By email: A66Dualling@planninginspectorate.gov.uk

19th January 2024

Dear Secretary of State

TR010062: A66 Northern Trans-Pennine Project
Registration identification number - 20031841

I respond to your letter of 5th Jan 2024 inviting responses to the responses received by Dec 21st, 2023.

The Levelling Up and Regeneration Act 2023 (LURA) 26th October 2023 amended the legislation on the duty of public bodies with respect to nationally designated landscapes. This came into force on 26th December 2023. The Secretary of State (SoS) as decision maker is therefore now required to demonstrate that they have fulfilled the duty placed on them 'to seek to **further'** the statutory purposes of the North Pennines AONB and the Lake District National Park.

Three interested parties drew attention to this new duty and the need to show it had been met. In response the SoS invited '**the Applicant** to provide comments on its application to this matter in the first instance.' I will respond to the Applicant's comments below.

First, I wish to draw attention to the need to specifically ask Natural England for it to respond to the Applicant's interpretation. Whilst it might seem reasonable in the first instance to ask only the Applicant to interpret whether or not it had met the new duty, there is no request in the SoS's 5th Jan 2024 letter for Natural England to respond. This is a significant omission as Natural England is both the statutory adviser to Government on landscape and a public body subject to the new LURA duty.

NATURAL ENGLAND'S ROLE

Natural England is the statutory Government adviser on landscape (and seascape) under the Natural Environment and Rural Communities Act 2006 (NERC Act). Its general purpose, set out in section 2(1) of the Act, is to '*ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development'* with a specific role for conserving and enhancing the landscape. National Parks and National Landscapes (AONBs) have the highest status of protection. Natural England has been responsible for ensuring the previous s.62 duty 'to have regard to' the statutory purposes of National Parks and AONBs is met. It produced the 2010 guidance 'England's statutory landscape designations – A practical guide to your duty of regard' - and advises relevant public bodies on that duty.

In my previous response I addressed Natural England's performance as a public body within the Examination with reference to REP1-033. The existing impact of the A66 on the North Pennines AONB was accepted which in my view led to an approach that would not 'seek to further the purpose of the AONB'.

Natural England must be specifically asked to respond on the Applicant's interpretation and on its own performance as a public body engaged in the A66 Examination.

NATURAL ENGLAND'S ADVICE ON THE LURA 'SEEK TO FURTHER' DUTY

Natural England presented its advice in relation to the enhanced duty on public bodies in respect of AONBs to the Lower Thames Crossing Examination on 15th December 2023. Their advice was submitted as REP9A-122 and appears here https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010032/TR010032-006179-Natural%20England%20-%20Deadline%209a%20Submission.pdf . I have submitted it alongside this response and have used it to assess the Applicant's interpretation of the LURA duty now imposed on it. The relevant sections are reproduced below.

'The duty to 'seek to further' is an active duty, not a passive one. Any relevant authority must take all reasonable steps to explore how the statutory purposes of the protected landscape (A National Park, the Broads, or an AONB) can be furthered.

The new duty underlines the importance of avoiding harm to the statutory purposes of protected landscapes but also to seek to further the conservation and enhancement of a protected landscape. That goes beyond mitigation and like for like measures and replacement. A relevant authority must be able to demonstrate with reasoned evidence what measures can be taken to further the statutory purpose. If it is not practicable or feasible to take those measures the relevant authority should provide evidence to show why it is not practicable or feasible.

The proposed measures to further the statutory purposes of a protected landscape, should explore what is possible in addition to avoiding and mitigating the effects of the development, and should be appropriate, proportionate to the type and scale of the development and its implications for the area and effectively secured. Natural England's view is that the proposed measures should align with and help to deliver the aims and objectives of the designated landscape's statutory management plan. The relevant protected landscape team/body should be consulted.'

APPLICANT'S CLAIM TO HAVE MET THE DUTY TO SEEK TO FURTHER AONB AND NATIONAL PARK STATUTORY PURPOSES IS FALSE

The Applicant interprets the LURA duty to 'seek to further' AONB and National Park purposes as consideration of '*whether there is anything further that could be done to avoid or mitigate any harm identified. If there is not he will have fulfilled his duty to seek to further those purposes.'* It analyses whether or not the NPSNN policies (5.151- 5.154, 5.157, 5.163 and 5.166) meet the requirements of the new duty and concludes that as the project has been appraised against all these policies no further mitigation is required. *'Accordingly, the NPSNN effectively already obliges the Secretary of State to seek to further the relevant statutory purposes, soon to be required as a matter of law through the amendments made by section 245 of the Levelling-up and Regeneration Act 2023, and the Secretary of State can conclude that there is nothing more that the Applicant could reasonably do to avoid or mitigate for any harm identified.'*

Whether or not the NPSNN policies already oblige the Secretary of State to meet the new LURA duty is not for this arena. The NPSNN policies require formal assessment as to whether they are sufficient to ensure public bodies 'seek to further' National Park and AONB purposes. What is at stake here is the Applicant's performance against the new statutory duty on which the Secretary of State must rely in order to make their decision.

Simply avoiding or mitigating any harm is insufficient to meet what is an active, not a passive, duty; Natural England advises that avoiding harm goes beyond mitigation and like for like measures and replacement. *A relevant authority must be able to demonstrate with reasoned evidence what measures can be taken to further the statutory purpose.*

Therefore from the outset those seeking to solve a problem that impacts on a National Park or AONB must look comprehensively at solutions that would <u>actively</u> further the statutory purposes of these designated landscapes ie reduce the existing harm from the problem and avoid any new harm. NNNPS 5.151(ii) promotes that approach - '*The cost of, and scope for, developing elsewhere, outside the designated area, or **meeting the need for it in some other way.'*** (My emphasis) NNNPS 5.152 reinforces this – '*There is a strong presumption against any significant road widening or the building of new roads and strategic rail freight interchanges in a National Park, the Broads and Areas of Outstanding Natural Beauty, unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs very significantly. Planning of the Strategic Road Network should encourage routes that avoid National Parks, the Broads and Areas of Outstanding Natural Beauty.'*

The A66 dualling would cause adverse impacts on the North Pennines AONB and its setting from both the infrastructure and 30% increases in traffic in 2029 the opening year (APP-008, 4.3.6). These impacts include increased carbon emissions; intrusion on landscapes and impairment of visual amenity; more noise and air pollution; and loss of tranquillity. Although no hard infrastructure is proposed in the Lake District National Park (LDNP) traffic increases (of between 4% and 6% by 2044, APP-237 Tables 7-2 & 7-3) on the A66 west of M6 Junction 40 would increase carbon emissions, visual intrusion of the road and noise pollution with loss of tranquillity.

To reduce the impacts of the existing A66 route and avoid imposing new harms, would require consideration of measures to reduce visual intrusion of the road, its traffic and the road furniture; to reduce noise pollution and enhance tranquillity; to reduce light pollution; and measures that would incur no loss of or harm to protected habitats and species and would ensure management to improve any impacted habitats. Options include reducing traffic on the A66 through management of demand, modal shift of car users and of freight to rail, investment in public transport and active travel to facilitate the switch from car use, investment in rail freight, and reducing speed limits along the route.

The North Pennines AONB Partnership sought such measures: '*It will therefore be necessary for the developer to evidence the compelling reasons for the enhanced capacity against alternative measures, such as improved safety of junctions, reducing speed limits etc. We expect the developer to have fully explored and scoped out those alternative measures that would be less damaging, before pressing ahead with dualling – it should not be a fait accompli'* (REP8-019). Despite this strong statement comprehensive measures were not considered along the whole route (see below) in order to reduce the existing damage caused by the A66 and its traffic and avoid the harm that would be imposed by dualling.

This approach is also reflected in Natural England's advice. Measures that seek to further the statutory purposes should align with and help to deliver the aims and objectives of the designated landscape's statutory management plan.

(a) The North Pennines AONB Management Plan 2019-2024 seeks to conserve and enhance scenic beauty, remoteness, wildness, tranquillity and dark skies. Development should protect the AONB's special qualities and not compromise the purpose of the designation. Development which erodes openness and tranquillity should be resisted. Management of roads should not detract from the rural character. Light pollution should be reduced. Biodiversity decline should be urgently arrested and turned around.

(b) The Sustainable Travel and Transport of The Lake District National Park Partnership Management Plan 2020-2025 seeks sustainable access to the Park for visitors. The measures of success for outcome five include:

- Reduction in visitors stating car as their main mode to travel around by 15% on 2018 baseline.
- Reduction in carbon from visitor travel of at least 10% on 2018 baseline.
- Increase in number of people arriving in the Lake by bus and rail by 15% on 2019 baseline.

Policy 21 of the Lake District National Park Authority Local Plan 'Sustainable Access and Travel' also supports the development of sustainable transport infrastructure to broaden and encourage use of sustainable travel modes for visitors thereby reducing the need to travel by private vehicle.

Thus the statutory management plans for both the North Pennines AONB and the Lake District National Park require measures that would reduce existing harm to the designated landscapes and would avoid imposing any new harms.

It is clear from the documents outlining the development of the A66 dualling (see Appendix below) that such measures were not considered:

a) The purpose of the 2016 North TransPennine study was the creation of a new strategic corridor in the North; whole route options with a view to reducing harm on the AONB or the Lake District National Park were not considered.
b) The harmful impacts of the A66 on the AONB and its purpose were specifically avoided in the Stage 3 North TransPennines Study. The North Pennines AONB was recognised as a major environmental constraint to upgrading the A69 as the route lay within 2km of the protected landscape (1.7.19 and Table 1.6). No such recognition was given to the North Pennines AONB and its relationship with the A66 (Table 1.4). Indeed, there is major error in that it stated that the AONB and its relationship to the A66 were the same as that of the AONB with the A69 ie 2km away from the AONB**. In fact sixteen miles of the A66 either passes through the AONB or shares a boundary with it. This misrepresentation could have had a significant impact on those who did not know the route but were making decisions about it based on the study.**
c) Both the Stage 3 study and the consultation brochure are explicit in identifying that the options considered were dualling and 'other options which would have had severe environmental impacts'. In other words small scale measures that could have conserved and/or enhanced the beauty of the AONB were never considered or pursued.
d) There is no evidence that the long list was assessed as a potential alternative to limit harm to the AONB and its setting.

e) The decision to dual the A66 was made using the results of the North TransPennine study which paid little attention to environmental impacts or opportunities and was based on a desk top study of environmental constraints. As the impacts of the A66 dualling were unknown the decision to proceed was made without proper regard to the AONB.
f) The core project objective for safety - '*To provide a consistent standard of dual carriageway, to help reduce the number of accidents and improve safety for all users of the network*' - ruled out measures that could further the AONB purpose [The A66 Northern TransPennine Project Route Development Report Vol 1 Table 1].
g) The Case for the Scheme (APP-008) 6.5.78.-6.5.110 shows that with respect to sections of the A66 that directly impacted on the AONB only realignments of the proposed route were considered.

Finally, the project has not followed the Treasury 2018 Green Book Guide with respect to undertaking a review of the Strategic Outline Case (SOC) which is essential to confirm that A66 dualling remains the best option to solve the issues in their entirety and give value for money. This review should have been undertaken when the scheme's Outline Business Case (OBC) was prepared as required by the Treasury Green Book Nov 2022 and its accompanying 2018 'Guide to developing the Project Business Case'. The OBC is prepared at Stage 2 Option Selection and before the Preferred Route is announced. The key purpose of the OBC is to revisit the SOC assumptions and main findings; establish the preferred option; and put in place the arrangements for the procurement of the scheme. The Treasury Green Book Guide (submitted separately with this letter) lists fourteen criteria against which the SOC should be reviewed. These include:

- *'Are the SOC spending objectives and planning assumptions still valid?*
- *Have any outstanding differences at SOC stage between stakeholders and customers been satisfactorily resolved?*
- *Has the assessment of likely benefits, risks, constraints and dependencies in the SOC been revisited and examined in further detail?*
- *Were the long-listed options in the SOC revisited and subjected to further scrutiny?*
- *Were the short-listed options in the SOC revisited and subjected to robust analysis?*
- *Does the preferred option provide best public value?*
- *Is there a clear understanding of the business change agenda?*
- *Is the solution still likely to be affordable?*

This then is a critical review which is not about alternative design and alignments as were undertaken at this stage by the Applicant but about rigorous testing of the project at a strategic level on many fronts. Particularly important for the A66 scheme are reconsideration of the long and short lists in the context of the environmental constraints posed by the AONB, the extremely poor value for money and the failure to understand the business change agenda, specifically the climate change emergency recognised in 2019 and the nature crisis. There is no evidence such a review was undertaken.

In summary, the Applicant has failed to meet extant NNNPS policies by failing to assess the cost of and scope for meeting the need for the development in some other way that would avoid the AONB and impacts on both the AONB and the LDNP. By extension it must also have failed 'to seek to further' the statutory purposes. If the Applicant is to show it has fulfilled the new LURA duty ‘to seek to further’ the AONB purpose it should have progressed a fully worked up option which would further AONB and National Park purposes. It should then have provided evidence to show why it is not practicable or feasible.

CONCLUSION

The SoS is reliant on the work undertaken to get to this point in the DCO process. All of the Applicant’s work has been undertaken in the context of the duty to ‘have regard to’ National Park and AONB purposes. The process outlined above and supported by evidence contained in documents summarised in the Appendix below demonstrates that there is no evidence that the Applicant has met the more exacting duty to ‘seek to further’ those purposes.

Before the SoS can make a decision they must demonstrate how they have actively, not passively, met the duty to seek to further these purposes. In order to do that the SoS must ask the Applicant to properly develop a costed comprehensive whole route alternative that would reduce the existing damage caused by the A66 and its traffic and avoid the harm that would be imposed by dualling on both the AONB and the LDNP. This can then be compared with the proposed dualling. The Strategic Outline Case for dualling should be reviewed in the manner required by HM Treasury. All these results should then be presented to interested parties for scrutiny.

Yours sincerely

Anne
Anne Robinson

APPENDIX
DOCUMENTS CONCERNED WITH PROGRESSING A66 DUALLING

The development of the A66 North Pennines dualling occurred through a number of documents, as summarised below.

The RIS1 2015/2016-2019/2020 initiated the North TransPennine study. '*There is potential to create a new strategic corridor in the region and link the A1 and the M6. Doing so could help the economies of the North East and Cumbria, as well as improve journeys between England and Scotland. The two main east-west roads in this area, the A69 and A66, have been partially upgraded over the years. Both roads have a mix of high-quality dual carriageway and single carriageway. This study will examine the case for dualling one or both of these roads and making other improvements along their length.'*

The Terms of Reference for the study clearly identified this strategic purpose: *'Para 1.2 The Northern Trans-Pennine Study, will investigate the potential to create a new strategic corridor linking the A1 with the M6 by upgrading one or both of the A69 and A66 and making other improvements along their length.'*

The North TransPennine study
a) Stage 1, 2016 Table 2.55 correctly assigns cultural heritage, landscape, nature and noise as major environmental constraints in the A66 corridor that require avoidance or minimisation of impact (2.8.14).
b) Stage 2, 2016 – I have not been able to locate this document on line. Nor is it presented in the examination documents. However according to APP-250 'A66 Northern Trans-Pennine project, Project Development Overview Report Appendix 6 Highways England Business Case A66 Schemes' 2022, 2.3.4, Annex 7.2, a long list of options was presented to the Stakeholder Reference Group on 13th April 2016 where a workshop session was held to discuss any additional options not previously identified. Alongside major road building interventions, the long list included fewer junctions, introduction of technology, measures for weather resilience. However only the options bulleted below were assessed for the Present Value of their Benefits, their capital costs and their Net Present Value.
c) Stage 3, 2016, examined the case for making either the A69 or the A66 into a new strategic corridor. The Strategic Case for Intervention on the A66 makes no reference to the AONB Although the study worked to '*Minimise adverse impacts on the environment and where possible optimise environmental improvement opportunities*' (Table 1.2), it paid little attention to them. '*Currently the environmental impacts are based on a high level desk top assessment identifying known constraints and issues from readily available constraints data*' (1.10.1). More detailed research investigation and monitoring had yet to be undertaken so the actual impacts of the A66 dualling were unknown.

The North Pennines AONB was recognised as a major environmental constraint to upgrading the A69 as the route lay within 2km of the protected landscape (1.7.19 and Table 1.6). No such recognition was given to the North Pennines AONB and its relationship with the A66 (Table 1.4). Yet for the sixteen miles between Bowes and north west of Warcop the A66 either **passes through** the AONB (7.4 miles) or shares a boundary with the AONB (8.6 miles), except for a small diversion of the AONB boundary to avoid Brough. Nor was the AONB identified as being subject to existing adverse impacts from the A66 and its traffic.

The Stage 3 study Table 1.10 lists the options for further analysis on the A66. These are
- Option 4 A66 dualling plus Option 5
- Option 5 A66/A6 junction upgrade
- Option 6 Scotch Corner to Greta Bridge A66 dualling
- Option 7 Brough to Temple Sowerby dualling

Once the study was completed, the Government announced its intention to dual the A66 (rather than improve the A69) and the project entered the Project Control Framework (PCF). PCF Stage 1 Option Identification began in 2017 when Highways England commissioned their technical consultant with a brief to identify viable dualling options for consideration (APP-244 A66 Northern TransPennine Project Route Development Report Vol 1 2022). This work culminated in the 2018 Technical Appraisal Report.

Technical Appraisal Report (TAR) 2018 (APP-245) identified several longlist options for each of the schemes along the route of the A66 Northern Trans-Pennine project. These options were then appraised and those which performed poorly against the project objectives were not taken forward to shortlisting. Excluding junction improvements at the A66/A6 junction the only long list options considered for each section were online/offline dualling or widening of the route (Table 7.1):
- Temple Sowerby to Appleby ten options;
- Appleby to Brough, seven options for online and for offline dualling, and avoided incursions into the AONB;
- Cross Lanes to Rokeby three options.

Whole route long list options considered (Table 7.2), all of which included some form of road building, were all rejected (Appendix F). Thus there was no option developed that would have reduced the current impacts of the route on the AONB or avoided the harm that is now being proposed on it.

The Technical Appraisal Report also demonstrated poor consideration of the AONB purpose. Para 4.14.2 described where the A66 passed through or was adjacent ot the A66. However, Appendix D containing maps of Environmental Constraints omitted the AONB boundary from the relevant diagrams (north east of Warcop to east of Brough). These are Fig 3 Cultural Heritage and Landscape (pdf pages 377-378) and figures showing Biodiversity Constraints pdf pages 401-402, which correctly show North Pennines Moors SPA/SAC/SSSI. The AONB statutory purpose conserving and enhancing natural beauty depends not only on topography but on ground cover. Hence biodiversity must also be considered in its widest sense and not just with respect to statutory protections for nature.

The Consultation Brochure 2019 reveals the discounted options. '*The options outlined in this brochure have been shortlisted from a much longer list of options which have been considered for each section. Following a number of assessments carried out in developing this project, various options were discounted prior to consultation as they were considered not to be viable.* ***Typically, these were options which would have presented such serious environmental impacts that statutory environmental bodies would have rejected them or***

***required extensive mitigation measures**.'* (my emphasis) It notes that *'on the Appleby to Brough section a single proposal has been brought forward following five other options being discounted due to impacts on the Area of Outstanding Natural (AONB), the Warcop Roman Camp, the local environment and the Eden Valley railway.'* The only options offered for consideration by the public are A66 dualling.

The Preferred Route was announced in May 2020 and was followed by the statutory consultation.

APP-244 A66 Northern TransPennine Project Route Development Report Vol 1 2022 outlines the progress of the schemes constituting the A66 project through the PCF and summarises all of the above.

APP 250 A66 Northern Trans-Pennine project TR010062 4.1 Project Development Overview Report Appendix 6 Highways England Business Case A66 Schemes 2022 - Para 6.11.1 shows that the Strategic Outline Business Case was subject to a review at PCF Stage 0. There is no mention of review of the Outline Business Case at PCF Stage 3. There are a number of design/alignment reviews but no fundamental review as required by the 2018 Treasury Green Book Guidance (pages 99-100).

Date: 15 December 2023
Our ref: 460242
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Mr Rynd Smith
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By email only, no hard copy to follow

Dear Mr Smith

Application by National Highways for an Order Granting Development Consent for the Lower Thames Crossing
Natural England's response to Deadline 9a
Natural England User Code: 20034784

Natural England is pleased to provide our Deadline 9a response for the Lower Thames Crossing Examination within the annexes appended to this letter.

Given the number of documents submitted at Deadline 9, Natural England has used best endeavours to review these but have had to prioritise our document review. The absence of comments on a document should not be taken that Natural England's previous concerns have been addressed, it is more a reflect on us needing to prioritise our advice given the challenging timeframe.

For ease, we have provided our comments in the following Annexes:

Annex 1:	Natural England's delayed comments from Deadline 9 regarding documents submitted by the Applicant at Deadline 8
Annex 2:	Annex 2: Natural England's addendum to our Deadline 9 response in relation to the enhanced duty in relation to Protected Landscapes including the Kent Downs Area of Outstanding Natural Beauty
Annex 3:	Comments on the Applicant's submissions at Deadline 9
Annex 4:	Final Statement of Common Ground
Annex 5:	Final Principal Areas of Disagreement
Annex 6:	Natural England response to the Procedural Decision 45, Rule 17 letter regarding 'The Wilderness'

Natural England hopes our Deadline 9a comments are helpful.

Yours sincerely

James Seymour
Deputy Director, Sussex and Kent Team

John Torlesse
Deputy Director, West Anglia Team

Email ltc@naturalengland.org.uk

1 Annex 1: Natural England's delayed comments from Deadline 9 regarding documents submitted by the Applicant at Deadline 8

1.1 Introduction

1.1.1 Natural England is pleased to provide below our delayed comments on:

- The Applicant's comments on the Report on the Implications for European Sites (RIES);
- The Applicant's detailed response to comments made by Natural England on HRA matters; and
- The Applicant's Assessment of the air quality effects on European sites following Natural England advice

1.2 Applicant's comments on the Report on the Implications for European Sites (RIES)

1.2.1 Having reviewed the Applicant's comments on the Report on the Implications for European Sites (Examination Document REP9-120), Natural England has the following comments.

1.2.2 Natural England notes the Applicant's response to QR20. We welcome the updated wording of REAC ref. HR011 to give prominence to the seasonality of works at Coalhouse Point. We have no further comments at reference QR13.

1.3 Applicant's detailed response to comments made by Natural England on HRA matters

1.3.1 Natural England notes the 'Applicant's detailed response to comments made by Natural England on HRA matters' document (Examination Document REP8-121). As this relates largely to air quality matters, we have provided our response to these in Section 1.4 below, alongside the 'Assessment of air quality effects on European sites following Natural England advice'.

1.4 Assessment of the air quality effects on European sites following Natural England advice

1.4.1 Natural England welcomes '9.199 Assessment of the air quality effects on European sites following Natural England advice' (Examination Document REP8-122) which addresses many of the concerns raised our Deadline 5 response (Examination Document REP5-109). Our comments in relation to this document are provided below.

In combination assessment

1.4.2 Natural England acknowledges the Applicant's further representations relating to in combination assessment and its rationale for using growth factors. The Applicant considers that its approach is consistent with Department for Transport's Transport Analysis Guidance (TAG). As Natural England has previously pointed out it is not consistent with other guidance (such as Advice Note Ten Habitats Regulations Assessment relevant to Nationally Significant Infrastructure Projects[1]) and more importantly is not considered sufficiently precautionary to meet the requirements of HRA which is a legal test .

[1] https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/

1.4.3 Section 3.4.12 states that 'it is likely that the changes in the outputs of the model overall would not be significant'. Given that the Applicant has been aware of Natural England's position for many years there has been sufficient time for them to test this hypothesis and assure that this assertion is evidence-based. If inclusion of plan led growth is considered unlikely to significantly change the outputs it is difficult to understand why our advice has not been followed.

1.4.4 The above notwithstanding, Natural England recognises that the Applicant has provided a much-improved non-traffic in-combination assessment (and has identified further projects as a result) and we have worked with the Applicant to reach agreed positions on Thames Estuary and Marshes SPA and Ramsar and North Downs Woodlands SAC irrespective of our concerns relating to the in-combination assessment.

HRA Screening

1.4.5 Natural England advises that it is in full agreement with the HRA screening conclusions contained in welcomes '9.199 Assessment of the air quality effects on European sites following Natural England advice' (Examination Document REP8-122).

HRA Appropriate Assessment

Thames Estuary and Marshes SPA and Ramsar

1.4.6 Natural England advises that, despite our concerns relating to in combination assessment as set out above, an AEOI of Thames Estuary and Marshes SPA and Ramsar can be ruled out. We consider that the key factors allowing the competent authority to reach this conclusion are:

- The affected area is grazed land reducing potential for nitrophilic grasses to take over.
- The impact is temporary, occurring during the construction phase only.

North Downs Woodlands SAC

1.4.7 Natural England advises that, despite our concerns relating to in combination assessment as set out above, an AEOI of North Downs Woodlands SAC can be ruled out. We consider that the key factors allowing the competent authority to reach this conclusion are:

- There are no qualifying species within the likely affected area for North Downs Woodlands SAC
- Whilst the site has a restore objective for air quality, it is the opinion of Natural England that the absence of nitrogen sensitive species in the likely affected area is not primarily down NOx/Ammonia or nitrogen deposition.
- Natural England does not consider that an improvement in air quality at in the affected area would have a significantly beneficial effect on species composition.

Epping Forest SAC

1.4.8 There is little new information presented relating to Epping Forest SAC. Natural England considers that AEOI cannot be excluded for NOx, NH3 or Ndep at Epping Forest SAC without mitigation being in place. Like North Downs Woodlands SAC, Epping Forest has a restore objective for air quality. Unlike North Downs Woodlands SAC the primary reason for the absence of nitrogen sensitive species from the affected area is air pollution, to which traffic on the M25 significantly contributes. Any projected improvements would support recovery of the SAC and may improve species richness. National Highways is uniquely placed in its ability to address this concern.

1.4.9 The Applicant's own modelling identifies increases of NOx, NH3 and Ndep on the SAC. These result from foreseeably permanent increases in annual average daily traffic (AADT) and whilst the Applicant considers that downward trends in pollutant will ultimately lead to improvements in air quality they will always be worse that the do nothing scenario (until such a time as Ultra-low Emission Traffic dominates). Further to this there is a 4 year period where the proposal is modelled to make air quality at the SAC worse. Having identified an affect and mitigation Natural England considers that it is now appropriate for the Applicant to secure and deliver that mitigation.

1.4.10 We note the concerns relating to ammonia monitoring and recognise that it will be difficult to identify a specific increase resulting from this proposal. However, given that the Applicant's justification for the absence of an AEOI leans heavily on improving trends it is appropriate that NOx/NH3 and Ndep are all monitored to ensure that they are broadly consistent with projections. A monitoring plan should be agreed with Natural England, for an initial period of four years of LTC operation, with pre-operation monitoring also undertaken for at least 1 year prior to commencement of construction. This monitoring plan would ensure that the speed limit mitigation reduces nitrogen deposition and NOx and ammonia concentrations, and that levels of the three pollutants at year 4 are no higher than the pre-operational values. Monitoring with a corrective feedback mechanism to ensure the mitigation identified is certain will need to be secured through an appropriately worded REAC commitment.

1.4.11 Natural England notes that REIS question QR22 asked the Applicant about the implications of the Dutch Nitrogen case and that Applicant responded that 'The Applicant does not consider that the Dutch Nitrogen Case (2018) has any implications for the conclusion of no adverse effect on integrity (AEOI)'. The key message from the Dutch Nitrogen Case was that consenting activities which could affect the ecological situation of a site which is already unfavourable is 'necessarily limited'.

1.4.12 It is reasonable to expect that where a protected habitat is already unfavourable, as is the case for Epping Forest, there will be a limit to the extent of further loading that is possible without undermining site integrity. This is because a site in unfavourable condition is likely to be less resilient and any additional pressures resulting from development may be more likely to result in an adverse effect on the integrity of the site. The key question which the HRA needs to consider is whether increasing nutrient loading to a site that is already in unfavourable condition would or may cause an adverse effect on integrity by undermining the conservation objectives. The HRA should justify how further nutrient loading (alone or in combination) would not prevent the restore conservation objectives from being achieved to enable consent to be granted. The HRA hasn't justified this adequately as in our view an adverse effect on integrity cannot be ruled out without mitigation.

1.4.13 The Dutch Nitrogen judgement also repeatedly stresses the need for scientific rigour and certainty. Natural England does not believe that Dutch Nitrogen changes the legal standard to be applied in HRA cases, but it does highlight that it is a high standard. Hence the need to ensure there is sufficient certainty in the evidence used to draw conclusions around harm and the need to take a precautionary approach where uncertainties are identified.

2 Annex 2: Natural England’s addendum to our Deadline 9 response in relation to the enhanced duty in relation to Protected Landscapes including the Kent Downs Area of Outstanding Natural Beauty

2.1.1 Natural England apologise for inadvertently omitting our advice in relation to the enhanced duty on public bodies in respect of Areas of Outstanding Natural Beauty provided through the Levelling Up and Regeneration Act in our Deadline 9 Response.

2.1.2 As discussed during Issue Specific Hearing 11, Section 245 (Protected Landscapes) of the Levelling Up and Regeneration Act 2023 places a duty on relevant authorities in exercising or performing any functions in relation to, or so as to affect, land in a National Park, the Broads or an Area of Outstanding Natural Beauty (‘National Landscape’) in England, to seek to further the statutory purposes of the area. The duty applies to local planning authorities and other decision makers in making planning decisions on development and infrastructure proposals, as well as to other public bodies and statutory undertakers.

2.1.3 It is anticipated that the government will provide guidance on how the duty should be applied in due course. In the meantime, and without prejudicing that guidance, Natural England advises that:

- The duty to ‘seek to further’ is an active duty, not a passive one. Any relevant authority must take all reasonable steps to explore how the statutory purposes of the protected landscape (A National Park, the Broads, or an AONB) can be furthered;
- The new duty underlines the importance of avoiding harm to the statutory purposes of protected landscapes but also to seek to further the conservation and enhancement of a protected landscape. That goes beyond mitigation and like for like measures and replacement. A relevant authority must be able to demonstrate with reasoned evidence what measures can be taken to further the statutory purpose. If it is not practicable or feasible to take those measures the relevant authority should provide evidence to show why it is not practicable or feasible.
- The proposed measures to further the statutory purposes of a protected landscape, should explore what is possible in addition to avoiding and mitigating the effects of the development, and should be appropriate, proportionate to the type and scale of the development and its implications for the area and effectively secured. Natural England’s view is that the proposed measures should align with and help to deliver the aims and objectives of the designated landscape’s statutory management plan. The relevant protected landscape team/body should be consulted.

3 Annex 3: Comments on the Applicant's submissions at Deadline 9

3.1 Introduction

3.1.1 Given the volume of amended documents submitted at Deadline 9, Natural England has used our best endeavours to review and provide further advice below. We have made detailed comments, which remain appropriate, in our previous deadline submissions which, for expediency, we have not repeated in this Deadline 9a response.

3.1.2 The absence of comments on a document (or parts of a document) submitted at Deadline 9 does not mean that there are no outstanding concerns, it is more a reflection of Natural England having to prioritise our advice given the challenging timeframe to review the volume of documents shared and provide our advice.

3.2 Consents and Agreements Position Statement

3.2.1 We note that section 4.1.2b (page 7) of the Consents and Agreement Position Statement (Examination Document REP9-112) refers to the DCO including consents for works impacting SSSIs. As summarised in our deadline 9 submission (Annex 2, response to ExA QD32), Natural England have advised that the disapplication of Sections E and H of the Wildlife and Countryside Act 1981 should not be included in the DCO, and this remains a matter not agreed in our Statement of Common Ground with the Applicant (SOCG item number 2.1.3). If the disapplication of this legislation is removed from the final DCO, the wording in the Consent and Agreements Position Statement will need amending accordingly.

3.3 Environmental Statement Chapter 7 – Landscape and Visual

3.3.1 Having reviewed the updated Chapter 7 - Landscape and Visual of the Environmental Statement (Examination Document REP9-119), Natural England has the following comments to make.

3.3.2 Natural England notes the inclusion, within Table 7.14, of the additional REAC Clause LV037 to minimise the impacts to the existing vegetation to the north of Park Pale. Notwithstanding our long-term concern regarding the use of 'where reasonably' practicable within the securing mechanisms, including Clause LV037, Natural England supports the intention of the first bullet point to minimise the removal of existing vegetation in this area. Our concerns regarding the second bullet point of LV037 detailed in Paragraph 3.3 of our Deadline 8 Response (Examination Document REP8-154) in relation to the landscape and visual impacts to the Kent Downs AONB from the woodland compensation planting in this area remain.

3.3.3 Natural England has provided detailed comments in relation to the additional REAC Clauses LST.04 and S1.24 in our Deadline 9 Response (Examination Document REP9-292) including suggested amended wording to overcome our concerns and we have not repeated them here.

3.4 Figure 7.19 – Photomontages Winter Year 1 and Summer Year 15

3.4.1 Natural England has provided extensive comments in relation to Viewpoint S-03 throughout the Examination, including in our Written Representation (Examination Document REP1-262), our Deadline 6 Response (Examination Document REP6-152) and our Deadline 8 Response (REP8-154). In these submissions, we expressed, and continue to have, significant concerns regarding the nature and scale of the landscape and visual impacts of the Project from Viewpoint S-03 and also the additional impacts resulting from the proposed woodland compensation planting.

3.4.2 Natural England has reviewed the amended Winter Year 1 visualisations provided for Viewpoint S-03 within Figure 7.19 (1 of 4) (Examination Document REP9-160). The amended visualisations Drawing Numbers HE540039-CJV-ELS-SZP_ZZ000000_Z-DR-LV-00325 and HE540039-CJV-ELS-SZP_ZZ000000_Z-DR-LV-00326 (both dated 10 November 2023) show the A2 corridor and associated highway infrastructure being less prominent than in the initial visualisations submitted at Deadline 5 (Examination Documents REP5-046 and REP5-047).

3.4.3 Notwithstanding Natural England's concerns regarding the previous visualisations and the assessment of impacts, no information appears to have been provided by the Applicant to evidence and support these changes. Given the significant concerns regarding the landscape and visual impacts for the Kent Downs AONB in this area, Natural England would have expected the changes to be supported by a narrative from the Applicant, particularly given the late stage of the Examination.

3.5 Environmental Statement Chapter 8 – Terrestrial Biodiversity

3.5.1 Natural England notes the amendments within Chapter 8 – Terrestrial Biodiversity (Examination Document REP9-121). We have provided advice on these changes previously and can confirm we have no further comments to make.

3.6 Appendix 2.2 Code of Construction Practice including Register of Environmental Actions and Commitments, First Iteration of Environmental Management Plan

3.6.1 Having reviewed the updated Code of Construction Practice (version 9.0) (Examination Document REP9-185), Natural England has the following comments to make.

3.7 Landscape

3.7.1 Natural England notes the amendments to REAC reference LV037 in relation to the proposed woodland compensation planting north of Park Pale within the Kent Downs AONB. Natural England continues to advise that the proposed woodland compensation planting will result in adverse landscape and visual impacts for the AONB in this area. We provided advice in relation to this addition of LV037 to the REAC in our Deadline 8 response (Examination Document REP8-154) and these concerns remain valid.

3.8 Road Drainage and Water Environment

3.8.1 Natural England notes the minor amendment to REAC reference RDWF033 in relation to the proposed discharge of treated surface water run-off from the southern construction compound into the Thames Estuary and Marshes Ramsar site and the underpinning South Thames Estuary and Marshes Site of Special Scientific Interest. Natural England has worked with the Applicant to agree the suite of chemical and biological parameters which the Environmental Permit will need to meet (as detailed within Habitats Regulations Assessment (Examination Document APP-488 and RDWF033). Given this agreement, Natural England has no comments to make in relation to this amendment.

3.9 Ancient woodland soil translocation

3.9.1 Natural England notes the amendments to REAC reference TB028 and welcomes the confirmation that ancient woodland soils will be undertaken in accordance with the CIRIA Habitat Translocation good practice guidance.

3.10 Outline Landscape and Ecology Management Plan

3.10.1 Having reviewed the amended outline Landscape and Ecology Management Plan (version 7.0) (Examination Document REP9-208), Natural England's previous advice and suggested amendments within our Deadline 8 response (Examination Document REP8-154) remain valid as they have not been incorporated.

3.11 Outline Landscape and Ecology Management Plan Appendix 1 – LEMP terms of reference

3.11.1 Natural England has reviewed the amended LEMP terms of reference (version 9.) (Examination Document REP9-210) and remain concerned regarding the dispute resolution measures (as detailed within item 2.1.2 of our Statement of Common Ground, Examination Document REP8-013). We also advised at Deadline 8 (Examination Document REP8-154) that the Terms of Reference should be updated to reflect the discussions Natural England held with the Applicant to ensure that the Advisory Group would agree the species/species groups and the monitoring protocols as part of the holistic indicators of success approach and suggested amended wording. These comments remain valid.

3.12 Design Principles

3.12.1 Having reviewed the updated Design Principles (version 7.0) (Examination Document REP9-228), Natural England has the following comments to make.

Brewers Road Green Bridge

3.12.2 Notwithstanding Natural England's longstanding advice that the design of the Brewers Road Green Bridge is unlikely to meet the Applicant's ecological and landscape objectives, Natural England welcomes the clarity provided within Clause S1.17 that vegetation will be planted on both the eastern and western side of the Bridge.

Thong Lane Green Bridge

3.12.3 Notwithstanding Natural England's longstanding advice that the design of the Thong Lane south Green Bridge is unlikely to meet the Applicant's ecological and landscape objectives, Natural England welcomes the clarity provided within Clause S2.12 that vegetation will be planted on both the eastern and western side of the Bridge.

3.13 Applicant's responses to Interested Parties' comments on the draft Development Consent Order at Deadline 8

3.13.1 Natural England welcomes the Applicant's clarification regarding the Tilbury Link Road, specifically that 'the Tilbury Link Road would be subject to its own environmental assessment, and its own route selection appraisal.' We therefore understand that the Lower Thames Crossing project will not constrain a Tilbury Link Road before such time as it has been consulted upon. Natural England's concern is that adequate consultation needs to have taken place before passive provision is made, such that the route alignment of a Tilbury Link Road can adequately take into account environmental concerns before the Lower Thames Crossing has, in any way, made adjustment for it. Our suggested drafted amendments have this outcome in mind.

3.14 Applicant's comments on Interested Parties' submissions at Deadline 8

3.14.1 Having reviewed the Applicant's response to Interested Parties' submissions at Deadline 8, Natural England has the following comments to make.

Indicators of success

3.14.2 Natural England notes the Applicant's response in relation to our concerns regarding the lack of a specific reference and commitment to include species/species groups as part of a holistic indicators of success approach (as implemented by the Applicant on other schemes such as the A21 Pembury to Tonbridge Dualling). Our advice remains that clearer wording and a stronger commitment should be provided. The Applicant's commitment to 'consideration of key species groups, where necessary' within Section 4.1.14 of the oLEMP does not provide sufficient certainty that a holistic indicators of success approach will be secured post consent. This is heightened by the lack of a requirement within the LEMP Advisory Group Terms of Reference for the Group to agree the species/species groups and the monitoring measures.

3.14.3 Natural England's advice therefore remains as detailed in our Deadline 8 response (Examination Document REP8-154) that, to overcome these concerns, we would seek the amended wording to the oLEMP and Advisory Groups Terms of Reference suggested in our Deadline 8 response being secured.

Design principles

3.14.4 Natural England notes the clarity provided by the Applicant in response to our comments on Clause S1.17 and S2.12 regarding the lack of clarity as to which side of the Thong Lane south and Brewers Road Green Bridges the planting would be placed. Notwithstanding Natural England's remaining concerns regarding the design and effectiveness of the Green Bridges in being effective in providing landscape scale connectivity for people and wildlife, Natural England welcomes the clarity provided within the amended wording for Clause S1.17 and S2.12 within the updated Design Principles (Examination Document REP9-228). These amendments address our concern in relation to the location of the planting.

Viewpoint S-03

3.14.5 Natural England notes the Applicant's response to our concerns regarding the Baseline Year 15 visualisation for Viewpoint S-03 which does not show the current (2023) height and effective screening of the industrial units at Park Pale. They state that it is not possible to provide an estimate of vegetation growth for Baseline Year 15. Given the sensitivity of Viewpoint S-03, Natural England's previous advice regarding the visualisation and assessment of impacts (as detailed within our Deadline 8 response, Examination Document REP8-154) remain. We remain concerned that the existing level and effectiveness of the screening of the industrial units at Park Pale is not reflected within the Applicant's visualisations and assessment. Given the Applicant's Winter Year 1 and Summer Year 15 visualisations (incorporating their planting) show growth rates, we consider that it would have been appropriate for a similar approach to have been taken for this viewpoint given its sensitivity and the significant change between the baseline photography in 2019 and the current (2023) situation.

Green Bridges

3.14.6 Natural England notes the Applicant's response to our concerns regarding the likely effectiveness of the Green Bridges in achieving their stated Design Principles. Our advice remains that they do not meet good practice guidance nor the Applicant's previous good practice design to provide landscape connectivity at Lamberhurst within the High Weald AONB. We have provided significant guidance on the design and nature of the Green Bridges to the Applicant during the pre-application and Examination stages. Natural England's advice remains that, for a scheme of this nature, which results in significant protected landscape and ecological impacts, Green Bridges which more closely align with the minimum width and width to length ratios within the various Good Practice Guidance documents referred to by the Applicant (Examination Documents REP4-329, REP4-330 and REP7-121) should be delivered.

Securing mechanisms

3.14.7 England's advice remains that the ambiguity within the various control documents and securing mechanisms does not provide a sufficient degree of certainty as to the ecological and landscape mitigation measures that will be delivered post consent. As detailed within our Deadline 8 response (Examination REP8-154), Natural England recommended, as a minimum, that the wording is amended to '~~significantly~~ in accordance with' and 'where ~~reasonably~~ practicable'; this advice remains.

Kent Downs Area of Outstanding Natural Beauty

3.14.8 Whilst Natural England notes the Applicant's agreement to a compensatory enhancement fund for residual impacts to the Kent Downs AONB, we consider that additional measures could have been provided by the Applicant to reduce the residual adverse landscape and visual impacts to the AONB. These were detailed in our Written Representation (Examination Document REP1-262) and whilst some progress has been made, our advice remains that additional measures could be delivered. These were summarised in our Deadline 8 response (Examination Document REP8-154) and we suggested amended wording to design principles within our Deadline 9 response (Examination Document REP9-292).

3.14.9 Given these unresolved matters, in our final Statement of Common Ground to be submitted by the Applicant at Deadline 9a, regrettably records Item 2.1.29 (Landscape Mitigation) as a 'matter not agreed'.

Sensitive breeding bird species

3.14.10

The Applicant places emphasis on the role of the environmental clerk of works to provide for more detailed guidance on sensitive periods for key species across the Project. Whilst Natural England welcomes the role of the environmental clerk of works in general, this role is described (in REAC Ref. TB006) as ensuring 'legislative compliance' which, for the species in question, extends to the protection against killing / injury, but would not (we understand) extend to avoiding the critical period for nest prospecting. We are looking for the Applicant - in the interests of a positive conservation outcome - to go beyond legal compliance, but ensure the species in question has every prospect of successful nesting. It remains our view therefore, that a specific REAC commitment is required to address the need for works to avoid (should the ExA determine that they outweigh the harm caused) the sensitive period, by undertaking them between September and December (inclusive) as proposed in our DL8 response.

3.15 Applicant's comments on Natural England's ExQ3 response

3.15.1 Natural England has provided comments to a number of the Applicant's responses to the third round of the Examiner's Questions (ExQ3) in our Deadline 9 response (Examination Document REP9-292) which we consider remain valid. We have some additional comments to make following the Applicant's comments on our response to ExQ3 (Examination Document REP8-155) and these are provided below.

LEMP Advisory Group Terms of Reference

3.15.2 In relation to the Applicant's response to our concerns detailed in our response to ExQ3 Q11.1.10 (the oLEMP Terms of Reference), these concerns remain as detailed in Section 3.11 of this letter.

Noise attenuation on the Green Bridges in the AONB

3.15.3 Natural England notes the Applicant’s comments in relation to our recommendation for additional mitigation, such as sympathetic integrated noise attenuation measures into the Green Bridges to reduce the impacts for recreational users within the Kent Downs AONB. Our advice remains that such measures would help reduce the impacts to receptors in the AONB.

Green Bridge design

3.15.4 Natural England has provided extensive, detailed advice on the design and likely effectiveness of the Green Bridges during both the pre-application and Examination stages of the Project. Our advice remains that, to be effective in meeting their ecological and landscape objectives, the design should much more closely align with the minimum width and width to length ratios recommended within Examination Documents REP4-329, REP4-330 and REP7-221. We have recommended strengthened wording in our Deadline 8 response (REP8-154) to help address these concerns and this remains valid.

4 Annex 4: Final Statement of Common Ground

4.1.1 Natural England has agreed a final Statement of Common Ground which we understand the Applicant will be submitting at Deadline 9a.

5 Annex 5: Principal Areas of Disagreement

5.1.1 As at previous Deadlines, Natural England's advice remains that our agreed Statement of Common Ground accurately details the areas of agreement and disagreement so we will not be providing a Principal Areas of Disagreement to the Examination.

6 Annex 6: Natural England response to the Procedural Decision 45, Rule 17 letter regarding 'The Wilderness'

6.1.1 Natural England is pleased to provide our response to the questions asked of us by the Examining Authority within the Procedural Decision 45 Rule 17 letter of the 8 December 2023 below.

6.2 Question A: NE is asked if 'The Wilderness' (identified as the area hatched in blue on the plan in Annex A) is currently designated as ancient woodland? Or is it still pending a designation decision? (By Deadline 9A on 15 December 2023.)

6.2.1 The southern section of The Wilderness (as previously identified) is ancient woodland. Please note that Natural England does not use the terms designation or designated with respect to ancient woodland, as this implies a legal underpinning, of which ancient woodland has none – rather it is a classification. The term 'designation' was used in our Deadline 7 submission (Examination Document REP7-215) of 17 November 2023 in error and we apologise for this mistake.

6.2.2 Natural England has decided to classify the southern section of the Wilderness as ancient woodland. The area should be treated as ancient woodland from the time of the decision (and communication thereof). The ancient woodland inventory database has been amended to add the southern section of The Wilderness to the ancient woodland layer and the remainder of the Wilderness has been added to the long-established woodland layer. The updated ancient woodland layer is due to be published (on MAGIC[2] and Defra's open data portal[3]) on 15 January 2024. The publication date for the long-established woodland layer has yet to be confirmed but is likely to be early in 2024. In our Deadline 7 submission, the sentence: 'The polygon will be split and the Wilderness added to the pending Ancient Woodland Update layer' was perhaps misleading – the word 'pending' simply referring to our pre-publication internal processes. These internal publishing processes are now complete, and the external publication is ready for the next update slot set to go live on 15 January 2024. Natural England advised the Examining Authority and the Applicant of the above decision in our Deadline 7 submission (Examination Document REP7-215), which set out the rationale and key evidence for the decision. The methodology for determining ancient woodland status is detailed in the published Ancient Woodland Inventory Handbook[4] (Examination Document REP4-355).

6.3 Question B: NE is asked to advise the ExA of the designation status of 'The Wilderness' in writing at Deadline 9A on 15 December 2023. Advice about a formal designation decision should be accompanied by a record of the designation decision. The designation process should be explained. If the site remains 'pending' designation, then the effect of that status and its policy consequences should also be set out.

2 https://magic.defra.gov.uk/
3 https://environment.data.gov.uk/
4 https://publications.naturalengland.org.uk/publication/4876500800634880

6.3.1 As mentioned above in response to Question A, the methodology for determining ancient woodland status is detailed within the Ancient Woodland Inventory Handbook (Examination Document REP4-355). The Handbook details explains the methodology used to determine if a woodland is ancient and includes the detailed methodology that is applied when map evidence is sparse within Section 6.1.2 (Constructing a chronology and assessing continuity from map data). The section entitled ‘Lack of depth in the map record’ on page 102 also provides helpful additional advice.

6.3.2 Natural England has included a copy of our decision-making report for The Wilderness within Appendix A (sent under separate cover) to this Deadline 9a response.

6.4 Question C. The Applicant may respond to material provided by NE at Deadline 9A at Deadline 10 on 20 December 2023

6.4.1 This question appears to be for the Applicant so Natural England has no comments to make in relation to Question C.

6.5 Question D. If the designation status of ‘The Wilderness’ has not changed by Deadline 9A, NE is requested to confirm the status of the Wilderness at the last available point in the Examination which is Deadline 10 on 20 December 2023.

6.5.1 As detailed in our response to Question A, The Wilderness has been classified as ancient woodland and has been added to the ancient woodland inventory database; we therefore do not consider there will be a need to provide further advice at Deadline 10.

HM Treasury

Llywodraeth Cymru
Welsh Government

GUIDE TO DEVELOPING THE PROJECT BUSINESS CASE

BETTER BUSINESS CASES:
for better outcomes

2018

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GUIDE TO DEVELOPING THE PROJECT BUSINESS CASE

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Contents

Foreword

Increasing demand for public services creates ever more pressure on the public resources available, increasing the need to make better use of these limited resources. The challenge to those preparing and advising on spending decisions has never been greater. In this context, it is vital that spending and investment decisions are based on highly competent professionally developed proposals. This best practice guidance from the Treasury and the Welsh government has been refined and tested over many years, and it provides a clear framework for thinking about spending proposals and a structured process for appraising, developing and planning to deliver best social value for money: all of which is captured through a well prepared business case to support objective, evidence based decisions.

This latest version of the best practice guidance is updated to maintain its alignment with the refreshed Green Book 2018. It provides a practical "step by step" guide to the development of business cases, using the Five Case Model – in a scalable and proportionate way. It recognises and aligns with other best practice in procurement and the delivery of programmes and projects. Experience has demonstrated that when this guidance is embedded in public sector organisations, better more effective and efficient spending decisions and implementation plans are produced. At the same time the approach when correctly understood and applied provides a more efficient planning and approval process saving between 30% and 40% in time taken and cost of production of business cases compared with unstructured approaches.

The guide provides a framework for thinking and a process for developing and gaining approval which is flexible and scalable as well as a range of tools that can be applied proportionately to provide clarity in the decision support process. It also provides a clear audit trail for purposes of public accountability.

All centrally funded public spending proposals including those subject only to approval by UK Departments or other centrally funded organisations are required to use this approach and the five case model method, as are major programmes and projects considered by the Treasury and Cabinet Office. Colleagues with responsibility for developing proposals should be professionally trained and accredited through the better business cases programme established in 2013.

Since the beginning of 2014 training in a correct understanding and use of the method has been widely available. Links to access training can be found on the same GOV.UK web page as this guide and on the Welsh government web pages. We are therefore very pleased to recommend the use of this guidance and the approved training and accreditation to all who are concerned with delivering best social value for money from decisions on the use of public resources.

Tom Scholar
Permanent Secretary HM Treasury

Shan Morgan
Permanent Secretary Welsh Government

Editor's Note

This Green Book methodology brings together the Green Book approach to appraising public value with the Cabinet Office, Infrastructure and Projects Authority (IPA) project assurance, and the latest commercial standards and procurement methodologies from the Crown Commercial Service (CCS). It also supports Treasury spending scrutiny and approval processes. It is best practice methodology and should be used by those responsible for using public resources in developing proposals to scope, analyse, plan, procure and manage delivery to achieve best value.

This refreshed edition of the guidance is an updated version of the 2013 edition reflecting the updated Green Book published in March 2018 Programme and Project guidance is published in two separate guides to allow greater clarification of the how the model should be applied in practice when thinking about these two different but related activities.

For some years, in addition to the UK and Welsh governments the New Zealand Treasury and the States of Guernsey have used the guidance tailored to meet the needs of their processes and governance. Since 2014 there has been a growth in international interest in both the guidance and the professional accreditation scheme and use of the scheme by governments around the world, international NGOs' and private companies has been growing. The five principles adopted by the G20 in 2018 for the preparation of infrastructure schemes nationally and regionally are the central pillars of the five case mode. To support the international process of professional accreditation and examinations new international editions of the guidance have also been produced and are available separately to these UK versions.

Thanks are due to Joe Flanagan for origination of the five case model and authorship of the guidance, with whom I have been privileged to work on both this publication and the Better Business Cases accreditation and training programme. This programme, jointly run by the Treasury and the Welsh Government, recognises that guidance is necessary but alone is not sufficient to ensure best use of resources. Training and professional accreditation is now widely available, and more information is available at this link. Accreditation is now expected of to all who work in developing practical best value proposals for delivery of public services using the five case model.

Others who have made contributions to the development of the guidance over the years and to whom thanks are also, due include: Simon Brindle; Paul Nicholls; Dr Courtney Smith; Stefan Sanchez; Phil Saw; The Health Finance Management Association (HFMA); Barry Williams and to many other colleagues in HM. Treasury and across the UK civil service whose experience contributed to development of this supplementary Green Book Guidance.

Joseph Lowe
Editor of the Green Book
HM Treasury 2018

1 Introduction

A project management approach is essential for the delivery of a set of related products and activities, in order to ensure effective management, benefits realisation and Value for Money (VfM).

This guidance has been prepared to assist:

- Senior managers and executives responsible for designing, delivering and approving projects, including Senior Responsible Owners (SROs), project directors, project managers and business case practitioners and reviewers.

It will also be of interest to:

- members of Senior Management Boards with responsibility for approving business cases; and
- directors of Finance, Planning and Procurement and others with responsibility for operational aspects of the project.

What is a project?

A project is a temporary organisation that is needed to produce a specific predefined outcome or result at a pre-specified time using predetermined resources.

The *Managing Successful Projects with PRINCE2* guidance defines a project as 'a management environment that is created for the purpose of delivering one or more business products according to a specified business case'.

Most projects have the following characteristics:

- a defined and finite life cycle
- clear and measurable inputs and outputs
- a corresponding set of activities and plans
- a defined amount of resource, and
- an organisational structure for governance and delivery.

How does a project align with the strategic planning process?

A project can be a major undertaking for most organisations, involving significant funding and change for the parties involved.

Figure 1 shows a typical environment for project management.

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

Organisations' implementation strategies consist of strategic portfolios that scope, define and prioritise the programmes needed to deliver the agreed change, anticipated outcomes and resultant benefits.

These programmes initiate, align and monitor the projects and related activities required to deliver the agreed outputs. These outputs may consist of new products and services, new processes and service capabilities, or changes to business operations. But it is not until the projects deliver and implement the required outputs into business operations to achieve the outcomes that the full benefits of the programme can be realised.

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

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

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

The Project Business Case is important because projects will only deliver their intended outputs and benefits if they are properly scoped, planned and cost justified from the outset.

Preparing a Project Business Case using the five case model provides decision makers and stakeholders with a proven framework for structured 'thinking' and assurance that the project:

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

  This dimension of the five cases focuses on business planning and is the 'strategic case' section within the Project Business Case.

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

  This dimension of the five cases focuses on options appraisal and the identification of the preferred option and is the 'economic case' section within the Project Business Case.

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

  This dimension of the five cases focuses on the development and procurement of the potential Deal and is the 'commercial case' section within the Project Business Case.

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

  This dimension of the five cases focuses on the whole life costs of the proposed Deal and is the 'financial case' section within the Project Business Case.

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

  This dimension of the five cases focuses on the implementation arrangements for the proposal and is the 'management case' section within the Project Business Case.

What are the advantages of the Project Business Case?

A well prepared Project Business Case:

- enables the organisation and its key stakeholders to understand, influence and shape the project's scope and direction early on in the planning process
- assists decision makers to understand the key issues, the available evidence base and to avoid committing resources to schemes that should not proceed
- demonstrates to senior management, stakeholders, customers and decision makers the continuing viability of the project, and
- provides the basis for management, monitoring and evaluation during and after implementation.

When should the Project Business Case be developed?

A Project Business Case is recommended best practice and should be prepared following the approval of senior management to the organisational strategy, mandate and brief for the project.

The organisational strategy provides the context for the project and is important because experience shows that a proposal begins most effectively when it is launched as part of a clear organisational strategy.

The project mandate provides the trigger and context at the start of the project. The project brief develops the concept for the scheme and provides an initial assessment of the viability and achievability of the proposal, prior to formally developing the Project Business Case.

The project mandate and brief should be prepared in accordance with a recommended project management methodology and are dependent upon the organisation's top management team having defined and agreed the policies and business strategies for the organisation, including high level strategies for sourcing and service delivery and the prioritisation of new and existing work.

The Project Business Case is a working document which must be developed and revisited over the duration of the scheme.

Developing a Project Business Case applies to all types of projects and requires trained people who have the capabilities and competencies to undertake the tasks involved.

What is Project Assurance?

Project assurance provides independent and impartial confirmation that the project or any one of its activities is on track. It also confirms that the project is applying relevant practices and procedures and that the business rationale for the scheme remains aligned with the organisational strategy.

Experience demonstrates that there is significantly added value in an organisation subjecting its projects to rigorous assurance, since the effort and resources saved by refocusing or cancelling a project that is no longer needed far outweighs its continued cost.

Projects may be subject to one or more of the following assurance reviews:

- The Project Validation Review
- Project Assessment Reviews (PARs)
- Cabinet Office Gateway Reviews

The Project Validation Review

This is a short independent peer assessment that takes place at the early stages of the policy-to-delivery lifecycle for projects.

The review provides organisations early on in the planning process with assurance on how well the practical service delivery issues are being addressed in preparing for change through project delivery.

Project Assessment Reviews (PARs)

These are complementary to Gateway reviews but more specific and in-depth in nature.

Working in collaboration with the project team, PARs provide assurance that the project's scoping and delivery options are being planned in line with national strategies and policies to achieve optimal public value at affordable cost.

Cabinet Office Gateway Reviews

The Cabinet Office Gateway Review process examines programmes and projects at key decision points in their delivery lifecycle and provides assurance that they can progress successfully to the next stage.

These reviews apply to a wide range of programmes and projects, including:

- policy development and implementation

- organisational change and other change initiatives
- acquisition programmes and projects
- property/construction developments
- IT-enabled business change
- procurement using or establishing framework arrangements.

The key review points are as follows:

- Gateway 0 – 'Strategic Assessments' on an ongoing assurance of programmes at the start, delivery and closing stages.

And for projects:

- Gateway 1 – 'Business Justification' prior the detailed planning phase.
- Gateway 2 – 'Delivery Strategy' prior to the procurement phase.
- Gateway 3 – 'Investment Decision' prior to contract signature.
- Gateway 4 – 'Readiness for Service' prior to 'going live' and implementation of the scheme.
- Gateway 5 – 'Operational Review and Benefits Realisation' following delivery of the project, establishment and/or decommissioning of the service.

Risk Profile Assessment

A risk profile assessment should be undertaken prior to developing the Project Business Case. This assesses the project's potential impact against a continuum of very high, high, medium and low risk that indicates how Gateway Reviews should be resourced and conducted.

2 An Overview of the Five Case Model

Introduction

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

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

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

The Strategic Case

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

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

Making a robust case for change requires a clear understanding of the rationale, drivers and objectives for the spending proposal, which must be made SMART – Specific, Measurable, Achievable, Relevant and Time constrained – for the purposes of post-evaluation.

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

The challenges are:

- to explain how further intervention and spend on key ‘inputs’ will deliver ‘outputs’ that improve the organisation’s capability to deliver better outcomes and benefits to stakeholders and customers, while recognising the associated risks
- to ensure the organisation’s proposals focus on business needs that have been well researched and are supported by service demand and capacity planning
- to ensure schemes are planned and delivered as part of an approved organisational strategy that has a well defined portfolio of related programmes and projects.

Box 1: Contents of the Strategic Case

Strategic Context
Organisational overview
Business strategy and aims
Other relevant strategies

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

The Economic Case

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

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

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

The challenges are:

- ☐ to begin by selecting the 'right' options for scope, solution, service delivery, implementation and funding, otherwise options will represent sub-optimal Value for Money (VfM) from the outset
- ☐ to justify higher cost options in relation to BAU and the 'do minimum'
- ☐ to measure and monetise the benefits and risks.

Box 2: Contents of the Economic Case

Critical Success factors

Long-listed options
Preferred Way Forward

Shortlisted options (including the "Business As Usual (BAU)" and 'do minimum')
NPSC/NPSV findings
Benefits appraisal
Risk assessment
Sensitivity analysis
Preferred option

The Commercial Case

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

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

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

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

Box 3: Contents of the Commercial Case

Procurement strategy and route

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

The Financial Case

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

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

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

Box 4: Contents of the Financial Case

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

The Management Case

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

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

The challenges are:

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

Box 5: Contents of the Management Case

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

3 The Business Case Development Process

Introduction

This chapter provides an overview of the business case development process for large, medium and small spending proposals using the Five Case Model.

It also explains how the business case development process aligns with the Cabinet Office Gateway Review process for the assurance of programmes and projects.

The business case for significant spending proposals is developed in three key stages as follows:

Determining the strategic context for the project

Stage 1 – **Scoping the scheme and preparing the Strategic Outline Case (SOC)**

Stage 2 – **Planning the scheme and preparing the Outline Business Case (OBC)**

Stage 3 – **Procuring the solution and preparing the Full Business Case (FBC)**

Implementation and monitoring throughout the project

Evaluation and feedback

The Business Case Development Framework

For large and medium scale public sector spending proposals that are required to be procured competitively in accordance with the appropriate procurement legislation, the above stages involve 10 key steps, as described below.

The process is practical, because it is based on many years experience of successful delivery across a wide range of public sector spending proposals.

The process is iterative, because as the business case develops earlier work is revisited to verify its continued applicability.

The process is flexible, because the quality and quantity of supporting analysis can be tailored to the size and complexity of the project under development.

The business case development stages and related Cabinet Office Gateway Review points are as follows:

Box: The business case development framework

Determining the strategic context and undertaking the Strategic Assessment
Step 1: determining the strategic context
Gateway 0: strategic assessment

Stage 1 – Scoping the scheme and preparing the Strategic Outline Case (SOC)
Step 2: making the case for change
Step 3: exploring the preferred way forward
Gateway 1: business justification

Stage 2 – Planning the scheme and preparing the Outline Business Case (OBC)
Step 4: determining potential Value for Money (VfM)
Step 5: preparing for the potential Deal
Step 6: ascertaining affordability and funding requirement
Step 7: planning for successful delivery
Gateway 2: delivery strategy

Stage 3 – Procuring the solution and preparing the Full Business Case (FBC)
Step 8: procuring the VfM solution
Step 9: contracting for the Deal
Step 10: ensuring successful delivery
Gateway 3: investment decision

Implementation and monitoring
Gateway 4: readiness for service

Evaluation and feedback
Gateway 5: operations review and benefits realisation

Determining the strategic context and undertaking the Strategic Assessment

This is the strategic planning phase of the spending proposal, which confirms that the project is strategically aligned.

The purpose of this stage is to assess the strategic context for the project and to demonstrate how it provides synergy and holistic fit with other programmes and projects within the strategic portfolio in support of the organisation's business strategy.

This stage aligns with Cabinet Office Gate Review point 0 (strategic assessment) and comprises of the following business case development activity:

Step 1: determining the strategic context

Early indications that the project is still needed and approved in principle are:

- the successful completion of a Cabinet Office Project Validation Review for the scheme
- the existence of an up-to-date and approved organisational strategy and supporting portfolio of which the project is a part
- the completion of feasibility and full studies
- the existence of an approved Programme Business Case, where the project is not stand-alone and forms part of the programme.

Consideration should be given to the preparation of a Programme Business Case (if this has not been prepared for the programme) of which the project forms an integral part.

Stage 1 – Scoping the scheme and preparing the Strategic Outline Case (SOC)

This is the scoping phase for the project, which results in the production of the Strategic Outline Case (SOC).

The purpose of this stage is to reaffirm the strategic context for the project, because this may have changed if some time has elapsed since the strategic assessment was undertaken; to make the case for change and to determine 'the preferred way forward'.

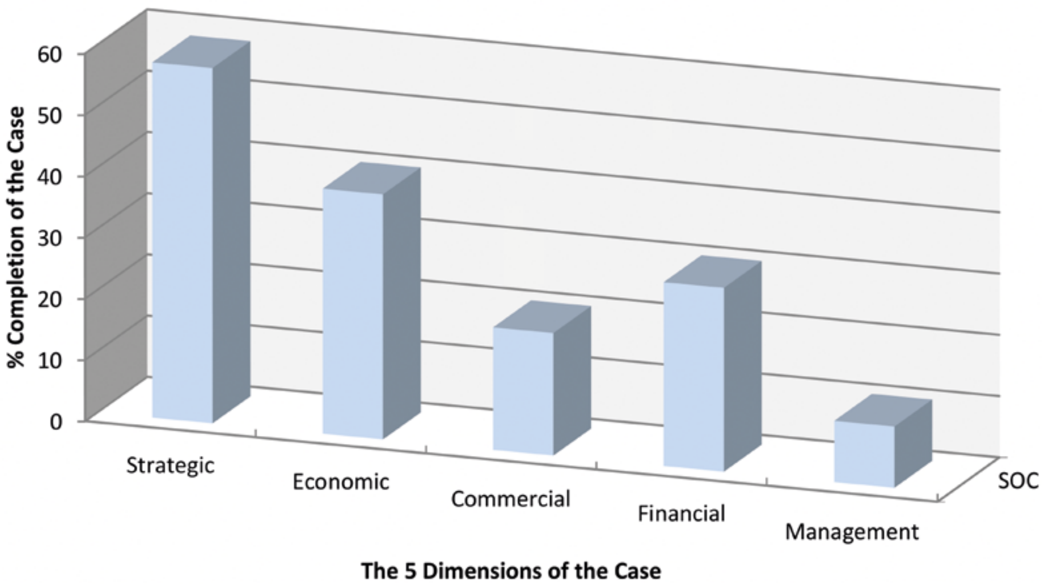
Identifying the preferred way forward is achieved in two stages: first, by appraising a wide range of possible options ('the long-list'") against the spending objectives and critical success factors for the project; and second, by calculating the indicative Net present social values of a reduced number of possible options ('the short-list') on the basis of a preliminary analysis of their costs and benefits, including optimism bias for uncertainty.

This stage aligns with the Cabinet Office Gateway Review point 1 (business justification) and comprises of the following business case development activities:

Step 2: making the case for change

Step 3: exploring the preferred way forward.

At the conclusion of the SOC, senior management and stakeholders will have a good understanding of the robustness of the proposal and the future direction of travel, and the business case across the five dimensions of the Five Case Model will have been completed as illustrated below.



Stage 2 – Planning the scheme and preparing the Outline Business Case (OBC)

This is the planning phase for the project, which results in the production of the Outline Business Case (OBC).

The purpose of this stage is to revisit the options identified in the SOC, to identify the option which optimises public value ('the preferred option') following more detailed appraisal; and to set out the possible Deal while confirming affordability and putting in place the management arrangements for the successful delivery of the project.

This stage aligns with the Cabinet Office Gateway Review point 2 (delivery strategy) and comprises of the following business case development activities:

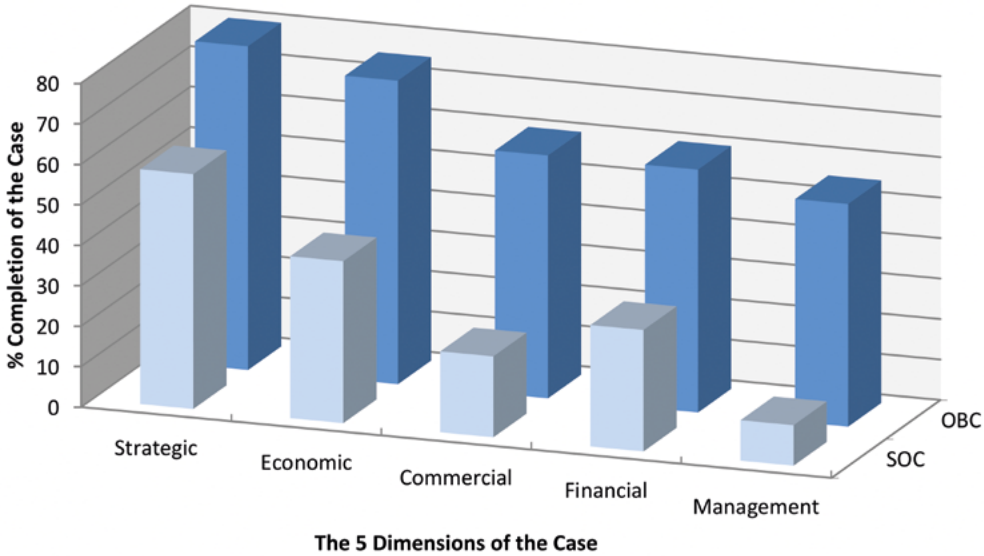
Step 4: determining potential VfM

Step 5: preparing for the potential Deal

Step 6: ascertaining affordability and funding requirement

Step 7: planning for successful delivery

At conclusion of the OBC, senior management should be in position to consent to the procurement phase of the project and the business case across the five dimensions of the Five Case Model will have been completed as illustrated below.



Stage 3 – Procuring the solution and preparing the Full Business Case (FBC)

This is the procurement phase for the project, which results in the Full Business Case (FBC), following negotiations with potential service providers prior to the formal signing of the contract(s).

The purpose of the FBC is to record the findings of the procurement phase and to identify the option that offers the 'most economically advantageous tender' (MEAT) and best public value. In addition, the FBC records the contractual arrangements, confirms affordability and puts in place the agreed management arrangements for the delivery, monitoring and post-evaluation of the project.

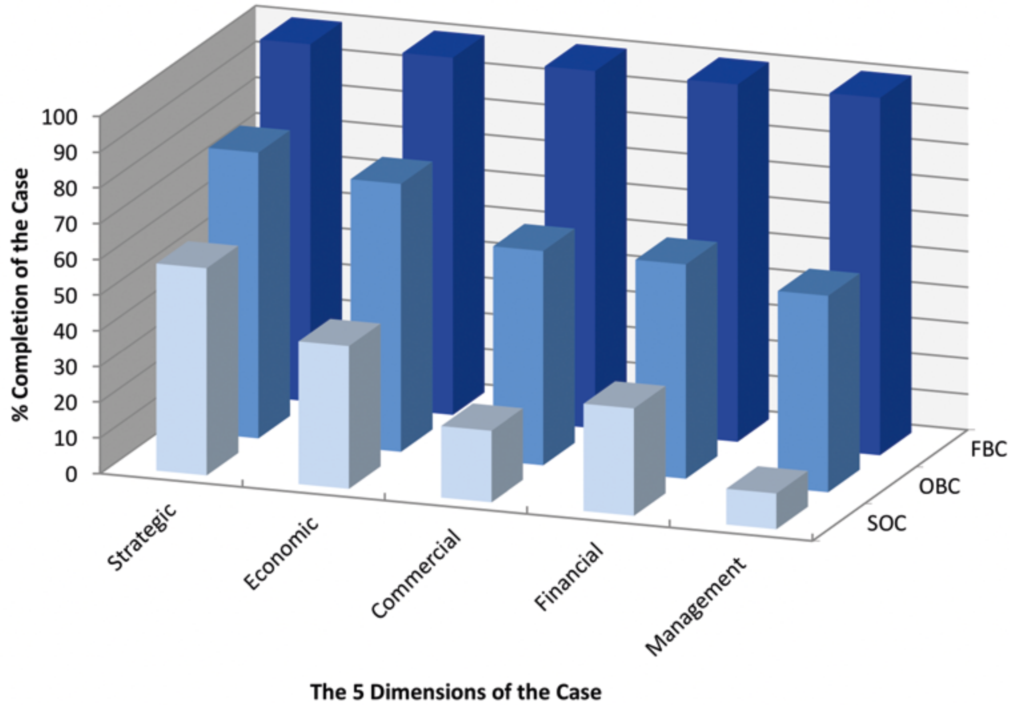
This stage aligns with the Cabinet Office Gateway Review point 3 (investment decision) and comprises of the following business case development activities:

Step 8: procuring the VfM solution.

Step 9: contracting for the Deal.

Step 10: planning for successful delivery.

At conclusion of the FBC, the development of the business case across the five dimensions of the Five Case Model will have been completed as illustrated below.



The stages for the development of the business case have now been completed. The business case continues to play an important role as follows.

Implementation and monitoring

The business case should be used as a reference point for logging any material changes that are required by the procuring authority or the service supplier in respect of services and products.

The management tools developed in support of the project business case should be used to deliver and monitor progress and provide the basis for regular reports to the Project Board. This includes use of the project implementation plan, and benefit and risk registers.

This stage of the project aligns with Cabinet Office Gateway Review point 4 (readiness for service).

Evaluation and feedback

The business case and its supporting products should be used for post evaluation. This includes the Project Implementation Review (PIR) for assessing how well the project was delivered and lessons learnt, and the Post-evaluation Review (PER) for evaluating the extent to which the anticipated benefits were delivered.

This stage of the project aligns with Cabinet Office Gateway Review point 5 (operations review and benefits realisation).

Other interested parties

From a wider perspective, the project business case may also be of interest to Internal Audit, the National Audit Office (NAO) and the general public under the Public Records and Freedom of Information Acts.

Smaller Schemes and the Business Justification Case (BJC)

The Business Justification Case (BJC) is a 'lighter', single stage business case that is available for the support of smaller, less expensive spending proposals that are not novel or contentious and for which 'firm' prices are available from a pre-competed arrangement, including framework contracts negotiated in accordance with EU/WTO rules and regulations.

Responsibility for producing the business case

The responsibility for developing the project and producing the business case must be retained by the organisation and 'owned' by the senior responsible owner (SRO) in the case of significant schemes.

External consultants provide invaluable assistance where the requisite skills and resources are unavailable in- house, particularly with the facilitation of supporting workshops.

Business Case template

Templates are available for the development of the business case using the three-stage process (SOC, OBC and FBC) and the single-stage process (BJC).

These may be found on the HM Treasury Green Book web pages at:
http://www.hm-treasury.gov.uk/d/greenbook- toolkittemplates170707.pdf.

In conclusion, the business case development process is a 'thinking' exercise which results in a well scoped and planned project supported by a document that provides 'the repository for the evidence base' in support of good decision making.

Preparing a business case must never be approached as a 'writing' exercise and a hurdle to jump for approval purposes and its use should be considered regardless of the need for external approval.

4 Determining the Strategic Context and undertaking the Strategic Assessment

Introduction

The purpose of the strategic assessment is to determine the strategic context for the project, and how the project aligns with other projects and programmes within the organisation's business strategy.

A project begins most effectively when it is launched in the context of a clear business strategy, which explains:

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

All organisational strategies must be reviewed on a regular basis and in advance of a new programme or project in order to verify continued fit and synergy with the organisation's overarching policies and other programmes and projects within the strategic portfolio.

Step 1: Determining the Strategic Context

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

Undertake a strategic assessment to confirm how the project:

- supports national, regional, local or organisational policies, initiatives and targets
- fits within the organisation's business strategy and plans for the achievement of these goals, and
- aligns with other projects and programmes in the organisation's strategic portfolio.

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

- a clear understanding of the critical path for the delivery of the programmes and projects within the strategic portfolio: anticipated outcomes, outputs, milestones, timescales, benefits and risks
- validating that the programmes and projects within the strategic portfolio are well structured, organised and funded; and that the required governance, standards, resources, competencies and capabilities are in place for successful delivery, and

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

Related activities

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

- Undertaking a review of organisational policies and strategies and further research prior to the commencement of the project, if this is required.
- The completion of a mandate and brief for the project, using a recognised project management methodology.
- The completion of a Cabinet Office Risk Profile Assessment (RPA) for the intended project.
- A workshop for undertaking the strategic assessment, consisting of the senior responsible owner (SRO), key stakeholders, members of the senior management team and other personnel with the required business, technical and user input.

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

- The completion of a Gateway Review 0 (Strategic Assessment), if the project is part of an ongoing programme, to validate the findings of the Strategic Assessment undertaken by the in-house team and workshop.
- The completion of a scoping document for the potential coverage and technical content of the project business case - which can then be shared with the approving authority, in order to make the most appropriate use of the guidance and assist early approval of the programme.

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

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

Checklist for Step 1

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

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

5 Scoping the proposal and preparing the Strategic Outline Case (SOC)

Introduction

Scoping the proposal and preparing the Strategic Outline Case (SOC) is the first stage in developing the project business case for a significant scheme using the Five Case Model.

The purpose of the SOC is to establish the case for change and to provide a preferred way forward for senior management's approval prior to going onto the more detailed planning stage.

Completing the strategic case section of the SOC requires the following:

Step 2: Making the case for change

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

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

Action 2: Agree strategic context

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

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

Organisation Overview

Provide a brief overview of the organisation.

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

The key areas to focus upon include:

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

- The range of services presently being provided, including key customers, service levels, current demand and annual turnover.
- The organisational structure, including staffing and governance arrangements.
- The organisation's existing financial position, including funding streams and levels of spend.

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

Alignment to existing policies and strategies

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

This section should explain:

- all relevant international, national, regional, sector and local policies, initiatives and targets, as required, and focus on those which are most relevant to the project
- how the organisation's policies, strategies and work projects support these policies, as required
- the relationship between the proposed project and other programmes and projects within the organisation's strategic portfolio, including relevant milestones and timescales on the critical path for delivery.

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

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

Action 3: Determine spending objectives, existing arrangements and business needs

A robust case for change requires a clear understanding of:

- What the organisation is seeking to achieve (the investment or spending objectives).
- What is currently happening (existing arrangements).
- What is required to close the gap between where we are now (existing arrangements) and where we need to be in the future (business needs).

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

Determining spending objectives

Specify spending objectives for the project that focus on the rationale and drivers for further intervention and the key outcomes and benefits we are seeking to achieve in support of the organisation's business strategy.

Setting robust spending or investment objectives is essential in terms of making a coherent case for change. They describe clearly what the organisation is seeking to achieve in terms of targeted outcomes and provide the basis for post evaluation. So the key question to answer is '"why are we undertaking this project?'.

The project's spending objectives should be:

- Aligned with the underlying policies, strategies and business plans of the organisation and be bound by the strategic context for the project
- SMART – Specific, Measurable, Achievable, Relevant, and Time-constrained – to facilitate options appraisal and post evaluation
- customer-focused and distinguishable from the means of provision, so focus is on what needs to be achieved rather than the potential solution
- not be so narrowly defined as to preclude important options, nor so broadly defined as to cause unrealistic options to be considered at the options appraisal stage
- focused on the vital outcomes, since a single or large number of objectives can undermine the clarity and focus of the project.

The setting of clear, concise and meaningful SMART spending objectives is an iterative process and will depend upon the nature and focus of the project.

The project's spending objectives will typically address one or more of the following five generic drivers for intervention and spend. These are:

- To improve the quality of public services in terms of the delivery of agreed outcomes **(effectiveness)**. For example, by meeting new policy changes and operational targets.
- To improve the delivery of public services in terms of outputs **(efficiency)**. For example, by improving the throughput of services whilst reducing unit costs.
- To reduce the cost of public services in terms of the required inputs **(economy)**. For example, through 'invest to save' schemes and spend on innovative technologies.
- To meet statutory, regulatory or organisational requirements and accepted best practice **(compliance)**. For example, new health and safety legislation or building standards.
- To re-procure services in order to avert service failure **(replacement)**. For example, at the end of a service contract or when an enabling asset is no longer fit for purpose.

Procuring assets and infrastructure is rarely a spending objective in itself, because it is what the organisation is seeking to achieve through the use of these resources in terms of identifiable and measurable social, economic and environmental outcomes that constitute social value and Value for Money for the related spend.

Determining existing arrangements

Set out the existing arrangements for the service explaining:

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

Providing a clear picture of the organisation's current service model and existing arrangements provides an evidential base against which to challenge current perceptions of what the difficulties are, and the baseline from which to measure future improvements.

Any critique of the difficulties associated with existing arrangements should be provided in conjunction with 'business needs' in order to avoid blurring the clarity of the evidential base.

Identifying business needs

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

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

Specifying the business needs and drivers for the project helps to identify the potential scope for the project, and to ensure that it is predicated on operational needs rather than potential benefits. This analysis should take service demand and capacity planning into consideration and include:

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

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

FIG:

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

Action 4: Determine potential business scope and key service requirements

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

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

- the 'core' coverage and services required represent the 'essential' changes without which the project will not be judged a success
- the 'desirable' coverage and services required represent the 'additional' changes which the project can potentially justify on a cost/benefit and thus Value for Money basis
- the 'optional' coverage and services required represent the 'possible' changes which the project can potentially justify on a marginal low cost and affordability basis.

This will assist in avoiding 'scope creep' during the options appraisal stage of the project.

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

Table:

Range	Core	Desirable	Optional
Potential scope			
Key service requirements			

Action 5: Determine benefits, risks, constraints and dependencies

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

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

Identifying the main benefits

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

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

The approach to benefits identification and measurement should be prudent, proportionate and appropriate.

At this stage in the development of the project business case, focus on the 20% of the benefits which are likely to provide 80% of the project's benefit value.

Benefit category and beneficiary

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

Consider the spending objectives for the project and linking targeted outcomes from the project to the beneficiaries ; because understanding to whom the benefits will be of value is the key to identifying benefits and not confusing them with outcomes.

Benefits in the appraisal of social value

These are:

- Direct public sector benefits (to originating organisation):
  - cash releasing benefits (CRB)
  - monetisable non-cash releasing benefits (non-CRB)
  - quantifiable but not readily monetisable benefits (QB)
  - qualitative but not readily quantifiable benefits (Qual).
- Indirect public sector benefits (to other public sector organisation):
  - cash releasing benefits (CR)
  - monetisable non-cash releasing benefits (non-CRB)
  - quantifiable but not readily monetisable benefit (QB)
  - qualitative but not readily quantifiable benefits (Qual).
- Wider benefits to UK society (e.g. households, individuals, businesses)
  - monetisable, including cash benefits
  - quantifiable but not readily monetisable benefits
  - qualitative but not readily quantifiable benefits.

Examples of the different classes of benefits are:

Benefit Classification	Example
Cash releasing (CRB)	Reductions in operating cost Increases in revenue stream
Non-cash releasing (non- CRB)	Re-deployment of existing resources, including staff and infrastructure onto other business Improved efficiency
Quantifiable (QB)	Improved social outcomes Improved retention of trained staff Customer satisfaction
Qualitative (Qual)	Widening the cultural appreciation of school children

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

In principle, all benefits are measurable and monetisable. The issue is the extent to which it is practical and proportionate to do so given the evidence base and associated costs. This should be agreed between the project and the approving authority prior to preparing the project business case. The scoping document should be used for this purpose.

Identify the main risks

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

Risk is the possibility of a 'negative' event occurring, adversely impacting on the project. At this stage in the development of the project business case, focus on the 20% of the risks which are likely to provide 80% of the project's risk values.

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

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

Risk categories	Description
Business risks	These risks remain with the organisation (100%), cannot be transferred by the organisation and include political and reputational risks.
Service risks	These associated risks fall within the design, build, financing and operational phases of the project and may be shared with the others from outside of the organisation.
External risks	These non-systemic risks affect all society and are not connected directly with the proposal. They are inherently unpredictable and random in nature. They include technological disruption, legislation, general inflation and catastrophic risks.

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

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

Identify the constraints

Specify any constraints that have been placed on the project.

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

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

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

Identifying the dependencies

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

These should include:

- ☐ Inter-dependencies between other programmes and projects.

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

- ☐ External dependencies outside the project environment.

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

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

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

Workshop 1 – Case for Change

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

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

Workshop 1	**Determining the Case for Change**
Objectives	☐ To identify and agree spending objectives, existing arrangements, business needs, and potential scope for the project. ☐ To identify the key service requirements for the project, related benefits and risks, constraints and inter-dependencies.
Key participants	☐ Senior Responsible Owner. ☐ Board Members. ☐ Project Director. ☐ Project Manager and team members. ☐ External stakeholders and commissioners. ☐ Customer and/or user representatives. ☐ Technical adviser(s). ☐ Financial adviser(s). ☐ Facilitator.
Outputs	☐ SMART spending objectives. ☐ Business needs and potential scope for the project. ☐ Key benefits and risks, constraints and dependencies.

Checklist for Step 2

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

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

Output from Step 2

The strategic case section of the Strategic Outline Case (SOC) has been completed and must be kept under review.

Step 3: Exploring the preferred way forward

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

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

It should be noted that the 'preferred way forward' for the project emerges from the appraisal of the long-list (Step 3) and the 'preferred option' for the project from the appraisal of the short-list (Step 4).

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

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

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

Action 6: Agree critical success factors for the project

Identify and agree the CSFs for the project.

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

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

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

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

Action 7: Determine the long-list options and undertake SWOT analysis

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

Provide a full description of each option, together with an assessment of its Strengths, Weaknesses, Opportunities and Threats (SWOT analysis) and a conclusion in terms of how well it meets the spending objectives and critical success factors agreed for the project.

Identifying options

A wide range of realistic and possible options for the delivery of the project must be identified. This is known as 'the long-list'.

The long-list must include an option that provides the baseline for measuring improvement and Value for Money. This option is known as 'Business As Usual (BAU)'. It must also include a realistic 'do minimum' based on the core functionality and essential requirements for the project.

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

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

When identifying options for the project consider:

- researching existing reports and consulting widely with practitioners and experts to gather the set of data and information relevant to the objectives and scope of the problem
- analysing the data to understand significant dependencies, priorities, incentives and other drivers
- identifying best practice solutions from the research, including international examples, if appropriate
- the full range of issues likely to affect the spending objectives
- the full range of policy instruments or projects that may be used to meet the project's objectives. This may span different sorts or scales of intervention; regulatory (or deregulatory) solutions may be compared with self-regulatory, spending or tax options
- radical options. These may not become part of the formal appraisal but can be helpful to test the parameters of feasible solutions. Well-run brainstorming sessions can help to generate such ideas
- undertaking a feasibility study
- use of the Options Framework in accordance with the HM Treasury Green Book.

The Options Framework

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

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

The framework considers the creation of options as a series of choices to be made in sequence. 'Why' provides the rationale for intervention and the potential scope for change. Once the potential scope for the scheme has been agreed, the next stage is to identify and appraise the choices to be made in relation to the 'what', 'where', 'how', 'who', 'when' and 'funding'.

The Options Framework identifies and filters these choices for the operational scope, service solutions, service delivery vehicles, implementation timeframes and funding mechanism for the project.

Key dimensions	Description
Scope	The 'what', in terms of the potential coverage of the project. Potential scopes are driven by business needs, service requirements and the scale of organisational change required to improve service capabilities. Examples include coverage in terms of: business functions, levels of service, geography, population, user base and other parts of the business.
Service solution	The 'how' in terms of delivering the 'preferred' scope for the project. Potential service solutions are driven by available technologies, recognised best practice and what the market place can deliver. These solutions provide the potential **'products'** (inputs and outputs) and as such the enabling work streams and key activities required.

Key dimensions	Description
Service delivery	The 'who' in terms of delivering the 'preferred' scope and service solution for the project. Potential options for service delivery are driven by resources, competencies and capabilities – both internal and external to the organisation. Examples include: in-house provision, outsourcing, alliances and strategic partners.
Service implementation	The 'when' in terms of delivering the 'preferred' scope, solution and service delivery arrangements for the project. Potential implementation options are driven by deadlines, milestones, dependencies (between outputs), economies of scale, benefit realisation and risk management. The optimal option provides the critical path for delivery of the agreed products and activities and the basis for the project plan. Options for implementation include: piloting, modular delivery, big bang and phasing (tranches).
Funding	The 'funding' required for delivering the 'preferred' scope, solution, service delivery and implementation path for the project. Potential funding options are driven by the availability and opportunity cost of public funding, Value for Money and the characteristics of the project. Potential funding options include the public or private capital, the generation of alternative revenue streams, operating and financial leases, and mixed market arrangements.

Using the Options Framework to identify the long-list

The Options Framework should be used as follows:

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

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

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

4. **Identify potential 'scopes'** for the coverage of the project, ranging from business as usual (BAU), through to the 'do minimum', and 'do maximum' and intermediate options.

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

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

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

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

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

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

Project scopes that are more ambitious than the 'do minimum' must be justified on their potential for optimising benefits in relation to costs.

Consider numbering the options and colour coding the results.

A short case study has been prepared to illustrate the use of the Options Framework for filtering choices – please note that this is not exhaustive.

Case study: for a highways project in a developing country where the spending objective is to improve the road infrastructure in order to stimulate economic development and growth.

The workshop identified options for the potential scope and coverage of the project by the number of major cities which could benefit and appraised them as follows:

Project	Business As Usual (BAU)	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
1.Service scope – as outlined in strategic case	1.0 All Cities	1.1 Linking Cities A and B	1.2. Linking Cities A, B and C	1.3 Linking Cities A, B, C and D	1.4 Linking All Cities, A, B, C, D and E
	Carried forward	Carried forward	Preferred Way Forward	Carried forward	Discounted

5. **Identify potential 'solutions'** for delivering the project's preferred way forward for potential scope, ranging from the BAU through to the 'do minimum', 'do maximum' and intermediate options.

   These options focus on the products, inputs and outputs, which make up the final deliverable.

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

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

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

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

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

Project 'solutions' that are more ambitious than the 'do minimum' must be justified on their potential for delivering additional value.

Case study: the workshop identified options for improving the road network between three major cities (the preferred scope) and appraised them as follows:

Project	Business As Usual (BAU)	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
2. Service Solution – in relation to the preferred scope	2.0 Current services: For road maintenance etc.	2.1 Core: Refurbish existing highways.	2.2 Core & Desirable: Combination of refurbish & new highways.	2.3 Core & Desirable: Completely new highways.	2.4 Core, Desirable & Optional: New highway & facilities.
	Carried forward	Carried forward	Preferred Way Forward	Carried forward	Discount

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

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

   In this instance, the 'do minimum', intermediate, and 'do maximum' choices relate to the varying levels and degrees of "ambition" for service delivery, so a 'do maximum' is not necessarily required.

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

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

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

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

Project solutions that are more ambitious than the 'do minimum' must be justified on their potential for delivering additional value.

Case study: the workshop identified service delivery options for refurbishing, maintaining and building new roads between three major cities and appraised them as follows:

Project	Business As Usual (BAU)	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
3. Service Delivery – in relation to preferred scope and solution	3.0 Current arrangements.	3.1 Local Contractor.	3.2 National Contractor.	3.3 International Contractor.	
	Carried forward	Discount	Carried forward	Preferred Way Forward	

8. **Identify potential options for 'implementation'** of the project's preferred scope, service solution and method of service delivery.

   These options focus on the sizing, sequencing and phasing of the potential products required.

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

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

– Focus on the critical path for the modular delivery of the required products and **sequence** accordingly.

– Design the project to optimise benefits delivery whilst managing the risks and **phase** accordingly.

i. Subject each implementation option for the sizing, sequencing and phasing of the potential project to SWOT analysis – noting advantages and disadvantages and how well it meets the agreed spending objectives and CSFs.

ii. Discount unrealistic options for implementation. Carry forward (C/F) possible options, including the BAU and 'do minimum' options.

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

Case study: the workshop identified options for the implementing improvements to the road network between three major cities using an international contractor and appraised them as follows:

Project	Business As Usual (BAU)	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
4.Implementation – in relation to preferred scope, solution and method of service delivery		4.1 Phased over 3 years.	4.2 Phased over 2 years.	4.3 Big bang over 1 year.	
		Carried forward	Preferred Way Forward	Discount	

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

These options should consider innovative sourcing of finance and funding streams for the project, in addition to traditional sources of capital and revenue.

In this instance, the 'do minimum', intermediate, and 'do maximum' choices relate to the varying levels and degrees of 'ambition' for funding the service.

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

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

iii. Identify the preferred way forward (PWF) – the funding option that is most likely to meet the requirements of the project, to optimise Value for Money and be affordable.

Case study: the workshop identified a mix of options for a service improvement project where potential projects and activities could be funded in their design, build and operational phases through a number of sources.

Project	Business As Usual (BAU)	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
5.Funding – in relation to preferred scope, solution, method of service delivery and implementation		5.1. Public funding.	5.2 Mixed public & private funding.	5.3 Private finance – annual service charge.	5.4 Private finance – toll on new roads.
		Discount	Preferred Way Forward	Discount	Discount

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

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

BOX: SUMMARY OF THE LONG-LIST USING THE OPTIONS FRAMEWORK.

Project	Business As Usual (BAU)	Do Minimum	Intermediate Option	Intermediate Option	Do Maximum
1.Service scope – as outlined in strategic case	1.0 All Cities.	1.1Linking Cities A and B.	1.2. Linking Cities A, B and C.	1.3 Linking Cities A, B, C and D.	1.4 Linking All Cities, A, B, C, D and E.
	Carried forward	Carried forward	Preferred Way Forward	Carried forward	Discounted
2. Service Solution – in relation to the preferred scope	2.0 Current services: for road maintenance etc.	2.1 Core: Refurbish existing highways.	2.2 Core & Desirable: Combination of refurbish & new highways.	2.3 Core & Desirable: Completely new highways.	2.4 Core, Desirable and Optional: New highway & facilities.
	Carried forward	Carried forward	Preferred Way Forward	Carried forward	Discount
3. Service Delivery – in relation to preferred scope and solution	3.0 Current arrangements.	3.1 Local Contractor.	3.2 National Contractor.	3.3 International Contractor.	
	Carried forward	Discount	Carried forward	Preferred Way Forward	
4.Implementation – in relation to preferred scope, solution and method of service delivery		4.1 Phased over 3 years.	4.2 Phased over 2 years.	4.3 Big bang over 1 year.	
		Carried forward	Preferred Way Forward	Discount	
5.Funding – in relation to preferred scope, solution, method of service delivery and implementation		5.1.Public funding.	5.2 Mixed public and private funding.	5.3 Private finance – service charge.	5.4 Private finance – toll.
		Discount	Preferred Way Forward	Discount	Discount

Drafting the long-list

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

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

Action 8: Recommend a preferred way forward

Identify the preferred way forward for the project – scope, solution, service delivery, implementation and funding – together with the shortlist, against which the preferred way forward will be appraised.

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

Shortlisted options

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

- Business As Usual (BAU) – the benchmark for Value for Money
- 'do minimum' – a realistic way forward that also acts as a further benchmark for Value for Money, in terms of cost justifying further intervention
- 'recommended' - the preferred way forward at this stage
- one or more other possible options based on realistic 'more ambitious' and 'less ambitious' choices that were not discounted at the long-list stage

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

Using the Options Framework to filter the short-list

The Options Framework can be used to filter the options considered at the long -list stage to generate the potential short-list for the project, as illustrated below.

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

The box below uses the numbering in the case study box shown above "Summary Of The Long List Using the Options Framework" to map option choices into a summary of the shortlist identified in the case study.

Options	**Business As Usual (BAU)**	**Do Minimum**	**Preferred Way Forward (PWF)**	**Less ambitious PWF**	**More ambitious PWF**
Project scope	1.0	1.1	1.2	1.2	1.3
Project solution	2.0	2.1	2.2	2.2	2.3
Service delivery	3.0	3.0	3.3	3.2	3.3
Project implementation	N/A	4.1	4.2	4.1	4.2
Project funding	N/A	5.2	5.2	5.2	5.2

Drafting the short-list

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

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

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

FIG: SUMMARY ASSESSMENT OF OPTIONS

Reference to:	**Option …**	**Option…**	**Other Options…**	**Option**
Description of option:	**Business As Usual (BAU)**	**Do Minimum**	**Intermediate**	**Maximum**
Spending objectives				
1.	x	?		
2.	x	?		
3.	x	?		
4.	?	?		
5.	x	?		
Critical success factors				
Business need	x	?		
Strategic fit	x	X		
Benefits optimisation	x	?		?
Potential achievability			?	?
Supply-side capacity and capability				?
Potential affordability	x		?	X
Summary	Discounted	Possible	Preferred	Discounted

Indicative costs

Indicative costs and benefits for each of the above shortlisted options should be provided to test the affordability of the project before more detailed appraisal takes place.

The costs should include some allowance for 'optimism bias' and the 'cost of risk', and together with the benefits be discounted to provide indicative net present social values for the shortlisted options.

Optimism bias

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

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

Adjusting for optimism provides a better estimate earlier on of key project parameters. Enforcing these adjustments for optimism bias is designed to complement, rather than replace, existing good practice in terms of calculating project specific risk. It is also designed to encourage more accurate costing. Adjustments for optimism bias may be reduced accordingly 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. Where sufficient data are not available within the organisation, generic optimism values are available (see below) and should be used in the absence of more specific evidence. Departmental guidance may also be 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 overruns in past projects.

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

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

Recommended steps

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

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

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

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

- **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.

- **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.

- ☐ **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 social cost (or NPSC) 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.

- ☐ **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.

Following this guidance will provide an optimism bias adjustment that can be used to provide a better estimate of the base case.

Workshop 2 – Identifying and assessing the options

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

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

Workshop 2	**Identifying and assessing the Options**
Objectives	☐ To identify the Critical Success Factors. ☐ To identify and appraise the long-list options. ☐ To identify and provide initial appraisal of the short-listed options. ☐ To identify the potential costs, benefits and risks associated with the short-listed options.
Key participants	☐ External stakeholders or commissioners. ☐ Director of Finance. ☐ Commercial Director. ☐ Economic adviser. ☐ Customer and/or user representatives. ☐ Project manager. ☐ Facilitator.
Outputs	☐ Appraisal of the long-list. ☐ Short-listed options with preliminary assessment. ☐ Information and data for economic appraisal of the short listed option.

Multi-Criteria Decision Analysis (MCDA)

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

Referencing the Commercial, Financial and Management Cases

Complete the SOC by providing an overview of the commercial, financial and management arrangements for the successful delivery of the project.

This should include:

Commercial case:

- ☐ an assessment of the ability of the market place to provide the required goods and services
- ☐ the attractiveness of any future Deal to potential service providers, including some analysis of risk apportionment and supporting charging mechanisms
- ☐ reference to the commercial strategy of the organisation for maximising public value through economies of scale and collaborative procurements.

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
- ☐ any capital and revenue constraints
- ☐ statements of support, in principle, 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
- ☐ nature of 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 wide range of possible options (the long-list) that has been subjected to SWOT analysis
- ☐ a preferred way forward for the delivery of the scheme
- ☐ a recommended shortlist of three to four options, including the BAU and 'do minimum' options, with indicative present costs
- ☐ an overview of the financial, commercial and management cases for the scheme.

Outcome of Stage 1 and the preparation of the SOC

The SOC has now been completed for the approval of senior management and the approving authority.

A Gateway Review 1 (business justification) should be considered prior to formal submission. This will provide assurance to senior management, stakeholders and the approving authority that the project can be successfully delivered.

Management considerations include:

- approving the SOC and agreeing to the next stage: the development of the OBC
- modifying the scope of the project and including further options
- undertaking a pilot exercise to test key assumptions
- postponing or abandoning the project, because it is considered either too high risk, too expensive or too ambitious.

6 Planning the scheme and preparing the Outline Business Case (OBC)

Introduction

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.

Step 4: Determining potential Value for Money (VfM)

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

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

The main actions in this step are:

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

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

Action 9 – Revisit the SOC and determine the short-list

Revisit and review:

- the case for change in the strategic case section of the SOC
- the options appraised in the economic case section of the SOC.

Revisiting the strategic case

The case for change must be reviewed, because:

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

Confirm the case for change and record any material changes in the opening section to the strategic case in the OBC.

Reviewing the economic case

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

Review and test the recommended short-list against the following 'long-list to short-list' criteria:

- Do any of the options fail to deliver the spending objectives and CSFs for the project?
- Do any of the options appear unlikely to deliver sufficient benefits, bearing in mind that the intention is to deliver a positive Net Present Social Value (NPSV)?
- Are any options clearly impractical or unfeasible – for example, the technology or land are unavailable?
- Is any option clearly inferior to another, because it has greater costs and lower benefits?
- Do any of the options violate any of the constraints – for example, are any clearly unaffordable?
- Are any of the options sufficiently similar to allow a single representative option to be selected for detailed analysis?
- Are any of the options clearly too risky?

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

Action 10 – Prepare the economic appraisals for shortlisted options

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

Estimating the costs and benefits for the economic appraisals

This section provides guidance on:

- 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
- adjusting estimates of costs and benefits.

HM Treasury Green Book principles

The Treasury Green Book sets out rules that must be followed for the treatment of costs and benefits. These are that:

- the relevant costs and benefits to society of all the (shortlisted) options should be valued and the net benefit and costs calculated. 'Relevant' in this instance means all those costs and benefits that can be affected by the decision at hand
- costs and benefits should cover the useful lifetime of the assets; or the contractual period for the purchase of the service outputs and outcomes
- the costs and benefits should be based on resource costs and reflect the best alternative uses (the 'opportunity cost') that the goods, assets and services could be put to
- the wider social and environmental costs – for which there is no market price – should also be taken into account
- the sources and assumptions underlying each cost and benefit line in the economic appraisals must be explained in full within an accompanying appendix
- the costs and benefits must be base year. The base year is defined as 'year 0' and must be at real relative prices the same for all options .

Economic and financial appraisals

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

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

The key differences can be summarised as follows:

Economic Appraisals	Financial Appraisals
Focus: ☐ Net Present Social Value (NPSV) for money.	Focus: ☐ Funding and affordability – cash flow and stock.
Coverage: ☐ UK Society as a whole and distributional analysis where relevant.	Coverage: ☐ Relevant public organisation(s) budget.
Relevant standards: ☐ HM Treasury Green Book and supplementary guidance ☐ discount rate applied.	Relevant standards: ☐ Public sector accounting rules and standing orders.

Economic Appraisals	Financial Appraisals
Analysis: ☐ real (relative base year) prices ☐ use of opportunity costs ☐ includes quantifiable welfare costs and benefits to society ☐ includes environmental costs ☐ excludes Exchequer 'transfer' payments – for example, VAT ☐ excludes general inflation ☐ excludes sunk costs ☐ excludes depreciation, impairment and capital charges.	Analysis: ☐ current (nominal) prices ☐ benefits – cash releasing only ☐ includes capital and revenue costs ☐ includes transfer payments (for example, VAT) ☐ includes inflation.

Relevant costs for the economic appraisals

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

- Public Sector costs – those falling to the spending organisation (Direct Costs) and those falling to other parts of the public sector (Indirect Costs).
- Wider Social costs – those other indirect costs falling to other sectors, including the private sector.

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

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

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

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

  The assessment of revenue costs must:

  - distinguish and explain clearly the differences between alternative maintenance options;
  - include all the running costs, e.g. utility bills;
  - explain the underlying assumptions, e.g. in service performance, efficiency savings and real cost trends.

- **Fixed, variable, semi-variable and step costs.** These costs must be separately identified within the economic appraisals and their relationships explained:

  - fixed costs are constant over time; e.g. the overhead costs of fixed capital assets

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

- **Opportunity costs.** These must be explored in full. In relation to land, buildings and manpower, they should be assessed against the most valuable alternative use rather than current use. Full Time Equivalents (FTE) costs should be used to estimate the costs of employees' time to the employer and must include all employment costs in addition to basic pay – for example, pensions, 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.
- **Full economic costs.** The full costs (direct, indirect and attributable) of each option, rather than its net cost in relation to a baseline must be shown. This means 'bottom up' costing, which provides a better understanding of the cost differences between options and is more transparent.
- **Attributable costs.** These include the opportunity cost of staff time spent in relation to the implementation of the proposal. These costs are likely to be significant in relation to business change and business re-engineering projects.
- **Organisational development.** These costs can form a significant proportion of the overall costs and should not be underestimated, because if insufficient resources are allocated to developing staff and changing working practices, the full benefits of the project will not be achieved.
- **Avoided costs.** These should be included as a cost in the BAU option and not as a benefit in the other options.
- **Inflation.** Some cash flows may be significantly out of line with general inflation. In such cases, the differential should be reflected in the economic appraisals.
- **Contingent liabilities.** Commitments to future expenditure if certain events occur should be included in the economic appraisals. For example, the cancellation costs for which a public sector body may be liable if it prematurely cancels a contract. Note that although redundancy costs are transfer payments, they can occasionally fall into this category. In such cases, the advice of an economist should be sought on measuring the wider social and economic consequences of these payments.

Estimating benefits for the economic appraisals

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

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

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

The benefits for the project must be appraised from the standpoint of UK society as follows:

- Direct public sector benefits (to originating organisation):
  - cash releasing benefits (CRB)
  - monetisable non-cash releasing benefits (non-CRB)
  - quantifiable but not readily monetisable benefits (QB)
  - qualitative but not readily quantifiable benefits (Qual)
- Indirect public sector benefits (to other public sector organisation):
  - cash releasing benefits (CRB)
  - monetisable non-cash releasing benefits (non-CRB)
  - quantifiable but not readily monetisable benefit (QB)
  - qualitative but not readily quantifiable benefits (Qual)
- Wider benefits to UK society (e.g. households, individuals, businesses)
  - monetisable, including cash benefits
  - quantifiable but not readily monetisable benefits
  - qualitative but not readily quantifiable benefits

All the benefits – cash releasing and non-cash releasing – should be accounted for in the economic appraisals to derive the NPSV for the project.

Any costs associated with benefits delivery should be taken into account. A cost is a predictable negative effect of the proposal and is the measurable reduction resulting from an outcome perceived as negative by one or more stakeholders, which detracts from one or more organisational objectives. For example, an electronic prescription service while allowing GPs to print fewer prescription forms, might, in practice, require pharmacists to print more forms and increase their costs.

The cost of mitigating significant risks should be identified to ascertain whether it is a price worth paying.

Real or estimated market prices

Market prices, real or estimated, are the prime reference for the valuation of benefits. Where valuing at market prices is not possible, values based on welfare economics, as recommended by the HM Treasury Green Book, are the way in which public welfare values are calculated and include:

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

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

The HM Treasury Green Book provides guidance on the appraisal of public value. This includes many values for costs and benefits that occur frequently in public spending proposals, such as the value of energy savings and of greenhouse gas emissions

Adjustments required to the values of costs and benefits

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

Relative price changes

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

For example where particular prices are expected to increase at significantly higher rates (such as land values) or at lower rates (such as computer processors) than average inflation, then the relative price change should be calculated and factored into the economic appraisals.

Other relevant values

In distributional analysis these include costs and benefits to gainers and , losers and in Regional and other Sub-national analysis the costs and benefits to the specific areas under consideration. Further guidance on these separate analyses can be found in **the Green Book**.

Distributional Analysis and local Regional and sub UK analysis

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

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

Where a change in income or welfare distribution is the intention of a policy, programme or project, then some form of objective analysis is required to quantify these effects. Similarly, if a proposal involves a significant redistribution of welfare, as a side effect, the analysis needs to show this. Further guidance on this is available **in the Green Book**.

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

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

Regional and other sub-national issues

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

A separate analysis of these local proposals should be carried out alongside the total UK analysis and the results set out separately alongside the UK NPSV in order for the local benefit of the proposal to be estimated and an appropriate option selection to be made.

Presenting the economic appraisals

Following the identification and measurement of the costs and benefits for each option, calculate the NPSV for each option, using the Green Book discount rate.

This section is concerned with compiling the economic appraisals for the shortlisted options, including BAU and the 'do minimum' options in their most basic format.

Guidance is provided on the following:

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

Discounting in the public sector – the Social Discount Rate and Time Preference

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

The social discount rate is an annual percentage reduction specified by the Treasury Green Book that is applied to values in each year going forward that progressively reduces the current value of future values.

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

The use of Private Finance

The option of Public Private Partnerships (PPP) or any form of private finance for sourcing the project where relevant is a strategic consideration as part of the long-list appraised using the Options Framework filter.

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

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

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

When the use of private finance is carried forward as an option into the short- list of options for the project, at least one of the other shortlisted options must be based on a comparable provision by the public sector. This enables the partnership option to be appraised fairly against a public sector comparator (PSC), as it is known, which should include the cost of the risks retained by the public sector during the Design, Build, Funding and Operational (DBFO) phases of the project. Similarly, if different partnership options are being taken forward, alternative public sector comparators must be provided. The Green Book provides more detail on the calculation of the public setor comparator.

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

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

For technical guidance on the valuation of privately financed schemes see the Treasury Green Book.

Action 11 – Undertake benefits appraisal

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

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

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

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

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

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

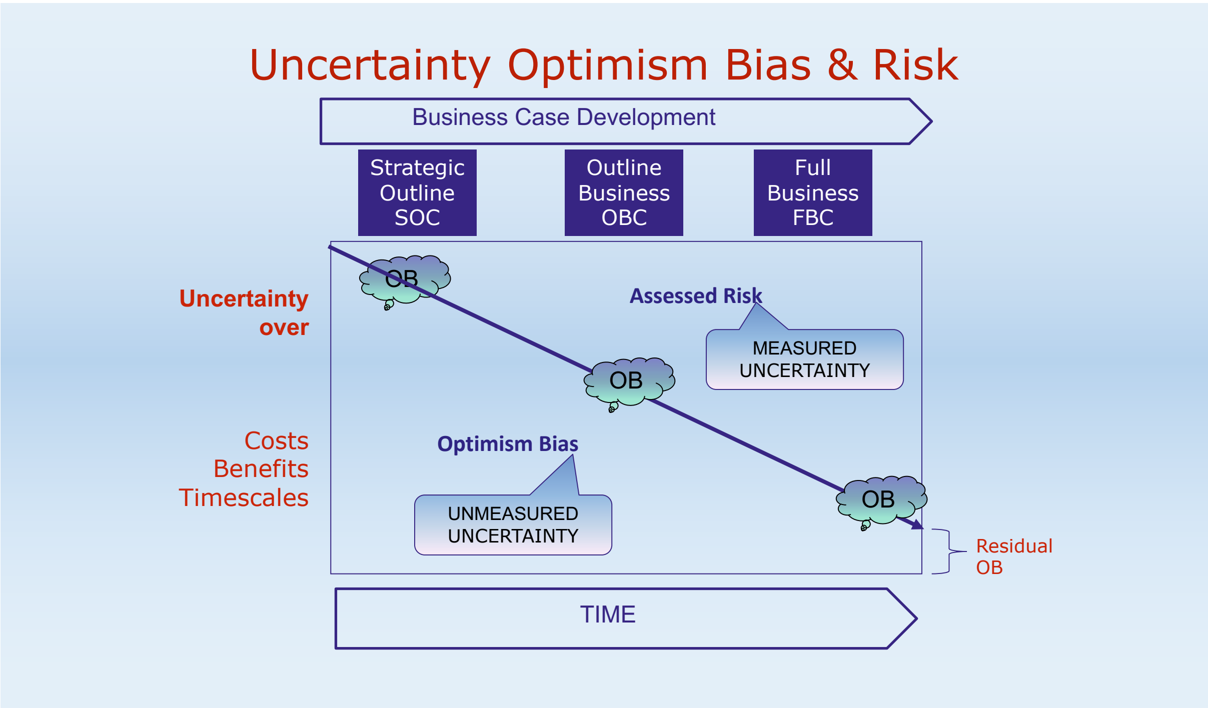
Action 12 – Undertake risk appraisal

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

The HM Treasury Green Book requires public sector organisations to undertake a risk assessment of the short-listed options. The project's service risks should be estimated and quantified in monetary terms, as equivalent likelihood values – that is the cost of mitigation multiplied by the likelihood of occurrence.

Early on in the process an initial allowance was made for optimism bias. At this stage in the process, service risks in the design, build and operational phases of the project must be identified and their costs estimated and built into the project.

Figure 5 the relationship between optimism bias and risk in developement



Reducing optimism bias

As risks costs are included, the allowances made for optimism bias should be reduced as illustrated by figure 5 above.

The main strategies for reducing the bias are:

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

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

Case study

The capital costs of a non-standard civil engineering project within a major change programme are estimated to be £50m NPSC. No detailed risk analysis work has taken place at this stage, although significant costing work has been undertaken.

The project team reports to the project board and applies an optimism bias adjustment of 66% showing that, for the scope of the work required, the total cost may increase by £33m to £83m in total. This is based on consultants' evidence and experience from comparable civil engineering projects at a similar stage in the appraisal process.

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

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

Operating costs and benefits

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

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

Risk identification and measurement

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

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

- identifying the main business and service risks (in the strategic case section)
- quantifying and appraising the business and service risks (in the economic case section)

- apportioning and transferring service risks (in the commercial case section)
- mitigating and managing risks over the entire life cycle of the scheme.

Risk identification

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

- structured review meetings – these involve the programme and project teams and encourage participation and ownership of the risks by key personnel
- risk audit interviews – these are conducted by experienced managers and/or advisers, with all those involved in the programme or project teams with responsibility for risk, and
- risk workshops – these include all members of the programme and project teams and encourage imaginative ideas for the mitigation and management of risk.

General types of risk

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

Business related risks remain with the public sector and can never be transferred. Service related risks occur in the design, build, funding and operational phases of a project and may be shared between the public and private sectors.

External, non-systematic and catastrophe risks affect all society and are unpredictable and random in nature. They are dealt with as part of the social discount rate and do not need any further separate treatment.

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 contractors when a dispute occurs.

Generic Risks	Description
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 systematic and catastrophe risks	**The risks that affect all society, and are not connected directly to the programme or project.** These risks are accounted for in the discount rate and include, for example policy and technological disruption risks
Policy risk	The risk of changes in policy direction leading to unforeseen change.
Technological disruption risk	The risk of new techniques emerging that completely transform the way things are done, such as the appearance of affordable internet downloading and data sharing.

Risk quantification

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

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

Single point probability analysis

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

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

Multi-point probability analysis

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

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

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

Possible cost (£m)	Difference from estimated cost (£m)	Estimated probability of the event occurring	Risk value (£m)
45	-5	0.1	-0.5
50	0	0.6	0
55	+5	0.1	+0.5
60	+10	0.1	+1.0
65	+15	0.1	+1.5

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

Decision trees

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

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

Monte Carlo

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

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

Action 13 – Select preferred option and undertake sensitivity analysis

As a minimum, undertake sensitivity analysis on the preferred option, thereby testing its robustness in relation to switching values and different scenarios for costs and the delivery of benefits. Where alternative options are significantly different in some key respects and realistically need to be considered, then they too should undergo sensitivity analysis, as described below.

Identifying the preferred option

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

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

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

The values of costs, benefits and risks are not always comparable, because some benefits and risks are non-quantifiable.

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

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

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

Sensitivity analysis

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

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

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

Sensitivity analysis should be undertaken in two stages:

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

Switching values

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

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

Scenario analysis

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

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

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

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

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

Category	Assumptions and Estimates
Costs and benefits (£)	Capital costs.
	Lifecycle costs.
	Costs of core services.
	Costs of non-core services.
	Benefits valued in monetary terms.
Non-monetisable benefits	Quantifiable and Qualitative.
Timing	Delays in the project.

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

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

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

Final selection of the preferred option

The preferred option should be a balanced judgement based on the Net Present Social Value (NPSV), the Benefit Cost Ratio (BCR) and the level of risk involved. Alternatively, the preferred option may be that with the lowest Net Present Social Cost (NPSC).

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

The results of shortlist options appraisal should be presented in an appraisal summary table, as a minimum this should be the common core table stipulated in the Green Book that is set out as table 3 below. it should be spread across two facing A4 pages to provide an at a glance summary of the key factors relevant to the decision. A few other decisively relevant factors may be added but the table should not be overburdened with minute detail.

		Do-minimum Option	Option 1 Preferred (if not do-minimum)	Options 2➡to➡N
A	Net Present Social Value			
B	Public sector cost (or appropriate value for cost)			
C	Appropriate BCR			
D	Significant unmonetisable costs/benefits			
E	Significant unquantifiable factors			
F	Risk costs by type and residual optimism bias			
G	Switching values (for the preferred option only)			
H	Time horizon and reason			

Internal rate of return and payback period.

Public trading organisations that are self financing may need to take account of other measures, such as the Internal Rate Of Return (IROR) and the payback period in their financial case calculations and in the choices made in their strategic and commercial cases. These measures are not recommended for use in calculating social value in the economic case.

Workshop 3 – Assessing the Short-listed Options

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

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

Workshop 3	**Assessing the Shortlisted Options**
Objectives	To validate the findings of the Cost Benefit Analysis (CBA)/ Cost-Effectiveness Analysis (CEA) undertaken to the shortlisted options. To appraise the qualitative benefits and risks. To identify the preferred option for the project that offers best public value.
Key participants	External stakeholders or commissioners. Director of Finance. Commercial Director. Economic adviser. Customer and/or user representatives. Project manager. Facilitator.
Outputs	Identification of the preferred option for the delivery of the project.

Checklist for Step 4

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

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

Output from Step 4

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

Step 5: Preparing for the potential Deal

Introduction

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

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

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

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

At least one facilitated workshop is recommended at this stage.

Action 14: Determine procurement strategy

Determine the procurement strategy and possible procurement routes for the project's key outputs and activities.

This requires considering how the required services, supplies or works can best be procured in accordance with established rules and regulations and the commercial strategy of the organisation, which has been prepared in accordance with Government Commercial Operating Standards.

Key considerations are:

- the choice of procurement method and the degree to which early consultation with the supply side is required, and
- the extent to which the organisation should be acting as a single procurement entity or procuring more collaboratively with other public bodies in order to secure economies of scale and improved public value.

Procurement rules

Public sector organisations must act in compliance with the appropriate procurement legislation.

Collaborative procurements

These strategic arrangements – at national, departmental, sector and local level – offer significant flexibility and potential VfM, through economies of scale; and considerable reductions in procurement costs, through pre-competition.

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

Refer to your departmental or local centre of excellence for procurement advice and assistance.

Ensure the procurement strategy is appended to the Project Business Case.

Action 15: Determine service streams and required outputs

Identify the project's service streams and required outputs and the scope and content of the potential Deal to be made with public and private sector service providers.

Consider the following approaches:

- Framing the project's requirements in terms of outputs to be produced, so as to enhance innovation.
- Specifying the quality attributes of the services and outputs required, together with the performance measures against which they will be assessed.
- Scoping the potential Deal so as to permit potential service providers to suggest innovative ways of meeting the project's requirements.

Services and required outputs

Summarise the project's required services and outputs and the potential implementation timescales required.

Consideration should be given to capturing the following details for the project:

- the business areas affected by the procurement
- the business environment and related activities
- the business objectives relevant to the procurement
- the scope of the procurement
- the required service streams
- the required outputs, including: phases, performance measures and quality attributes
- the stakeholders and customers for the outputs
- the options for variation in the existing and future scope for services
- the potential developments and further phases that may be required.

A copy of the procurement notice for publication should be attached to the OBC.

Procurement plan and proposed implementation timescales

The project plan for the procurement of its key outputs and activities should be outlined and/or attached to the Project Business Case.

Action 16: Outline potential risk apportionment

Identify how the service risks in the Design, Build, Funding and Operational (DBFO) phases of the project may be apportioned between the public and private sectors.

The main aim is to ensure that specific risks should be allocated to the party best able to manage it, subject to the risk premium. The intention is to optimise the allocation and sharing of risk rather than to maximise the number of risks to be transferred to potential service providers for delivery of the project.

Guiding principles

The following principles should be taken into account:

- the public sector should consider transferring risk to the private sector when the service provider is better able to influence the outcome than the procuring authority
- the degree to which risks may be transferred depends on the specific proposal under consideration
- the successful negotiation of risk transfer requires a clear understanding by the procuring authority of the risks presented by a proposal; the broad impact that these risks may have on the service provider's incentives and financing costs (cost drivers); and the degree to which risk transfer offers Value for Money – hence the need to identify and cost individual risks

- the private sector should be encouraged to take the risks it can manage them more effectively than the public sector; particularly where it has clear ownership, responsibility and control
- the transfer of risks can generate incentives for the private sector to provide more timely, cost-effective and innovative solutions.

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

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

Action 17: Outline potential payment mechanisms

Identify how the project intends to make payment for its key services and outputs over the expected lifespan of the contract(s).

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

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

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

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

- ☐ The extension phase – post-primary contract period

The pre-delivery phase

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

Fixed price/costs

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

Payment on the delivery of agreed outputs

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

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

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

The operational phase

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

Availability payment

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

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

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

Performance payment

This element links a proportion of the payment mechanism to the performance of the service. Linking payments to specified performance targets helps to ensure that the service provider continues to deliver the agreed outputs throughout the lifespan 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, time taken to answer the phone, number of abandoned calls, etc.

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

Action 18: Ascertain contractual issues and accountancy treatment

Outline the contractual arrangements for the project, including the use of a particular contract, the key contractual issues for the Deal and its accountancy treatment and personnel implications (if any).

Use of contract

State the form of contract to be used. In the case of a standard contract, state the title of the model contract to be used. In the case of a bespoke contract, state why this is more advantageous than using a standard contract.

Refer to your departmental or local centre of excellence for procurement for guidance.

Key contractual issues

Contract management arrangements and key contractual issues should be considered and recorded in the OBC.

The main areas of the contract to be categorised are as follows:

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

Accountancy treatment

Provide details of the intended accountancy treatment for the 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).

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

Personnel implications

Identify any personnel implications for the project.

Public sector organisations are 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 record 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)
- ☐ that codes of practice are in place for the well-being and management of staff.

Workshop 4 – Developing the Deals

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

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

Workshop 4	**Developing the commercial strategy and Deals for the project**
Objectives	☐ To develop the service specification for the project. ☐ To apportion service risks and explore the underpinning payment mechanisms. ☐ To develop the contractual arrangements. ☐ To ensure that the Government Commercial Operating. Standards have been adhered to.
Key participants	☐ External stakeholders or commissioners. ☐ Director of Finance. ☐ Commercial Director. ☐ Economic adviser. ☐ Customer and/or user representatives. ☐ Project manager. ☐ Facilitator.
Outputs	☐ Procurement and commercial strategies for the project ☐ Preliminary Risk Allocation Matrix (RAM) for the project ☐ Potential Deal for the project

Checklist for Step 5

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

- ☐ procurement strategy and routes in accordance with the appropriate procurement legislation
- ☐ potential Deals and required services
- ☐ implementation timescales for potential projects
- ☐ supporting charging/payment mechanisms
- ☐ the contract(s) to be used and the key contractual issues, including TUPE (if applicable)
- ☐ a procurement notice

Output from Step 5

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

Step 6: Ascertaining affordability and funding requirement

Introduction

The purpose of the financial case is to ascertain the affordability and funding requirements of the preferred option and to demonstrate that the recommended project is affordable.

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

Completing the financial case requires undertaking the following action.

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

Focus of the financial appraisals

The focuses of the financial and economic appraisals are different. The economic appraisals focus on the Value for Money of the overall project. The financial appraisals focus on the affordability and fundability of the project.

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

The key differences can be summarised as follows:

Economic Appraisals	Financial Appraisals
Focus: ☐ Net Present Social Value for Money	Focus: Funding and affordability – cash flow and stock.
Coverage: ☐ UK Society as a whole and Distributional or sub UK effects where relevant	Coverage: Relevant public organisation(s) budget.
Relevant standards: ☐ HM Treasury Green Book and supplementary guidance. ☐ discount rate applied.	Relevant standards: ☐ Public sector accounting rules and standing orders.
Analysis: ☐ real (base year) prices ☐ use of opportunity costs ☐ includes quantifiable welfare costs and benefits to society ☐ includes environmental costs ☐ excludes Exchequer 'transfer' payments – for example, VAT ☐ excludes general inflation ☐ excludes sunk costs ☐ excludes depreciation, impairment and capital charges.	Analysis: ☐ current (nominal) prices ☐ benefits – cash releasing only ☐ includes capital and revenue costs ☐ includes transfer payments (for example, VAT) ☐ includes inflation.

The following financial statements are required for the project spend:

- ☐ **a budget statement** – which should be based on Resource Accounting and Budgeting (RAB) principles and shows the resource costs over the lifespan of the project. 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 large, significant and complex projects, a financial model of the proposed expenditure needs to be constructed.

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

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

The minimum requirements for most 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 project should be prepared.

This should set out:

- ☐ the capital and revenue consequences of the preferred option for the project over the lifespan of the service and/or contract period
- ☐ how this compares with the original capital ceiling for the scheme (if any)
- ☐ any shortfall in capital and revenue requirements (the 'funding gap').

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

Summary of financial appraisal

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

Net effect on prices

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

The impact on prices of capital charges must also be considered, if applicable. Capital charges are significant when considering the affordability of a development and they must be included in year-by-year financial projections, 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 have an impact on competitiveness. Organisations should, therefore, compare and benchmark the prices and quality levels of similar services offered by other providers.

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

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

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

Impact on the income and expenditure account

The impact of the project on the organisation's income and expenditure should be assessed. A qualified accountant who understands the project and the organisation's business, and supported by the Organisation's Director of Finance should record both the current position and the likely outcome in the OBC.

Impact on the balance sheet

The impact of the project on the organisation's balance sheet must be assessed. Both the current position and the likely outcome should be 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 OBCs are submitted for approval. The key principle here is that the source of funding, and the amount over time, must be confirmed and the project shown to be affordable throughout its life.

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

Agreement, in principle, must be obtained for the project from the funders of the scheme. This should be in written form and included in an annex to the OBC.

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

A commissioner's letter should:

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

Assessing affordability

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

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

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

The balance sheet – items 1 and 2

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

Working capital = current assets – current liabilities

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

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

Solvency – item 3

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

Over-trading – item 4

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

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

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

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

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

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

Cash flow – item 5

Assessing cash flow should take into account:

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

Risks – item 6

There are a number of risks that 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 x% higher than expected?
- What if the expected savings were to fall by y%?
- What circumstances might cause saving targets to be breached?
- What if income to the organisation were to be reduced by z% or more?
- Is there a robust strategy in place to guard against these outcomes?

Payback period

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

Closing affordability gaps

Affordability problems are most likely to occur in the early years of the project – in the construction and development phase – when benefits are unlikely to be sufficient to offset the costs of the investment.

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

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

- phasing the implementation of the project's outputs differently
- adopting a different design solution for some of the project's outputs
- altering the scope of the preferred option – for example, its functional content and/or the quantity and quality of the services offered
- finding additional sources of funding – for example, disposal of surplus assets (if available), further revenue support from the commissioners of the organisation's services
- considering different ways of financing the 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
- permitting service provider(s) to create additional revenue streams and new business, and sharing in the resultant revenue streams.

Checklist for Step 6

There should now be a clear understanding of:

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

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

Output from Step 6

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

Step 7: Planning for successful delivery

Introduction

The purpose of the management case is to put in place the arrangements for the successful delivery of the project.

Completing the management case requires undertaking the following actions:

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

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

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

There must be evidence that these arrangements are in place.

Programme and Project Methodology (PPM) strategy

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

Managing Successful Programmes (MSP)

Managing Successful Programmes (MSP) represents proven good practice for successfully delivering transformational change and is drawn from the experiences of both public and private sectors.

It is the Cabinet Office's recommended methodology for the delivery of programmes.

Managing Successful Projects: PRINCE 2

PRojects IN Controlled Environments (PRINCE2) project management methodology represents proven good practice in project management and is drawn from the experiences of both public and private sectors over many years.

It is the Cabinet Office's recommended methodology for the delivery of projects.

Project framework

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

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

PRINCE2 mandates that the senior responsible owner (SRO), project manager and business change managers (BCMs) should be members of the project board. The project director should also be included but this role is not a substitute for the SRO.

Appointment of the senior responsible owner (SRO)

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

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

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

Project Plan

The project plan is used to control and track the progress and delivery of the project and resulting outcomes. It describes how, when and by whom a specific project, milestone or set of targets will be achieved. It is the detailed analysis of how identified project 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 and attached to the OBC.

This project plan should typically include:

- ☐ 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 associated constraints
- when activities will occur
- the points at which progress will be monitored, controlled and reviewed, including delivery and approval of the business case and undertaking Gateway Reviews/Health Checks etc.

Use of specialist advisers

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

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

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

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

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

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

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

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

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

Change management strategy

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

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

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

Change management framework

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

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

Change management plans

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

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

Put in place the management arrangements required to ensure that the project delivers its anticipated benefits.

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 responsibility for benefits realisation lies with the SRO for the project, who must ensure that delivery arrangements are outlined within the OBC.

Benefits register

All projects must capture benefits within a benefits register. This register should also indicate how those benefits are to be realised.

The benefits register should be updated and reviewed continuously throughout the course of the project and capture the following information for each benefit:

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

All the benefits identified in the strategic case and economic case sections of the OBC must be accounted for within the benefits register. This includes the economic appraisal for the preferred option.

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

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

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

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

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

Risk management strategy

Strategies for the proactive and effective management of risk involve:

- identifying possible risk in advance and putting mechanisms in place to minimise the likelihood of them materialising with adverse effects
- having processes in place to monitor risks, and access to reliable, up-to-date information about risks
- the right balance of control to mitigate against the adverse consequences of the risks, if they should materialise

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

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

Risk mitigation

Recognised methods for the mitigation of risk throughout the lifespan of the project include:

- early consultation – experience suggests that costs tend to increase as more requirements are identified (scope creep). Early consultation will help to identify what the requirements are and how they might be addressed (scope creep is a risk which needs careful management)
- avoidance of irreversible decisions – where lead options involve irreversibility, a full assessment of the costs should include the possibility of delay, and allowing more time for investigating alternative ways to achieve the objectives
- pilot studies – acquiring more information about risks affecting a 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. Breaking a project into stages, with successive review points at which the project could be stopped or changed, can also increase flexibility
- precautionary action – where this can be taken to mitigate a perceived risk. The precautionary principle states that because some outcomes are so bad, even though they may be very unlikely, action is justified. In cases where such risks have been identified, they should be drawn to the attention of senior management and expert advice sought
- procurement and contractual intervention. Risk can be contractually transferred to other parties and maintained through good contractual relationships, both informal and formal.
- making less use of leading edge technology. If complex technology is involved, alternative, simpler methods should be considered, especially if these reduce risk considerably whilst providing many of the same benefits
- develop different options. Following the risk analysis, the appraiser may want to re-instate options, or to develop alternative ones that are either less inherently risky or deal with the risks more efficiently
- abandon the proposal. Finally, the proposal may be so risky that whatever mitigation is considered, it has to be abandoned.

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

Risk management framework

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

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

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

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

Risk register

All projects must capture risks within a risk register. This register should indicate how those risks are to be mitigated and managed.

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

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

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

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

Action 24: Plan project assurance and Post-Project Evaluation – strategy, framework and plans

Put in place the necessary arrangements for Project Assurance, Monitoring and Evaluation.

Project Assurance

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

Projects may be subject to one or more of the following assurance reviews:

- The Project Validation Review.
- Project Assessment Reviews (PARs).
- Gateway Reviews – 0 for programmes.

A brief explanation of these methods of project assurance is provided within Chapter 1.

Other forms of assurance include: quality assurance; technical assurance; security assurance.

Post-Project Evaluation strategy

The purpose of Post-Project Evaluation (PPE) is twofold:

- to improve project delivery through lessons learnt during the project delivery phase. This is often referred to as the 'Project Implementation Review' (PIR)
- to appraise whether the project has delivered its anticipated outcomes and benefits. This is often referred to as the 'Post Evaluation Review' (PER).

This section of the OBC should set out the organisation's strategy for both aspects of PPE explain whether the PIR and PER are to be undertaken jointly or separately.

The PIR is linked to Gateway Review (operations review and benefits realisation).

Post-Project Evaluation framework

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

Post-Project Evaluation plans

This section should set out the expected timescales for post project evaluation. These arrangements should be included in the project plan with the individuals responsible for their delivery.

Workshop 5 – Successful Delivery Arrangements

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

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

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

Checklist for Step 7

There should now be clear understanding of the:

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

Output from Step 7

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

Outcome of Stage 7 and preparation of the OBC

The OBC has now been completed for the agreement of senior management and the approving authority.

A Gateway Review 2 (delivery strategy) should be considered prior to formal submission. This will provide assurance to senior management, stakeholders and the approving authority that the project can be successfully delivered.

Management considerations include:

- approving the OBC and agreeing to the next stage: the development of the FBC, prior to procurement
- modifying the scope of the project and including further options
- undertaking a full study to test further key assumptions
- postponing or abandoning the project, because it is considered either too expensive, too ambitious or too high risk.

7 Procuring the proposal and preparing the Full Business Case (FBC)

Introduction

The purpose of the Full Business Case (FBC) is to:

- identify the market place opportunity which offers optimum Value for Money (VfM)
- set out the commercial and contractual arrangements for the negotiated Deal
- confirm the Deal is still affordable
- put in place the detailed management arrangements for the successful delivery, monitoring and evaluation of the scheme.

Much of the work involved in producing the FBC focuses upon revisiting and updating the conclusions of the Outline Business Case (OBC) and documenting the outcomes of the procurement.

Step 8: Procuring the VfM solution

This step involves revisiting and updating the strategic case and economic case dimensions of the business case to confirm the current situation in terms of the case for change and the continued efficacy of the preferred option following the procurement exercise.

The main actions are set out below:

Step 8	**Procuring the VfM solution**
Action 25	Revisit the case for change
Action 26	Revisit the OBC options
Action 27	Detail procurement process and evaluation of Best And Final Offers (BAFOs)

Action 25: Revisit the case for change

Revisit the case for change, because the rationale for the project may have altered since the OBC was approved, due to evolving business needs and changing service requirements.

Updating the strategic case

Confirm that the case for change remains as set out in the OBC. Additional business needs and requirements that have arisen since the submission and approval of the OBC will require the case for change to be revisited and updated.

Ensure the spending objectives have been made SMART for the purpose of post evaluation and updated to reflect the latest information regarding the rationale, drivers, anticipated outcomes and benefits for the project.

Attach further confirmation of the organisation's commissioners and other key stakeholders, if applicable.

Action 26: Revisit the OBC options

To confirm that the options identified in the OBC economic case are still valid and their rankings remain the same.

The purpose of this action is evidence that the preferred option remains the same as that identified at the OBC stage. Any new options must be clearly identified and any adjustments to existing options explained.

Revisiting the OBC options

Confirm that the conclusions of the OBC economic appraisal still remain valid at FBC stage.

The analysis from the OBC stage must be updated in the FBC because new information affecting the ranking of the options may have become available since the approval of the OBC.

For example:

- the relative rankings may have changed as a result of supplier side offerings, 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
- operational changes 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 continues to offer better public value than the other available options, including the 'do minimum' (if applicable).

Revisiting the procurement method

Confirm that the project has been procured by the most appropriate method.

At the OBC stage, different methods of funding and procurement were examined. If the OBC recommended that some form of private finance was deliverable and potentially offered better VfM than conventional funding, a privately financed option may have been pursued. At the FBC stage, any private finance offer must be appraised against the public sector comparator (PSC) and 'do minimum' options outlined in the OBC to confirm VfM.

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

The Public Sector Comparator (PSC)

Refine the PSC before undertaking any further appraisal to reflect knowledge gained from the procurement. This is 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.

Revisions to the PSC should avoid mimicking any design, engineering or operational attributes offered by service providers during the procurement phase and focus on ensuring that scope of the required outputs required remains consistent so as to enable meaningful comparisons to be made.

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

Risk adjustment

Revisit the 'cost of risk' retained by the public sector, as calculated within the PSC outlined at the OBC stage.

This is a minimum requirement that should also be undertaken for the risk values of the Business As Usual (BAU) and 'do minimum' options, depending on which was carried forward as the benchmark for VfM in the shortlisted options appraisal.

The main service risks in the design, build, funding and operational phases of the project should be fully identified and quantified (£) at the FBC stage. The residual use of optimism bias to measure continued uncertainties should be minimal and generally no more than 2% for a standard capital scheme (Step 4, Action 13 refers to this).

Action 27: Detail the procurement process and the evaluation of Best And Final Offers (BAFOs)

Update the economic case to provide a summary of the procurement process and how the Best And Final Offers (BAFOs) were evaluated and the preferred bidder selected.

The purpose of this action is to evidence that the recommended service provider offers the 'most economically advantageous offer' in relation to other service providers, and that the option is offering best public value.

The procurement process

Confirm the procurement strategy, route and evaluation criteria were followed as set out in the OBC and explain any changes.

List the service providers:

- ☐ who expressed interest at the pre-qualification and the reasons for any rejections
- ☐ who were taken forward into the 'long-list' and 'short-list' (Best and Final Offer (BAFO)) stages of the procurement and the reasons for any rejections.

Record the preferred service provider(s) together with the reasons for their selection.

A copy of the procurement report may be attached to the FBC for this purpose.

FBC economic appraisals

Prepare economic appraisals for each of the 'short-listed' service providers at the BAFO stage of the procurement, in accordance with the guidance provided for economic appraisals at the OBC stage of the business case.

The economic appraisals must account for the full cost of the scheme, including any 'attributable' costs falling to the organisation and other parts of the public and private sectors over the contractual and expected lifespan of the service. This is required because different service providers offer different levels of service provision, leading to different levels of cost, including risk, and benefit falling to the public sector.

The recommended option should then be appraised against the BAU, 'do minimum' and PSC and other in-house options, as required, taking into account any adjustments made as a result of earlier Action 26 (revisit the OBC options), the further assessment of non-financial benefits and risks and sensitivity analysis.

The option offering best public value should be the choice recommended for the approval, subject to affordability.

Post-FBC approval prior to contract signature

The FBC must be re-submitted for approval if the costs, benefits or contract terms vary significantly post-FBC approval.

The relevant thresholds should be stipulated by the approving authority.

Checklist for Step 8

There should now be a clear understanding of:

- ☐ any changes to the strategic context and the case for change
- ☐ the 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

This step involves revisiting and updating the commercial case dimension of the business case to reflect the negotiated Deal and its financial consequences over the lifespan of the contract and service.

The main actions are set out below:

Step 9	**Contracting for the Deal**
Action 28	Set out the negotiated Deal and contractual arrangements
Action 29	Set out the financial implications of the Deal

Action 28: Set out the negotiated Deal and contractual arrangements

Document the Deal that has been negotiated by the public sector organisation and its choice of service provider.

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

- the service streams and outputs which are being contracted
- the implementation timescales which have been agreed for their delivery
- the allocation of risk negotiated between the public sector 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.
- In the case of PPP (PFI) procurements, the contract form should be compliant with the relevant Treasury and Cabinet Office standards
- the accountancy treatment of the negotiated Deal, with confirmation from the organisation's external auditors, as required.
- 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

Confirm the affordability of the negotiated Deal.

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 overspends.

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

This step requires revisiting and updating the management dimension of the business case to record the detailed management arrangements that have been put in place to ensure the successful delivery and evaluation of the project.

The main actions are as follows:

Step 10	**Ensuring successful delivery**
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

Action 30: Finalise project management arrangements and plans

Revisit the project management arrangements and plans that were outlined in the OBC and explain what has been agreed and finalised for the successful delivery of the project in accordance with best practice.

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

Revisit the change management arrangements and plans that were outlined in the OBC and explain what has been agreed and finalised for the successful delivery of the project in accordance with best practice.

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

Revisit the benefits realisation arrangements and plans that were outlined in the OBC and explain what has been agreed and finalised for the successful delivery of the project in accordance with best practice.

The strategy for the realisation of benefits during the key phases of the project should be revisited and reaffirmed 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 captured 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 their reporting line identified to the senior responsible owner (SRO), who is ultimately responsible for benefits delivery. It should be confirmed that the benefits register will be reviewed regularly and form part of the standing agenda for future project boards.

Action 33: Finalise risk management arrangements and plans

Revisit the risk management arrangements and plans that were outlined in the OBC and explain what has been agreed and finalised for the successful delivery of the project in accordance with best practice.

The strategy for the management of risks during the key phases of the project should be revisited and reaffirmed 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 their reporting arrangements notified to the senior responsible owner (SRO). It should also be confirmed that the risk register will be reviewed regularly and form part of the standing agenda for future project board.

Contingency plan

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

Record the contract management arrangements and plans that have been agreed and finalised for the successful management of the service in accordance with best practice. This should include both the formal and informal arrangements that have been put in place for the strategic and operational management of the contract.

Contract change

The more regular 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 and cover subjects such as performance; availability; minor changes; the escalation procedure for difficulties etc.

However, over the lifespan of the service contract it is likely that there will be some significant changes given that it is in the nature of a successful organisation to anticipate and adapt to meet changing circumstances.

In accordance with the 'partnering' principle, the organisation should consider its strategy for managing future contractual change. Best practice suggests regular face-to-face meetings between senior managers from both the customer and supplier organisations and dealing with change in the context of a 'shared vision'. This helps to manage expectations on both sides and to reduce eventual cost.

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

Action 35: Finalise Post-Project Evaluation arrangements and plans

Revisit the post project evaluation arrangements and plans that were outlined in the OBC and explain what has been agreed and finalised for the successful delivery of the project in accordance with best practice.

The FBC should record:

- The arrangements for future Cabinet Office Gateway Reviews and organisational Health Checks (if applicable) at Gateway Review 3 (investment decision); Gateway Review 4 (readiness for service) and Gateway Review 5 (operational review and benefits realisation).

  Gateway 3 should take place prior to the formal submission of the FBC to the approving authority

- The arrangements for post project evaluation. These reviews may be undertaken separately or in conjunction with Gateway Review 5 (operational review and benefits realisation).

  The Project Implementation Review (PIR) should be undertaken as soon as possible after the implementation of the service to capture lessons learnt.

  The Post-Evaluation Review (PER) for reviewing how well the service is running and delivering its anticipated benefits should typically take place within 6 to 12 months after the commencement of service, and thereafter as required by the benefits delivery plan.

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

Checklist for Step 10

There should now be a clear 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
- ☐ the contingency plans 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.

Outcome of Stage 3 and preparation of the FBC

The FBC has now been completed.

A Gateway Review 3 (investment decision) should now be considered for the project, prior to the formal submission of the FBC to the approving authority.

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.

The FBC must be re-submitted for approval if the costs, benefits or contract terms vary significantly post-FBC approval. The approving authority should stipulate the relevant thresholds as a condition of approval.

8 Reviewing the Business Case: SOC, OBC and FBC

Introduction

This chapter provides some basic criteria for the review of the business case at its key stages of development: Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC).

The Strategic Outline Case

The key purpose of the SOC is to:

- establish the strategic context for the spending proposal
- evidence the case for change
- establish the preferred way forward.

Key Review Criteria	Main evidence Required
Strategic case 1. Is the proposed scheme an integral part of the organisation's business strategy?	☐ Extracts from business and other relevant strategies. ☐ Reference to relevant government and organisational policies.
2. Is the proposed scheme sufficiently large and stand-alone to form a project or could it be more sensibly be undertaken as part of another programme or project?	☐ Relevant extracts from business and other strategies. ☐ Reference to scoping documentation. ☐ Relevant extracts from strategy board minutes.
3. Are the spending objectives and underpinning business needs defined clearly and supported by the key stakeholders and customers?	☐ SMART spending objectives. ☐ Evidence of stakeholder and customer involvement and support.
4. Is the scope for potential change to current services and business processes clearly defined?	☐ Clear statement of business outcomes and service outputs. ☐ Statement of any security and confidentiality issues.
5. Have the main benefits been clearly defined by key stakeholders and customers, alongside arrangements for their realisation?	☐ Outline of benefits realisation plan. ☐ Direct and indirect to the organisation and wider public sector. ☐ Cash (£) and non-cash-releasing. ☐ Ranking of benefits by key stakeholder.
6. Have the main risks been identified, alongside arrangements for their management and control?	☐ Outline of risk management strategy. Business risks. ☐ Service risks. ☐ Likely probabilities and impact (high, medium or low).
7. Have the key organisational constraints and business dependencies been identified?	☐ Evidence of critical path. ☐ Related programmes and projects. ☐ Assessment of internal and external constraints.

Key Review Criteria	Main evidence Required
Economic case 8. Have the CSFs for options appraisal been identified?	☐ Prioritised CSFs (high, medium or low). ☐ Relevant performance measures.
9. Has a sufficiently wide range of options been identified and assessed within the long-list?	☐ Use of a feasibility study. ☐ 10 to 12 main options – full description. ☐ Use of the Options Framework filter for: ○ potential scopes ○ potential solutions ○ methods of service delivery ○ implementation ○ funding sources.
10. Has a preferred way forward been identified following robust analysis of the available options?	☐ SWOT analysis of options against: ○ spending objectives ○ critical success factors ○ benefits criteria ○ evidence of likely support from key stakeholders.
11. Has a short-list with indicative Net Present Social Values (NPSV) been prepared for further examination and appraisal?	☐ Minimum of three to four options, including: ○ Business As Usual (BAU) ○ Preferred way forward ○ Do minimum (if different) ○ Public Sector Comparator (if required)
Commercial case 12. Has a requirements analysis been undertaken? 13. Has a market analysis been undertaken? 14. Has the project been prepared in accordance with the organisation's arrangements in response to the Government commercial operating standards?	☐ Description of potential Deal ☐ Market soundings ☐ Existing service providers ☐ Requirements analysis ☐ Government commercial operating standards for: 1. blueprint and resources 2. pipeline and planning 3. senior responsible owners and expertise 4. early cross-functional analysis of options 5. maximising competition 6. contracting 7. contract management 8. Supplier relationships.
Financial case 15. Has a high-level assessment of affordability and source(s) of required funding been undertaken?	☐ Indicative costs (£). ☐ Likely sources or organisational funding.
Management case 16. Has a high-level assessment of the achievability and deliverability of the project been undertaken?	☐ Indicative time-scales. ☐ Use of special advisers. ☐ Feasibility study. ☐ Peer review.
17. Are all the necessary arrangements in place for the successful completion of the next phase?	☐ Outline Programme and Project Board. and reporting arrangements. ☐ Project manager and team. ☐ Project plan and agree deliverables. ☐ Budget allocation and resources.

The Outline Business Case

The key purpose of the OBC is to:

- revisit the SOC assumptions and main findings
- establish the preferred option
- put in place the arrangements for the procurement of the scheme.

Key review criteria	Main evidence required
Strategic Case 1. Are the SOC spending objectives and planning assumptions still valid?	☐ Are they set at an appropriate level and SMART: ○ specific ○ measurable ○ achievable ○ relevant ○ timely ☐ Still supported by stakeholders and customers.
2. Do the services to be procured in the SOC still provide best fit in relation to organisational needs?	☐ Organisational context. ☐ Existing and future changes in needs. ☐ Expected changes in volumes and mix of services. ☐ Other existing, planned or possible services. ☐ Security and confidentiality issues.
3. Have any outstanding differences at SOC stage between stakeholders and customers been satisfactorily resolved?	☐ Continued stakeholder commitment and involvement. ☐ Communication strategy.
4. Has the assessment of likely benefits, risks, constraints and dependencies in the SOC been revisited and examined in further detail?	☐ Updated benefits criteria – benefits study. ☐ Updated risk assessment – risk study. ☐ Ongoing assessment – business strategies and plans.
Economic case 5. Were the long-listed options in the SOC revisited and subjected to further scrutiny?	☐ New options. ☐ CSFs revisited. ☐ Options ranked, weighted and scored.
6. Were the short-listed options in the SOC revisited and subjected to robust analysis?	☐ Economic appraisals for shortlisted options, including: ○ 'BAU and 'do minimum' ○ PSC ○ PFI (PPP) solution(s) ☐ Use of appropriate tools: ○ Cost Benefit Analysis (CBA) ○ sensitivity analysis ○ risk (£) quantification.
7. Has the PSC been constructed and assessed in accordance with HM Treasury guidance?	☐ Realistic solution capable of implementation. ☐ Risks identified, apportioned and measured for all project stages: ○ Design ○ Build ○ Finance ○ Operate ☐ PFI (PPP) costs, where available.

Key review criteria	Main evidence required
8. Does the preferred option provide best public value?	☐ Rigorous use of investment appraisal tools and techniques. ☐ All assumptions recorded. ☐ Achievable benefits streams. ☐ Stakeholders and customers support.
Commercial Case 9. Has the procurement strategy for the successful delivery of the required services been considered and prepared in sufficient detail?	☐ Consideration of procurement options including: ○ use of preferred bidder ○ draft advertisement ○ evaluation criteria ○ negotiation strategy ○ procurement plan and timetable.
10. Is there sufficient scope for a potential Deal, which meets organisational needs while offering best VfM?	☐ Potential for innovation within the provision of services and solutions. ☐ Potential for risk transfer in Design, Build, Finance, Operate stages. ☐ Potential for new business and alternative revenue streams. ☐ Likely contract length.
11. Has the potential deal been considered in sufficient detail? The **how** rather than **what**.	○ Preparation of Outline Based Specification (OBS) ○ core, desirable and optional services ○ delivery time-scales (phased improvements etc.) ○ potential payment mechanisms ○ ownership of residual assets ○ service levels and performance measures.
12. Is there a clear understanding of the business change agenda?	☐ Change management plans. ☐ Proposed mechanisms and milestones. ☐ Assessment of personnel implications.
13. Is the potential Deal still likely to be acceptable and bankable within the private sector?	☐ Market research and surveys. ☐ Use of standard contractual terms and conditions. ☐ Benchmarks – similar projects.
Financial case 14. Is the solution still likely to be affordable?	☐ Financial appraisals for preferred option, including full assessment of: ○ capital and current requirements ○ net effect on prices ○ balance sheet impact ○ income and expenditure account ○ stakeholder and customers agreement.

Key review criteria	Main evidence required
Management case 15. Are all the necessary arrangements in place for the successful completion of the next phase?	☐ Programme methodology (MSP). ☐ Project methodology (PRINCE2): ○ project board and structure ○ project manager and team ○ project plan ○ project resources and budget ○ reporting mechanisms ☐ Use of external advisers ○ legal ○ financial ○ other ☐ Outline arrangements for: ○ benefits study and realisation plan ○ risk management strategy and plan ○ change management strategy and plan ○ contract management ☐ Arrangements for evaluation: ○ peer reviews ○ Cabinet Office Gateway reviews (if required) ○ project implementation reviews ○ post-evaluation reviews ☐ Contingency plans

The Full Business Case

The key purpose of the FBC is to:

- ☐ revisit the assumptions and main finding of the OBC
- ☐ evidence the most economically advantageous tender (MEAT) for the project
- ☐ establish that the management arrangements for successful delivery are in place.

Key review criteria	Main evidence required
Strategic Case	
1. Does the recommended Deal still provide synergy and best fit with other parts of the organisation's business strategy?	☐ Notification of any changes during negotiations. ☐ Ongoing evaluation of business strategies and plans.
Strategic fit	
2. Does the recommended Deal still satisfy OBC objectives and business needs?	☐ SMART spending objectives (revisited). ☐ Notification of any changes during negotiations. ☐ Written confirmation of agreement on part of stakeholders and customers.
3. Does the recommended Deal still provide all of the required services – both current and future?	☐ Clear statement of service requirements and outputs. ☐ Change control arrangements. ☐ Notification of any changes during negotiations: ○ additional services ○ agreement of stakeholders and users ○ business justification and CBA.

Key review criteria	Main evidence required
Economic case	
4. Was a wide range of bids received from service providers in response to the invitation to tender	☐ Assessment of earlier assumptions. ☐ Use of evaluation criteria: ○ long-list of suppliers ○ short-list of suppliers ☐ Description of each bid received at BAFO. ☐ Method of treatment for varying bids. ☐ Basis for selection of preferred bidder (if applicable).
5. Was the most economically advantageous offer selected?	☐ Preparation and assessment of economic appraisals for: ○ BAU and do minimum ○ revised PSC ○ best and final offers and/or ○ preferred bidder (if selected) ☐ Use of appropriate tools: ○ sensitivity analysis ○ risk (£) quantification ○ evaluation of qualitative benefits ○ Use of CBA.
Commercial Case	
6. Was the procurement undertaken in accordance with appropriate procurement legislation?	☐ Overview of procurement process. ○ deviations from procurement strategy ○ use of legal and procurement advice (internal and external advisers).
7. Can the selected service provider deliver the required deliverables and services?	☐ Outline of the agreed Deal ○ services – current and future ○ delivery time-scales ○ design ○ build ○ operate ○ payment mechanisms ○ performance and availability ○ volume and usage ○ incentives ○ future change ○ new business and alternative revenue streams ○ ownership of residual assets ○ service levels and performance measures. ☐ Business, technical and cultural fit – track record.
8. Have negotiations resulted in a robust and legally enforceable contract?	☐ Use of specialist adviser(s). ☐ Use of standard terms and conditions. ☐ Key contractual terms agreed.
9. How will business and service change be delivered and implemented successfully over the lifespan of the contract period?	☐ Assessment of known and expected change. ☐ Formula for handling unexpected change. ○ benchmarking ○ market testing arrangements.

Key review criteria	Main evidence required
Financial case	
10. Is the proposed investment still affordable?	☐ Financial appraisals for recommended Deal, including full assessment of: ○ capital and current requirements ○ net effect on prices ○ impact on the balance sheet ○ income and expenditure account. ☐ Stakeholder and customers agreement. ☐ Confirmation of finance directorate.
Management case	
11. Have the business and cultural implications of the intended service been fully understood and taken into account?	☐ Agreed programmes for: ○ change management ○ business process re-engineering. ☐ Staff-side representation. ☐ Personnel implications.
12. Are all the arrangements in place for the successful implementation and delivery of the required services?	☐ Contract management strategy, including disputes resolution procedures. ☐ Skilled contract management team. ☐ Agreed schedules for service streams and outputs.
13. How will the benefits be delivered and associated business and service risks managed throughout the lifespan of the service?	☐ Detailed benefits realisation plan. ☐ Robust risk management strategy ☐ Monitoring and reporting arrangements- registers and regular audits.
14. Are all the necessary arrangements in place for Project Monitoring and Evaluation during and after Implementation?	☐ Agreed arrangements for evaluation: ○ peer reviews ○ Cabinet Office Gateway reviews (if required) ○ project implementation reviews ○ post-evaluation reviews.
15. Are contingency plans in place should the recommended Deal fail at any stage?	☐ Contingency plans. ☐ Arrangements for regular review.

Annex A: Hypothetical Case Study showing the relationship between strategy, programme and project

	Organisational Strategy	Programme	Project
Purpose and focus	To deliver the vision, mission and long-term objectives of the organisation, typically involving transformational service change. **National Strategy for Improving Pre-16 year old Educational Attainment**	To deliver medium term objectives for change, typically involving improved quality and efficiency of service. **Improving School Buildings Programme**	To deliver short-term objectives, typically involving improved economy of service and enabling infrastructure. **Regional School Improvement Project A**
Scope and content	Strategic portfolio comprising the required programmes on the critical path for delivery of required **benefits.** **Improving Schools Building Programme** **Review of Pre-16 Curriculum Programme** **School Teachers Training Programme**	Programme portfolio comprising the required projects and activities on the critical path for delivery of anticipated **outcomes**. **Regional School Improvement Project A** **Regional School Improvement Project B** **Regional School Improvement Project C**	Project comprising the products and activities required for delivery of the agreed **output**. Work streams: **School building refurbishment** **New equipment** **Upgrading & Replacement IT**
Product	**Organisational Strategy and business plans**	**Programme Business Case (PBC)**	**SOC, OBC and FBC for large projects** **BJC for smaller schemes**
Monitoring, evaluation and feedback	10 year strategy Review at least annually and update as required.	7 year programme Monitor and Evaluate during implementation and on completion of each tranche. Annual reviews as a minimum and feedback into strategy development.	2 year project Monitor and Evaluate during implementation and on completion of project and feedback to programme.

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

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

1. Ensure the mandate and brief for the project have been completed.
2. Undertake the Strategic Assessment.
3. Complete the Risk Profile Assessment.
4. Draft the Scoping Document for the Project Business Case and arrange a meeting with the business case reviewer/ approver to agree the content, governance, reporting, assurance and approval arrangements.
5. Commence the Strategic Outline Case (SOC).
    - Prepare the Strategic case following completion of Workshop1 (Determining the Case for Change).
    - Prepare the Economic case following Workshop 2 (Appraising the long-list)
    - Provide an overview of the Commercial, Financial and Management case sections.
6. Undertake Cabinet Office Gateway 0 (business justification).
7. Submit the Strategic Outline Case (SOC) for approval.
8. Commence the Outline Business Case (OBC).
    - Revisit the case for change.
    - Revisit the economic dimension of the case following Workshop 3 (Appraising the short-list).
    - Prepare the Commercial dimension of the Case following Workshop 4 (Developing the Deals).
    - Prepare the Financial dimension of the case with the Finance Directorate.
    - Prepare the Management dimension of the Case following Workshop 5 (Successful Delivery Arrangements).
9. Undertake a Cabinet Office Gateway Review 2 (Delivery Strategy).
10. Submit the Outline Business Case (OBC) for approval.
11. Following procurement, prepare the Full Business Case (FBC).
    - Revisit OBC assumptions for the five cases.
    - Update the economic appraisals to reflect best and final offers (BAFOs).
    - Select the most economically advantageous tender (MEAT).
12. Undertake a Cabinet Office Gateway Review 3 (Investment Decision).

13. Submit the Full Business Case (FBC) for approval.

14. Monitor project delivery and undertake a Cabinet Office Gateway Review 4 (Readiness for Service) prior to going live.

15. Use the Full Business Case (FBC) to support post-evaluation and benefit realisation.

16. Undertake a Cabinet Office Gateway Review 5 (Operations Review and Benefits Realisation). Items 14 and 15 may be combined where it makes sense to do so.

17. Feed back findings into the strategic planning cycle.

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

Annex C: Project scoping document

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

Organisation/Department	
Proposal Title	
Sponsor/Senior Responsible Owner	

Date	Version	Revision History	Document Reviewer

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

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

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

	Potential considerations
Strategic Case	☐ Mandate and brief for the project. ☐ Requirement for feasibility study. ☐ Priority within the strategic portfolio. ☐ Critical path for project delivery. ☐ Relationship to the programme and other projects (if applicable). ☐ Potential constraints and dependencies. ☐ Workshop 1 attendees.
Economic Case	☐ CBA or CEA. ☐ Use of optimism bias and risk measurement. ☐ Benefits identification. ☐ Workshop 2 and 3 attendees.
Commercial Case	☐ Compliance with Government Commercial Operating Standards. ☐ Commercial strategy for organisation. ☐ Commercial and procurement strategies for the project. ☐ Potential procurement route. ☐ Workshop 4 attendees.

	Potential considerations
Financial Case	☐ Requirement for initial funding of the scheme. ☐ Available budget for the scheme. ☐ Likely balance sheet treatment.
Management Case	☐ Business case development plan. ☐ Risk profile assessment (RPA) score. ☐ Project management methodology (PRINCE2). ☐ Project assurance requirements (Cabinet Office Gateway, Quality, Technical, Security etc.). ☐ Workshop 5 attendees.
Business Case Development Plan	

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

Completed by:
Programme/Project Representative: ....

Approving Authority's Representative ....

Date: ....

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

Notes for the completion of the Business Case scoping document:

1. Type of Business Case required:

This will be dependent upon the nature of the proposal and the anticipated level of spending and the quality of the analysis already undertaken.

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

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

c. Consideration may be given to combining the SOC and OBC where the case for change has already been made and agreed as part of a Programme Business Case (PBC).

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

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

f. An over-arching Programme Business Case (PBC) should be prepared in support of expenditure being approved through a series of project business cases. See the separate guidance for programme and portfolio business cases available on the Green Book web page.

2. Anticipated coverage of the Business Case

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

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

Annex D: Overview of steps and actions for the preparation of Project Business Cases

Stages Steps and Actions	**Development Process**	**Deliverables**
	Determining the strategic context	
Step 1/ Action 1	Ascertain strategic fit	Strategic context
Output	*Programme Business Case (PBC)*	
Outcome	*Strategic fit*	
Review point	*Gateway 0 – strategic fit (if required)*	
Stage 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 spending objectives, existing arrangements and business needs	
Action 4	Determine potential business scope and service requirements	
Action 5	Determine benefits, risks, constraints and dependencies	
Step 3	**Exploring the preferred way forward**	**Economic case – 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*	
Stage 2 – Planning	**Preparing the Outline Business Case (OBC)**	
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 shortlisted options	
Action 11	Undertake benefits appraisal	
Action 12	Undertake risk assessment/appraisal	
Action 13	Select preferred option and undertake sensitivity analysis	

Stages Steps and Actions	**Development Process**	**Deliverables**
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*	
Stage 3	**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

Additionality	Is a real increase in social value that would not have occurred in the absence of the intervention being appraised.
Affordability	Is an assessment of the costs of an intervention to the public sector taking into account current and expected future budgets.
Appraisal	Is the process of defining objectives, examining options and weighing up the relevant costs, benefits, risks and uncertainties before a decision is made.
Assessment	May refer to either an appraisal or an evaluation.
Business As Usual	Is the continuation of current arrangements as if the intervention under consideration were not to happen. This serves as a benchmark to compare alternative interventions.
Business case	A management tool that records the current state of evidence and thinking concerning the development approval and implementation of proposal. It supports the processes of scoping, analysis, appraisal, planning, monitoring, evaluating, approval and implementation a proposal and is the repository for the evidence base.
Business Justification Case (BJC)	A single stage business case, using the Five Case Model, for the delivery of relatively low level spend for which firm prices are available.
Capital expenditure	Expenditure on durable assets such as land, buildings and equipment.
Contingency provision	Should reflect the sum of measured risk (costs of risks avoided, shared and mitigated on an expected likelihood basis) and optimism bias adjustment estimated in nominal prices.
Discounting	A method used to convert future values occurring over different periods of time to a present value so that alternative future values can be compared on the same basis.
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 reduced over time. This is applied to values that are at constant prices and has nothing to do with currency inflation.
Do minimum option	Refers to the minimum intervention required to deliver core objectives only.
Effectiveness	Is the systematic assessment of an intervention's design, implementation and outcomes.
Efficiency	A measure of the extent to which a project, programme or policy's associated throughputs are increased.
Evaluation	Evaluation is the systematic assessment of an intervention, its design, implementation and resulting outcomes both during implementation and most importantly afterwards.
Expected value	The weighted average of all possible values of a variable, where the weights are the probabilities.
Five case model	A systematic framework for the development and presentation of the business case, comprised of the strategic, economic, commercial, financial and management dimensions of the Case.
Full Business Case (FBC)	The completed business case and third stage in the development of a business case for a significant project, which identifies the most economically advantageous offer following procurement, confirms affordability and puts in place the detailed arrangements for successful delivery.
Market value	The price at which a commodity can be bought or sold, determined by the interaction of buyers and sellers in a market.
Monte Carlo analysis	Is a simulation-based risk modelling technique that produces expected values and confidence intervals as a result of many simulations that model the collective impact of a number of uncertainties.
Net Present Social Value (NPSV)	Is the present value of a stream of future costs and benefits to UK society (that are already in real prices) that have been discounted over the life of a proposal by the social time preference rate.
Opportunity cost	Is the value which reflects the best alternative use a good or service could be put to.
Optimism bias	Is the proven tendency for appraisers to be over-optimistic about key project parameters, including capital costs, operating costs, project duration and benefits delivery.

Option appraisal	The process of defining objectives, examining options and weighing up the costs, benefits, risks and uncertainties of those options before a decision is made.
Options Framework filter	A systematic framework for the generation of a wide range of possible options (the 'long-list') and the filtering of a few possible options for a shortlist and identification of the preferred way forward (Flanagan, JC (2006).
Outline Business Case (OBC)	The 'intermediate' business case and second stage in the development of a project business case, which identifies the option offering best public value, confirms the Deal and affordability, and puts in place the arrangements for successful delivery prior to taking a procurement to the market.
Outcome	Refers to the consequences to society of a change in service or policy. For example, improved life expectancy of the population.
Output	Refers to the change in the level or quality of a service delivered. For example, more cardiovascular operations carried out.
PPP	refers to a Public Private Partnership. This includes **PFI**, or Private Finance Initiative, which involves the private sector in the design, creation (or construction), operation and initial financing of a publicly provided service. **PF2** is a specific form of Private Finance Initiative.
Public Sector Comparator	Is an option for direct public provision with the same output and maintenance assumption as a the Public Private Partnership option with which it is to be compared, allowances for risk and tax are also included to create a level playing field for comparison. This comparison provides an initial value test in appraising possible partnership options.
Qualitative benefits	Benefits that may not be readily measurable or monetisable.
Required rate of return	A target average rate of return for a public sector trading body, usually expressed as a return on the current cost value of total capital employed.
Risk	The likelihood (measured by its probability) that a particular event will occur.
Sensitivity analysis	Analysis of the effects on an appraisal of varying the projected values of important variables.
Social Cost Benefit Analysis (CBA)	Analysis which compares the costs and benefits of alternative options from the standpoint of society, including social values derived according to the principles of welfare economics.
Social Cost Effectiveness Analysis (SCEA)	Analysis of the costs of alternative options where the social output that results effectively remains the same.

Spending objectives	The 'targeted' outcomes for the scheme, which reflect the rationale for the intervention and must be made SMART for the purposes of evaluation. Occasionally referred to as the investment objectives for the scheme.
Strategic Outline Case (SOC)	The 'early' first stage in the development of a project business case for a significant project, which makes the case for change and appraises the available long list to produce a short list of options.
Strategy	The strategic context for the project, which demonstrates how the project aligns with other projects within the strategic portfolio to deliver the mission and vision of the organisation in the longer term.
Switching value	Refers to the value a key input variable would need to take for a proposed intervention to switch from a recommended option to another option, or a proposal not to receive funding approval.
Transfer payment	A payment for which no goods or services are received in return.
Uncertainty	Is unmeasured risk where known risks are not yet well enough understood to be estimated in terms of probability or impact and where not all risks may be identified and quantified.

The Author:

Joe Flanagan is the architect of the Five Case Model Methodology and the author of this series of international and national guides for the development of programme and project business cases.

Joe retired in 2017, following 45 years of public service, but still supports the Better Business Case Programme as joint Chief Examiner for the accreditation training scheme.

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Joe joined HM Treasury in 1972. In his last posting as Head of the Investment Proposal Service, Central Computer and Telecommunication Agency and Cabinet Office, he assisted some 30 Government departments with the development of their IT schemes and HM Treasury expenditure divisions with their appraisal, before moving on, to become Commercial Director for the NHS Information Authority with responsibility for national IT contracts in NHS, England and Wales.

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Since 2006 Joseph Lowe has been Head of Economics Branch in the spending side of HM Treasury, where he is responsible for the Treasury's Green Book and its supplements on the appraisal of spending and investment. He is the editor of the Green Book, a new edition of which was published in March 2018 and is author of several papers, published as Treasury guidance, that apply economics to questions of public finance. He also looks after the guidance on the 'Treasury Spending Approvals Process', known as TAPs, and is executive editor of the Treasury guidance on development of business cases working with the originating author of the five case model, Joe Flanagan, on the Treasury Better Business Cases accreditation and training programme launched in May 2014.

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Bibliography

Making Sense of Public Sector Investments: the 'five case model' in decision making by Courtney Smith and Joe Flanagan (ISBN 1 85775 432 8).

HM Treasury Green Book: Central Government Guidance on Appraisal and Evaluation 2018

Supplementary Green Book Guidance: Optimism Bias (2003).

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