programme, including its functional content, size and services
- confirm that the financial costs of the scheme can be contained within the agreed and available budget and a willingness and ability to pay for the services at the specified price level
- state the margins of leeway beyond which support must be re-validated
- demonstrate that suitable contingency arrangements are in place to work with the provider to address any current or unforeseen affordability pressures
- be provided by the appropriate individual(s) within the organisation – usually the chief executive officer

Assessing affordability

Assessing affordability requires sound judgment of the organisation's business and requires that:

1. the balance sheet has been correctly organised and properly accounts for current assets, current liabilities, long-term liabilities and capital
2. the balance sheet of the organisation is in a healthy state
3. the organisation is solvent
4. the organisation is not over-trading
5. the cash flow of the organisation is sound
6. the necessary allowance has been made for risks.

There are a number of techniques available to public sector for assessing affordability. Those in common use within the private sector include:

The balance sheet – items 1 and 2

This involves an assessment of working capital, which is defined as follows:

Working capital = current assets – current liabilities

An organisation should never run short of working capital or over-capitalise. This is a common reason for business failure. A ratio of current assets to current liabilities of 2:1 is generally agreed to be the minimum working capital ratio. The ratio is calculated as follows:

$$\text{Working capital (ratio)} = \frac{\text{current assets}}{\text{current liabilities}}$$

Solvency – item 3

This means that the organisation can meet any debt obligation in the near future without jeopardising the liquidity of the business.

Over-trading – item 4

This links in with over-capitalisation, where the organisation is running short of working capital as a result of having acquired too many assets, leaving itself short of cash for operational expenses.

In this situation attention must be paid to the organisation's cash flow; but it is first necessary to consider the return on capital employed and the return on capital invested.

The return on capital employed enables us to compare the receipts (or profits) earned with the capital employed to earn them, and may be calculated as follows:

Return on capital employed = net receipts (or profits) - capital employed.

The return on capital invested calculates what the return was overall on the capital used and takes into account the lost opportunity or 'opportunity cost' of the capital employed. As such it is calculated as follows:

Return on capital invested = net profit – opportunity cost - capital invested

Cash flow – item 5

Assessing cash flow should take into account:

- the pattern of business activities and trading generally
- budgeting for cash flow – a forecast which looks ahead and envisages the likely income and expenditure
- an assessment of the cash balance at the end of a particular period.

Risks – item 6

There are a number of risks which could affect the affordability of the programme. The Programme Business Case should summarise the results of the risk contingencies and sensitivity analysis which underpin the financial case.

The risks and uncertainties will vary from project to project within the programme, but some key questions to consider are:

- Would the project be affordable if capital costs were to be x% higher than expected?
- What if the expected savings were to fall by y%?
- What circumstances might cause saving targets to be breached?
- What if income to the organisation were to be reduced by z% or more?
- Is there a robust strategy in place to guard against these outcomes?

Pay-back period

Finally, there is the pay-back period, which measures the rate at which the financial benefits from the investment 'pays back' the initial investment costs. In general, projects with a short pay-back period are preferable to those with long pay back periods.

Closing affordability gaps

Affordability problems are most likely to occur in the early years of the programme and its project - in the construction and development phase –

when benefits are unlikely to be sufficient to offset the costs of the investment.

However, during the operational phase benefits can be expected to build up gradually, until they reach the point where the net impact on operating costs and prices to purchasers is negative.

There are a number of remedies if the affordability analysis reveals the preferred option for the programme is unaffordable. These include the following:

- phasing the implementation of the programme's outputs differently
- adopting a different design solution for some of the programme's outputs
- altering the scope of the preferred option – for example, its functional content and/or the quantity and quality of the services offered
- finding additional sources of funding – for example, disposal of surplus assets (if available), further revenue support from the commissioners of the organisation's services
- considering different ways of financing the programme's projects – for example, private finance, operating and financial leases
- negotiating more competitive or flexible prices from the service provider(s)
- finding other ways of reducing the costs and/or increasing cash releasing savings
- permitting service provider(s) to create additional revenue streams and new business and sharing in the resultant revenue streams.

Checklist for step 6

There should now be clear understanding of:

- the capital and revenue implications of the programme
- the impact on the income and expenditure account and the organisation's charges for services (if applicable)
- the impact on the budget, other sources of available funding and any shortfalls
- the impact of the programme on the organisation's balance sheet.

There should also be written evidence of commissioner and stakeholder support (if required).

Output from step 6

The financial case section of the Programme Business Case is now complete and must be kept under review.

Chapter 8: Preparing the Management Case

Introduction

The purpose of the management case is to put in place the arrangements for the successful delivery of the programme and its constituent projects, both now and in the future.

Completing the management case requires undertaking the following actions:

Step 7	**Planning for successful delivery**
Action 20	Plan programme management – strategy, framework and plans
Action 21	Plan change and contract management – strategy, framework and plans
Action 22	Plan benefits realisation – strategy, framework and plans
Action 23	Plan risk management – strategy, framework and plans
Action 24	Plan programme assurance and post project evaluation – strategy, framework and plans

Action 20: Plan programme management – strategy, framework and plans

Put in place the strategy, framework and plans for successful programme delivery using a proven methodology for guiding investments through a controlled, well managed and visible set of activities to achieve the desired results and benefits.

There must be evidence that these arrangements are in place.

Programme and Project Methodology (PPM) strategy

The implementation strategy of most organisations for the successful delivery of schemes is to embrace the principles of programme and project management and to adopt a methodology for both which is based on proven standards and quality management.

Recognised national standards should be adopted for both programme and project management.

Programme and project framework

Summarise the following aspects and capture key points in a diagram: projects:

- structure
- reporting arrangements
- governance arrangements
- key roles and responsibilities
- appointed personnel and any vacancies

The senior responsible owner (SRO), programme manager and business change managers (BCM's) should be member of the programme board.

The following roles should be considered as optional attendees to provide advice and expertise, as required by the programme board:

- Project executives for current or relevant projects in the programme
- Representatives of corporate functions – finance, risk etc.
- Lead supplier – if there are different suppliers across the projects of the programme, it may be advisable to appoint a lead supplier with whom the team will work at programme level.

Appointment of the senior responsible owner (SRO)

The SRO is accountable for the programme, and for ensuring that it meets its objectives and delivers the expected benefits.

The individual who fulfils this role should be able to lead and champion the programme and must be empowered to direct the programme and take decisions; for example, whether to delay or stop any part of the programme. SRO's must have sufficient seniority and authority to provide leadership to the programme and take on accountability for delivery.

The day-to-day leadership of the programme may be undertaken by a Programme Director, but this is not an alternative to the SRO role.

Programme Plan

The programme plan is used to control and track the progress and delivery of the programme and resulting outcomes. It describes how, when and by whom a specific project, milestone or set of targets will be achieved. It is the detailed analysis of how identified programme targets, milestones, deliverables and products will be delivered to timescales, costs and quality.

The most up-to-date version of the programme plan should be summarised and attached to the Programme Business Case.

This programme plan should typically include:

- An overall programme schedule showing the relative sequencing of all the projects in the project portfolio and dossier
- Dependency network illustrating project input and output relationships
- Cross reference to the risk register to explain any planned risk register activities
- An explanation of the grouping of projects and major activities into tranches and the points at which end-of-tranche reviews will take place
- Risks and issues referenced during planning
- Transition planning information and schedules
- Programme level management activities required to implement the monitoring and control strategy
- Details of programme tranches
- Estimate effort and costs associated with the programme plan
- How the monitoring and control strategy will be deployed.

It must also clearly identify when the supporting business cases for enabling projects will be delivered: strategic outline case (SOC); outline business case (OBC) and full business case (FBC).

In some instances, the Programme Business Case may have made the case for a project in sufficient detail to enable the project team to progress to the outline business case (OBC) stage.

Use of special advisers

The use of specialist advisers is encouraged where the necessary capabilities and competencies are in short supply for large, significant, complex and novel programmes.

The requirement for special advisers usually falls into four key categories in the programme plan: financial, legal, technical and programme/project management. The Programme Business Case should indicate how and when this advice will be used along with expected costs.

Special advisers should be used where an independent and impartial role is required to achieve the best results. This includes facilitating workshops.

Care must be taken to ensure that ownership of the Programme Business Case and responsibility for its development is retained by the Programme Board.

Action 21: plan change management – strategy, framework and outline plans

Put in place the strategy, framework and plans required for managing change.

Programmes are about delivering change. This can range from service improvement, business process re-engineering (BPR) to a transformation in what and the way in which services are delivered.

Even where change is not seen as the primary driver for investment, as in the case of a replacement programme, every effort should be taken to seize the opportunities for improving the efficiency of the service and public value.

Change needs to be managed and embraced by individuals within the organisation, hence the need for a change management strategy (linked to benefits realisation); a change management framework (to manage anticipated and unexpected change) and a plan (to explain what will be delivered, by whom and when in terms of underlying activities).

Change management strategy

The main purpose of the change management strategy is to assess the potential impact of the proposed change on the culture, systems, processes and people working within the organisation.

There are various management strategies for implementing change. The choice of strategy will depend upon the degree and pace of change required. The degree of service change can range from increased automation, re-configuration to the complete transformation of a business function. The pace of change can range from 'big bang' to phased or incremental introduction depending on the strategic driver and the ability of the organisation to cope with service change.

The organisation's choice of change management strategy should be set out in full, together with its underpinning communication and development (training) strategies.

Change management framework

The responsibility for the delivery of service change belongs to the Programme Board and must remain under its control.

In the case of major societal change, the programme may form only one part of a longer-term strategy involving other programmes, both current and future, within the strategic portfolio. The associated and anticipated governance and reporting arrangements should be clearly explained in these circumstances.

Change management plans

The change management plan should be set out the communication and developmental deliverables (for example, training products) required for the implementation phase. These plans should indicate how relevant personnel within the organisation, including human resources and staff representatives, have been involved and contributed to date.

Action 22: plan benefits realisation – strategy, framework and outline plans

Put in place the management arrangements required to ensure that the programme delivers its anticipated benefit

Benefits realisation strategy

The benefits realisation strategy should set out arrangements for the identification of potential benefits, their planning, modelling and tracking. It should also include a framework that assigns responsibilities for the actual realisation of those benefits throughout the key phases of the programme.

Benefits realisation framework

The responsibility for benefits realisation lies with senior management, who must ensure that delivery arrangements are outlined within the Programme Business Case.

Programme benefits register

All programmes must capture their anticipated benefits within a register that indicates how they will be realised.

The register should be continuously reviewed and updated throughout the programme and capture the following information for each benefit:

Benefits Register	
Benefits number	(unique within the register)
Benefit category & class	
Description	(including enabling project or activity)
Service feature	(what aspect of the project will give rise to the benefit – to facilitate monitoring)
Potential costs	(incurred during delivery)
Activities required	(to secure benefit)
Responsible officer	
Performance measure	(key performance indicator)
Target improvement	(expected level of change)

Full-year value	
Timescale	

All the benefits identified in the strategic case and appraised in the economic case sections of the Programme Business Case must be accounted for in the register.

Action 23: plan risk management – strategy, framework and outline plans

Put in place arrangements for managing and mitigating risks during the key phases of the programme.

Risk management is a structured approach to identifying, assessing and controlling risks that emerge during the course of the policy, programme or project lifecycle. Its purpose is to support better decision making through understanding the risks inherent in a proposal and their likely impact.

Effective risk management supports the achievement of wider aims, such as:

- effective change management
- the efficient use of resources
- better programme and project management
- minimising waste and fraud
- innovation.

Risk management strategy

Strategies for the proactive and effective management of risk involve:

- identifying possible risk in advance and putting mechanisms in place to minimise the likelihood of them materialising with adverse effects

- having processes in place to monitor risks, and access to reliable, up-to-date information about risks

- the right balance of control to mitigate against the adverse consequences of the risks, if they should materialise

- decision making processes supported by a framework for risk analysis and evaluation.

Risk management strategies for individual policies, programmes and projects should be adopted in a way that is appropriate to their scale.

Risk mitigation

Recognised methods for the mitigation of risk throughout the life span of the policy, programme or project include:

- early consultation - experience suggests that costs tend to increase as more requirements are identified (scope creep). Early consultation will help to identify what the requirements are and how they might be addressed (Scope creep is a risk which needs careful management.)

- avoidance of irreversible decisions - where lead options involve irreversibility, a full assessment of the costs should include the possibility of delay, and allowing more time for investigating alternative ways to achieve the objectives

- pilot studies – acquiring more information about risks affecting a programme through pilot studies allows steps to be taken to mitigate either the adverse consequences of bad outcomes, or to increase the benefits of good outcomes

- design flexibility -where future demand and relative price are uncertain, it may be worth choosing a flexible design adaptable to future changes, rather than a design suited to only one particular outcome. Breaking a programme into stages, with successive review points at which the project could be stopped or changed can also increase flexibility.

- precautionary action - where this can be taken to mitigate a perceived risk. The precautionary principle states that because some outcomes are so bad, even though they may be very unlikely, action is justified. In cases where such risks have been identified, they should be drawn to the attention of senior management and expert advice sought.

- procurement and contractual intervention. Risk can be contractually transferred to other parties and maintained through good contractual relationships, both informal and formal.

- making less use of leading edge technology. If complex technology is involved, alternative, simpler methods should be considered, especially if these reduce risk considerably whilst providing many of the same benefits

- develop different options. Following the risk analysis, the appraiser may want to re-instate options, or to develop alternative ones that are either less inherently risky or deal with the risks more efficiently

- abandon the proposal. Finally, the proposal may be so risky that whatever mitigation is considered, it has to be abandoned.

By reducing risks in these ways, the expected costs of a proposal are lowered or the expected benefits increased. As can be seen, benefit and risk are simply two sides of the same coin and successful delivery depends on the effective identification, management and mitigation of risk.

Risk management framework

Public sector organisations should foster a pragmatic approach to risk management at all levels. This involves:

- establishing a risk management framework, within which risks are identified, mitigated and managed
- senior management support, ownership and leadership of risk management policies
- clear communication of organisational risk management policies to all staff
- embedding risk management fully into business processes and ensuring it is applied consistently.

These actions should help establish an organisational culture that supports well thought out risk taking and innovation.

The arrangements for the management of risk should be outlined, together with the respective roles and responsibilities and reporting lines of the posts concerned. These should be made clear in relation to the overall project management arrangements.

Programme risk register

All programmes must capture their identified risks within a register that indicates how they will be managed and mitigated.

The register should be continuously reviewed and updated throughout the programme and capture the following information for each risk:

Risk Register	
Risk number	(unique within the Register)
Risk type	
Author	(who raised it)
Date identified	
Date last updated	
Description	(of risk)
Likelihood	
Interdependencies	(between risks)
Expected impact/value	
Bearer of risk	
Countermeasures	
Risk status	(action status)

All the risks identified in the strategic case and economic case sections of the Programme Business Case must be accounted for within the risk register. This includes the economic appraisal for the preferred option.

Action 24: plan programme assurance and post programme evaluation – strategy, framework and plans

Put in place the necessary arrangements for programme assurance and post evaluation.

Programme Assurance

Programme assurance provides independent and impartial assessment that the programme's spending objectives can be delivered successfully and improves the prospects of achieving intended outcomes and benefits.

Other forms of assurance include: quality assurance; technical assurance; security assurance. See Chapter 1.

Post programme evaluation strategy

The purpose of post programme evaluation (PPE) is:

- to improve organisational delivery in the future through lessons learnt during the current programme. This is referred to as the "programme implementation review" (PIR)
- to determine the extent to which the programme has delivered its anticipated benefits. This is referred to as the "post evaluation review" (PER).

This section of the programme business case should set out the organisation's strategy for both aspects of post procurement evaluation (PPE) and indicate whether they are to be undertaken jointly or separately.

Post Programme Evaluation framework

This section should outline management arrangements for ensuring that post programme evaluation (PPE) will take place. This is a key responsibility of the SRO.

Post Programme Evaluation plans

This section should set out the plans and expected timings for post programme evaluation (PPE), including the individuals responsible for their undertaking.

Workshop stage 5 – Successful Delivery Arrangements

At least one workshop is recommended for the completion of the management case section of the Programme Business Case, so that the key stakeholders are engaged early on, can challenge and assist to shape the direction of the programme.

The purpose, objectives, key participants and outputs of this workshop are as follows:

Workshop 5	**Putting in place arrangements for successful delivery**
Objectives	• To develop strategies, frameworks and plans for: - programme management - change and contact management - benefits realisation and risk management - programme assurance and evaluation • To agree the programme delivery plan.
Key participants	• External stakeholders or commissioners • Director of finance • Economic adviser • Customer and/or user representatives • Project manager • Facilitator
Outputs	• Management and delivery arrangements • Programme assurance arrangements • Post project evaluation arrangements

Checklist for step 7

There should now be clear understanding of:

- the programme management and governance arrangements
- the programme plan
- the change management arrangements
- the benefits realisation arrangements, including an attached benefits register
- the risk management arrangements, including an attached risk register
- the programme assurance arrangements
- the post programme/project evaluation arrangements.

Output from step 7

The management case section of the Programme Business Case is now complete and must be kept under review.

Annex A

Fictional Case Study showing the relationship between strategy, programme and projects

Stage	Organisational Strategy	Programme	Project
Purpose and focus	To deliver the vision, mission and long term objectives of the organisation, typically involving transformational service change. **Organisational Strategy for Transforming a Public Service**	To deliver medium term objectives for change, typically involving improved quality and efficiency of service. **Programme A: Service Improvement**	To deliver short-term objectives, typically involving improved economy of service & enabling infrastructure **Project A: Re-procurement of ICT**
Scope and content	Strategic portfolio comprising the required programmes on the critical path for delivery of required **benefits.** **Programme A: Service Improvement** **Programme B: Human Resources** **Programme C: Estates Management**	Programme portfolio comprising the required projects and activities on the critical path for delivery of anticipated **outcomes**. **Project A1: Re-procurement of ICT** **Project A2: Business Process Re-engineering** **Project A3: Quality Management**	Project comprising the inputs and activities required for delivery of the agreed **output**. Work streams: **Replacement ICT** **Upgrading ICT** **Staff training ICT**
Product	**Organisational Strategy and business plans**	**Programme Business Case (PBC)**	**SOC, OBC and FBC for large projects** **BJCs for smaller schemes**
Monitoring, evaluation and feedback	5 year strategy. Monitor during implementation. Review at least annually and update as required	3 year programme. Monitor during implementation. Evaluate on completion of each tranche and feedback into strategy development.	1 year project. Monitor during implementation. Evaluate on completion of project and feedback to programme

Annex B: Overview of how to develop the Programme Business Case

A typical process for developing the Programme Business Case could be as follows:

1. Ensure the mandate and brief for the programme have been completed.

2. Undertake the strategic assessment.

3. Draft the Scoping Document for the Programme Business Case and arrange a meeting with the business case reviewer/ approver to agree the content, governance, reporting, and approval arrangements for the PBC, including any additional assurance requirements

4. Prepare the Strategic Case section following completion of Workshop1 (Determining the Case for Change).

5. Prepare the Economic Case section following Workshop 2 (Appraising the Long list).

6. Outline the Commercial, Financial and Management Case sections.

7. Undertake further programme assurance, as required.

8. **Share the early draft of the Programme Business Case with senior management and stakeholders, in order to obtain feedback and agreement to the proposed way forward.**

9. Revisit and complete the Economic Case section following Workshop 3 (Appraising the Short list).

10. Complete the Commercial Case section following Workshop 4 (Developing the Deals).

11. Complete the Financial Case section.

12. Prepare the Management Case section following Workshop 5 (Successful Delivery Arrangements).

13. Undertake an internal review of the Programme Business Case – review criteria are provided at Annex D for this purpose. Incorporate feedback.

14. Undertake further programme assurance, as required.

15. Finalise the Programme Business Case, seek final sign-off from the sponsor and submit for approval to proceed with the programme.

16. Monitor delivery and update Programme Business Case upon completion of each tranche of projects within the Programme and resubmit to approving authority.

17. Use the Programme Business Case to support post evaluation and benefit realisation.

18. Feedback findings into the strategic planning process for the future development of the strategy and strategic portfolio.

The above process and level of effort will vary depending on the nature of the organisation, the decision being sought and the expectations agreed in the Scoping Document.

Annex C: Programme and Project Scoping Document

This document should be completed by the Programme/Project Manager and the Approving Authority prior to preparing the business case.

Organisation/ Department	
Proposal Title	
Sponsor/ Senior Responsible Owner	

Date	Version	Revision History	Document Reviewer

The business case process is scalable and should be used proportionately. The purpose of this document is to agree the nature, type and content of the business case required.

Nature of the proposed spend	
Anticipated spend £	
Anticipated procurement route	
Agreed type of Business Case: **PBC** **SOC/OBC/FBC** **BJC**	

The anticipated coverage of the Business Case should be agreed between the Programme/Project (Business Case Authors) and Approving Authority (Business Case Reviewers) in order to calibrate the analysis required and to expedite the business case review and approvals process.

Strategic Case - Strategic context - Investment objectives - Case for change	**What is prudent, practical and necessary?**
Economic Case - CSF's - Options & "do min" - Use of CBA & CEA	
Economic Appraisals - Evidence base - Benefits quantification - Optimism Bias & risk measurement	

Commercial Case - Procurement route - Potential Deal - Contract arrangements	
Financial Case - Affordability envelope - Funding profile - Balance sheet	
Management Case - MSP - Prince 2 - Assurance & Approvals - Post Evaluation	
Business Case Plan	Agreed milestones for the completion, assurance, review and approval of the Business Case

Guidance, advice and support is available from the Better Business Case Team, Strategic Planning, Finance and Performance Directorate. Please indicate the nature of the support required:

Required Development	Please provide names and timescales.
Senior Management Briefing	For SRO's, Board Directors and Programme/Project Boards
Foundation Course (Awareness)	For intelligent customers
Practitioner 1 Course (Skills)	For business case producers
Practitioner 2 Course (Skills)	For business case producers
Reviewers Course (Skills)	For business case reviewers
Consultancy Support - **Workshops** - **External Consultancy**	See Guidance for recommended Workshops

Completed by:
Programme/ Project Representative:...

Approving Authority's Representative..

Date: ....

Date agreed for next Review:.. (if required)

Notes for the completion of the Business Case Scoping Document:

1. **Type of Business Case Required:**

This will be dependent upon the nature, anticipated spend, procurement route and the quality of the analysis already undertaken.

a. A Programme Business Case (PBC) should be prepared in support of related items of spend comprising of multiple schemes, both large and small.

b. The iterative production of the Business Case (Strategic Outline Case (SOC), Outline Business Case (OBC) and Full or Final Business Case (FBC) should be considered for larger, complex schemes requiring an OJEU procurement.

c. Consideration may be given to combining the SOC and OBC where the case for change has already been made robustly and agreed as part of the PBC.

d. Consideration may be given to combining the OBC and FBC where the intended procurement route has been pre-competed and firm prices are available in support of the spending proposal.

e. A Business Justification Case (BJC) may be considered for smaller items of spend, which are NOT novel or contentious; within the organisational limit agreed for the use of single business cases (BJC); and can be procured from an existing pre-competed arrangement.

f. An over-arching Strategic Outline Programme Business Case (SOP) should be prepared in support of expenditure being approved through a series of BJC's.

2. **Anticipated coverage of the Business Case**

The Cabinet Office Gateway Risk Profile Assessment (RPA) MUST be used to assess the "risks" associated with the scheme. The table below provides an overview of some of the key considerations:

High Gate	**High Risk** **Small Scale** Well defined Programme Consideration of combined SOC/OBC or OBC/FBC (for pre-competed procurements) Moderate CBA/MCA for Economic Appraisals, inc. optimism bias All Gates 0, 1 to 5	**High Risk** **Large Scale** Well defined Programme (SOP) Three stage project business case (SOC, OBC, FBC) Full CBA/MCA for Economic Appraisals, inc. optimism bias All Gates 0, 1 to 5
RPA Low	**Low/Medium Risk** **Small Scale** Defined Programme Consideration of BJC for pre-competed procurements Light CBA/MCA for Economic Appraisals Consideration of Gateway Health Checks	**Low/Medium Risk** **Large Scale** Well defined Programme (SOP) Three stage project business case (SOC, OBC, FBC) Full CBA/MCA for Economic Appraisals, inc. optimism bias Consideration of Gateway Health checks
	Small £ million Large Scale (Whole life costs)	

Annex D: Programme Business Case Review Criteria

The following sample questions can be used as prompts for testing the delivery process and content of the Programme Business Case.

Key Review Criteria	Main Evidence Required
Strategic Case	
Is the proposed programme an integral part of the organisation's business strategy?	Extracts from business and other relevant strategies Reference to relevant government and organisational policies
Is the proposed investment sufficiently stand-alone to form a programme or could it be more sensibly undertaken as part of another programme or project?	Relevant extracts from business and other strategies Reference to scoping documentation
Are the spending objectives and underpinning business needs defined clearly and supported by the key stakeholders and customers?	SMART spending objectives • specific • measurable • achievable • relevant • time-bound Evidence of stakeholder and customer involvement and support
Is the scope for potential change to current services and business processes clearly defined?	Clear statement of business outcomes and service outputs Statement of any security and confidentiality issues
Have the main benefits been clearly defined by key stakeholders and customers, alongside arrangements for management?	Benefits realisation plan/register
Have the main risks been identified, alongside arrangements for their management and control?	Risk management plan/register
Economic Case	
Have the critical success factors (CSFs) for options appraisal been identified?	Prioritised CSFs (high, medium, low) Relevant performance measures
Has a sufficiently wide range of options been identified and assessed?	Use of any feasibility study 10 to 12 main options – full description Use of the options framework • for scope • for service solutions

Key Review Criteria	Main Evidence Required
	• for service delivery • for implementation • for funding
Has a preferred option for the delivery of the programme been identified following robust analysis of the available options?	Analysis of options against: • spending objectives • critical success factors • evidence of likely support from key stakeholders Blueprint Projects Dossier
Commercial Case	
Has a high-level assessment of the potential deal(s) and its likely acceptability to potential suppliers been undertaken?	Description of potential deal Market soundings and engagement Existing suppliers
Financial Case	
Has a high-level assessment of affordability and funding source(s) been undertaken?	Indicative capital and revenue costs Whole life costs Likely sources or organisational funding
Management Case	
Has a high-level assessment of the achievability and deliverability of the programme been undertaken?	Indicative time-scales Use of special advisers Feasibility study Peer review
Are all the necessary arrangements in place for the successful completion of the next phase?	Senior Responsible Owner Programme Board and team Governance and reporting arrangements Programme plan and agreed deliverables Programme assurance and evaluation

Annex E : Summary of steps and actions for preparing the Programme Business Case.

Step 1	**Determining the strategic context**	**Strategic Assessment**
Action 1	Ascertain strategic fit	
Step 2	**Making the case for change**	**Strategic Case**
Action 2	Agree strategic context	
Action 3	Determine spending objectives, existing arrangements and business needs	
Action 4	Determine potential business scope and service requirements	
Action 5	Determine benefits, risks, constraints and dependencies	
Step 3	**Exploring the preferred way forward**	**Economic Case**
Action 6	Agree critical success factors (CSFs)	
Action 7	Determine long list options and SWOT analysis	
Action 8	Recommended preferred way forward	
Step 4	**Determining value for money (VFM)**	
Action 9	Revisit and confirm the short list	
Action 10	Prepare the economic appraisals for short-listed options	
Action 11	Undertake benefits appraisal	
Action 12	Undertake risk assessment and appraisal	
Action 13	Select preferred option and undertake sensitivity analysis	
Step 5	**Preparing for the potential deal**	**Commercial Case**
Action 14	Determine procurement strategy	
Action 15	Determine service streams and required outputs	
Action 16	Outline potential risk apportionment	
Action 17	Outline potential payment mechanisms	
Action 18	Ascertain contractual issues and accountancy treatment	

Step 6	**Ascertaining affordability and funding requirement**	**Financial Case**
Action 19	Prepare financial model and financial appraisals.	
Step 7	**Planning for successful delivery**	**Management Case**
Action 20	Plan programme management – strategy, framework and outline plans	
Action 21	Plan change management – strategy, framework and outline plans	
Action 22	Plan benefits realisation – strategy, framework and outline plans	
Action 23	Plan risk management – strategy, framework and outline plans	
Action 24	Plan post project evaluation – strategy, framework and outline plans	

Glossary

Additionality	An impact arising from an intervention, which is additional if it would not have occurred in the absence of the intervention.
Affordability	An assessment of whether the proposals can be paid for in terms of cash flows and resource costs – see financial case
Appraisal	The process of defining objectives, examining options and weighing up the costs, benefits, risks and uncertainties of those options before a decision is made.
Assessments	Either an appraisal or an evaluation (or both).
Base case	The best estimate of how much a proposal option will cost in economic terms, including an allowance for risk and optimism.
Business case	A management tool for scoping, planning and evaluating a proposal and repository for the evidence base.
Business Justification Case (BJC)	A single stage business case, using the five case model, for the delivery of relatively low level spend for which firm prices are available.
Capital expenditure	Expenditure on durable assets such as land, buildings and equipment.
Contingency	An allowance of cash or resources provided to cover the cost of risks that may materialise.
Cost benefit analysis (CBA)	Analysis which quantifies in monetary terms as many of the costs of a proposal as feasible (financials), including items for which the market does not provide a satisfactory measure of economic value (non-financials).
Cost effectiveness analysis (CEA)	Analysis that compares the cost of alternative ways of producing the same or similar outputs.
Discounting	A method used to convert future costs or benefits to present values using a discount rate.
Discounted cash flow (DCF)	A technique for appraising investments. It reflects the principle that the value to an investor of a sum of money depends on when it is received.
Discount rate	The annual percentage rate at which the present value of the national currency, or other unit of account, is assumed to fall away through time.
Do minimum option	An option where the public sector takes the minimum amount of action necessary.
Economic appraisal	A means of assessing the costs and benefits of options to society as a whole that makes use of SWOT analysis followed by Social Cost Benefit Analysis and where appropriate Social Cost Effectiveness Analysis.
Economy	A measure of the extent to which the cost associated with a

	project, programme or policy is reduced.
Effectiveness	A measure of the extent to which a project, programme or policy achieves its desired outcomes/outputs.
Efficiency	A measure of the extent to which a project, programme or policy's associated throughputs are increased.
Evaluation	Retrospective analysis of a project, programme or policy to assess how successful (or otherwise) it has been, and to learn lessons for future improvement.
Expected value	The weighted average of all possible values of a variable, where the weights are the probabilities (in %s).
Five case model	A systematic framework for the development and presentation of the business case, comprising of the strategic, economic, commercial, financial and management dimensions of the Case.
Full Business Case (FBC)	Third stage in the development of a business case for a significant project, which identifies the most economically advantageous offer following procurement, confirms affordability and put in place the detailed arrangements for successful delivery.
Market value	The price at which a commodity can be brought or sold, determined by the interaction of buyers and sellers in a market.
Monte Carlo analysis	A technique that allows assessment of the consequences of simultaneous uncertainty about key inputs, taking account of correlation between these inputs.
Net present cost (NPC)	The discounted value of a stream of future costs.
Net present value (NPV)	The discounted value of a stream of future costs and benefits. The NPV provides the present values of the sum of a future costs and benefits.
Opportunity cost	The value of the most valuable alternative uses of an asset or the cost of something in terms of an opportunity forgone.
Optimism bias	The demonstrated systematic tendency for appraisers to be over-optimistic about costs, benefits and time taken to complete a proposal.
Option appraisal	The process of defining objectives, examining options and weighing up the costs, benefits, risks and uncertainties of those options before a decision is made.
Options framework filter	A systematic framework for the generation of a wide range of possible options (the "long list") and the filtering of a few possible options for CBA/CEA (the "short list") and identification of the preferred option (Flanagan JC (2006))
Outline Business Case (OBC)	Second stage in the development of a business case for a significant project, which identifies the option offering best public value for spend, confirms the Deal and affordability,

	and puts in place the arrangements for successful delivery.
PFI/PF2	Private Finance Initiative
PPP	Public Private Partnerships
Public Sector Comparator (PSC)	The best viable alternative option for direct public provision comparable to a PPP (PFI) option. Sometimes referred to as the Reference Project or Outline PSC.
Required rate of return	A target average rate of return for a public sector trading body, usually expressed as a return on the current cost value of total capital employed.
Risk	The likelihood (measured by its probability) that a particular event will occur.
Sensitivity analysis	Analysis of the effects on an appraisal of varying the projected values of important variables.
Status Quo option	The cost of the status quo provides a benchmark for comparing proposal options for intervention.
Strategic Outline Case (SOC)	First stage in the development of a business case for a significant project, which makes the case for change and appraises the available options.
Strategy	The strategic context for the programme which demonstrates how the programme aligns with other programmes within the strategic portfolio to deliver the mission and vision of the organisation in the longer term.
Switching values	The point at which the choice of the preferred option would switch to another option due to any uncertain costs and/ or benefits.
Transfer payment	A payment for which no goods or services are received in return.
Uncertainty	A scenario within which probabilities have not been identified for a range of possible outcomes.

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Joe and Joseph are both members of the Better Business Cases International Steering and Standards Boards and joint Chief Examiners for the training accreditation scheme.

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