Government Commercial Function

# SCM CASE STUDY

## Should Cost Modelling

## Case Study – Illustrative Model Scope

MAY 2021

Version 1.0

# Foreword

This example Should Cost Model (SCM) Scope has been prepared by the Cabinet Office Sourcing Programme. It is based on a fictitious case study, namely the 'CASE Contact Centre', and has been prepared as an illustrative example of a model Scope.

It is one of three case study publications which illustrate some[1] of the key documentation that would typically be produced over the SCM development lifecycle and is intended to highlight good practice principles. The documents produced for this case study are:

- An illustrative Model Scope (this document)
- An illustrative Model Specification
- An illustrative SCM

The case study publications are intended to provide a worked example illustration of good practice model planning and model build techniques and are intended for use by those involved in the production of SCMs.

The case study publications are based on SCM Tools and Templates produced by the Sourcing Programme. The underlying Sourcing Programme SCM Tools & Templates use GCF branding and include guidance on how to use and adapt them. The branding of the underlying SCM Tools & Templates in this case study have been updated to reflect that of the fictitious 'CASE' department.

For the purposes of this illustrative case study all inputs and outputs from the model are exclusive of VAT. Notably, whilst the Green Book excludes irrecoverable VAT from the economic case of a Business Case (it is classed as a transfer payment) the calculation of irrecoverable VAT would be required for the financial case of a Business Case owing to its impact on affordability.

Additionally, for simplification purposes, this case study does not include the calculation of Optimism Bias within the SCM, although in practice the inclusion of Optimism Bias should be considered (either, within an SCM or calculated separately).

It should be noted that, SCM inputs are typically reflective of defined contractual performance standards. For simplicity, in this illustrative case study, performance standards have not been separately defined. In practice, however, inputs should be considered for their alignment with the defined performance standards.

It is good practice to include a record and audit trail of input data denoting the source / ownership of input data. This is typically in the form of a Book of Assumptions / Data Log, which is not included in this illustrative case study.

All case study documents are for illustrative purposes. They are not templates and should not be adapted for real life use.

[1] For further details of other documentation typically produced during the model development lifecycle (e.g. Book of Assumptions / Data Log, User Guide etc.) see SCM Development Guidance

More general guidance to support the development of SCMs has also been produced by the Sourcing Programme:

- SCM Guidance Note – outlines what SCMs are, when and why contracting authorities should produce them, and key considerations around developing and/or procuring them;

- SCM Development Guidance – provides contracting authorities with guidance on using internal resources to design, develop, test and manage SCMs; and

- SCM Technical Build Guidance – guidance, based on good practice principles for building SCMs. It is technical in nature and aimed at people who will be building SCMs.

It is recommended that the above guidance, and particularly the SCM Guidance Note, is read before commencing development of an SCM Scope. Practitioners should also consult existing good practice guidance including HM Treasury's Macpherson report, Aqua Book and Green Book.

You should consult the Cabinet Office Sourcing Programme for further information or before planning an SCM for complex services, projects or programmes via sourcing.programme@cabinetoffice.gov.uk.

The following sections of this document present the illustrative example model Scope for the fictitious case study.

# CONTACT CENTRE SCM

## Should Cost Model Scope

01 April 2021
Version 1.0

# Document Control

This document sets out the model Scope for the Should Cost Model (SCM) to support the delivery model assessment (DMA) for the CASE Contact Centre.

| | |
|---|---|
| **Document Name:** | Contact Centre SCM Scope |
| **Document Status:** | Final |
| **Document Owner:** | Yulanda Jenkins (Commercial) |
| **Contact Details:** | Yulanda.Jenkins@case.gov.uk |

| Version | Date | Author | Change Description | Document Review | | Document Approval | |
|---|---|---|---|---|---|---|---|
| | | | | Who | When | Who | When |
| 1.0 | 28/Feb/21 | Sydney Jones (Model Developer) | Final Scope following stakeholder engagement and comment | Yulanda Jenkins (Commercial)<br>Parker Thompson (Model Architect) | 02/Mar/21<br>01/Mar/21 | Joe Snow (Model SRO) | 05/Apr/21 |
| 0.3 | 15/Feb/21 | Sydney Jones (Model Developer) | Initial document drafted during workshop 3 | N/A | N/A | N/A | N/A |
| 0.2 | 08/Feb/21 | Sydney Jones (Model Developer) | Initial document drafted during workshop 2 | N/A | N/A | N/A | N/A |
| 0.1 | 01/Feb/21 | Sydney Jones (Model Developer) | Initial document drafted during workshop 1 | N/A | N/A | N/A | N/A |

# Contents

# Details

| # | Area | Details Questions |
|---|---|---|
| 1 | *Project Name:* | **What is the name of the project that will be supported by the SCM?** |
| | | CASE Contact Centre |
| 2 | *Prepared By:* | **Who has prepared and driven the population of this Scoping Template?** |
| | | The document was authored by Sydney Jones following workshops in February 2021 with Finance, Commercial and Operations. |
| 3 | *Prepared On:* | **What was the date that this Scoping Template was prepared on?** |
| | | The Final document (subject to review and approval) was prepared on 28Feb21 |
| 4 | *IMA Score:* | **What was the resultant score from the Initial Model Assessment?** |
| | | **MEDIUM**: The IMA was undertaken by Sydney Jones on 01Feb21. A copy of the IMA is stored under Z:\\2021\Contact-Centre\Procurement\SCM\ProjectManagement |
| 5 | *Other:* | **Include any other information points relevant to this section** |
| | | N/A |

# Overview

| # | Area | Overview Questions |
|---|---|---|
| 1 | *Background:* | **What is the background to the project that the SCM will support?** |
| | | The Sourcing and Construction Playbooks set the requirement to produce a Should Cost Model (SCM) when making sourcing decisions and contracting outside suppliers for the delivery of public services and public works projects or programmes.<br>The Contracting Authority for SCM Examples (CASE) was established on 01Jan21 to help contracting authorities to implement this policy requirement.<br>The newly appointed Permanent Secretary of CASE, Pat Smith, agreed a range of measure as part of the implementation support package, including establishing a Contact Centre within ~2 years. |
| 2 | *Sourcing:* | **What are you trying to source or procure?** |
| | | An inbound Contact Centre or Call Centre to provide technical guidance and support to contracting authorities on Should Cost Modelling. |
| 3 | *Delivery Options:* | **What are the delivery options under consideration?** |
| | | This is a new service that has not previously been provided by CASE. Three delivery options are under consideration:<br>1) **Build & Operate** – Build a new, purpose-built, contact centre facility and operate with in-house resources;<br>2) **Lease & Operate** – Lease and fit-out a suitable facility and operate the contact centre with in-house resources; and<br>3) **Outsource** – Outsource the contact centre to a third-party provider. |
| 4 | *Issue:* | **What decision or issue is the SCM intended to support or solve?** |
| | | The SCM is required to provide an estimate of the initial and ongoing costs for the three options under consideration to inform the delivery model assessment. The |

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| | | Permanent Secretary, Pat Smith, would also like an indicative cost estimate for budgeting purposes ahead of the next spending review. |
| 5 | *Value:* | **What is the approximate value of the project or decision that the SCM will support?** |
| | | Estimated at £5-10m p.a. (high level estimate based on SME opinion only). |
| 6 | *Reputation:* | **Is the reputational or regulatory impact of the project or decision that the SCM will support comparatively high?** |
| | | No – the impact is typical for a procurement of this size/nature. |
| 7 | *SCM Purpose:* | **What does the SCM need to do/ show/ compare /analyse?** |
| | | The SCM needs to show costs over the short, medium and longer term for each of the options (i.e. upfront and ongoing costs). It will need to be able to evaluate costs under a number of different Planned Annual Call Volumes. It will need to output an NPV for each option to support their evaluation. |
| 8 | *Bid Evaluation:* | **Will the SCM be used for bid evaluation purposes?** |
| | | No – following selection of the preferred option, and as the Business Case process evolves, a more detailed SCM will be developed. Any requirement to support bid evaluation will be covered as part of scoping the new SCM. |
| 9 | *Tolerance:* | **How accurate does the SCM need to be?** |
| | | The primary purpose of the SCM is to support the DMA. As cost is only one of a number of factors being considered as part of the DMA it is considered that Rough Order of Magnitude (ROM) costs will be acceptable.<br>Notably, as Pat Smith, the Permanent Secretary, would like to have an early indication of potential budgetary requirements any numbers communicated should articulate risk and uncertainty and present a range of possible values. |
| 10 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Project Management

| # | Area | Project Management Questions |
|---|---|---|
| 1 | *Timescales:* | **What are the procurement and, in turn, model delivery timescales?** |
| | | The go-live date for the CASE Contact Centre, which may be impacted by the preferred option, has been set as on or before 01Apr23. The first relevant formal procurement milestone is the DMA. This needs to be completed by 30Jun21 to enable sufficient time to finalise the Outline Business Case (OBC) before the end of July 2021. |
| 2 | *Milestones:* | **What are the key milestone dates for producing the model?** |
| | | 01Feb21 – Model planning commences<br>29Apr21 – Model planning and design completed (Specification, including Design, and Data, Delivery and QA Plans approved)<br>31May21 – Model build completed (populated with data and documented)<br>04Jun21 – Developer and User Acceptance Testing (UAT) completed<br>07Jun21 – Model submitted for formal QA and testing<br>18Jun21 – Model finalised for use (formal QA sign-off) |

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| | | 25Jun21 – All Model scenarios and sensitivities run and documented<br>30Jun21 – Model outputs approved and submitted to support the DMA |
| 3 | *Dependencies:* | **Are there any known dependencies?** |
| | | The DMA is dependent on the output from the SCM. The SCM is dependent on volume assumptions from the service design workstream. |
| 4 | *Risks:* | **What are the key SCM delivery risks?** |
| | | Availability of cost data to support the Outsourced delivery option. |
| 5 | *Process:* | **How will model development be managed and what are the senior level sign-off points?** |
| | | Model development will follow a structured process (Plan/Design/Develop/Test/Use) with stage-gated approvals. Key outputs from each phase/stage will be signed-off by Joe Snow, the Model SRO.<br>Roles and responsibilities, schedules and key risks will be set out in detail within the Delivery Plan. The Delivery Plan will be actively monitored and the BRAG status shared with Joe Snow on a bi-weekly basis.<br>The Model Development Checklist will be completed over the course of the model development lifecycle and will be signed-off at the end of each phase/ stage.<br>The key sign-off points are:<br>- Model Scope (and initial Data, Delivery and QA Plans)<br>- Model Specification (inc. Design)<br>- Draft Model (via User acceptance Testing)<br>- Formal QA and Testing (in-line with the QA Plan) |
| 6 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Outputs

| # | Area | Outputs Questions |
|---|---|---|
| 1 | *Key Outputs:* | **What are the key outputs to be produced by the SCM?** |
| | | Total NPV and costs over time for each of the delivery options.<br>Costs broken down by:<br>• Operating Costs<br>• Staff Costs<br>• Software & Hardware Costs<br>• Lease Costs<br>• Build & Maintenance Costs<br>Average Cost per Call Hour for each delivery option. |
| 2 | *Output Format:* | **What format should output reports be in and are samples available?** |
| | | Template to be provided by Finance (Falcon Wong). |
| 3 | *Conventions:* | **Do output reports need to comply with accounting or other standards?** |
| | | No prescribed output format is required, although should cover key outputs in Question 1 above. |

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| 4 | *Requirements:* | **What specific outputs or output formats are required for approvals?** |
| | | Costs over time including and excluding inflation for each of the options. Note VAT is out of scope (see below). |
| 5 | *KPIs & Ratios:* | **What KPIs or ratios are required and are definitions available?** |
| | | Cost per call hour – definition to be provided by Operations (Oakley Katz) |
| 6 | *Graphical Outputs:* | **Are graphs or charts required and if so, what should they depict?** |
| | | Cost over time for each option. NPV bar chart comparing each of the delivery options. |
| 7 | *Dynamic Outputs:* | **How should dynamic model elements be presented in the outputs?** |
| | | Outputs for each delivery option to be presented alongside each other for comparison. |
| 8 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Logic

| # | Area | Question |
|---|---|---|
| 1 | *Cost Components:* | **What are the cost components of the service, project or programme being modelled?** |
| | | Key cost components, which vary by option, include:<br>*Build & Operate Option*<br>- Staff costs<br>- Software & Hardware costs<br>- Build & Maintenance costs<br>*Lease & Operate Option*<br>- Staff costs<br>- Software & Hardware costs<br>- Lease costs<br>*Outsource Option*<br>- Operating costs |
| 2 | *Costing Techniques:* | **What is the approach to cost estimation?** |
| | | Majority of costs, (e.g. staff costs) to be developed bottom-up, driven by call volumes and relevant drivers.<br>Build cost estimates to be based on a parametric approach, driven by building area (i.e. £/m2). |
| 3 | *Options & Scenarios:* | **What delivery model options and/or scenarios will be included in the model?** |
| | | Three delivery options, as set out above (Build & Operate / Lease & Operate / Outsource).<br>Scenarios are required around planned maximum annual call volume capacity.<br>Three-point estimates will be included for key cost drivers (to be determined during model Specification). |
| 4 | *Pricing Approaches:* | **How will supplier pricing approaches be represented?** |
| | | Market prices inclusive of overheads, profit and risk premium will be used. |

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| 5 | *Cost Drivers:* | **What are the fixed and variable costs and how will they be driven?** |
| | | Key driver-based costs are (detailed cost forecasting methodology will be determined in the model Specification):<br>• Staff costs, which are subject to wage inflation, will be driven by call volumes;<br>• Software & Hardware costs will be driven by number of users;<br>• Lease Costs driven by cost per FTE;<br>• Build & Maintenance costs driven by square meterage; and<br>• Costs for the outsourced option are variable (£/ Call Hour basis).<br>Key Fixed costs include:<br>• Site build costs, site preparation costs and telephony setup costs. |
| 6 | *Granularity:* | **How much detail is required for the different cost components in the model?** |
| | | Comparisons are broadly required at the total cost level. However, costs to be broken into the components detailed above (Question 1: Cost Components). |
| 7 | *Calculations:* | **What other calculations or specialist modelling techniques are required?** |
| | | Scenario and sensitivity analysis (set out above and below). |
| 8 | *Comparison Level:* | **At what level are comparisons between options or scenarios required?** |
| | | At the total cost level (by period). |
| 9 | *Sensitivities:* | **Does the model need to run sensitivities and if so on what?** |
| | | Sensitivities required around call volumes post contract award (e.g. X% reduction vs planned maximum call volume capacity). |
| 10 | *Inflation:* | **How will inflation be included within the model?** |
| | | All costs to be entered in the model in 2022/23 figures. Annual wage inflation and other annual inflation (e.g. for FM costs). Model to include up to 5 different inflation rates. |
| 11 | *Taxation:* | **Does VAT or any other tax need to be included?** |
| | | Costs should be entered exclusive of VAT. Calculation of VAT is out of scope. |
| 12 | *Currency:* | **What currency or currencies will the model be in?** |
| | | £GBP |
| 13 | *Risk & Uncertainty:* | **How will risk and uncertainty be represented within the model?** |
| | | Through the use of scenarios (e.g. Low Case / Base Case / High Case estimates on key drivers) and call volume sensitivities. |
| 14 | *Optimism Bias:* | **How will the model be calibrated for Optimism Bias?** |
| | | OB will be calculated outside of the SCM. |
| 15 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Data

| # | Area | Data Questions |
|---|---|---|
| 1 | *Key Inputs:* | **What are the key model input data and assumptions requirements?** |
| | | **Key** input data requirements: |

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| | | Planned Maximum Annual Call Volumes; Build costs, Staff density, FM costs (Option 1 only); Staff Numbers, Agent to Supervisor Ratios, Capitation Rates, Software & Licensing Costs, Hardware Costs (Options 1 and 2 only); Call Cost per Hour (Option 3 only); Inflation; GDP Deflator; Discount Rate; Call Volumes. |
| 2 | *Uncertainty & Risk:* | **What uncertainties and risks will be represented within the model?** |
| | | Low, base and high case estimates included for key inputs.<br>Different scenarios and sensitivities for planned call volumes.<br>Schedule risk in relation to the build is out of scope in this version of the SCM. |
| 3 | *Data Risks:* | **Are any key challenges and/or risks associated with the data?** |
| | | Estimated and, in-turn, planned maximum call volumes are in flux as a result of policy changes. They should be confirmed by mid-June and their availability will need to be carefully managed (may require escalation to Joe Snow). |
| 4 | *Data Sources:* | **What are the sources of the required data and assumptions?** |
| | | Build Costs, FM Costs, Capitation Rates, Software & Licencing Costs, Hardware Costs and Inflation – Finance<br>Staff Numbers, Staff Density and Agent to Supervisor Ratio – Operations<br>Call Volumes and Call Cost per Hour - Commercial<br>GDP Deflator (long term) – OBR Fiscal Sustainability Report (FSR)<br>STPR Rate (discount rate) – HMT Green Book |
| 5 | *Collection Process:* | **What is the process for collecting the data and assumptions?** |
| | | Dylan Oban is coordinating data collection and has submitted provisional data requests to Finance, Operations and Commercial. |
| 6 | *Data Gaps:* | **What, if any, are the data gaps and how will they be filled?** |
| | | IT costs are currently unknown. Dylan Oban is working with Commercial to produce a cost estimate. |
| 7 | *Data Quality:* | **How reliable is data and if any data needs to be matured what is the process for this?** |
| | | Currently available build costs are based on based on firm but aged supplier quotes and need to be matured (TBD post DMA). |
| 8 | *Data Format:* | **What format will the data be in when it is obtained?** |
| | | Data to be provided in Excel format. |
| 9 | *Data Processing:* | **Will the data need to be analysed or manipulated for use?** |
| | | Other than inflating costs to £2022/23 economic conditions no significant data manipulation is envisaged. |
| 10 | *Multi-Source:* | **Is there a single source for each data set or are there several?** |
| | | Some data (e.g. build costs) originates from different supplier estimates but all data is held and/or will be managed by the relevant owner (e.g. Finance). |
| 11 | *Data Stability:* | **How often will data change during development and after delivery?** |
| | | With the exception of call volumes, most data is expected to be relatively static. |
| 12 | *Sample Data:* | **Is sample data available to support development and preliminary testing?** |
| | | Build cost breakdowns are currently available – the remaining data will be gathered as model development progresses. |
| 13 | *Data Volumes:* | **How much data is going to go into the model?** |
| | | Data volumes are relatively small. |

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| 14 | *Data Validation:* | **What, if any, validation checks on the data are required?** |
| | | Falcon Wong will review all data provided by Finance prior to inclusion within the model. |
| 15 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Limitations

| # | Area | Limitations Questions |
|---|---|---|
| 1 | *Out of Scope:* | **What potential model aspects are considered to be out of scope?** |
| | | Costs associated with contract management, including monitoring and evaluation, are expected to be similar across the three options and are out of scope. Recruitment costs are also excluded as the marginal costs to CASE are considered to be relatively low. Land acquisition costs have been excluded (sunk costs) and opportunity costs are also excluded given the position of the proposed site (Option 1 only). Calculation of VAT is out of scope (all inputs and outputs from the model are exclusive of VAT). Wider economic benefits are not included.<br>Note – excluded costs needs to be made explicit when sharing outputs from the SCM<br>Further out of scope areas to be determined during model Specification. |
| 2 | *Limitations:* | **What are the limitations to the model and its potential use?** |
| | | Outputs are at the Rough Order of Magnitude (ROM) level and schedule risk, particularly with regards to Option 1, is not included.<br>Call volumes will be based on annualised averages and will not be suitable for detailed staff rostering.<br>The model does not calculate VAT. The assessment and inclusion of irrecoverable VAT would be required to support a Business Case financial case (currently out of scope).<br>Further limitations to be determined during model Specification. |
| 3 | *Other:* | **Include any other information points relevant to this section.** |
| | | Out of scope areas and limitations were raised with Pat Smith who, at the time, agreed that they were acceptable. However, the flexibility of the SCM's design to accommodate the potential inclusion of schedule risk should be considered when specifying the model. |

# Periodicity

| # | Area | Periodicity Questions |
|---|---|---|
| 1 | *Time Period:* | **What forecast time period should the model cover?** |
| | | The model should cover a 30-year period, plus an additional year for design and build/ contract mobilisation (31 years in total). |
| 2 | *Time Increment:* | **Does the model need to be annual, monthly or other?** |
| | | Annual with a summary of build / mobilisation costs and 5-yearly summaries of operating costs. |

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| 3 | *Historical Periods:* | **How many periods of historical data should be included?** |
| | | N/A |
| 4 | *Period Dates:* | **What are the applicable period end dates?** |
| | | 01Apr:31Mar |
| 5 | *Key Dates:* | **What are the important dates in the model?** |
| | | Mobilisation and service operation dates. |
| 6 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Users

| # | Area | Users Questions |
|---|---|---|
| 1 | *SCM Users:* | **Who will operate or interact with the model and what is the purpose of their interaction?** |
| | | The model will be run by Finance (Falcon Wong) after formal QA and testing and following handover by Sydney Jones |
| 2 | *User Needs:* | **Do the requirements differ by user and what interface is required for each user?** |
| | | N/A – captured in model outputs above. |
| 3 | *Future Users:* | **If the model will be used after the project is complete who will be the new user(s)?** |
| | | Falcon Wong |
| 4 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Stakeholders and Governance

| # | Area | Stakeholders and Governance Questions |
|---|---|---|
| 1 | *Model SRO:* | **Who is the Model Senior Responsible Owner?** |
| | | Model SRO - Joe Snow |
| 2 | *Model Customer:* | **Who has commissioned the model and who is the model being built for?** |
| | | The model has been commissioned by Yulanda Jenkins from Commercial. |
| 3 | *Model Developer:* | **Who is responsible for building the model and undertaking self-testing?** |
| | | Model Developer - Sydney Jones |
| 4 | *Model Quality Assurers:* | **Who will undertake each of the various aspects of model QA and testing?** |
| | | Verification – Ani Versailles<br>Validation – Alex Vader |
| 5 | *SMEs:* | **Who will provide Subject Matter Expertise to inform model development?** |
| | | Commercial - Yulanda Jenkins |

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|---|---|---|
| | | Finance – Falcon Wong<br>Operations – Oakley Katz |
| 6 | *Model Architect:* | **Who is responsible for overseeing and managing production of the model?** |
| | | Model Architect – Parker Thompson |
| 7 | *Data Collection:* | **Who is responsible for managing the collation of data and assumptions?** |
| | | Dylan Oban |
| 8 | *Data Manipulation:* | **Who is responsible for performing any data pre-processing requirements?** |
| | | Dylan Oban |
| 9 | *Data Population:* | **Who is responsible for inputting data and assumptions into the model?** |
| | | Sydney Jones, prior to formal QA and testing, and Falcon Wong, following model handover. |
| 10 | *Other:* | **Include any other information points relevant to this section.** |
| | | The Permanent Secretary, Pat Smith, requires indicative cost estimates and is an important stakeholder. |

# Deliverables

| # | Area | Deliverables Questions |
|---|---|---|
| 1 | *Key Deliverables:* | **What are the key deliverables (SCM, model Specification, User Guide, BoA / DL, QA Report, Technical Guide, Training)?** |
| | | SCM, model Specification, User Guide, Book of Assumptions / Data Log (BoA / DL), QA Report. |
| 2 | *Deliverables Scope:* | **What is the purpose of and who are the stakeholders for deliverables (other than the SCM)?** |
| | | SCM – see Stakeholders sections for model operators/customers.<br>The User Guide is required to support handover to Finance.<br>The model Specification will be used to support model planning and gain build approval from all key stakeholders and Model SRO sign off.<br>The BoA / DL (together with the model Specification) will be used to support formal QA and testing.<br>The QA Report, will support the Model SRO in signing off the model for use. |
| 3 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Technical Questions

| # | Area | Technical Questions |
|---|---|---|
| 1 | *Enduring Use:* | **Is the SCM for one-time use, ongoing use or re-use?** |
| | | One time use. However, following the DMA and depending on the preferred option there may be a requirement to evolve it. |

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| 2 | *Software Platform:* | **What software and software version will the model be built in?** |
| | | Microsoft Excel O365 ProPlus. |
| 3 | *Software Suitability:* | **Is the software platform the most appropriate platform?** |
| | | Yes - there are no existing models or models that could be adapted. Given the (low) data volumes, project timescales and one-time use requirement a new Excel-based model is the considered to be the most appropriate solution. |
| 4 | *Size & Performance:* | **Are there file size restrictions or performance requirements?** |
| | | None. |
| 5 | *VBA:* | **Are there any restrictions on the use of macros or VBA?** |
| | | VBA is acceptable but it should not to be used to perform calculations that impact model outputs. |
| 6 | *Add-Ins:* | **Are any custom or non-standard add-ins required?** |
| | | No. |
| 7 | *System Integration:* | **Will the model need to link to other files or applications?Error! Reference source not found.** |
| | | No. |
| 8 | *Standards:* | **Does the model need to conform to specific standards?** |
| | | It should be built in line with the Sourcing Programme's SCM Technical Build Guidance. |
| 9 | *Templates:* | **Are there any templates on which to base development?** |
| | | The model will be based on the Sourcing Programme's SCM Build Template. |
| 10 | *Examples:* | **Has modelling of this type been undertaken previously and if so are the files available?** |
| | | Yes - to be provided by Finance (Flacon Wong). |
| 11 | *LFE:* | **Are there any Learning From Experience points that need to be considered?** |
| | | Allowing more time for changes to the model and updates to the data and assumptions as a result of formal QA and testing. |
| 12 | *Other:* | **Include any other information points relevant to this section.Error! Reference source not found.** |
| | | N/A |

# QA and Testing

| # | Area | Question |
|---|---|---|
| 1 | *QA Procedures:* | **What specific QA and testing activities will be required?Error! Reference source not found.** |
| | | In addition to developer testing the SCM will undergo Verification and Validation.<br>QA Plan template has been completed showing detailed tests to be performed. |
| 2 | *QA Tools:* | **Are testing activities constrained by a lack of available tooling?Error! Reference source not found.Error! Reference source not found.** |
| | | No – 3rd party software is available to support Verification. |

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| 3 | *QA Framework:* | **Is there a QA framework that the model will need to follow?** |
| | | Yes. The CASE Analytical Quality Assurance (AQA) framework will be followed. |
| 4 | *UAT:* | **Have the individuals who will undertake UAT been identified?Error! Reference source not found.** |
| | | User Acceptance Testing (UAT) to be undertaken by Falcon Wong (Finance). |
| 5 | *3rd Party QA and Testing:* | **Is QA and testing by an independent external 3rd party required?** |
| | | No – independent internal resource will be used. |
| 6 | *QA Resources:* | **Have all of the different QA and testing resources been secured?** |
| | | Key Verification and Validation resource has been secured and UAT has been planned. |
| 7 | *QA Time:* | **Has sufficient time been allocated to undertake QA and testing?** |
| | | One week has been allocated for developer testing and UAT and three weeks has been allocated for formal QA and testing (in order to account for up to three 'review cycles', if required). The quality assurers have been consulted and expect this to be sufficient as the model developer, Sydney Jones, is proficient in good practice approaches to model development. |
| 8 | *Approvals Needs:* | **What are the requirements of any scrutiny or approvals processes?** |
| | | A QA Report (signed off by Joe Snow, the Model SRO) along with the model Specification and Book of Assumptions / Data Log is required. |
| 9 | *Referencing QA:* | **How will QA and testing be referenced within the model?** |
| | | The QA Report, including any limitations will be summarised in the model together with a link to the QA Report itself. |
| 10 | *Other:* | **Include any other information points relevant to this section.Error! Reference source not found.** |
| | | N/A |

# Sign-offs

| # | Area | Sign-offs Questions |
|---|---|---|
| 1 | *SCM Plan Sign-off:* | **Who needs to sign-off on the model Scope and model Specification?** |
| | | The model Scope and Specification will be reviewed by Yulanda Jenkins (Commercial) and signed-off by Joe Snow (Model SRO). |
| 2 | *QA Sign-off:* | **Who will sign-off the QA Plan and the performance of QA and testing?** |
| | | QA Plan to be reviewed by Joe Snow (Model SRO).<br>QA Report to be reviewed by Parker Thompson (Model Architect) and signed-off by Joe Snow (Model SRO). |
| 3 | *SCM Use Sign-off:* | **Who needs to sign-off the model for implementation and use?** |
| | | Model to be signed-off by Joe Snow (Model SRO). |
| 4 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Implementation

| # | Area | Implementation Questions |
|---|---|---|
| 1 | *Version Control:* | **What are the version control guidelines and procedures?** |
| | | The model will include a Version Control Log and will adhere to CASE file naming and storage conventions. |
| 2 | *Change Control:* | **What are the change control guidelines and procedures?** |
| | | The model Version Control Log will be maintained throughout the model development lifecycle. Following model sign-off for use, all changes will need to go through formal QA and testing and be approved by the Model SRO, Joe Snow. |
| 3 | *Handover:* | **Who will the model be handed over to and what are the planned handover procedures?** |
| | | The model will be handed over to Falcon Wong (Finance) following completion of formal QA and testing and sign-off.<br>Training in how to run the model and update the data and assumptions will be performed by Sydney Jones as part of UAT and the model will include an in-built User Guide.<br>Following handover, Falcon Wong will maintain the master version of the model and assume responsibility for using the model and any required data updates (subject to approvals). |
| 4 | *SCM Longevity:* | **How often and for how long will the model be used?** |
| | | The model will be used fairly intensively for around one month to run scenarios and sensitivities to support OBC. |
| 5 | *SCM Maintenance:* | **Will SCM maintenance be required and, if so, for how long?** |
| | | There may be a requirement for minor changes to the model post sign-off and Sydney Jones (Model Developer) has made provisions for this. |
| 6 | *Other:* | **Include any other information points relevant to this section.** |
| | | N/A |

# Information Handling

| # | Area | Information Handling Questions |
|---|---|---|
| 1 | *Handling:* | **Are there any security and/or confidentiality restrictions on the model?** |
| | | No protective marking is required [for the purposes of this case study]. |
| 2 | *IP:* | **Are there any Intellectual Property points that need to be considered?** |
| | | No. |
| 3 | *Suppliers:* | **If the model will be shared with suppliers have the associated risks been considered?** |
| | | N/A – the model will not be shared with suppliers. |
| 4 | *External:* | **If third parties are involved are there any specific requirements?** |
| | | N/A – no third parties are involved. |

| | | |
|---|---|---|
| 5 | *Other:* | **Include any other information points relevant to this section.**<br>**Error! Reference source not found.** |
| | | N/A |