# Public Sector Business Cases using the Five Case Model: a Toolkit

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## 1. Foreword

Investment in the public sector has been increasing in recent years, and will be continuing into the future. A vital part of the work of investment is the scrutiny, via business cases, of what is proposed to ensure that it is the right sort of investment, affordable, and value for money. Business case preparation is a complex and often costly task, where organisations find themselves reinventing the wheel despite the range of official guidance that is widely available.

The publication of this Toolkit to the Business Case Production Process will assist all investing organisations in producing their business cases. It will, if used properly, help cut the cost of the consultant support that is often necessary, thus saving money to projects. Almost more importantly, the guidance will help anyone involved with, or overseeing, a project to understand the work that is necessary genuinely to prove a case for investment. This will enable a business case to become what it should be – not a bureaucratic necessity in order to obtain approvals, but a document demonstrating evidence-based decision-making.

I have seen a wide variety of business cases, and know from experience how equally widely they can range in quality. This Toolkit will act as an invaluable support to developing the contents and purpose of a good-quality business case.

**Peter Coates**
**Deputy Director of Finance – Investment**
**Department of Health**

The public sector in the UK invests vast sums of money each year on new or replacement assets such as land, buildings, equipment and facilities. In Wales, we invest £1.6 billion each year. With so much demand for capital investment it is essential that we make the right choices and can demonstrate value for money.

A good business case provides an organisation with the evidence to support their decision making and provides assurance to other stakeholders that they have acted responsibly. Although they tend to be associated in some people's minds with large scale investments or service redesigns, business cases are equally relevant – and just as important – to smaller projects or developments. The common factor linking them all is that the business case process must involve close scrutiny of all relevant financial and non-financial aspects of a proposed project to ensure that the best possible solution is selected for a given set of circumstances.

This guidance provides a systematic and objective approach to all stages of the business case process that sits alongside – and complements – HM Treasury's Green Book guidance. I am confident that its use will not only help enhance the quality and consistency of public sector business cases but will also increase the value for money achieved as a result.

**Dr Christine Daws**
**Director of Finance, Welsh Assembly Government**

## 2. Authors' introduction

This guidance consolidates other reference sources and takes the business case author through the entire process – from SOP to SOC, OBC and FBC. The guide is accompanied by a set of templates, prepared following many years of practical experience within a wide range of public sector organisations. It covers the content, presentation and structure of the business case and the standards which need to be applied.

This guidance **must** be read in conjunction with the Treasury Green Book and relevant Departmental Manuals.

### Our aims

We have prepared this publication and its accompanying templates with the following aims and VFM principles in mind:

- first – **economy** – to reduce the costs and timescales associated with the production of business cases
- second – **efficiency** – to increase the throughput of worthwhile schemes at their key review and approval stages
- third – **effectiveness** – to ramp up the quality of proposed schemes, both in terms of their scoping, planning, procurement, implementation and evaluation; and their structure and presentation.

### The potential benefits

The potential benefits from following this guidance are considerable if one considers that there are currently some 900 public sector organisations, typically each planning and procuring around 10 key investments each year.

This equates to a total of some 27,000 SOCs, OBCs and FBCs, which at an average cost of £50k to produce (taking account of internal and external resources) equates to a conservative cost of over £1.35 billion spent on business cases within the public sector each year.

Use of this guidance **will** considerably reduce the associated in-house and external consultancy costs of producing business cases to the required standards. Consequently, through the use of this guidance and its supporting templates, we envisage savings of at least 15 to 25%, or some £250 million per annum. Please help us in this endeavour by adopting the guidance and providing feedback, as appropriate.

### Acknowledgements

We would like to express our sincere thanks to:

- Dr Christine Daws, Director of Finance at the Welsh Assembly Government, for having the foresight to commission this project in the first place
- Joe Grice, whilst he was Chief Economist and Director of Public Services at HM Treasury, for the latest version of the Green Book, without which this guidance would be incomplete.

**Joe Flanagan**
*Director of Investment Policy and Appraisal Group (IPAG)*
*Department of Health and Social Services (DHSS)*
*Welsh Assembly Government*

**Paul Nicholls**
*Managing Director*
*Open Business Consulting*

## 3. Who should read this publication?

Business cases are a mandatory part of the planning, approval, procurement and delivery of investments within the public sector.

The 'Five Case Model' is the Office of Government Commerce's (OGC) recommended standard for the preparation of business cases and is used extensively within central government departments and their agencies.

It is referenced by HM Treasury in the latest version of the Green Book and recommended by the Department of Health for the preparation of service related procurements in the NHS England; and mandated for both service and capital related schemes in the NHS Wales. It will also be of considerable interest to the NHS in Scotland and to other public services.

This publication provides an overview of:

- the business case **philosophy**
- the **product** – the Five Case Model
- the recommended **process** – based on many years of practical experience.

It should, therefore, be read by key personnel involved in the development of these schemes. This includes:

- Senior Responsible Owners (SROs), Programme Directors and Project Managers, with responsibility for the successful delivery of schemes
- Directors of Finance, Procurement and Planning, with responsibility for the forward planning of operational aspects of schemes
- Members of the Management Board (Chairman, non-executives, the CEO and other directors), with strategic responsibility for approving the scheme through the life span of its development and delivery.

This guidance is provided in accordance with HM Treasury's Green Book (a Guide to Investment Appraisal in the Public Sector) and the Capital Investment Manuals for the NHS in England, Scotland and Wales.

This guidance should be read in conjunction with the templates for the development of Strategic Outline Programmes (SOPs), Strategic Outline Cases (SOCs), Outline Business Cases (OBCs) and Full Business Cases (FBCs) using the Five Case Model. There is also a template for 'business justifications' for small and medium sized investments. All are published as a set by the HFMA.

## 4. Why is the business case important?

Much has been written about this…

The fact is that too often, too many strategies, programmes and projects in the public sector fail to achieve their objectives and deliver anticipated benefits because the key phases of the investment have been inadequately scoped and planned and the associated risks have not been taken into account.

The business case is so important because it is the planning and management tool which enables stakeholders, customers and delivery personnel to ascertain that schemes:

- are supported by a robust **case for change** that provides strategic synergy – the 'strategic case'
- optimise **value for money** – the 'economic case'
- are **commercially viable** – the 'commercial case'
- are **financially affordable** – the 'financial case'
- are **achievable** – the 'management case'.

The business case is **not** simply a vehicle for gaining approval for a scheme. Irrespective of whether approval is required, the above components need to be satisfied for all public sector schemes.

The development of the business case takes place over time, and sequentially in relation to the above five key components. At each iteration, further detail is provided, resulting in the production of the SOC; the OBC and finally the FBC.

## 5. Overview of the business case development process

### Introduction

The development of a scheme **must** be grounded in terms of a strategy or business plan. We refer to this as Phase 0.

Phase 0 and the subsequent three phases which relate to the development of the business case over its lifespan (SOC, OBC and FBC) are presented in sequence within this Guide. They total 10 main steps, with 35 supporting actions described in the main text and summarised in section 11.

### Background

The process is iterative. Thus, as the business case is developed, it is always necessary to review previous steps in order to verify the continued efficacy of work undertaken in the earlier phases.

The process is also flexible – the quantity and depth of the work undertaken needs to be tailored to suit the requirements of the individual scheme.

Finally, we have shown how the process maps onto the OGC Gateway Process, which is now mandated for all programmes and projects within England (by OGC); Wales (by the Welsh Assembly Government); Scotland (by the Scottish Parliament) and Northern Ireland (by the Northern Ireland Assembly when in operation).

### Phase 0 – determining the strategic context

This is part of the business planning stage, where the position of the proposed project is determined in relation to the overall strategy and/or programme.

This phase maps onto the preparation of the 'project initiation document' (PID) in relation to PRINCE 2 project methodology and onto the OGC Gateway 0 – strategic fit.

The preparation of a Strategic Outline Programme (SOP) should be considered where the definition of the project in relation to the programme and overarching strategy is unclear or uncertain.

### Phase 1 – preparing the Strategic Outline Case (SOC)

This is the scoping stage of the investment.

The purpose of the SOC is to confirm the strategic context of the investment; to make a robust case for change; and to provide stakeholders and customers with an early indication of the proposed way forward (not the preferred option), having identified and undertaken SWOT analysis on a wide range of available options, together with indicative costs.

This phase maps onto OGC Gateway 1 – business justification.

**Phase 2 – preparing the Outline Business Case (OBC)**

This is the detailed planning phase of the investment.

The purpose of the OBC is to revisit the SOC in more detail and to identify a preferred option which demonstrably optimises value for money. It also sets out the likely deal; demonstrates its affordability; and details the supporting procurement strategy, together with management arrangements for the successful rollout of the scheme.

This phase maps onto OGC Gateway 2 – procurement strategy.

The project moves into its procurement phase following approval to proceed.

**Phase 3 – preparing the Full Business Case (FBC)**

This takes place within the procurement phase of the project, following detailed negotiations with potential service providers/suppliers prior to the formal signing of contracts and the procurement of goods and services.

The purpose of the FBC is to revisit the OBC and record the findings of the subsequent procurement. It also sets out the recommendation for an affordable solution which continues to optimise VFM, and includes detailed arrangements for the successful delivery of goods and implementation of services from the recommended supplier.

This phase maps onto OGC Gateway 3 – investment decision.

**Following FBC approval**

Following FBC approval it is important to note that the business case continues to play a major role in the life span of the project. This includes:

- internal and external audit
- operational management – the risk management register
- OGC Gate 5 (benefits realisation) – the benefits register
- post project evaluation
- Public Records Act and Freedom of Information Act.

**Overview**

With each phase there are a number of different steps, which are shown below:

**Stage 0 – Business planning**

Phase 0 – determining the strategic context (Strategic Outline Plan – SOP)

Step 1: ascertaining strategic fit

Gate O: strategic fit

**Stage 1 – Scoping**

Phase 1 – preparing the Strategic Outline Case (SOC)

Step 2: making the case for change
Step 3: exploring the preferred way forward

Gate 1: business justification

**Stage 2 – Planning**

Phase 2 – preparing the Outline Business Case (OBC)

Step 4: determining potential VFM
Step 5: preparing for the potential deal
Step 6: ascertaining affordability and funding requirement
Step 7: planning for successful delivery

Gate 2: procurement strategy

**Stage 3 – Procurement**

Phase 3 – preparing the Full Business Case (FBC)

Step 8: procuring the VFM solution
Step 9: contracting for the deal
Step 10: ensuring successful delivery

Gate 3: investment decision

**Stage 4 – Implementation**

Gate 4: 'Go Live'

**Stage 5 – Evaluation**

Gate 5: benefits realisation

## 6. Responsibility for producing the business case

The 'ownership' of the investment planning process (for which the business case represents the key repository for information) must reside and remain within the organisation, which – in the case of significant investments – should appoint a Senior Responsible Owner (SRO) for the project's direction at board level, as recommended by the OGC Gateway Process.

Under no circumstances should responsibility for the direction and the production of the business case be 'outsourced' to external consultants. However, external consultants may be of invaluable assistance and their use should be considered where the necessary skills and resources are not available in house.

Similarly, the production of the business case should not be regarded as an adjunct to the project manager's role, and a hurdle to jump for approval purposes. Instead, it must be viewed as a fundamental part of the overall business planning process, which requires advice and guidance from the business managers, users and technicians involved in the scheme.

## 7. A systematic approach to the development of the business case

**Stage 0 – Business Planning**
**Phase 0: Determining the strategic context (the SOP)**

### Step 1/ action 1: ascertaining strategic fit

The need for the project is often perceived as being 'obvious'. However, a project should never be taken forward without asking why it is needed in relation to:

- other projects in the programme investment portfolio
- other programmes within the overall strategy.

A strategic review is required if the answers to these two points are not readily apparent. This is particularly important in the context of the OGC Gateway Process (Gate 0) which, in some cases, has found that whilst a project may be worthwhile, it could best be rolled out as part of another project or programme due to related synergies and holistic fit.

The action required within this step is shown in context below:

| Stages | Development process | Deliverables |
|---|---|---|
| **Phase 0** | **Determining the strategic context** | |
| **Step 1/ Action1** | **Ascertain strategic fit** | **Strategic context** |
| Output | Strategic Outline Programme (SOP) | |
| Outcome | Strategic fit | |
| Review point | Gateway 0 – strategic fit | |

### *Strategies, programmes and projects*

Strategies, programmes and projects are all components of the business planning process, which together provide the structured framework for defining and implementing change within the organisation, either at national, regional or local level.

**Strategies** focus on the vision, mission and long-term goals of the organisation. **Programmes** provide the vehicle for implementing business strategies and investment initiatives through the management of a portfolio of **projects** that provide organisations with the capability to achieve benefits that are of strategic and operational importance.

It is important to recognise that strategies incorporate a number of programmes, which will individually be made up of a number of projects, each of which requires a business case.

The business strategies, programmes and projects within an organisation must all be aligned and the 'critical path' understood in terms of timescales and deliverables. This is shown below:

| Component | Time horizon | Deliverables |
|---|---|---|
| | | |
| Strategy | Long-term | Goals – ongoing |
| Programmes | Medium-term | Outcomes – benefits |
| Projects | Short-term | Outputs – building blocks |

It is important that all large programmes and projects have discrete end dates and recognised programme and project management methodologies in place for their successful delivery.

***Strategic reviews***

The general purpose of the strategic review is to revisit the 'accepted' answers to the following questions:

- where are we now?
- where do we want to be?
- how will we get there?

This involves:

- reviewing the strategies, programmes and portfolios of projects in place within the organisation to make sure that they fit together in terms of their scope, milestones, timescales and desired outcomes
- validating that the programmes and projects are well structured, organised and funded; and that they have the required competencies and capabilities in place
- making sure that effective performance management, measurement and monitoring is place and in particular that:

    - the projects have defined benefits and outputs
    - ownership of the delivery of benefits remains with the programme manager
    - outputs of the project remain consistent with changing aims and objectives
    - targets and achieved benefits are measured, reported and communicated
    - costs are closely monitored and managed; forecast costs and benefits are frequently reviewed; management data is 'fit for purpose'; and sufficient controls are in place to ensure accuracy.

Further information on how to undertake a strategic review in the NHS is provided in the Capital Investment Manual.

**Strategic Outline Programme (SOP)**

Consideration should be given to completing a SOP, which in support of the organisation's business strategy and plans clarifies the programmes, sub-programmes, and the portfolio of projects required to deliver successfully the desired outcomes.

A SOP is not mandated but is one way of ensuring that there is a clear understanding of an organisation's implementation strategy. Completion of a SOP will serve to:

- revisit the strategic context of the investment
- prepare the programme for Gateway 0 – strategic fit
- provide the strategic context section for the subsequent business cases.

**Checklist for step 1**

There should now be a clear understanding of the strategic context and how the proposed project fits in with the programme blueprint and business strategy.

**Output of step 1**

The implementation strategy/ SOP has now been completed.

**Output of phase 0 and gateway review process**

The implementation strategy/ SOP has now been completed. A gateway 0 for the strategic fit stage should now be considered.

**Outcomes from the SOP**

An implementation strategy/ SOP encourages effective strategic planning and ensures that the context within which investments take place is considered.

**Stage 1 – Scoping**
**Phase 1: Preparing the Strategic Outline Case (SOC)**

**Overview**

The purpose of the Strategic Outline Case (SOC) is firstly to establish the case for change and the need for investment; and secondly, to provide a suggested way forward for the scheme for the early approval of management. Consequently, it provides the 'initial agreement to proceed' with the scheme.

It is important that the 'preferred way forward' within the SOC is not confused with the 'preferred option' which emerges from the OBC. The preferred way forward provides management with a recommended direction of travel, following the initial assessment of the long list upon completion of the SOC. The preferred option is the recommended VFM choice, following the detailed appraisal of the short list upon completion of the OBC.

SOCs are good practice for the following key reasons:

- they provide an early opportunity for the organisation and key external stakeholders to consider a project and influence its direction
- they provide a basis for better decision making through reaching agreement from the outset about key issues for the options
- they prevent too much effort being put into projects which should **not** proceed.

**Step 2: making the case for change**

***Introduction***

This part of the business case defines the rest of the case, as it describes the organisation in which the proposed investment will take place and identifies the objectives from the key strategic drivers.

The main actions within this step are set out below:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 1** | **Preparing the Strategic Outline Case (SOC)** | **Strategic case** |
| **Step 2** | **Making the case for change** | |
| Action 2 | Agree strategic context | |
| Action 3 | Determine investment objectives, existing arrangements and business needs | |
| Action 4 | Determine potential business scope and key service requirements | |

| | | |
|---|---|---|
| Action 5 | Determine benefits, risks, constraints and dependencies | |

### *Action 2: agree strategic context*

This section of the SOC provides an overview of the organisation and, in terms of the proposed investment, demonstrates business fit and synergy with other parts of the organisation's business strategies.

*Organisational overview*

This part of the SOC provides a brief profile of the organisation, together with a statement of what it is seeking to achieve and the nature and level of resources currently at its disposal. The key areas of interest will include:

- the mission of the organisation
- its strategic vision, goals, business aims and service objectives
- its current activities and services, including key stakeholders and customers
- its organisational structure, staff complement, business turnover and geographical position
- its existing financial and funding arrangements.

Much of this information may be gleaned from annual reports. However, it is important to provide a snapshot of the organisation, given the fast pace of change within the public sector.

*Existing business strategies*

This part of the SOC explains how the proposed investment fits within, supports and promotes the agreed strategy and work programme of which the project is an integral part. In doing so, it explains how the proposed scheme helps to achieve the business goals, strategic aims and plans of the organisation.

All relevant strategies should be referenced including those at national, regional and local levels. Importantly, these strategies will highlight the high level policy aims (strategic aims) and business goals of the organisation from which the objectives for the investment will flow.

Much of this information should be available from existing documentation prepared at departmental and organisational levels and the outcome of deliberations at Phase 0 – determining the strategic context.

### *Action 3: determine investment objectives, existing arrangements and business needs*

A robust case for change requires a thorough understanding of what the organisation is seeking to achieve (the investment objectives); what is currently happening (existing arrangements) and the associated problems (business needs). Analysing a project in this way helps to provide a compelling case for investment, as opposed to it simply being 'a good thing to do'.

*Investment objectives*

This stage is probably the most important stage of all, and possibly the most underrated. It is concerned with defining the investment objectives for the project in terms of the desired outcomes and 'where we want to be', within the context of phase 0/ step 1 (determining the strategic context/ strategic fit).

The investment objectives for the project must clearly relate to the underlying policies, strategies and business plans of the organisation. They should also be made SMART – specific, measurable, achievable, relevant, and time-constrained – to help facilitate the subsequent generation of options and provide the foundation for post-implementation review and evaluation.

Investment objectives should:

- be customer focused and distinguishable from the means of provision
- focus on what needs to be achieved rather than the potential solution

It is also important that investment objectives are not so narrowly defined that they exclude important options, or so broad that they cause unnecessary work at the option appraisal stage.

The setting of robust investment objectives is an iterative process as subsequent appraisal (step 3, action 7) may change them. In practice, they will generally be predicated on the need to:

- provide further **economies** in the provision of an existing service
- improve business **effectiveness** and service quality in terms of the required outcomes
- improve **efficiencies** in the throughput of services
- meet statutory requirements and obligations
- meet policy changes
- deliver new business and operational targets.

Procuring an asset or service, or putting in place a scheme is never an investment objective in itself. It is what an organisation is seeking to achieve in terms of measurable returns on the investment that is important.

*Existing arrangements*

Within the parameters of the scope determined by the project's investment objectives, this stage sets out the status quo. In other words, it looks at the existing arrangements and explains how services are currently organised, provided and supplied. It also includes details about stakeholders, customers and associated throughput and turnover. In doing so, it provides a snapshot of 'where we are now' and consequently the basis for the 'do nothing' option.

*Business needs*

Having fully understood the existing arrangements for the service, this stage pinpoints the 'business gap'. In other words, the difference between 'where we want to be' (as suggested by the investment objectives) and 'where we are now' (in terms of existing arrangements for the service). This highlights the problems, difficulties and inadequacies associated with the status quo.

This analysis should take into account existing and future changes in the demand for services. In most cases, it will be necessary to include:

- confirmation of the continued need for business operations, including supporting evidence
- projections of the nature and level of demand for future services
- deficiencies in current provision
- a summary of user requirements, clearly distinguishing between the current and future.

A useful technique for populating this section of the business case is to complete the following template for each of the investment objectives:

| **Stage1** | |
|---|---|
| Investment objective | What we are seeking to achieve |
| Existing arrangement | The status quo |
| Business need | The problems associated with the status quo |

***Action 4: determine potential business scope and key service requirements.***

This stage highlights the potential scope of the project and the services required to satisfy the identified business needs and gaps.

*Potential business scope*

This action ascertains the scope of the project from the standpoint of the business, in terms of affected business areas, functionality and organisation.

This is an extremely important action as it effectively sets out the boundaries, or limitations, of the project – only options within this scope

will be assessed within the economic case. If the scope is left open or vague at this stage, the result will lead to 'scope creep' and additional cost at the procurement phase.

*Resultant service requirements*

Within the chosen scope for the project, this stage highlights the required services, which in turn will form the basis of the 'statement of needs' (SON) or 'statement of service requirements' (SSR) for the project.

In practice, it is beneficial to assess the potential scope and the associated service requirements in terms of a continuum of business needs, ranging from 'core' (minimum requirement) to 'core plus desirable' (intermediate requirement) to 'core plus desirable plus optional' (maximum requirement).

At this stage, core denotes 'the things that we **must** have'; desirable 'the things that we are **prepared to consider** on a cost/benefit basis'; and optional 'the things we that we **might** accept' providing they are exceptionally low cost. The table below can be used to record business needs at each level:

| | **Minimum** | **Intermediate** | **Maximum** |
|---|---|---|---|
| Potential business scope | | | |
| Key service requirements | | | |

***Action 5: determine benefits, risks, constraints and dependencies***

On the basis that the required services are put in place, this stage captures the key benefits and risks associated with the proposed investment. It also highlights the constraints and dependencies associated with the scheme.

Alongside the key investment objectives for the project, these aspects provide a basis for selecting and evaluating options in the next stages.

*Main benefits criteria*

The benefits criteria should be developed by the parties most directly affected by the proposal – usually the main stakeholders and customers (users) of the proposed services.

The benefits criteria fall into four main categories:

- cash releasing benefits (CRB)

- financial but non-cash releasing benefits (non CRB)
- quantifiable (or quantitative) (QB)
- non quantifiable (or qualitative) benefits.

The framework below gives an indication of the likely nature of benefits criteria for different types (or 'class') of investment objective:

| **Class** | **Relative value** | **Relative timescale** | **Benefits criteria** |
|---|---|---|---|
| Strategic (business related) | High | Long-term | Qualitative<br>Indirect/direct<br>Non-cash releasing |
| Operational (management related) | Medium | Medium-term | Qualitative and quantitative<br>Direct<br>Cash-releasing<br>Non-cash releasing |
| Job (task related) | Low | Short-term | Quantitative<br>Direct<br>Cash-releasing<br>Non-cash releasing |

The benefits – both direct and indirect to the organisation – should be captured for each investment objective against the relevant criteria. This helps to:

- indicate the relative value, or weight, of each investment objective. This is essential later for the ranking, weighting and scoring of the non-financial benefits and dis-benefits
- pin point the main beneficiaries of the scheme – both those within the organisation (direct) and those elsewhere in the public service (indirect). This recognises that occasionally those investing the most financially might not always be the main beneficiaries of the scheme
- ascertain whether the benefits are economic (non-cash releasing) or financial (cash releasing); measurable, but not in cash terms; or simply qualitative.

All categories will subsequently need evaluating.

*Main risks*

The main risks associated with the project and the proposed 'counter measures' should be identified at this stage. The emphasis should be on the 20% of risks which will account for 80% risk value. These risks will fall into the following key categories:

| Risk categories | Description |
|---|---|
| Business risks | These are the strategic risks which remain (100%) with the public sector organisation regardless of the sourcing method for the proposed investment. They include political risks. |
| Service risks | These are the risks associated with the design, build, financing and operational (DBFO) phases of the proposed investment. They can be shared with business partners and service providers. |
| External environmental risks | These risks affect all organisations regardless of whether they are public or private sector. They include secondary legislation and general inflation. |

Note: optimism bias also needs to be considered at this stage – see step 4, action 12 and departmental guidance for more details.

*Constraints*

The parameters within which the investment must be delivered should be considered. This may entail acting in accordance with a Government policy, directive or initiative, and on occasion within an 'affordability envelope' (if it has been made explicit) for the scheme.

The constraints are imposed on the project and must be managed from the outset. However, in the case of 'affordability', it should generally be assumed that further funds will always be made available where the preferred option offers significantly improved value for money (VFM). This is the policy of HM Treasury.

*Dependencies*

Any actions or developments required of others should be considered if the ultimate success of the project is dependent upon them. This could entail the successful delivery of the outputs associated with another project in the overall programme of which the investment is an integral part.

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

| **Stage1** | |
|---|---|
| Investment objective | What we are seeking to achieve |
| Existing arrangement | The status quo |
| Business need | The problems associated with the status quo |
| **Stage 2** | |
| Potential scope | What we need to put in place to overcome these |

| | |
|---|---|
| | problems |
| Potential benefits | The benefits we would accrue as a result |
| Potential risks | The potential risks which might arise |
| Potential constraints | The limitations we face |
| Potential dependencies | The things that must be in place and/or managed elsewhere |

**Checklist for step 2**

There should now be:

- clear SMART investment objectives for the project
- a clear understanding of the existing arrangements
- a clear exposition of the business needs
- a clear understanding of the potential scope for the project and/or procurement
- a clear statement of the associated benefits, risks, constraints and dependencies for the project.

**Output for step 2**

The first draft of the Strategic Outline Case has now been completed.

**Step 3: exploring the way forward**

***Introduction***

This is the technical core of the business case and is a fundamental requirement as it fulfils HM Treasury's requirements on how to demonstrate VFM.

Having determined the strategic context for the project (phase 0/ step1) and established a robust case for change (phase 1/ step 2), this stage of the planning process focuses on the main choices (or options) available for delivering the required services, with a view to formulating a preferred way forward for the subsequent approval of management.

Importantly, it should be noted that an early indication of the possible, or preferred, way forward could avoid considerable unnecessary work being undertaken at the OBC stage.

We are now in the territory of the 'economic case'. The main actions within this step are shown below:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 1 – scoping** | **Preparing the Strategic Outline Case (SOC)** | **Strategic case** |

| | | |
|---|---|---|
| Step 2 | Making the case for change | |
| **Step 3** | **Exploring the preferred way forward** | **Economic case – part 1** |
| Action 6 | Agree critical success factors (CSFs) | |
| Action 7 | Determine long list options and SWOT analysis | |
| Action 8 | Recommend a preferred way forward | **Including outline commercial, financial and management cases** |
| Output | Strategic Outline Case (SOC) | |
| Review point | Gateway 1: business justification | |

***Action 6: agree critical success factors for the investment***

By definition, CSFs are the attributes essential to the successful delivery of the scheme, against which the available options are assessed. Alongside the assessment against CSFs is the assessment of how well the options meet the scheme's investment objectives and benefits criteria.

CSFs will invariably differ from project to project, both in content and relative importance; but the key point is that they must be crucial (not desirable) and set at a level which does not exclude important options.

As a starting point, projects could consider the following, which are predicated upon the 'Five Case Model':

| Key CSFs | Broad Description |
|---|---|
| Strategic fit and business needs | How well the option:<br>• meets agreed investment objectives, related business needs and service requirements<br>• provides holistic fit and synergy with other strategies, programmes and projects. |
| Potential VFM | How well the option:<br>• maximises the return on the required investment (benefits optimisation) in terms of economy, efficiency and effectiveness<br>• minimises associated risks. |
| Potential achievability | How well the option:<br>• is likely to be delivered in view of the organisation's ability to assimilate, adapt and respond to the required level of change<br>• matches the level of available skills which are |

| | |
|---|---|
| | required for successful delivery. |
| Supply-side capacity and capability | How well the option:<br>• matches the ability of the service providers to deliver the required level of services and business functionality<br>• appeals to the supply-side. |
| Potential affordability | How well the option:<br>• meets the sourcing policy of the organisation and likely availability of funding<br>• matches other funding constraints. |

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

The purpose of this action is to identify as wide a range as possible of options that meet the investment objectives, potential scope and benefits criteria identified in step 2. It also involves looking at the associated strengths, weaknesses, opportunities and threats.

The Treasury's Green Book suggests in the order of a dozen main options in the first instance. This is known as the 'long list'. Best practice suggests that these options should be generated by working parties (brainstorming exercises) comprised of senior managers (business input), stakeholders and customers (user input) and specialists (technical input).

As a matter of principle, it is important to include an option which will act as the baseline for VFM. This may either be the 'status quo', 'do nothing' or 'do minimum', depending on which is the most realistic option in the circumstances.

Options may sometimes appear to be ruled out for legal, financial or political reasons. In such cases, undue time, effort and expense should not be expended on appraising these options. However, it is equally important to ensure that the constraints in question have not been imposed artificially.

*Creating options: HM Treasury Green Book*

For creating the long list of options, the Green Book suggests:

- research existing reports and consult widely with practitioners and experts to gather the set of data and information relevant to the objectives and scope of the problem
- analyse the data to understand significant dependencies, priorities, incentives and other drivers
- from the research, identify best practice solutions, including international examples, if appropriate

- consider the full range of issues likely to affect the objective
- identify the full range of policy instruments or projects that may be used to meet the objectives. This may span different sorts or scales of intervention; regulatory (or deregulatory) solutions may be compared with self-regulatory, spending or tax options
- develop and consider 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 a range of ideas.

Examples of strategic and operational options include the following:

- varying time and scale
- options to rent, build or purchase
- changing the combination of capital and recurrent expenditure
- refurbishing existing facilities or leasing and buying new ones
- co-operating with other parts of Government and the public sector
- changing locations or sites
- provision of the service (for example, maintenance) or facility by the private sector
- co-locating or sharing facilities with other agencies
- using IT to improve delivery, as part of wider organisational change
- transferring service provision to another body, or improving partnership arrangements
- varying the balance between outsourcing and providing services (or retaining expertise in-house)
- engaging the voluntary sector
- regulation, including private sector self regulation and voluntary action
- different standards of compliance procedures for different groups (for example, large and small businesses)
- varying quality targets
- different degrees of compulsion, accreditation and monitoring and inspection regimes, including voluntary codes, approved codes of practice or Government regulation
- action at regional, national or international level (for example, European wide)
- better implementation of existing measures or initiatives
- information campaigns
- deregulation and non-intervention
- changes that will be permanent in the foreseeable future, or initiatives with specified time horizons.

Initial consideration of the potential for private sector involvement should also be considered – see step 4, action10.

*Use of the options framework: long list*

The options framework provides a simple and straightforward approach to the identification and assessment of a broad range of relevant options (the long list) for investment. It has been tested thoroughly in a wide range of public sector schemes and proven to be particularly useful in getting senior management signed-up and committed to the preferred – or indicative – way forward early on in the business planning process.

The following table sets out an approach for identifying options for the long list using a number of 'categories of choice' formulated around the who, the what, the when, the where and the how.

| **Category of Choice** | **Brief Description** |
|---|---|
| Scoping options | In relation to the proposed scheme, 'the what in terms of coverage' (for example, levels of functionality; geographic coverage; population/user base; organisation etc). |
| Service solution options | In relation to the preferred scoping option, 'the what in terms of the how' (for example, potential solutions and answers, use of technologies etc). |
| Service delivery options | In relation to the preferred service solution, 'the what in terms of the who' for service delivery (for example, in-house; outsource; PPP etc). |
| Implementation options | In relation to the preferred method of service delivery, 'the what in terms of the when' for the rollout and delivery of the scheme (for example, big bang, phased, modular delivery etc). |
| Funding options | In relation to the preferred method of implementation, 'the what in terms of the funding'. For example, the use of capital v revenue; private v public finance (see action10, the use of PPPs/PFI); national v local funding etc. |

To use the options framework, the following actions should be taken:

- identify the options within the first category of choice (scope)
- assess how well each option meets the evaluation criteria (investment objectives and CSFs)

- decide whether each option is 'out', 'in' or a 'maybe'. In other words, whether it should be discounted immediately; or carried forward, either as the preferred choice in the category or a possibility for consideration
- consider the options for the delivery of the preferred choice (scope) in relation to the next category of choice (service solution)
- repeat the process for all other categories of choice.

At each stage it is helpful to record the results in a table – for example, for scoping options it could look like this:

Summary assessment of scoping options

| **Reference to:** | Option 1.1 | Option 1.2 | Option 1.3 | Option 1.4 |
|---|---|---|---|---|
| **Description of option:** | Do nothing | Minimum | Intermediate | Maximum |
| **Investment objectives** | | | | |
| | *x* | ? | ✓ | ✓ |
| | *x* | ? | ✓ | ✓ |
| | *x* | ? | ✓ | ✓ |
| | ? | ? | ✓ | ✓ |
| | *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** |

*Drafting the long list*

It is essential to be even handed when considering options in the long list and to record all the relevant facts and details. It is therefore recommended that the following headings are used when appraising options:

| **Heading** | **Rationale** |
|---|---|

| | |
|---|---|
| Description | Full details of the option under consideration – this may be with reference to a category of choice under investigation within the options framework. |
| Main advantages | In relation to the investment objectives, benefits criteria and critical success factors for the scheme. |
| Main disadvantages | As for advantages above. |
| Conclusions | Overall assessment, indicating whether the option is the preferred choice, or should be carried forward for further assessment in the short list; or discounted and discarded. |

***Action 8: recommend a preferred way forward***

This stage recommends a potential way forward, for the approval of management, based on the appraisal of the main options (long list) for the successful delivery of the scheme. In practice, this will consist of a 'direction of travel' for the delivery of the scheme, supported by a limited number of attractive options – known as the 'short list' – for further evaluation in the OBC.

*Short-listed options*

In accordance with the Treasury Green Book, the SOC must outline a minimum of three short-listed options for further examination at the OBC stage.

These must include:

- the 'do nothing'; status quo; or 'do minimum' option, which provides the benchmark for VFM throughout the appraisal process
- the 'reference project' (or outline Public Sector Comparator (PSC) as it is referred to within the OBC)
- another option – possibly predicated on a 'more' or 'less' ambitious version of the reference project; or a PPP/PFI arrangement, if this is a viable option.

*Indicative costs and delivery arrangements*

Indicative prices for each of the above short-listed options should be provided at SOC stage, along with an overview of the financial, commercial and management arrangements for the successful delivery of the proposed scheme.

Importantly, some allowance for 'optimism bias' should be made in the indicative prices – see the section on optimism bias in step 4, action 12.

*Use of the options framework: short list*

The results of the assessment of the long list may be used to help generate the short list options as follows:

| Category of Choice | Option 1 | Option 2 | Option 3 | Option 4 |
|---|---|---|---|---|
| Scoping | Discount | Preferred | c/f – less | c/f – more |
| Service solution | c/f – more | Discount | Preferred | c/f – less |
| Service delivery | c/f – less | c/f – more | Discount | Preferred |
| Implementation | Preferred | c/f – less | c/f – more | Discount |
| Funding | Discount | Preferred | c/f – less | c/f – more |

Note: this table is populated by taking the results from each stage of the options framework – for example, the scoping results shown here come from the summary shown earlier in this section.

The following actions should be taken:

- to construct our reference project (or outline PSC) from the preferred choices in each category – i.e. an amalgamation of option 1 for implementation, option 2 for scope and funding and so on
- to construct a more ambitious reference project from either some or all of the 'c/f – more scope, faster implementation etc' recommendations
- to construct a less ambitious reference project from either some or all of the 'c/f – less scope, slower implementation etc' recommendations.

The short list must also include the 'do nothing' or 'status quo' options.

It should be noted that the reference project is essentially our preferred way forward given that it is predicated upon our best assessment at this stage of the possible scope, service solution, method of service delivery, implementation and funding, following SWOT analysis of the available options in each category of choice. Moreover, it has been arrived at logically and systematically.

*A brief outline reference to the other cases*

A brief outline reference to other elements of the Five Case Model is required at this point in the SOC – in other words include an outline of the:

- Commercial case
  - assessment of the likely attractiveness of the project to potential service providers, taking into account the PPP (PFI), as required.
- Financial case
  - a statement of the organisation's financial situation
  - resources available for the project, including assessment of the resource holder's ability to provide support
  - capital and revenue constraints

    - statements of strategic (or in principle) support from the stakeholders.
- Management case
    - who is involved in the project, both inside and outside of the organisation, including users, commissioners and other key stakeholders
    - achievability of the project, taking into account the organisation's readiness and resources
    - how the project is to be managed
    - other key managerial considerations, including: change management, training, evaluation and timetable
    - nature of further work needed to develop management proposals.

**Checklist for step 3**

There should now be:

- a clear understanding of the project's critical success factors (CSFs)
- a long list of 10 to 12 options , which have been subjected to SWOT analysis
- an emerging preferred way forward
- a shortlist of 3 to 4 options with indicative costs for full evaluation in the OBC
- an outline consideration of the financial, commercial and management cases for the project.

**Output of step 3**

The first draft of the economic case (as far as the long list and proposed short list) has now been completed.

**Output of phase 1 and Gateway Review Process**

The SOC has now been completed. A Gateway 1 or Health Check 1 for the business justification stage should now be considered for the project, prior to the formal submission of the SOC to the approving authority for agreement (if required).

**Outcomes from the SOC**

SOCs are good practice. They lay the basis for better decision making through reaching agreement from the outset on the case for investment and the key issues in the choices. SOCs also prevent too much effort being expended on projects that should not proceed.

Management recommendations will focus on either:

- abandoning the project, because it is considered unaffordable, too ambitious, or too high risk in relation to the expected return
- modifying the project
- undertaking a pilot exercise to test out the assumptions and to inform an eventual decision
- going ahead with the project more or less as originally conceived with a set of recommendations on how to proceed, including agreement or adjustment to the proposed short list.

**Stage 2 – Planning**
**Phase 2: Preparing the Outline Business Case (OBC)**

**Overview**

The purpose of the Outline Business Case (OBC) is to:

- identify the investment option which optimises value for money (VFM)
- prepare the scheme for procurement
- put in place the necessary funding and management arrangements for the successful delivery of the scheme.

The preparation of the OBC is a mandatory part of the business case development process.

**Step 4: determining potential VFM**

***Introduction***

This is the investment (or 'option') appraisal phase of the project, where the potential VFM of the scheme is determined in relation to the various options for delivery, in accordance with the tools and techniques devised by HM Treasury for use by public sector organisations.

Whilst bringing together a variety of information on costs, benefits and risks means option appraisal aids decision making, it should not be seen as unequivocally providing the 'right' answer. The goal is 'optimal' – in other words, the option we are looking for is the one which best balances the costs in relation to the benefits and risks.

The main actions within step 4 are shown below:

| **Stages** | **Development Process** | **Deliverables** |
|---|---|---|
| **Phase 2 – planning** | **Preparing the Outline Business Case (OBC)** | |
| **Step 4** | **Determining potential VFM** | **Economic case – part 2** |
| Action 9 | Revisit SOC and determine short list, including the Reference Project (outline PSC) | |
| Action 10 | Prepare the economic appraisals for short-listed options | |
| Action 11 | Undertake benefits appraisal | |
| Action 12 | Undertake risk assessment/appraisal | |
| Action 13 | Select preferred option and undertake sensitivity analysis | |

### *Action 9 – revisit the SOC and determine the short list*

This action is concerned with:

- revisiting the case for change (contained within the strategic case of the SOC)
- reviewing the efficacy of the preferred way forward and options recommended (contained in the economic case within the SOC) – bearing in mind that the key place for options appraisal is the OBC and that only a preferred way forward (to be tested) has been agreed.

*Revisiting the strategic case*

The case for change should be reviewed, because:

- management's approval of the SOC may have been conditional on some changes and adjustments to the case
- the early opportunity for the organisation and key external stakeholders to consider the project may have influenced its subsequent direction
- some time may have elapsed between SOC approval and the commencement of the OBC
- other elements of the scheme may have changed.

All changes made to the underlying assumptions in the SOC should be noted within the opening section to the strategic case in the OBC.

*Reviewing the economic case*

The early work on the long list and the preferred way forward will need reviewing and refining.

The recommended short list contained in the SOC should be tested against the following 'long list to short list' criteria:

- do any of the options fail to deliver the investment objectives and CSFs for the project?
- do any of the options appear unlikely to deliver sufficient benefits, bearing in mind that the intention is 'to invest to save' and to deliver a positive net present value (NPV)?
- are any options clearly impractical or unfeasible – for example, the technology or land is not available?

- 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?

All changes made to the underlying assumptions in the SOC should be noted within the opening section to the economic case in the OBC.

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

This action is concerned with:

- estimating the costs for the economic appraisals
- estimating the benefits for the economic appraisals
- presenting the economic appraisals.

*Estimating the costs and benefits for the economic appraisals*

This section contains essential guidance on:

- HM Treasury Green Book principles
- the key differences between economic and financial appraisals
- relevant costs to include in the economic appraisals
- estimating benefits for the economic appraisals
- adjustments required to estimates of costs and benefits.

*HM Treasury Green Book principles*

The Treasury Green Book sets out rules that should be followed for the treatment of costs and benefits:

- the relevant costs and benefits to government, the public sector and 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
- the costs and benefits should normally be extended to 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 market prices 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 append ix
- all cost estimates must be stated in the same base year at a common price level. The base year should be the same for all options. The base year is defined as 'year 0'.

*Economic and financial appraisals*

Many practitioners confuse the appraisals for the economic case with those for the financial case at this stage. Economic appraisals have a 'macro' perspective and focus on VFM analysis; whereas financial appraisals have a 'micro' perspective and focus on affordability. The key differences can be summarised as follows:

| **Economic Appraisals** | **Financial Appraisals** |
|---|---|
| Focus:<br>• VFM – net present value/cost (NPV/NPC) | Focus:<br>• affordability – cash flow |
| Coverage:<br>• wide coverage – Government and Society ('UK Ltd') | Coverage:<br>• relevant organisation(s) |
| Relevant standards:<br>• HM Treasury Green Book rules<br>• discount rate (3.5%) applied | Relevant standards:<br>• organisational accounting rules and standing orders |
| Analysis:<br>• constant (real) prices<br>• includes opportunity cost<br>• includes indirect and attributable costs – 'costs of others'<br>• includes all quantifiable costs, benefits and risks<br>• includes environmental costs<br>• excludes all Exchequer 'transfer' payments – for example, VAT<br>• excludes general inflation<br>• excludes sunk costs<br>• excludes depreciation and capital charges. | Analysis:<br>• current (nominal) prices<br>• benefits – cash releasing only<br>• includes transfer payments (for example, VAT)<br>• includes inflation<br>• includes depreciation and capital charges. |

*Relevant costs for the economic appraisals*

The following provides an overview of the costs which should be included in the economic appraisals:

- **Capital costs:** these include the opportunity cost of existing assets such as land and can broadly be broken down into: land and property; construction and refurbishment costs; professional fees; equipment (furniture, fittings, lighting and wiring); and the cost of technology. Assets may require replacement, refurbishment or upgrading over the lifetime of the appraisal period. These 'life-cycle' costs should also be included.

- **Revenue costs:** these are the running costs and are at least as important as capital costs. They must be included but it should **not** be assumed that they will remain unchanged for the baseline option over time. The assessment of revenue costs must:
  - assume that the running costs of each option will normally be different; distinguish between them and explain the differences between options
  - include all the running costs
  - state the assumptions made (for example, about service performance, efficiency savings and real cost trends).

- **Fixed, variable, semi-variable and step costs.** These should be distinguished between within the economic appraisals and their relationships explained in full.
  - fixed costs remain constant over a wide range of activities for a specified period of time – for example, the building
  - variable costs vary according to the volume of activity – for example, training costs
  - semi-variable costs include both fixed and variable components – for example, a combination of fixed maintenance costs and variable call-out charges
  - 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 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 costs in addition to basic pay – for example, pensions, national insurance 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. However, it may be necessary to include the opportunity cost of continuing to pay for associated goods and services on some occasions.

- **Full economic costs.** The full costs (direct, indirect and attributable) of each option, rather than its net cost in relation to the baseline proposal **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 in relation to the implementation of the investment. 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. They should not be underestimated, because if insufficient resources are allocated to developing staff and changing working practices, the full benefits of the project will not be achieved.

- **Avoided costs.** These should either be included as a cost in the 'do nothing' option or as a cash benefit in the other option(s).

- **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 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 systematically in terms of their net benefits or costs.

Benefits identification

The 'golden rule' is that all benefits **must** be quantified (in £s) prudently, wherever possible; and that the economic appraisals should take these into account from the perspective of society and the public and private sectors, as well as the organisation.

The benefits for investments typically fall into four main categories:

- **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 or materials
- **financial but non-cash-releasing benefits (non-CRB).** This usually involves reducing the time that a particular resource takes to do a particular task; 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 easily in financial terms – for example, 'reduced travelling time for customers'. 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 financially wherever possible
- **non-quantifiable (non-QB)**. These are the qualitative benefits, which are of value to the public sector but cannot be quantified. For example, an increase in staff morale as a consequence of less form filling.

All the financial benefits – cash releasing and non-cash releasing – must be accounted for in the discounted cash flows to derive the net present value (NPV) in the economic appraisals. However, only the cash releasing savings relevant to the organisation(s) should be accounted for in the financial appraisals – see step 6 (ascertaining affordability and funding).

Weighting and scoring techniques should be used to evaluate the non-financial benefits – both quantifiable and qualitative.

Real or estimated market prices

Real or estimated prices provide the first point of reference for the valuation of benefits and there are few cases where valuing at market prices is not suitable. However, if the market is dominated by monopoly suppliers or is significantly distorted by taxes or subsidies, a number of approaches have been developed to value non-marketed goods. These include:

- revealed preference approach (i.e. inferring a price from consumer behaviour)
- willingness to pay (i.e. inputting a price by means of carefully constructed questionnaires and interviews to indicate how much people are prepared to pay to consume a particular output – for example, improved access to services or savings in time, or to avoid undesirable outcomes). The values obtained from this approach will

vary between individuals, depending on their income, socio-economic status and personal circumstances.

*Adjustments required to the values of costs and benefits*

While developing the 'base case' (i.e. the best estimate of how much a proposal will cost in economic terms), adjustments may be required to take account of 'distributional impacts' and 'relative price changes'. All adjustments should be shown separately and clearly stated in supporting tables of data.

Distributional analysis

This takes into account the 'diminishing marginal utility of additional consumption', which basically means that a proposal may have differing impacts according to age, gender, ethnic group, health, skill or location. These effects should be explicitly stated and quantified (in £s), given that an extra £ will provide more benefit to someone 'who is deprived' than to someone 'who is well-off'.

Applying a distributional adjustment requires detailed information about the affected population. A detailed explanation is needed when this adjustment is required but not made.

Relative price changes

The costs and benefits presented in the economic appraisals should be expressed in 'real terms' or 'constant prices', as opposed to current or nominal prices. The effect of future inflation on the general price level should therefore be removed by deflating prices by the relevant deflator – for example, the Bank of England's annual inflation target.

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.

***Presenting the economic appraisals***

Following the identification and measurement of the costs and benefits for each option, it should now be possible to estimate the net present value (NPV) for each option, using the appropriate discount rate – the preferred method of investment appraisal within the public sector.

This section is concerned with compiling the economic appraisals for the short listed options – including the 'do nothing' or 'do minimum' in their most basic format. Guidance is given on the following:

- methods for investment appraisal
- discounting in the public sector
- calculating the NPV
- the equivalent annual cost (EAC)
- required rates of return and pricing rules
- the treatment of PPP (PFI) schemes, if applicable
- tax differentials.

*Methods for investment appraisal*

There are two main schools of thought for evaluating the performance of an investment project, namely the 'accounting method' and 'economics method'.

The accounting method focuses on liquidity/pay back period and profitability (see the financial case – step 6/ action 19); whereas the economics method focuses on wealth maximisation, cash flows, resource allocation and considerations of risk and uncertainty.

The two main economics methods are NPV and the internal rate of return (see 'required rates of return and pricing rules' below).

The recommended approach within the public sector is to calculate the NPV, which is the sum of **discounted** costs and benefits.

*Discounting in the public sector*

Discounting is a technique used to compare the costs and benefits that occur in different time periods. It must not be confused with inflation and is based on the premise that 'a pound today is worth more than a pound tomorrow'. Consequently, people prefer to receive goods and services today, rather than tomorrow. This is known as the 'time preference' and for society as a whole, as 'the social time preference'.

The discount rate used in public sector projects – or the 'test discount rate' as it is often referred to – is stipulated by HM Treasury. It is currently set at 3.5% in real terms, which reflects the opportunity cost of public sector capital and the social rate of time preference.

The following table shows how the present value (PV) of £1,000 declines in future years with the 3.5% discount rate.

| **Present values and the 3.5% discount** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (yrs) | | | | | | | | | | |
| PV(£) | 1,000 | 966 | 934 | 902 | 871 | 842 | 814 | 786 | 759 | 734 |

Long term discount rates

Sometimes other rates are applicable – for example, where the appraisal of a proposal depends materially on the discounting of effects in the very long-term. For costs and benefits accruing over more than 30 years, the Treasury Green Book suggests:

| **Discount rates for long term proposals** | | | | | | |
|---|---|---|---|---|---|---|
| Period of Years | 0-30 | 31-75 | 76-125 | 126-200 | 201-300 | 301+ |
| Discount rate | 3.5% | 3.0% | 2.5% | 2.0% | 1.5% | 1.0% |

When undertaking sensitivity analysis (see action 13), the impact of changing the discount rate should be analysed in the same way as for other parameters in the proposal.

*Calculating the NPV*

The following case study shows how the NPV is calculated:

**Case Study**

Alternative projects, A and B, are both expected to improve the quality of a public sector organisation's work and reduce staff costs. The base case of each option is being estimated.

**Option A** requires £10 million in initial capital expenditure to realise benefits of £2.5 million per annum for the following four years - £2 million in reduced staff costs and £0.5 million in quality improvements.

**Option B** requires £5 million in initial capital expenditure to realise benefits of £1.5 million per annum for the following four years - £1 million in reduced staff costs and £0.5 million in quality improvements.

| **Year - £ million** | **0** | **1** | **2** | **3** | **4** | **NPV** |
|---|---|---|---|---|---|---|
| Discount factor | 1 | 0.9962 | 0.9335 | 0.9019 | 0.8714 | |
| **Option A** | | | | | | |
| Costs | -10 | 0 | 0 | 0 | 0 | |
| Benefits | 0 | 2.50 | 2.50 | 2.50 | 2.50 | |
| NPV | -10 | 2.42 | 2.33 | 2.25 | 2.18 | **- £0.82** |
| **Option B** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Option B** | | | | | | |
| Costs | -5 | 0 | 0 | 0 | 0 | |
| Benefits | 0 | 1.50 | 1.50 | 1.50 | 1.50 | |
| NPV | -5 | 1.45 | 1.40 | 1.35 | 1.31 | **£0.51** |

Project B yields a positive NPV of £0.51 million compared with a negative NPV of £0.82 million for project A and zero for the implicit do minimum or do nothing alternative. Therefore Project B is preferable.

*The Equivalent Annual Cost (EAC)*

In option appraisal, the appropriate time period over which the discounting should be undertaken is the assumed life of the asset or service period. However, if the options under consideration have different life spans, this needs to be reflected in the calculations to enable consistent and valid comparisons to be undertaken.

By annualising the discounted costs of the assets or service contract periods over their respective life spans and comparing these equivalent annual payments, the effects of the different life spans can be accommodated.

To compute the EAC, the following steps are required:

- set out the phased pattern of capital and revenue payments for the option
- discount the total and sum to calculate the NPV of the option
- apply the appropriate EAC to the NPV – for detailed guidance on calculating EACs refer to HM Treasury's Green Book which includes a worked example.

*Required rates of return and pricing rules*

Some public sector organisations operate in a 'pseudo' market place or sell goods and services commercially, including to other public sector bodies. These activities may be controlled by requiring prices to be set to provide a required rate of return on the capital employed by the activity as a whole. Generally, public sector policy sets charges for goods and services sold commercially at market prices, and recovers full costs for monopoly services, including the cost of capital.

*The use of public private partnerships (PPPs)/ private finance initiative (PFI)*

The above guidance does not materially alter how a PPP/PFI option for the delivery of the required services should be treated in the short list.

Consideration of the use of a PPP and/or PFI arrangement may have been discounted (for policy reasons) or accepted as an option (given the limited availability of capital and the efficacy of such an arrangement) at the SOC stage.

In the absence of PPP/PFI costs at this stage, the outline Public Sector Comparator (PSC) provides an estimate of how much it will cost the public sector, as a traditional supplier, to provide the facility and associated services defined in the output based specification for the project.

Occasionally, it may be possible to estimate the cost of an outline PSC or 'reference project' assuming a PFI structure. But generally this will only happen where it has been decided, first, that a privately financed solution is the only way forward (as in the case of HM Treasury's 'significant PFI (PPP) projects'); and costs are available for similar projects. In most cases, the outline PSC will be predicated on in-house or outsourced costs for the provision of services, regardless of whether a privately financed solution is still being considered.

Assessing the potential of PPP (PFI)

The Confederation of British Industry (CBI) has developed the following criteria for assessing the eligibility of public sector schemes against private funding (CBI Report: Private Skills in Public Service). While none of these conditions in itself guarantees success, they may allow for a more informed decision at the long list stage (see step 3, action 7). The table is used to show the potential for a project to have 'favourable PPP/PFI characteristics'.

| **Investment 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 | | | |

The use of HM Treasury's model for the early assessment of a scheme's potential to be delivered under the PPP (PFI) should also be considered at this point.

HM Treasury's PFI VFM model

In addition, a standard **mandatory** spreadsheet for the VFM assessment of PPP/PFI schemes has been developed by HM Treasury as a tool to assist procuring authorities undertake a quantitative analysis to support the VFM decision as to whether to use PFI or conventional procurement.

The two sourcing methods are:

- the PSC option – procurement through conventional approaches that use public capital. For example, letting a design and build contract for the construction of an asset, and then letting annual operating and maintenance contracts for the ongoing maintenance of the asset
- the PFI option – procurement under PFI which is a specific funding methodology through which the public sector lets a design, build, finance and operate contract to the private sector for the construction and whole life maintenance of an asset and/or associated service.

This spreadsheet should be attached to all business cases which consider a PPP/PFI proposal. It has been designed to meet the following objectives:

- to ensure that the simplicity of approach reflects the early point at which this analysis takes place
- to focus procuring authorities' minds on the underlying assumptions and the interplay with qualitative judgement
- to reduce costs and ensure that ownership of the decision lies with the procuring authority and not their advisers
- to introduce consistency across the public sector and improve the underlying evidence base.

However, it does **not** provide:

- an affordability envelope
- the basis for bid evaluation or reference model
- a pass/fail point estimate for deciding between PFI and conventional procurement.

For further guidance please see HM Treasury's Quantitative Assessment User Guide, August 2004: www.hm-treasury.gov.uk

*Tax differentials*

The adjustment of market prices for taxes in economic appraisals is appropriate where it may make a material difference to the decision. In practice, it should be relatively rare that adjustments are required, because similar tax regimes usually apply to different options. However, the tax differential should be taken into account when comparing a publicly financed option to a privately financed option, in order to avoid distorting the outcome.

For further guidance on any of the above, please refer to the Treasury Green Book.

***Action 11 - undertake benefits appraisal***

Benefits which can be quantified financially (in £s) should be included in the economic appraisals and subject to cost benefit analysis (CBA). However, in many investment proposals some benefits are not amenable to monetary values – for example, the 'future proofing' of the organisation; improvements in staff morale and customer relations; flexibility and improved accuracy.

A method in common use within option appraisal is to weight and score the non-financial benefits for each option. This is preferable to simply ranking the benefits, as placing them in their order of priority does not in itself provide any objective assessment of how the incidence of these benefits varies from option to option.

*Weighting and scoring of benefits*

Weighting and scoring provides a technique for comparing and ranking options in terms of their associated non-financial benefits. It should be undertaken as follows:

- exclude all financial benefits, whether cash-releasing or non-cash releasing
- group the quantifiable (non-financial) and qualitative benefits according to their relevant investment objective, and/or other benefit criterion for the scheme as a whole
- select an expert and representative team to weight and score the benefits for each short-listed option
- give a weight (0 to 100) to each of the investment objectives and/or benefit criteria

- give a score (1 to 10) to each option for how well it delivers the benefits associated with each investment objective or benefit criterion
- multiply the weights and scores to provide a total weighted score for each option
- rank the options in terms of benefit delivery and identify the preferred option on the basis of the highest score.

*Baseline benefits levels*

It is important to try and distinguish between the benefits derived from each option and the benefits which would be derived anyway. The total benefits of the 'do nothing' option is the baseline for comparison of the benefits of the other options. The benefits of doing nothing (even if there are none) must, therefore, be assessed in the same way as the other options.

*Recording the results*

The process and the reasoning behind the scores and weightings must be documented clearly to demonstrate that a robust analysis has been carried out. Again, it is important to recognise that the assigned weights and the scores given to options are value judgments. In order to assign weights and scores, negotiation and compromise needs to take place. It is the number of people involved in the process and their expertise that lends credibility to these value judgments. It is, therefore, worth spending some time choosing a representative 'benefits team' which should include stakeholders, customers (users), and business and technical representatives. The people involved should be named as part of the recording process.

**Case study**

The benefit criteria (attributes), weights and scores for the OBC in support of an NHS accommodation scheme are shown below. It uses a score out of 10 according to how well each of the options match-up to the benefit criteria. These scores are then multiplied by the pre-agreed weightings to give a total score for each option.

| **Benefit Criteria** | **Weight** | **Do Nothing** | | **Option B** | | **Option C** | |
|---|---|---|---|---|---|---|---|
| | | Score | Weight x score | Score | Weigh t x score | Score | Weight x score |
| Quality of clinical care | 30 | 0 | 0 | 0 | 0 | 7 | 210 |
| Patient accessibility | 15 | 0 | 0 | 1 | 15 | 4 | 60 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Flexibility of accommodation | 20 | 0 | 0 | 4 | 80 | 6 | 120 |
| Quality of hotel services | 20 | 0 | 0 | 5 | 100 | 4 | 80 |
| Disruption to services | 15 | 0 | 0 | 0 | 0 | 3 | 45 |
| **Total** | **100** | | **0** | | **195** | | **515** |

***Action 12 – undertake risk assessment and appraisal***

The Treasury Green Book and departmental manuals have always required public sector organisations to undertake a risk assessment of the short listed options. However, until fairly recently, business cases rarely quantified the risks associated with each option.

Consequently, it is recommended that the service risks associated with a significant scheme should be measured and quantified (in £s) as early as possible and that as a minimum requirement:

- allowance for 'optimism bias' should be applied at the SOC and OBC stages
- service risks should be quantified (in £s) at the OBC and FBC stages
- the weighting and scoring of risks should be confined to the initial assessment of options at the SOC stage; and thereafter to relatively low investments (in terms of £s) at OBC and FBC stages.

*Optimism bias*

Within both the public and private sectors, there is a demonstrated and systematic tendency for project appraisers to be overly 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. Departmental guidance is also available and should be referred to at this stage.

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 a 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* |

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

Recommended steps

Project managers should 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 when determining its project type. By way of guidance, a project is considered 'non-standard' if it satisfies any of the following conditions:
  - it is innovative
  - it has mostly unique characteristics
  - construction involves a high degree of complexity and/or difficulty.

  A 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, as defined in the Green Book, 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. Procedures for this include the Gateway Review process.

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

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
- project and risk 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 are estimated to be £50m NPC in a SOC. 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 for the OBC. As the project progresses, more costs and specific risks are identified explicitly, despite the reduced cost. For the FBC the optimism bias adjustment is 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

Optimism bias should still 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').

It is important to develop a risk register from the very beginning of the project (see management case). From then on the risk register should be updated and reviewed regularly and used on a consistent basis 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 project/ scheme.

*Risk identification*

There are a number of techniques which may be used to identify the risks associated with projects. These techniques can be applied to any type of project. Three commonly used methods are:

- **structured review meetings** – these involve the project team 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 project with experience of risk
- **brainstorming workshops –** these include all members of the project team and encourage imaginative ideas.

*General types of risk*

Risks fall into three main categories: business, service and external. Business related risks remain with the public sector and can never be transferred. Service related risks occur in the design, build and operational phases of a project and may be shared between the public and private sectors. External environmental risks relate to society and impact on the economy as a whole.

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 environmental risks** | The risks faced by society as a whole. |
| Economic risk | The risk that project outcomes are sensitive to economic influences – for example, where actual inflation differs from assumed inflation rates. |
| Legislative risk | The risk that legislative change increases costs. This can be divided into secondary legislative risk (for example, changes to corporate taxes) and primary legislative risk (for example, specific changes which affect a particular project). |
| Policy risk | The risk of changes in policy direction leading to unforeseen change. Again, this can either be general to all or specific to a particular project. |

*Risk quantification*

It is good practice to add a 'risk premium' to provide the full expected value of the base case and alternative options. As explained, in the early stages of an appraisal, this risk premium may be encompassed by a general uplift to a project's NPV to offset and adjust for undue optimism. But 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 size of the outcome (impact) as quantified in financial terms, and summing the results for all risks and outcomes. It is therefore best used when both the likelihood and outcome can be estimated reasonably well.

*Single point probability analysis*

At its most 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 impact of risk of cost over-run | £200,000 |
| Estimated probability of risk occurring | 10% |
| Estimated value of risk = £200k x 10% | £20,000 |

*Multi-point probability analysis*

For any risk, a range of possible outcomes is more likely. An output probability distribution provides a more 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 in this context. 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 and Latin Hypercube*

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

**Monte Carlo** analysis is a risk modelling 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 uncertainties. However, expert advice is required to ensure it is applied properly, especially when risks are not independent of each other. Before undertaking or commissioning such an analysis, it is useful to know how data will be fed into the model, how the results will be presented, and how decisions may be affected by the information generated.

**Latin Hypercube** is a recent development in sampling theory, designed to reproduce accurately the input distribution through sampling using fewer iterations compared with the Monte Carlo approach. The distinguishing feature of Latin Hypercube sampling is stratification of the input probability distributions. A sample is then chosen from each stratified layer of the input distribution. Sampling is forced to represent values in each layer and thus recreates the input distribution. Convergence tests show that this method of sampling converges faster on the true distributions compared with Monte Carlo sampling.

*Risk weighting and scoring*

The weighting and scoring of risk is similar to the approach for evaluating the non-financial benefits. It should be undertaken as follows:

- exclude all the risks which can be measured financially

- select an expert and representative team to weight and score the risks for each short-listed option
- assess the impact of each risk (high, medium, low) and score (0 to 10)
- assess the likelihood of the risk occurring (high, medium, low) and score (0 to 10)
- calculate the expected score for each risk by multiplying the impact and likelihood scores
- rank the options in terms of their risk and identify the preferred option on the basis of the highest score.

The full involvement of stakeholders and customers (users) is very important when evaluating non-financial risks.

***Action 13 – select preferred option and undertake sensitivity analysis***

This action is concerned with identifying the preferred option for delivering the scheme and with testing its robustness through sensitivity analysis.

*Identifying the preferred option*

If the required analyses have been undertaken rigorously, selecting the preferred option should be a reasonably straightforward step in the decision making process. The business case should present the information succinctly and clearly to help senior management reach the decision. The following format should be completed for each option:

| **Option** | **Undiscounted £** | **Discounted £** |
|---|---|---|
| Capital<br>Revenue | | |
| **Sub-total** | | |
| Cost of risk | | |
| **Total cost/ NPC** | | |
| - Cash releasing benefits | | |
| - Non-cash releasing benefits | | |
| **Net present value (NPV)** | | |
| Benefits (non-financial) score | | |
| Risk (non-financial) score | | |

The values of costs, benefits and risks are not always comparable, because some benefits and risks are non-quantifiable. Therefore, where an option has higher benefits, the investing organisation needs to decide whether these benefits justify a higher net present cost and higher risk. If the additional benefits are not sufficient to justify the additional costs and risks, a lower cost and risk option should be selected.

Often a choice will remain between high cost/high benefit options and low cost/low benefit options. In these circumstances, the organisation's senior managers and stakeholders must decide to what extent the higher benefits are worth paying for. 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. Therefore, the need for sensitivity analysis should always be considered and dispensed with only in exceptional circumstances.

In itself, 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:

- optimistic and pessimistic scenario analysis
- switching values.

Scenario analysis

Scenarios are useful in considering how options may be affected by future uncertainty. 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 size 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.

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.

Take as an example, a situation where the capital costs of the preferred option are £10,000, those of option 1 are £5,000 and option 2 £15,000. The costs of the preferred option would therefore have to decrease by 50% to equate to option 1 and increase by 50% to equate to option 2. As 50% either way shows that there is a high level of sensitivity, further investigation using scenario planning is worthwhile.

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 |
| Qualitative benefits | Weights |

| | Scores |
|---|---|
| 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
- assumptions about the transfer of risk.

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*

If a full cost benefit analysis has been undertaken, the best option is likely to be the one with the highest risk adjusted NPV. To the extent that all costs, benefits and risks have been valued robustly, this guideline can be applied with more certainty.

In cost effectiveness analysis, the option with the lowest net present cost should be the preferred option, again assuming that the cost estimates are as accurate and reliable as possible.

If there is an affordability ceiling (constraint) then the combination of proposals should be selected that optimises the value of benefits. 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, in most cases, it should not be assumed too readily that additional monies will **not** be made available to fund the proposal which offers demonstrably better VFM.

In practice, other factors will also affect the selection of the preferred option – in particular, consideration of the unvalued costs (if any), non-financial benefits and risks. However, as the scores are not expressed in monetary terms, judgment is required to compare the results of weighting and scoring with the cost benefit or cost effectiveness analysis. The two analyses should complement each other and may indicate that further analysis is required before the final decision can be reached. Fully involving stakeholders is very important in making judgments between financial and non financial effects.

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

| **Evaluation results** | **Option 1**<br>**Do Minimum** | **Option 2**<br>**PSC** | **Option 3**<br>**PSC – more ambitious** | **Option 4**<br>**PSC – less ambitious** |
|---|---|---|---|---|
| Economic appraisals | | | | |
| Non-financial benefits appraisal | | | | |
| Non- financial 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. But 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.

Similarly the 'internal rate of return' should be avoided as the decision criterion. Whilst it is very similar to NPV as a criterion, there are some circumstances in which it will provide different, and incorrect, answers. For example, IRR can rank projects that are mutually exclusive differently from NPV.

Both methods may, however, prove useful in assessing the financial – as opposed to economic – impact of the preferred option: see financial case (step 6).

**Checklist for step 4**

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

- a revisited and updated OBC long list
- a revisited and updated OBC short list
- economic appraisals (NPVs) for the short-listed options – risk adjusted (in £s) and applying optimism bias
- assessments of both the non-financial risks and benefits
- an assessment of the uncertainties (sensitivity analysis)
- a detailed description of the preferred option.

**Output for step 4**

The first draft of the OBC economic case has now been completed.

**Step 5: preparing for the potential deal**

***Introduction***

This represents a departure from the past inasmuch as the commercials for the potential scheme have too often been left for detailed consideration until after the approval of the OBC, prior to the commencement of the procurement process.

The advent of Gateway 2 (procurement strategy) following the production of the OBC has reinforced the need to prepare for the potential deal at this stage.

The main actions within this step are as follows:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 2 – planning** | **Preparing the Outline Business Case (OBC)** | |
| Step 4 | Determining potential value for money (VFM) | Economic case - Part 2 |
| **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 | |

***Action 14: Determine procurement strategy***

The procurement strategy focuses on how best the required services and outputs can be procured. Strategic considerations typically range from whether the organisation should act as a single entity, or procure collaboratively with others, to the method of procurement to be adopted dependent on the need to consult with the supply-side.

The key point is that public sector organisations should act in compliance with the government agreement (WTO) and the EU consolidated public sector procurement directive (2004) which foster 'open markets' and the pursuit of VFM through the competitive process.

*Collaborative procurements*

These strategic and ad hoc arrangements (at national, departmental/sector and local level) offer significant flexibility and potential VFM (through economies of scale) and a considerable reduction in procurement costs (through pre-competition) – as a result, they should be considered at the outset.

Collaborative procurements range from 'pre-competed' arrangements and prices at national level (for example, the e.Government Unit within the Prime Minister's unit for information technology), to departmental and more local arrangements involving 'call-off contracts' and management frameworks for specified supplies and services.

Refer to the Office of Government Commerce (OGC) and/or your departmental or local centre of excellence for procurement for assistance.

*Procurement methodologies*

A recognised procurement methodology should be used. The approach depends on what is being procured (build, IT etc) and is based on accredited standards for the sector.

Again, the OGC and/or your departmental or local centre of excellence for procurement will be able to assist.

*EU rules and regulations*

The relevant UK procurement regulations which apply to most significant schemes are:

- Public Works Contracts Regulations 1991 (SI 1991/2680)
- Public Services Contracts Regulations 1993 (SI 1993/3228)
- Public Supply Contracts Regulations 1995 (SI 1995/201).

These regulations enact EC Directives under UK Law. The regulations apply to contracts with a value over the following thresholds as of 31 January 2006:

- Public Works – £ 3,611,319 (Euros: 5,278,227)
- Public Services – £ 93,738 (Euros: 137,000)
- Public Supply – £ 93,738 (Euros: 137,000).

These thresholds are updated every two years.

You should note that the Public Supply Contracts Regulations (1995) draws a distinction between central government bodies and other public sector contracting authorities. For the latter, the relevant threshold for public services contracts and public supply contracts is £144,371 (Euros 211,000).

*Official Journal of the European Union (OJEU)*

It is obligatory to advertise procurements above the thresholds set out above in the OJEU. Below these thresholds, procurements may be advertised in Government Opportunities and/or Contax Weekly and other trade periodicals, national and local newspapers as the purchaser deems necessary.

The use of a Periodic Indicative Notice (PIN) should also be considered.

*Open, restricted and negotiated procedures*

Contracts have been awarded traditionally under one of three procedures: open, restricted and negotiated. The key differences are as follows:

- under the open procedure there is no pre-qualification stage and any number of contractors can respond to the OJEU notice
- under the restricted procedure the client can confine discussions to a sample of those suppliers who have responded to the OJEU notice. However, this discussion is limited to issues of clarification rather meaningful negotiation
- under the negotiated procedure the client is allowed to pre-qualify bidders and to conduct limited negotiations with those who satisfy the project requirements. Until recently this approach was used for most significant procurements.

*Competitive dialogue procedure (2004/18/EC)*

There is now a new procedure for complex projects, where there is a need for the contracting authorities to discuss all aspects of the proposed contract with candidates. This is the 'competitive dialogue procedure' introduced in the public sector procurement directive (2004/18/EC), implemented in the Public Contracts Regulations (SI 2006/5) with effect from 31January 2006.

The main features under this procedure are:

- dialogue is allowed with selected suppliers to identify and define solutions to meet the needs and requirements of the contracting authority
- the award is made on the most economically advantageous tender criteria
- dialogue may be conducted in successive stages, with the aim of reducing the number of solutions/bidders
- there are explicit rules on post-tender discussion.

Such dialogue was never possible under the open and restricted procedures.

There is now a presumption that the negotiated procedure will be used only in limited circumstances and that the competitive dialogue approach will apply to significant and complex public sector procurements requiring dialogue with the supply-side during procurement.

*Selection of a preferred bidder*

If a preferred bidder is to be selected during the procurement phase, then a full explanation must be provided with the supporting rationale. This should also set out how the VFM imperative will be maintained throughout the continued negotiation phase of the procurement.

*Procurement plan – proposed implementation timescales*

The procurement timetable must be shown together with the proposed timetable for the implementation of the potential deal. This applies to all 'procedures'. In the case of the competitive dialogue procedure (2004/18/EC) the following information is required:

| **Stage** | | **Duration** | **Planned end-date** |
|---|---|---|---|
| i. | OJEU notice | | |
| ii. | Pre-qualification questionnaire (PQQ) | | |
| iii. | Select participants | | |
| iv. | Invitation to participate in dialogue | | |
| v. | Dialogue phase (including number of solutions and bidders) | | |
| vi. | Final tenders | | |
| vii. | Evaluation of tenders (including clarification, specification and fine tuning) | | |
| viii. | Selection of preferred bidder and notification to PB and other bidders (commence 10 day standstill) | | |
| ix. | PB clarification and confirmation of commitment | | |
| x. | Award of contract | | |
| xi. | Desired receipt of services – phased as required | | |

*Draft OJEU notice*

The draft OJEU notice **must** be attached to the OBC – if applicable. This **must** have been reviewed and approved by legal and procurement experts.

*Evaluation criteria*

The evaluation criteria for the various stages of the procurement should also be attached. There is a legal requirement to have agreed these prior to the formal commencement of the procurement. Again, this should have been reviewed and approved by legal and procurement experts.

***Action 15: determine service streams and required outputs***

The purpose of this action is to capture the scope and content of the potential deal. Generally, there are a number of fundamental principles to bear in mind:

- as far as possible, requirements must be specified in terms of the desired outcomes and outputs to be produced. Therefore, the focus should not generally be on the processes which produce them or the inputs and technologies required
- the quality attributes of the services and outputs required and the performance measures against which they will be assessed must be specified
- the deal must allow scope for the prospective service providers to suggest innovative ways of meeting the service requirements, including proposals which may require rethinking the business processes in place within the procuring organisation.

*Services and required outputs*

This section should summarise briefly the required services and outputs and the potential implementation timescales required.

Consideration should be given to capturing most, if not all, of the following details:

- 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 specification of required outputs
- the requirements to be met, including: essential outputs, phases, performance measures, and quality attributes
- the stakeholders and customers for the outputs
- the possibilities for the procurement – including options for variation in the existing and future scope for services
- the future – potential developments and further phases required.

*Implementation timescales*

This section should outline key milestones for delivery of the related services and outputs by the potential service provider. The focus here is on

the deal to be negotiated and not on the procurement and project plans per se.

Where possible, more detailed information about the requirements should, be annexed to the OBC – for example, the statement of service requirements and the statement of needs (or 'output based specification').

***Action 16: outline potential risk apportionment***

The purpose of this action is to consider how the service risks (design, build funding and operational) may be apportioned between the public and private sectors. This is especially important when the successful delivery of the scheme is subject to significant risk, and not associated with the delivery of PPP/PFI schemes per se.

The governing principle is that risk should be allocated to the party best able to manage it, subject to the relative cost. Therefore, the optimal allocation of risk, rather than the maximising of risk transfer is the prime objective; and it is vital that the best solution is found. This action provides the starting point.

*Guiding principles*

The principles that should underpin this action are:

- the degree to which risk may be transferred depends on the specific proposal under consideration
- 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 VFM – hence the need to identify and cost individual risks
- where the private sector has clear ownership, responsibility and control, it should be encouraged to take all of those risks it can manage more effectively than the procuring authority. If the public sector body seeks to reserve many of the responsibilities and controls that go hand-in-hand with service delivery and yet still seeks to transfer significant risk, there is a grave danger that the private sector will increase its prices
- appropriate transfer of risk generates incentives for the private sector to supply timely, cost effective and more innovative solutions. As a general rule, 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.

A risk allocation table (or 'risk transfer matrix') should be incorporated in this section (see below for an example format). This should illustrate the %

of risk being borne. Ideally you should use percentages – however, if this is not feasible at this stage, use ticks.

| 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*

This action considers and records how we intend to make payment over the life span of the contract.

Importantly, it considers how we intend to 'incentivise' our service provider to continue to provide VFM over time, and helps us deal with the inevitable business and service change encountered in the longer-term. It also explains how we intend to 'tie down' the risks identified and allocated in the previous action within the payment, or charging, mechanism for the potential deal.

The payment 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.

If it is properly constructed, the payment mechanism will incentivise the service provider to deliver services in accordance with the business imperatives of the public sector in the following 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.

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 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 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***

This action outlines the contractual arrangements for the procurement, 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*

The standard form of contract to be used **must** be stated.

Refer to the OGC and/or your departmental or local centre of excellence for procurement for assistance.

*Key contractual issues*

Contract management arrangements and key contractual issues should be considered and recorded in the OBC. These will vary from deal to deal but in most instances the principle areas of the contract may be categorised and appraised as follows:

- the duration of the contract and any break clauses
- the service provider's and procuring authority's respective roles and responsibilities in relation to the proposed deal
- the payment – or 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 etc.
- 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*

This section should provide details of the intended accountancy treatment for the potential deal, 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).

*Personnel implications*

Public sector organisations are legally and morally 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.

Consequently, the OBC should state explicitly whether there are any personnel implications to the scheme. In particular:

- whether the Transfer of Undertakings (Protection of Employment) Regulations 1981 (TUPE) will apply, directly or indirectly
- details of any terms regarding subsequent transfers at market testing intervals (if these apply)

- descriptions of terms regarding Trade Union recognition (if these apply)
- details of requirements for broadly comparable pensions for staff upon transfer (if these apply)
- (within the public sector) that codes of practice are in place for the well being and management of staff. The OBC should confirm that these have been adhered to (if applicable).

**Checklist for step 5**

There should now be a clear understanding of:

- the procurement strategy, including the proposed procurement methodology and the use of EC/WTO procurement processes
- the scope of the potential deal and required services
- implementation timescales for the proposed deal
- the supporting payment (or charging) mechanism
- the (recognised) contract being proposed for use and key contractual issues, including TUPE (if applicable)
- a draft OJEU notice and statement of requirements (to support the above).

**Output for step 5**

The first draft of the commercial case has now been completed.

**Step 6: ascertaining affordability and funding requirement**

**Introduction**

The purpose of this step is to ascertain the affordability and funding requirements of the preferred option, in relation to the other short-listed options; and to demonstrate that the recommended deal is affordable.

In practice, this involves determining:

- the financial profile of each of the short-listed options
- the impact of the proposed deal – its capital and revenue consequences – on the organisation's prices (if any), income and expenditure account and balance sheet.

The main action within this step is shown below:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 2 – planning** | **Preparing the Outline Business Case (OBC)** | |
| Step 4 | Determining potential VFM | Economic case |

| | | |
|---|---|---|
| | | – part 2 |
| Step 5 | Preparing for the potential deal | Commercial case |
| **Step 6** | **Ascertaining affordability and funding requirement** | **Financial case** |
| Action 19 | Prepare financial model and financial appraisals. | |

*Focus of the financial appraisals*

Many practitioners of investment appraisal confuse the financial appraisals with the economic appraisals. The economic case focuses on VFM, taking into account resource costs and benefits. In contrast, the financial case focuses on 'affordability' of the options appraised in the economic case, with particular emphasis on the preferred option.

The costs and benefits appraised in the financial case reflect an accountancy based perspective. Consequently, both the resource and non-resource costs and benefits are factored into the analysis. For example, whereas we exclude VAT and capital charges (including depreciation) from the economic appraisals, these costs must be included in the financial analysis, because they have a direct bearing on the affordability of the options under consideration.

The key differences between economic and financial appraisals can be summarised as follows:

| **Economic Appraisals** | **Financial Appraisals** |
|---|---|
| Focus:<br>• VFM – net present value/cost (NPV/NPC). | Focus:<br>• Affordability – cash flow. |
| Coverage:<br>• Wide coverage – Government and society ('UK Ltd'). | Coverage:<br>• Relevant organisation(s). |
| Relevant standards:<br>• HM Treasury Green Book rules.<br>• Discount rate (3.5%) applied. | Relevant standards:<br>• Organisational accounting rules and standing orders. |
| Analysis:<br>• Constant (real) prices<br>• Includes opportunity cost<br>• Includes indirect and attributable costs – costs of | Analysis:<br>• Current (nominal) prices<br>• Benefits – cash releasing only<br>• Includes transfer payments (for example, VAT) |

| | |
|---|---|
| others<br>• Includes all quantifiable costs, benefits and risks<br>• Includes environmental costs<br>• Excludes all Exchequer 'transfer' payments – for example, VAT<br>• Excludes general inflation<br>• Excludes sunk costs<br>• Excludes depreciation and capital charges. | • Includes inflation<br>• Includes depreciation and capital charges. |

The following financial statements are required for all projects:

- **a budget statement,** which should be based on resource accounting and budgeting (RAB) principles, and show the resource costs over the life time of the proposal. For strategic initiatives, the budget will often comprise the forecast RAB financial statements of the whole organisation over a number of years
- **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 project's stakeholders or commissioners is needed.

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

*Financial modelling*

For larger, more significant and complex schemes, a financial model of the proposed investment needs to be constructed. In its early stages this comprises of a best 'guestimate' of the likely impact and outcomes of the proposed deal. However, the model should be revised as new and better information becomes available.

Specialist advice should be sought from accountants and other expert advisers. The organisation's director of finance should play a lead role in building and maintaining the model. If external management consultants are appointed to undertake this work, the structure of and inputs to the model still need to be vetted by the senior responsible owner and the director of finance.

The minimum requirements for most 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 deal should be prepared.

This should set out:

- the capital and revenue consequences of the preferred option 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**

| £ xxx | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Total |
|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ |
| **Preferred option:** | | | | | | | | |
| Capital | | | | | | | | |
| Revenue | | | | | | | | |
| **Total** | | | | | | | | |
| **Funded by:** | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Existing | | | | | | | | |
| Additional | | | | | | | | |
| **Total** | | | | | | | | |

*Net effect on prices*

It may also be necessary to assess the implementation impact of the proposed deal on any contract prices that the organisation (for example, Government Trading Fund or NHS Trust etc. has to charge for its services. Costs will have to 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.

In considering the impact on prices, capital charges must also be considered. Capital charges are significant when considering the affordability of a development and they must be included in year by year financial projections, together with external financing limit (EFL) allocations, running costs and contract income from any purchasers.

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

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

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

In general, 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 project on the organisation's income and expenditure should be assessed. Both the current position and the likely outcome should be fully recorded in the OBC by a qualified accountant who understands the project and the organisation's business.

*Impact on the balance sheet*

The impact of the project on the organisation's balance sheet should also be assessed. Both the current position and the likely outcome should be fully

recorded in the OBC by a qualified accountant who understands the project 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 business cases are submitted for approval.

It is unlikely that an OBC will be successful unless consultation has been held along the way between the organisation seeking investment for the improved services and its stakeholders/ commissioners/ purchasers, and other interested parties.

It is crucial to the overall process that agreement, in principle, is obtained from the purchasers for the scheme. This should be in written form and included in the annex to the OBC. An indication of what this should cover using the example of a commissioner is shown below.

**Issues to cover in a letter of commissioner(s) support**

A commissioner's letter should:

- demonstrate that the main commissioner and other commissioners have been actively involved in developing the scheme through its various stages
- confirm acceptance of the strategic aims and investment objectives of the scheme, 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:

i) the balance sheet has been correctly organised and properly accounts for current assets, current liabilities, long-term liabilities and capital
ii) the balance sheet of the organisation is in a healthy state
iii) the organisation is solvent
iv) the organisation is not over-trading
v) the cash flow of the organisation is sound
vi) the necessary allowance has been made for risks.

Various techniques can be used by public sector organisations to help judge affordability. These are in extensive use within the private sector and are discussed below:

The balance sheet – items i and ii

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:

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

Solvency – item iii

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

Over-trading – item iv

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:

$$\text{Return on capital employed} = \frac{\text{net receipts (or profits)}}{\text{capital employed}}$$

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:

$$\text{Return on capital invested} = \frac{\text{net profit – opportunity cost}}{\text{capital invested}}$$

Cash flow – item v

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 vi

There are a number of risks which could affect the affordability of the project. The OBC 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, but some key questions to consider are:

- would the project be affordable if capital costs were to be 10% higher than expected?
- what if the expected savings were to fall by 10%?
- what circumstances might cause saving targets to be breached?
- what if income to the organisation were to be reduced by 5% or more?
- is there a robust strategy in place to guard against these outcomes?

*Pay back period*

Finally, there is the pay back period. As implied by the term, this method 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 project – i.e. in the construction and development phase. Benefits are unlikely to be realised in large measure during this phase 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.

If the affordability analysis reveals the preferred option is unaffordable, there are a number of potential remedies including one or more of the following:

- phasing the implementation of the preferred option differently
- adopting a different design solution
- altering the scope of the preferred option – for example, its functional content 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 project – 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
- allowing the service provider 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 preferred option and deal
- 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 on the balance sheet.

There should also be written evidence of commissioner and stakeholder support.

**Output for step 6**

The first draft of the financial case has now been completed.

**Step 7: planning for successful delivery**

***Introduction***

The perfect deal, offering optimum VFM, can end up being an unmitigated disaster unless the management arrangements are thought through early on in the scoping and planning process. This step is concerned primarily with putting in place all the arrangements that are required to ensure the successful delivery of the scheme and to guard against these causes of project failure.

The following actions are required to complete this step successfully:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 2 – planning** | **Preparing the Outline Business Case (OBC)** | |
| Step 4 | Determining potential VFM | Economic case – part 2 |
| Step 5 | Preparing for the potential deal | Commercial case |
| Step 6 | Ascertaining affordability and funding requirement | Financial case |
| **Step 7** | **Planning for successful delivery** | **Management case** |
| Action 20 | Plan project 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 | |
| **Output:** | **Outline Business Case** | |
| **Outcome:** | **Planned procurement for VFM solution** | |
| **Review Point:** | **Gateway 2: procurement strategy** | |

***Action 20: Plan project management – strategy, framework and outline plans***

This action is concerned with putting in place the strategy, framework and outline plans required for successful delivery using a robust project management methodology to guide the project through a controlled, well managed and visible set of activities to achieve the desired results and benefits.

*Project management strategy*

The strategy of most organisations for the successful delivery of projects is to embrace the principles of programme management and adopt a project

methodology which is based on its perceived standards of best practice and quality management principles.

The OGC has developed extensive guidance on programme management. This should be used by all public sector organisations, in the absence of their own approved departmental methodologies.

Project management: PRINCE 2

The recommended project methodology within the public sector is PRINCE - **Pr**ojects **IN C**ontrolled **E**nvironment, which is now the de facto standard in use within the United Kingdom.

PRINCE 2 covers the project life cycle from start-up to closure. It provides a number of mechanisms and reporting arrangements to ensure project planning and monitoring are carried out rigorously. It is based on the following key principles and should be used on all occasions:

- a project is a finite process with definite start and end dates
- a project always needs to be managed in order to be successful (by a qualified PRINCE practitioner)
- for genuine commitment to the project, all parties must be clear about why the project is needed, what it is designed to deliver, how the outcomes are to be achieved, and a clear definition of roles and responsibilities.

*Project framework*

The project framework refers to the organisation of the project.

This section should summarise:

- the project's structure
- its reporting arrangements in relation to its over-arching programme
- any other management and governance arrangements
- its key roles and responsibilities
- its appointed personnel (together with copies of their curriculum vitas)
- any vacancies (together with a description of how individuals will be recruited to fill them).

Much of the above information should typically be captured in a diagram of the organisation within the OBC.

Importantly, PRINCE2 mandates that the project board must represent three broad interests. These include:

- a senior business role to represent the organisational interests
- a senior user role to represent the end users' or customers' interests

- a senior technician to cover the 'technical' aspects, including supply-side considerations.

In addition, best practice demands that stakeholders' and commissioners' interests are also represented.

Appointment of the senior responsible owner (SRO)

Finally, in compliance with the OGC Gateway Review Process and/or more local arrangements for 'health checks', a 'champion' or senior responsible owner should be appointed. This person should not be the programme director or project manager for the scheme; or indeed any one with day-to-day involvement with the scheme. Rather the SRO should be the business sponsor for the programme or project with the ultimate responsibility, at board level, for the delivery of business benefits.

*Project plan*

The project plan is the document which describes how, when and by whom a specific milestone or set of targets will be achieved. It is the detailed analysis of how identified targets, milestones, deliverables and products will be delivered to timescales, costs and quality.

The most up-to-date version of the project plan should be summarised within the OBC and address the following:

- the deliverables (or products) to be produced
- the activities required to deliver them
- the activities required to validate the quality of the deliverables
- the resources and time needed for all activities and any need for people with specific capabilities and competencies
- the dependencies between activities and any associated constraints
- when activities will occur
- the points at which progress will be monitored, controlled and reviewed – this includes delivery and approval of the business case and the undertaking of Gateway reviews/ health checks.

Project plans are typically illustrated by means of Gantt charts.

*Use of special advisers*

This is to be encouraged where the necessary skills and capabilities are in short supply; especially in the case of large, significant, complex and novel schemes.

Specialist advice will generally be brigaded within four key categories in the project plan: financial, legal, technical and project management. The OBC should indicate how and when this advice will be utilised along with expected costs.

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

This action is concerned with putting in place the strategy, framework and outline plans required for successful delivery of change.

Most investments involve some degree of change. This can range from elements of service improvement through to major change predicated on business process re-engineering. Even where change is not ostensibly the primary driver for investment (as in the case of a replacement service) every effort should be taken to seize the opportunity for improvement on the basis of invest to save and deriving a net present value for the project.

The change required (and expected) needs to be managed and embraced by the individuals within the organisation(s); hence the need for a change management strategy (linked to benefits realisation); a change management framework (to manage the change) and an outline plan (to explain what will be delivered and when in terms of underlying activities).

*Change management strategy*

The main aim here is to assess the potential impact of the proposed change on the culture, systems, processes and people working within the investing organisation.

Various management strategies can be adopted for implementing change, depending on the degree and pace of change required. In terms of degree, the required change may range from the introduction of greater automation through to the re-configuration of services or the complete transformation of a business function in another scenario. In terms of pace, the change may be 'big bang' or incremental depending on the strategic driver for change in the first instance and the ability of the organisation to cope in the second.

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*

In some cases, responsibility for delivery of the service change may be under the control of the project management board and be a key sub-set of its activities. However, in the case of major organisational and business change this is unlikely to be the case, and the project itself may form part of a larger and longer-term change management programme. In these instances, the organisational structure and personnel required to direct, manage, implement and evaluate the change should be set out together with the main roles and responsibilities of key personnel, and their relationship to the project board.

The details required in support of the project management framework (see above) are relevant here.

*Change management plans*

Where there are significant change management programmes, an outline of the change management plan should be set out together with the communication and developmental deliverables (for example, training products) required for the implementation phase. It is important that this indicates how all relevant personnel within the organisation, including human resources and staff representatives, have contributed or been involved to date.

The details required in support of the project management plan (see above) are relevant here.

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

This action is concerned with putting in place the management arrangements required to ensure that the project delivers its anticipated benefit, or required 'rate of return'. Far too little attention has been paid to this key aspect in the past – as a result, benefits claimed in the economic case have not actually been realised and/or monitored through post project evaluation.

It is important to note that the focus has now changed with the advent of the Gateway Review/ Health Check 5 Review (benefits realisation) and the increasing interest of the National Audit Office.

*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 project.

*Benefits realisation framework*

The ultimate responsibility for the delivery of benefits rests with the SRO for the project, who must ensure that the management arrangements for their realisation in the implementation and operational phase of the project are outlined in some detail at the OBC stage.

*Benefits register*

At OBC stage, projects should capture the benefits already outlined for the project (see economic case) within a benefits register. This register should also indicate how those benefits are to be realised. The following information should be captured for each benefit.

| **Benefits Register** | |
|---|---|
| Benefits number | (unique within the register) |
| Benefit type | (benefit category) |
| Description | |
| Service feature | (what aspect of the project will give rise to the benefit – to facilitate monitoring) |
| Potential dis-benefits | |
| Activities required | (to secure benefit) |
| Responsible officer | |
| Performance measure | |
| Target improvement | (expected level of change) |
| Full-year value | |
| Timescale | |

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

This action is concerned with putting in place arrangements for the on-going management of risk during the key phases of the project.

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 helps the achievement of wider aims, such as:

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

*Risk management strategy*

Strategies for the active 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 of risk analysis and evaluation.

At the level of individual policies, programmes and projects, risk management strategies 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. Early consultation will help to identify what those needs are and how they might be addressed
- **avoidance of irreversible decisions**. Where lead options involve irreversibility, a full assessment of the costs should include the possibility of delay, allowing more time for investigating alternative ways to achieve the objectives
- **pilot studies.** Acquiring more information about risks affecting a project 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. For example, different types of fuel can be used to fire a dual fired boiler, depending on the future relative price of alternative fuels. Breaking a project into stages, with successive review points at which the project could be stopped or changed can also increase flexibility – hence the importance of adopting and implementing the OGC Gateway process
- **precautionary principle.** Precautionary action 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, precautionary 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/contractual.** Risk can be contractually transferred to other parties and maintained through good contractual relationships, both informal and formal – see commercial case
- **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
- **reinstate, or 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 management 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 and managed
- senior management support, ownership and leadership of risk management policies
- clear communication of organisational risk management policies to all staff
- fully embedding risk management 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.

*Risk register*

The plans for the management of associated risks should be encapsulated within the risk register for the project, which lists all the identified risks and the results of their analysis and evaluation. Information on the status of the risk is also included.

The risk register should be continuously updated and reviewed throughout the course of a project and at this stage in its development cover all phases of the project, with particular focus on the related project management and procurement risks for the scheme. The information that a risk register should contain for each risk is set out below:

| **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 | |
| Bearer of risk | |
| Countermeasures | |
| Risk status | (action status) |

Additional information on risk management may be obtained from the Office of Government Commerce (OGC), the National Audit Office (NAO), HM Treasury and the Cabinet Office.

***Action 24: plan post project evaluation – strategy, framework and outline plans***

As noted in the context of benefits realisation, this very important stage of the project has been much neglected in the past to the extent that for many projects it was not known whether they had delivered anticipated benefits and expected returns. Neither was it possible to pass lessons learnt on to others.

*Post project evaluation strategy*

The purpose of post project evaluation (PPE) is twofold:

- first, to improve project appraisal at all stages of a project from preparation of the business case through to the design, management and implementation of the scheme. This is often referred to as the 'project evaluation review' (PER)
- second, to appraise whether the project has delivered its anticipated improvements and benefits. This is often referred to as the 'post implementation review' (PIR).

This section of the OBC should set out the organisation's strategy for both aspects of PPE. In particular, it should make clear:

- whether the PER and PIR are to be undertaken jointly or separately
- the OGC Gateways and Health Checks review process adopted in accordance with accepted, recommended and prevailing best practice.

*PPE framework*

This section should outline management arrangements for ensuring that PPE will take place, bearing in mind that this is a key responsibility of the SRO.

*PPE plans*

This section should set out the expected timing(s) for PPE arrangements. These should be incorporated in the project management plans, with a named individual responsible for their execution.

**Checklist for step 7**

There should now be clear understanding of:

- the project management arrangements
- the change management arrangements
- the benefits realisation arrangements, including an attached benefits register
- the risk management arrangements, including an attached risk register
- the post project evaluation arrangements.

**Output of step 7**

The first draft of the management case has now been completed, bearing in mind that proposals for contract management have been addressed within the commercial case at this point in time.

**Output of phase 2 and Gateway Review Process**

The OBC has now been completed and the bulk of the business case preparation work undertaken.

A Gateway 2 or Health Check 2 for the procurement strategy stage should now be considered for the project**,** prior to the formal submission of the OBC to the approving authority for agreement.

**Outcomes from the OBC**

The management board and, subject to the organisation's delegated limit, the approving authority, will now decide whether the project should move on to the next stage – procurement phase.

**Stage 3 – Procurement**
**Phase 3: Preparing the Full Business Case (FBC)**

## Overview

The preparation of the Full Business Case (FBC) is a mandatory part of the business case development process, which is completed following procurement of the scheme – but prior to contract signature – in most public sector organisations.

The purpose of the FBC is to:

- identify the 'market place opportunity' which offers optimum VFM
- set out the negotiated commercial and contractual arrangements for the deal
- demonstrate that it is 'unequivocally' affordable
- put in place the detailed management arrangements for the successful delivery of the scheme.

Two points should be noted:

- first, if the OBC has been prepared in accordance with the guidance set out earlier and the procurement run in accordance with accepted and established best practice, much of the work involved in developing the FBC will simply focus on updating the OBC and documenting the outcomes of the procurement rather than starting from scratch
- second, in some instances the FBC is still completed prior to the commencement of the procurement and is, in effect, a second (updated) version of the OBC. In such situations, the business case still requires updating post procurement, as discussed. In these situations, it is often referred to as the final (rather than full) business case.

## Step 8: procuring the VFM solution

### Introduction

This step involves revisiting the case for change made in the OBC; making any necessary adjustments to the Public Sector Comparator (PSC); and presenting the outcomes of the formal procurement process.

The main actions are set out below:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 3 – procurement** | **Preparing the Full Business Case (FBC)** | |

| Step 8 | Procuring the VFM solution | Economic case |
|---|---|---|
| Action 25 | Revisit the case for change | |
| Action 26 | Revisit the OBC options, including the PSC | |
| Action 27 | Detail procurement process and evaluation of best and final offers (BAFOs) (in £s) | |

***Action 25: revisit the case for change***

This action revisits the rationale for the investment made in strategic case, since some aspects of the case for change may have altered since the OBC was approved, due to evolving business needs, service changes and the passage of time.

*Updating the strategic case*

The same structure should be used as for the OBC.

The minimum requirement at this stage is to note within the FBC that the case for investment remains as set out in the OBC; and that the resultant scope and underlying assumptions have not altered.

However, some changes are likely. These should be recorded in full – particularly with reference to:

- the strategic context for the scheme
- the agreed investment objectives
- business needs
- the earlier scope and service requirements
- the benefits
- the risks
- the dependencies
- the constraints.

If the changes are major, the effects may require following-up throughout the entire case. Otherwise, this part of the case should confirm the views expressed at the OBC stage.

Clear support from the organisation's commissioners and other key stakeholders must be forthcoming at this stage – see OBC guidance for details of what this should cover.

***Action 26: revisit the OBC options, including the public sector comparator***

This action is concerned with revisiting the OBC economic case and updating the outline PSC (or the 'reference project').

*Revisiting the OBC options*

Even if the strategic drivers for the project have not changed sufficiently to make alterations to the preferred option necessary, the FBC must demonstrate that the conclusions of the economic appraisal in the OBC remain valid. The analysis from the OBC stage should be updated and presented in the FBC.

Since approval of the OBC, new information affecting the ranking of the options may have become available. For example:

- the relative rankings may have changed as a result of supplier side prices and other costs
- the expected benefits of the OBC preferred option may be lower, or the anticipated benefits of another option higher, which may change the previous ranking of the options
- the level of uncertainty in a high risk option may have reduced making it more attractive
- changes within the strategic context, and consequently to the deal, may have led to significant changes in the preferred option.

If any of the key assumptions have altered, the FBC must demonstrate that the recommended option following procurement continues to:

- offer better VFM than the 'do nothing' or 'do minimum' options, so that the case for change and procurement remains robust
- offer better VFM than the other available options, including the original preferred option, on the basis of service providers' offerings.

*Revisiting the procurement method*

The FBC must also demonstrate that the project is still being procured by the most appropriate method.

At the OBC stage different methods of funding and procurement were examined. If the OBC considered that a form of private finance was deliverable and potentially offered better VFM than conventional funding, a privately financed option will have been pursued. At the FBC stage, private finance offers from service providers must be compared to the outline PSC taken forward as the preferred option at the OBC stage and to the 'do minimum'.

The principles of the economic appraisal are the same as those used to identify the preferred option at the OBC stage.

*The Public Sector Comparator*

The PSC will need refining in the light of knowledge gained from the procurement, so as to enable 'a like for like' comparison of the cost of

providing services in-house with the service providers' solutions on an outsourced, or privately financed basis. Henceforth, it is no longer referred to as the outline PSC or reference project, but as the PSC.

The revisions to the PSC should not mimic any design, engineering or operational attributes offered by service providers during the procurement phase; but rather be adjusted to ensure that the scope of the outputs required remains consistent.

It should not be necessary to adjust the 'do minimum' option at this stage.

*Risk adjustment*

The minimum requirement at this stage is to revisit the 'cost of risk' retained under the outline PSC in the economic case of the OBC. This should also be done for the risk values for the 'do nothing', status quo or 'do minimum' options, depending on which was carried forward as the benchmark for VFM in the short-listed options appraisal (see step 4).

If these options were not risk quantified at OBC stage, but simply adjusted to reflect optimism bias, the associated risks should now be identified and quantified in full, as shown at step 4.

The aim at FBC is to reduce the level of optimism bias to the absolute minimum. This is generally advised to be in the order of 2% for a standard capital scheme at FBC stage – see the earlier section on optimism bias (step 4, action 13).

***Action 27: detail the procurement process and the evaluation of best and final offers (BAFOs)***

This action is concerned with updating the economic case to record a full summary of the procurement process. This will include the resultant selection of service providers (including the preferred bidder – if appointed); and the formal appraisal of their proposals, leading to the selection of the preferred and recommended choice.

*The procurement process*

The content of this section should reflect the procurement strategy, route and evaluation criteria set out in the OBC. Any changes should be explained. It should list the service providers who expressed interest at the pre-qualification stage and the reasons for their rejection, where applicable. It should also record the reasons for carrying forward and rejecting potential service providers from the long list to the short list stage.

*The evaluation of best and final offers (BAFOs)*

The basis on which the potential service providers (the short list) were selected and discarded at BAFO stage should be recorded.

*The selection of the preferred service provider*

The basis on which the preferred bidder (if applicable) was selected should be recorded, together with any arrangements for the ongoing attainment of VFM.

*FBC economic appraisals*

The economic appraisals **must** be prepared in accordance with the principles outlined at the OBC stage for:

- each of the potential service providers' offers at BAFO stage
- the PSC (if applicable)
- any in-house options
- the 'do nothing' or 'do minimum' – whichever has been adopted as the benchmark for VFM.

Importantly, in addition to service providers' costs, any 'attributable' costs falling to the organisation or any other public sector organisation must be accounted for and the 'full cost' shown for each option over the contract period and life span of the investment.

Taking into account any adjustments made as a result of the earlier action 26, the non-financial benefits and the non-financial risks should be assessed for each of the above options, and subject to sensitivity analysis, as prescribed at the OBC stage. The resultant preferred choice should be recommended for the approval of management in the FBC.

*Post FBC approval prior to contract signature*

Finally, the FBC must be re-submitted for re-approval if the costs or benefits vary by more than 10% post FBC approval, or if the contract terms, for whatever reason, vary significantly from those agreed.

**Checklist for step 8**

There should now be clear understanding of:

- any alterations to the strategic context and the case for change
- the entire procurement process and service providers' offers
- how the selection of the preferred service provider was made on the basis of an updated PSC (if applicable) and the investment appraisals, including the benchmark for VFM, using HM Treasury Green Book rules.

**Output of step 8**

The strategic and economic cases have now been revisited, updated and completed in respect of the FBC.

**Step 9: contracting for the deal**

**Introduction**

The purpose of this step is to explain the negotiated deal and the financial consequences to the organisation post contract. The main actions are set out below:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 3 – procurement** | **Preparing the Full Business Case (FBC)** | |
| Step 8 | Procuring the VFM Solution | Economic case |
| **Step 9** | **Contracting for the deal** | **Commercial case** |
| Action 28 | Set out the negotiated deal and contractual arrangements | |
| Action 29 | Set out the financial implications of the deal | Financial case |

***Action 28: set out the negotiated deal and contractual arrangements***

This action provides a detailed overview of the deal that has been negotiated between the public sector organisation and the preferred choice of service provider arising as a consequence of the procurement and FBC economic appraisal. In essence, this is the commercial transaction that management and the approving authority are being requested to sign-up to.

*Content*

The standard headings for the commercial case should be used to explain:

- the service streams and outputs which are being contracted for
- the implementation timescales which have been agreed for their delivery
- the allocation of risk negotiated between the public sector organisation and preferred service provider
- the underpinning method of payment for these services and outputs, including the premiums for risk transfer
- the type of contract used and the key contractual issues. A copy of the proposed contract should be attached to the FBC, together with a copy of the published OJEU notice. In the case of PPP (PFI)

procurements, the contract form should be compliant with HM Treasury standards
- the accountancy treatment of the negotiated deal, with confirmation from the organisation's external auditors, as appropriate
- a detailed explanation of any personnel implications (for example, TUPE) and how they are being managed.

***Action 29: set out the financial implications of the deal***

The purpose of this action is to explain in detail the financial implications to the organisation of the negotiated deal.

*Content*

The standard headings for the financial case should be used to explain:

- how the charges for the preferred service provider's offer have been modelled, including the resultant benefits
- the capital and revenue implications of the resultant deal, including any financial costs falling to the organisation
- the net effect on the organisation's charges (prices) – if any
- the impact on the organisation's income and expenditure account and balance sheet – duly confirmed by the external auditor
- the overall affordability and funding arrangements for the deal, including (written) confirmation from the organisation's commissioners and other key stakeholders and any contingency arrangements for over spends.

**Checklist for step 9**

There should now be a clear understanding of the financial implications of the proposed deal, both in terms of the organisation's contractual obligations and associated spend in support of the required services.

**Output of step 9**

The commercial and financial cases have now been revisited, updated and completed in respect of the FBC.

**Step 10: ensuring successful delivery**

**Introduction**

The main actions within this step are as follows:

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 3 – procurement** | **Preparing the Full Business Case (FBC)** | |

| | | |
|---|---|---|
| Step 8 | Procuring the VFM solution | Economic case |
| Step 9 | Contracting for the Deal | Commercial case |
| **Step 10** | **Ensuring successful delivery** | **Management case** |
| Action 30 | Finalise project management arrangements and plans | |
| Action 31 | Finalise change management arrangements and plans | |
| Action 32 | Finalise benefits realisation arrangements and plans | |
| Action 33 | Finalise risk management arrangements and plans | |
| Action 34 | Finalise contract management arrangements and plans | |
| Action 35 | Finalise post project evaluation arrangements and plans | |
| ***Output:*** | ***Full Business Case*** | |
| ***Outcome:*** | ***Recommended service provider and solution*** | |
| ***Review Point:*** | ***Gateway 3 (investment decision)*** | |

***Action 30: finalise project management arrangements and plans***

This action revisits and updates the project management arrangements shown in the OBC. The focus now shifts from the procurement phase to the detailed arrangements in support of the design, build, and implementation phases. Importantly, any necessary arrangements for the operational phase of the project (post implementation) should not be overlooked, including post project evaluation (PPE).

*Content*

The project management strategy should be revisited and updated, as required.

The existing framework (project structure, reporting lines, roles and responsibilities) should be shown, together with named individuals, any vacancies and plans for any future changes.

The latest version of the project plan should be attached to the FBC. This must reflect the implementation timescales agreed with the service provider for the delivery of the negotiated services and be signed off by the stakeholders and customers (end users) for the services.

### *Action 31: finalise change management arrangements and plans*

This action revisits and updates the change management arrangements shown in the OBC.

*Content*

The change management strategy should be revisited and updated, as required.

The existing framework (project structure, reporting lines, roles and responsibilities) should be shown, together with named individuals, any vacancies and any plans for future changes.

The latest version of the change management plan should be attached to the FBC. This must reflect the specific training and developmental needs of key groups of personnel and any required communication arrangements. It should be signed off by the stakeholders for the services and indicate customer (end-user) involvement.

### *Action 32: finalise benefits realisation arrangements and plans*

This action revisits and updates the benefits realisation arrangements shown in the OBC.

*Content*

The strategy for the realisation of benefits during the key phases of the project should be revisited and re-affirmed within the FBC.

The existing framework (project structure, reporting lines, roles and responsibilities) should be shown, together with named individuals, any vacancies and any plans for future changes.

*The benefits register*

The organisation's plan for the ongoing management and delivery of benefits should be encapsulated within the benefits register, which must be completed in full and attached to the FBC. It should cover all the benefits – financial, non-financial and qualitative – identified during the implementation and operational phases of the project.

The 'owner' of the benefits register should be named and his/ her reporting line(s) identified to the senior responsible owner (SRO) – who is ultimately responsible for their delivery. It should also be confirmed that the benefits register will be reviewed regularly and form part of the standing agenda at all future project management board meetings.

### *Action 33: finalise risk management arrangements and plans*

This action revisits and updates the risk management arrangements shown in the OBC.

*Content*

The strategy for the management of risks during the key phases of the project should be revisited and re-affirmed within the FBC.

The existing framework (project structure, reporting lines, roles and responsibilities) should be shown, together with named individuals, any vacancies and any plans for future changes.

*The risk register*

The organisation's plan for the ongoing mitigation and management of risk should be encapsulated within the risk register, which must be completed in full and attached to the FBC. The register should cover all the business and service risks identified during the design, build, implementation, operational and re-procurement phase (if applicable) of the project.

The 'owner' of the risk register should be named and his/ her reporting line(s) identified. It should also be confirmed that the risk register will be reviewed regularly and form part of the standing agenda at all future project management board and/or risk management board meetings.

*Contingency plan*

Finally, the organisation should provide details of its contingency plan(s) in the event of the non-delivery of the contracted services to the required level of performance and availability at some unspecified future point in time.

***Action 34: finalise contract management arrangements and plans***

This action considers both the formal and informal arrangements which need to be in place to successfully manage the contract change.

*Contract change*

The more mundane contract management arrangements will have been covered in the contract and indicated in the commercial case (see contractual arrangements). These largely take care of the day-to-day management of the service – performance; availability; minor changes; the escalation procedure for difficulties etc.

However, over the life span of the service contract it is likely that there will be some significant changes given that it is in the nature of an organisation to change, particularly if the organisation is a successful one. (In fact the most successful organisations are those which adapt to changing circumstances; or in anticipation of changing circumstances).

In accordance, with the 'partnering' principle, the organisation should consider its strategy for managing future, as yet unknown, contractual change. Prevailing best practice suggests regular one-to-one meetings between senior managers in both the customer and supplier organisation and dealing with change within the context of a 'shared vision'. This should help to manage uncertainty on both counts and to reduce eventual cost.

The organisation should consider who will adopt this role over the life span of the contract and plan accordingly. Any arrangements should be noted in the FBC.

***Action 35: finalise post project evaluation arrangements and plans***

This action revisits and updates the post project evaluation arrangements shown in the OBC.

*Content*

The FBC should record:

- the arrangements for future OGC Gateway Reviews and organisational Health Checks (if applicable) at Gate 3 (investment decision); Gate 4 ('go live'/ readiness for service) and Gate 5 (benefits realisation). Ideally, Gate 3 should take place prior to the formal submission of the FBC to the approving authority
- the arrangements for PPE. First, the project evaluation, which should be undertaken as soon as possible after the implementation of the service to capture lessons learnt. Second the arrangements for reviewing how well the service is running and delivering its anticipated benefits, typically within 6 to 12 months after the commencement of live running, and periodically thereafter depending upon benefits delivery.

The arrangements for OGC Gateways / Health Checks and PPE should be included in the project management plan.

**Checklist for step 10**

There should now be a precise understanding of:

- how the project will be managed
- how change within the organisation will be implemented
- how the benefits will be realised
- how the business and service risks will be mitigated and managed
- how major contract change will be handled over the longer term
- how the project will be reviewed periodically
- what the contingency plans are in the event of service failure.

**Output of step 10**

The management case has now been revisited, updated and completed in respect of the FBC.

**Output of phase 3 and Gateway Review Process**

The FBC has now been completed. A Gateway 3 or Health Check 3 for the investment decision point should now be considered for the project, prior to the formal submission of the FBC to the approving authority for agreement.

**Outcome from the FBC**

All parties should now be content for the project to proceed to contract signature, providing the above work has been completed satisfactorily and the resultant scheme is affordable.

Finally, the FBC must be re-submitted for re-approval if the costs or benefits vary by more than 5% (capital value) or 10% (revenue value) post FBC approval, or the contract terms, for whatever reason, vary significantly from those agreed.

## 9: The use of workshops for the development of the business case

### Introduction

Experience demonstrates that the business case is best developed through a number of workshops involving key stakeholders, customers and users, at the critical phases of its development. This adds immeasurably to the robustness of the case and, consequently, to the approval and successful delivery of the scheme.

The number of workshops required will depend on the complexity of the project. In most instances they are required to 'close-off' the following aspects:

1. Developing the case for change
2. Assessing the options
3. Developing the reference project/ outline Public Sector Comparator (PSC)
4. Developing the deal
5. Determining the delivery arrangements
6. Assessing the potential service providers and solutions.

Workshop 6 is generally undertaken as part of the procurement process, in conjunction with the organisation's procurement department and so is not included in the detail that follows.

| Workshop | Objectives | Key participants | Outputs |
|---|---|---|---|
| **Workshop 1:**<br><br>**Determining the case for change and options for service delivery**<br><br>**(SOC Stage)** | • To define and agree business needs, potential scope and investment objectives<br>• To define and agree desired outcomes and service outputs<br>• To define and agree the CSFs and benefit criteria for assessing the options<br>• To identify the potential options for service delivery | • Senior Responsible Owner<br>• Board members<br>• Programme director<br>• Project manager<br>• External stakeholders or commissioners<br>• Customer and/or user representatives<br>• Technical adviser<br>• Financial adviser<br>• Facilitator | • SMART investment objectives<br>• Business needs and potential scope<br>• CSFs and benefits criteria<br>• Long list of options<br>• Fundamentals of the SOC |
| **Workshop 2:**<br><br>**Assessing the options**<br><br>**(SOC/OBC stage)** | • To sift the long list and generate the short list<br>• To identify and assess the potential costs, benefits and risks associated with the short-listed options | • External stakeholders or commissioners<br>• Director of finance<br>• Economic adviser<br>• Customer and/or user representatives<br>• Project manager<br>• Facilitator | • Short-listed options with preliminary assessment<br>• Outline benefits realisation plan<br>• Inputs for economic appraisal |

| Workshop | Objectives | Key participants | Outputs |
|---|---|---|---|
| **Workshop 3:**<br><br>**Developing the reference project/ outline PSC**<br><br>**(OBC stage)** | • To develop the PSC<br>• To address all relevant issues, including risks, affordability and implementation | • External stakeholders or commissioners<br>• Director of finance<br>• Economic adviser<br>• Customer and/or user representatives<br>• Project manager<br>• Facilitator | • Preliminary PSC with indicative costs<br>• Fundamentals of the economic and financial cases |
| **Workshop 4:**<br><br>**Developing the deal**<br><br>**(OBC stage)** | • To develop the service specification<br>• To develop the apportionment of risk and underpinning payment mechanisms<br>• To develop the proposed contract | • External stakeholders or commissioners<br>• Director of finance<br>• Economic adviser<br>• Customer and/or user representatives<br>• Project manager<br>• Facilitator | • Preliminary risk allocation matrix (RAM)<br>• Potential deal<br>• Fundamentals of the commercial case |
| **Workshop 5:**<br><br>**Successful delivery arrangements** | • To develop the procurement strategy<br>• To develop the project plan<br>• To develop supporting strategies (for change management and | • External stakeholders or commissioners<br>• Director of finance<br>• Economic adviser<br>• Customer and/or user | • Procurement strategy<br>• Management and delivery arrangements<br>• Post project evaluation arrangements |

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| **(OBC stage)** | contract management etc) | representatives<br>• Project manager<br>• Facilitator | |

## 10. Common causes of project failure and their remedies.

### Introduction

The following common causes of project failure together with questions to be answered in terms of their mitigation have been identified by the National Audit Office and the Office of Government Commerce.

If any of the answers are unsatisfactory, the scheme should **not** be permitted to proceed to the next stage until the necessary assurances have been obtained.

It is recommended that these issues should be addressed as early as possible and certainly no later than at the following stage in the development of the business case.

| **Common cause of project failure** | **Stage** | **Questions to be answered in full at each stage and revisited thereafter** |
|---|---|---|
| 1. Lack of clear links between the project and the organisation's key strategic priorities, including agreed measures of success | SOC | • Do we know how the priority of this project compares and aligns with our other delivery and operational activities?<br>• Have we defined the critical success factors (CSFs) for the project?<br>• Have the CSFs been agreed with the key stakeholders?<br>• Is the project founded on realistic timescales taking into account any statutory lead times, and showing critical dependencies such that any delays can be handled? |
| | OBC | • Are the lessons learnt from relevant projects being applied?<br>• Has an analysis been undertaken of the effects of any slippage in time, cost, scope or quality? In the event of a problem/conflict at least one must be sacrificed. |

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| | FBC | • Have the CSFs been agreed with the service provider(s)?<br>• Do we have a clear project plan that covers the full period of the planned delivery and all business change required, and indicates the means of benefits realisation? |
| 2. Lack of clear senior management and ministerial ownership and leadership | SOC | • Does the project management team have a clear view of the inter-dependencies between projects, the benefits, and the criteria against which success will be judged?<br>• If the project traverses organisational boundaries are there clear governance arrangements to ensure sustainable alignment with the business objectives of all organisations involved?<br>• Are all proposed commitments and announcements first checked for delivery implications?<br>• Does the Senior Responsible Owner (SRO) have a suitable track record of delivery? Where necessary, is it being optimised through development and training? |
| | OBC | • Are decisions taken early on, decisively and adhered to, in order to facilitate successful delivery?<br>• Does the project have the necessary approval to proceed from its nominated Minister either directly or through delegated authority to a designated SRO? |
| | FBC | • Does the SRO have the ability, responsibility and authority to ensure that the business change and business benefits are delivered? |

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| 3. Lack of effective engagement with stakeholders | SOC | • Have we identified the right stakeholders?<br>• Have we, as intelligent customers, identified the rationale for doing so (for example, the why, the what, the who, the where, the when and the how)?<br>• Have we secured a common understanding and agreement of stakeholders' requirements?<br>• Does the business case take account of the views of stakeholders, including customers/users? |
| | OBC | • Do we understand how we will manage stakeholders (for example, ensure buy-in, overcome resistance to change, allocate risk to the party best able to manage it)?<br>• Has sufficient account been taken of the subsisting organisational culture? |
| | FBC | • Whilst ensuring that there is clear accountability, how can we resolve any conflicting priorities? |
| 4. Lack of skills and proven approach to project management and risk management | SOC | • Is there a skilled and experienced project team with clearly defined roles and responsibilities? If not, is there access to expertise, which can benefit those fulfilling the requisite roles? |

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| | OBC | • Are the major risks identified, weighted and treated by the SRO, the director, and project manager and/or the project team?<br>• Has sufficient resource, financial and otherwise, been allocated to the project, including an allowance for risk?<br>• Do we have adequate approaches for estimating, monitoring and controlling the total amount of expenditure on projects?<br>• Are the governance arrangements robust enough to ensure that 'bad news' is not filtered out of progress reports to senior managers?<br>• If external consultants are used, are they accountable and committed to help ensure the successful and timely delivery? |
| | FBC | • Do we have effective systems for measuring and tracking the realisation of benefits in the business case? |
| 5. Too little attention to breaking development and implementation into manageable steps | OBC | • Has the approach been tested to ensure that it is **not** 'big bang' (for example, IT enabled projects)?<br>• Has sufficient time been built in to allow for planning applications in property and construction projects etc?<br>• Have we done our best to keep delivery timescales short so that change during development is avoided?<br>• Have enough review points been built in so that the project can be stopped if changing circumstances mean that the business benefits are no longer achievable or no longer represent value for money (VFM)? |
| | FBC | • Is there a business continuity plan in the event of the project delivering late or failing to deliver at all? |

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| 6. Evaluation of proposals driven by initial price rather than long-term value for money (especially securing delivery of business benefits) | OBC | • Is the evaluation based on whole-life VFM, taking account of capital, maintenance and service costs?<br>• Do we have a proposed evaluation approach that allows us to balance financial factors against quality and security of delivery?<br>• Does the evaluation approach take account of business criticality and affordability?<br>• Is the evaluation approach business driven? |
| 7. Lack of understanding of, and contact with the supply industry at senior levels in the organisation | OBC | • Have we tested that the supply industry understands our approach and agrees that it is achievable?<br>• Have we checked that the project will attract sufficient competitive interest?<br>• Are senior management sufficiently engaged with the industry to be able to assess supply side risks?<br>• Do we have a clear strategy for engaging with the industry or are we making sourcing decisions on a piecemeal basis?<br>• Are the processes in place to ensure that all parties have a clear understanding of their roles and responsibilities, and a shared understanding of desired outcomes, key terms and deadlines?<br>• Do we understand the dynamics of the industry to determine whether our acquisition requirements can be met, given potentially competing pressures in other sectors of the economy? |
| | FBC | • Have we asked suppliers to state any assumptions that they are making against their proposals? |

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| 8. Lack of effective project team integration between clients, the supplier team and the supply chain | OBC | • Has a market evaluation been undertaken to test market responsiveness to the requirements being sought?<br>• Are the procurement routes that allow integration of the project team being used?<br>• Is there early supplier involvement to help determine and validate what outputs and outcomes are being sought for the project? |
| | FBC | • Has a shared risk register been established?<br>• Have arrangements for sharing efficiency gains throughout the supply team been established? |

## 10. Business case content and structure

A business case is developed over time, in conjunction with the scoping, planning and procurement phases of the solution.

There are three key stages in its development, which constitute milestones when approval may be required to proceed further. During its infancy, the key deliverable is the SOC; in its adolescence, the OBC; and finally, when the solution has reached maturity, the FBC.

This document provides a template from which to develop your case in each phase.

| **Strategic Outline Case (SOC)** | **Outline Business Case (OBC)** | **Full Business Case (FBC)** |
|---|---|---|
| ***Phase 1: initial scoping*** | ***Phase 2: planning*** | ***Phase 3: selection of solution/ procurement*** |
| ***Primary purpose:***<br>***1. to establish the case for change and strategic fit with other programmes***<br>***2. to indicate the way forward in terms of a preferred way forward.*** | ***Prior to OJEC (pre-procurement)***<br>***Primary purpose:***<br>***3. to identify a preferred option***<br>***4. to assess potential VFM, affordability and achievability.*** | ***Following competition (pre-contract)***<br>***Primary purpose:***<br>***5. to select the service solution***<br>***6. to finalise post procurement arrangements.*** |
| **Structure and content** | **Structure and content** | **Structure and content** |
| Executive summary | Executive summary | Executive summary |
| Document structure | Document structure | Document structure |

| | | |
|---|---|---|
| **The Strategic Case** | **The Strategic Case** | **The Strategic Case** |
| *Strategic context* | *Strategic context* | *Strategic context* |
| **Organisational overview**<br>Snapshot of the organisation: purpose, structure and environment etc. | **Organisational overview**<br>Update as required | **Organisational overview**<br>Update as required |
| **Business strategy and aims**<br>Existing and future business plans, including any relevant national initiatives and stakeholders/ customers for services | **Business strategy and aims**<br>Update as required | **Business strategy and aims**<br>Update as required |
| **Other organisational strategies – for example, IS/IT; HR**<br>Existing and future plans | **Other organisational strategies**<br>Update as required | **Other organisational strategies**<br>Update as required |
| *Strategic needs* | *Strategic needs* | *Strategic needs* |
| **Investment objectives**<br>Key objectives for proposed investments | **Investment objectives**<br>Investment objectives ranked in order of priority and made SMART | **Investment objectives**<br>Update as required |
| **Existing arrangements (if any)**<br>Snapshot of current service arrangements | **Existing arrangements (if any)**<br>Update as required | **Existing arrangements (if any)**<br>Update as required |
| **Business needs – current and future** | **Business needs – current and future** | **Business needs – current and future** |

| | | |
|---|---|---|
| Service gaps to be filled | Update as required | Update as required |
| **Potential scope and service requirements**<br>Business scope and high level service outputs | **Desired scope and service requirements**<br>Detailed description of business scope and high level service outputs/requirements | **Scope and service requirements**<br>Update as required |
| **Benefits criteria**<br>Main benefits by key stakeholder groups | **Benefits criteria**<br>Main benefits by key stakeholder groups – ranked in order of importance and/or weight | **Benefits criteria**<br>Update as required |
| **Strategic risks**<br>Key business, service and external risks, together with outline mitigation and management arrangements | **Strategic risks**<br>Update as required, including specific proposals for mitigation and management | **Strategic risks**<br>Update as required |
| **Constraints and dependencies**<br>Internal and external | **Constraints and dependencies**<br>Update as required | **Constraints and dependencies**<br>Update as required |
| **The Economic Case** | **The Economic Case** | **The Economic Case** |
| **Critical success factors (CSFs)**<br>Weighted and ranked in order of importance | **Critical success factors (CSFs)**<br>Update as required | **Critical success factors (CSFs)**<br>Update as required |
| **Main business options**<br>Long list for SWOT analysis including | **Main business options**<br>Revisit and update, as required, | **Main business options**<br>Summary of OBC options |

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| 'do nothing' or 'do minimum' options. | including options not identified earlier | |
| **Preferred way forward**<br>Conclusion from initial assessment using options framework | **Preferred way forward**<br>Revisit and update, as required | **Preferred way forward**<br>Summary of OBC conclusion |
| **Short-listed options**<br>Recommended options for OBC analysis; including 'do nothing' or 'do minimum' and reference project (if applicable)<br>***Also includes***<br>**Outline commercial case**<br>High level assessment of possible deal and supply-side interest | **Short-listed options**<br>Detailed description of short-listed options including 'do nothing' or 'do minimum' and outline Public Sector Comparator (PSC)<br><br>**NPC/NPV findings**<br>Results of economic appraisals for each option, including cost of risk retained | **Short-listed options**<br>Detailed description of short-listed options including 'do nothing' or 'do minimum', the PSC, the procurement process and service providers' BAFOs<br><br>**NPC/NPV findings**<br>Results of economic appraisals for each option, including cost of risk retained |
| **Outline financial case**<br>High level assessment of affordability | **Benefits appraisal**<br>Results of ranking, weighting and scoring the qualitative benefits for each short-listed option | **Benefits appraisal**<br>Results of ranking, weighting and scoring the qualitative benefits for each short-listed option, including service providers' solutions |
| **Outline project management case**<br>High level assessment of achievability | **Risk assessment**<br>Full assessment of risks retained under each short-listed option, including costing of DBFO risks | **Risk assessment**<br>Full assessment of risks retained under each short-listed option, including costing of DBFO risks |

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| **Recommended way forward** | **Sensitivity analysis**<br>Results of sensitivity analysis undertaken for short-listed options | **Sensitivity analysis**<br>Results of sensitivity analysis undertaken for short-listed options |
| | **Preferred option**<br>Recommended option following above analysis | **Preferred option**<br>Recommended solution following procurement |
| | **The Commercial Case** | **The Commercial Case** |
| | *For possible deal:*<br>Potential scope and services<br>Potential risk allocation<br>Potential charging mechanisms<br>Potential key contractual arrangements<br>Potential personnel implications<br>Potential implementation timescales<br>Potential accountancy treatment | *For recommended deal:*<br>Agreed scope and services<br>Agreed risk allocation<br>Agreed charging mechanisms<br>Agreed key contractual arrangements<br>Agreed personnel implications<br>Agreed implementation timescales<br>Agreed accountancy treatment |
| | **The Financial Case** | **The Financial Case** |
| | *For possible deal:*<br>Potential capital requirement<br>Potential net effect on prices<br>Potential impact on balance sheet<br>Potential impact on income and expenditure account | *For recommended deal:*<br>Capital requirement<br>Net effect on prices<br>Impact on balance sheet<br>Impact on income and expenditure account |

| | | |
|---|---|---|
| | Overall affordability | Overall affordability |
| | **The Management Case** | **The Management Case** |
| | Procurement strategy<br>Intended method of procurement, including use of:<br>- EC/GATT regulations<br>- evaluation criteria<br>- selection of preferred bidder | The results of the procurement process are assessed within the economic case at this stage |
| | Outline arrangements for: | Agreed Arrangements for: |
| | Project management<br>Change management<br>Benefits realisation<br>Risk management<br>Post project evaluation | Project management<br>Change management<br>Benefits realisation<br>Risk management<br>Contract management<br>Post project evaluation<br>Contingency plans |
| **Appendices**<br>1. Strategic plans/ organisational/ business strategies (as appropriate)<br>2. Strategic business plans/ SOP<br>3. Risk potential assessment | **Appendices**<br>1. Economic appraisals<br>2. Financial appraisals<br>3. Non-financials – risks and benefits registers<br>4. Risk potential assessment<br>5. Letter of commissioner/ | **Appendices**<br>1. Economic appraisals<br>2. Financial appraisals<br>3. Non-financials – risks and benefits registers<br>4. Risk potential assessment<br>5. Letter of commissioner/ |

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| stakeholder support<br>6. Draft OJEU notice (where applicable)<br>7. SOP/ strategic business plans | stakeholder support<br>6. Proposed contract and OJEU notice (where applicable)<br>7. SOP/ strategic business plans<br>8. Agreed project/ change management plans |

**11. The systematic approach to the preparation of the business case: overview of steps and actions for SOP, SOC, OBC and FBC phases.**

| Stages | Development Process | Deliverables |
|---|---|---|
| **Phase 0 –** | **Determining the strategic context** | |
| **Step 1 / action 1** | **Ascertain strategic fit** | **Strategic context** |
| ***Output*** | ***Strategic Outline Programme (SOP)*** | |
| ***Outcome*** | ***Strategic fit*** | |
| ***Review point*** | ***Gateway 0 – strategic fit*** | |
| **Phase 1 – scoping** | **Preparing the Strategic Outline Case (SOC)** | **Strategic case** |
| **Step 2** | **Making the case for change** | |
| Action 2 | Agree strategic context | |
| Action 3 | Determine investment 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 – part 1** |
| Action 6 | Agree critical success factors (CSFs) | |
| Action 7 | Determine long list options and SWOT analysis | |
| Action 8 | Recommended preferred way forward | **Outline commercial, financial and management cases** |
| ***Output*** | ***Strategic Outline Case (SOC)*** | |
| ***Outcome*** | ***Robust case for change*** | |
| ***Review point*** | ***Gateway 1: business justification*** | |
| **Phase 2 - Planning** | **Preparing the Outline Business Case (OBC)** | |

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| **Step 4** | **Determining value for money (VFM)** | **Economic case – part 2** |
| Action 9 | Revisit SOC and determine short-list including reference project (outline PSC) | |
| Action 10 | Prepare the economic appraisals for short-listed options | |
| Action 11 | Undertake benefits appraisal | |
| Action 12 | Undertake risk assessment/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 project 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 | |
| ***Output*** | ***Outline Business Case*** | |
| ***Outcome*** | ***Planned procurement for VFM solution*** | |
| ***Review point*** | ***Gateway 2: procurement strategy*** | |

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| **Phase 3 – procurement** | **Preparing the Full Business Case (FBC)** | |
| **Step 8** | **Procuring the VFM solution** | **Economic case** |
| Action 25 | Revisit the case for change | |
| Action 26 | Revisit the OBC options, including the PSC | |
| Action 27 | Detail procurement process and evaluation of best and final offers (BAFOs) (in £s) | |
| **Step 9** | **Contracting for the deal** | **Commercial case** |
| Action 28 | Set out the negotiated deal and contractual arrangements | |
| Action 29 | Set out the financial implications of the deal | **Financial case** |
| **Step 10** | **Ensuring successful delivery** | **Management case** |
| Action 30 | Finalise project management arrangements and plans | |
| Action 31 | Finalise change management arrangements and plans | |
| Action 32 | Finalise benefits realisation arrangements and plans | |
| Action 33 | Finalise risk management arrangements and plans | |
| Action 34 | Finalise contract management arrangements and plans | |
| Action 35 | Finalise post project evaluation arrangements and plans | |
| ***Output*** | ***Full Business Case*** | |
| ***Outcome*** | ***Recommended service provider and solution*** | |
| ***Review point*** | ***Gateway 3 (investment decision)*** | |

**Glossary**

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|---|---|
| **Additionality** | An impact arising from an intervention 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 will cost in economic terms, including an allowance for risk and optimism. |
| **Business case** | A management vehicle for scoping and planning the proposal and documenting the outcome. Often a requirement of the approval process. |
| **Capital expenditure** | Expenditure on durable assets such as land, buildings and equipment. |
| **Contingency** | An allowance of cash or resources to cover unforeseen circumstances. |
| **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 a £, or other unit of account, is assumed |

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| | to fall away through time. |
| **Do minimum option** | An option where the public sector takes the minimum amount of action necessary. |
| **Do nothing option** | The cost of the status quo, often used as a benchmark for VFM. |
| **Economic appraisal** | See appraisal. This specifically takes into account the economic costs. Also used as a general term to cover cost benefit analysis (CBA). |
| **Economy** | A measure of the extent to which the costs associated with a project, programme or policy are 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. |
| **Equivalent annual cost (EAC)** | The constant annual costs which are equivalent (same present value) to a project's actual costs. |
| **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 the presentation of the business case over time (SOC, OBC and FBC). |
| **Internal rate of return** | The discount rate that would give a project a present value of zero. |
| **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 |

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| | 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 either future costs or benefits. The NPV is used to describe the difference between the present value of a stream of costs (NPC) and a stream of benefits. |
| **Opportunity cost** | The value of the most valuable alternative uses or the cost of something in terms of an opportunity forgone. |
| **Optimism bias** | The demonstrated systematic tendency for appraisers to be over-optimistic about key project parameters, including capital costs, works duration and benefits realisation. |
| **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** | A systematic framework for the development of options. |
| **PFI** | The Private Finance Initiative |
| **PPP** | Public private partnerships |
| **Public Sector Comparator (PSC)** | A hypothetical risk-adjusted costing by the public sector as a supplier to an output specification, generally used in connection with a PFI procurement exercise. |
| **Required rate of return** | A target average rate of return for a pubic 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. |
| **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. |

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| **Transfer payment** | A payment for which no goods or services are received in return. |
| **Uncertainty** | A scenario within which it is impossible to attach probabilities to the range of possible outcomes. |
| **Weighting and scoring** | An appraisal technique for the assessment of qualitative costs, risks and benefits. |
| **Willingness to pay** | The amount that someone is willing to receive or accept to give up a good or service. |

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## Biographies of the Authors

### Joe Flanagan

Joe Flanagan is currently the Director of Investment Policy and Appraisal for the NHS in Wales with lead responsibility for the scrutiny of investments. Prior to this he was Commercial Director at the NHS Information Authority, with responsibility for the procurement of national solutions.

Joe joined HM Treasury in 1972 and has been passionate about improving the scoping, planning and procurement of public sector investments ever since. Whilst Head of the Investment Proposal Service in the Central Computer Telecommunications Agency (CCTA, HM Treasury), he was lead consultant on a wide range of programmes and projects within Government Departments, where he helped to develop best practice and maximise Value for Money (VFM).

He is the architect of the 'Five Case Model' and the co-author of Making Sense of Public Sector Investments: The Five case Model in Decision Making. This book focuses on the business case and investment appraisal process developed by Joe in the past twenty-five years.

### Paul Nicholls, CPFA

Paul is the Director of Open Business Consulting Ltd. He has thirty years experience working in the NHS and other parts of the public sector in finance and general management. He qualified as an accountant in local government working for 11 years in a variety of service areas including education, police and social services. In 1985, he joined the NHS in Oxford where he led a number of programmes including the development of NHS Trusts and the Resource Management Initiative. In 1992, Paul moved to the South West and in 1995 became Director of Performance and Finance and Deputy Regional Director for the South West Regional Office of the Department of Health. Following reorganisation he became Director of Finance and Performance for a Strategic Health Authority before leaving in 2004 to form his own consultancy business. In recent years, Paul has undertaken many assignments working with government departments, the Welsh Assembly Government and the NHS on the development of new approaches to the management of capital investment in the public sector.