

Sourcing Toolkit

Preparing to go to Market



Version Control

Version No.	Amendments	Date	Document Reference No.
1.0	First published version	30/09/22	F11/22/1052560

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Foreword

It has been acknowledged there are a number of strategic drivers requiring a transformation in public procurement practice and procedure. This requires a shift in focus away from procedural instruction to a more commercial approach to help deliver the Programme for Government commitments through public procurement.

In recognition of this, the Procurement Board agreed to apply the themes contained within the [Sourcing Playbook](#), published by Cabinet Office, to procurements in Northern Ireland with the aim of improving commercial focus.

As a result of this work, the Sourcing Toolkit was developed to incorporate the best practice guidance from the Cabinet Office's Playbook, along with guidance developed for public procurement here.

The Toolkit is a living document which will be updated to include any relevant topics added to the Cabinet Office Playbook.

The Toolkit is not mandated. It is a compilation of helpful guides and templates which public bodies may wish to use, as appropriate.

A proportionate approach should be taken to achieve a balance between the value of the contract and the transactional cost of applying the guidance outlined in the Toolkit.

The information set out in this document is neither legal advice nor statutory guidance and is not intended to be exhaustive. If there is any conflict between the Toolkit and [Procurement Policy Notes](#) (PPNs), the PPNs will take precedence.

Training on the different sections within the toolkit is provided through the [Government Commercial College](#).

SECTION 2 - PREPARING TO GO TO MARKET

Key Points

1. Invest time in preparing to go to market in order to conduct procurements that encourage broad participation and are open and accessible to all.
2. Collect and maintain quality data and accurate asset registers.
3. Consider the need to build in flexibility to allow for post-contract validation of data (consistent with procurement legislation).
4. Offer potential suppliers a clear articulation of the service being procured so they can make an informed decision about whether they want to tender.
5. Design Key Performance Indicators (KPIs) that are relevant and proportionate to the size and complexity of the contract.
6. Plan for an annual review of benefits realisation after contract award.
7. Design contracts that set reasonable expectations of suppliers and offer a fair return.
8. Consider the criticality of the service contract and determine whether resolution planning information will be required.
9. Consider supply chain risk and whether to require any additional protections (e.g. payments mechanisms to ensure sub-contractors are paid promptly).
10. Consider how best to protect against risks arising from supplier insolvency.

2.1 Should Cost Modelling

What is a Should Cost Model?

Introduction to Should Cost Models

A Should Cost Model (SCM) provides a forecast of what a service, project or programme 'should' cost over its whole life. As summarised below, there are different types of SCMs that may also differ in design as requirements change over the procurement lifecycle. However, the term Should Cost Model or SCM is used throughout to refer to all of them.

For public works projects, SCMs forecast costs over a period that includes both the build phase and the expected design life. This includes costs of additional market factors such as risk and profit. It provides an understanding of whole life costs, including the impact of risk and

uncertainty on both cost and schedule. Notably, the key factor is 'whole life cost' and not the initial purchase price

SCMs are calculations of what a service, project or programme 'should' cost over its whole life, irrespective of where it has been obtained from.

It is important to define and ensure decision makers are aware of what costs are included in the SCM, how they are treated and the limitations of the SCM. An SCM is an estimate of a specific set of costs under particular circumstances over a defined time period, usually defined as the whole life cost of the service, project, or programme.

An SCM is both a financial model (e.g. they may use financial techniques such as Net Present Value calculations) and an analytical model. An SCM will:

- Use analytical techniques, such as unit cost multiplied by unit volume;
- Take account of uncertainty and include relevant risks;
- Use relevant data, such as day rates and employee numbers; and
- Usually model a number of different options for comparison and sensitivity purposes

Levels of complexity

SCMs vary in complexity and the time they take to create. The complexity of an SCM should be proportional to and reflective of the complexity and criticality of what you are trying to source. The complexity will also depend on the purpose the SCM is serving (e.g. high-level analysis compared with detailed forecasting). A very simple SCM could be key cost drivers and assumptions captured in a spreadsheet, which may be appropriate for sourcing something that is low value, simple, and stable. In contrast, a complex SCM could be a detailed financial model, which may be appropriate for sourcing something that is high value or complex and could take several months to prepare.

If going to tender, factor in the time that suppliers will need to create their equivalent cost models when setting the procurement timetable.

Simple SCMs with fewer data sets and less complex calculations are less resource intensive to produce than complex SCMs with advanced features. Sufficient time to plan, design, develop and test the SCM would be required within any programme or procurement plan.

The level of detail in an SCM can vary significantly and it may need to be iteratively developed over time as more information becomes available and as greater certainty is required. Simple

models based on an initial service, project, or programme definition and key cost drivers may be appropriate during the early stages of the decision-making and procurement process.

As the procurement process progresses, the service, project or programme specification and other determining factors develop, and greater confidence is required, SCMs may need to become more detailed and the data within them more robust. There may be a need to revisit and recalibrate the assumptions. For example, the SCM may require further development to allow for greater insight into cost components and potentially even their evaluation as part of supplier selection, provided the SCM is disclosed to the tenderers.

Evolution of a Should Cost Model

Delivery model assessments (DMAs) are expected to be iterated over time. Similarly, SCMs are also expected to evolve over time as more information becomes available and requirements change. These requirements may, for example, include using the SCM to help demonstrate best value for money, to inform the development of payment mechanisms or to help protect government from 'low cost bid bias'. SCMs have utility across the procurement lifecycle and the level of detail, which can vary significantly, may require iteration over time. Their evolution is similar to how the Northern Ireland Guide to Expenditure Appraisal and Evaluation (NIGEAE) (the 'Green Book') describes the Business Case development process:

- Initial Should Cost Modelling – Informs the initial strategic delivery model assessment (Strategic Outline Business Case).
- Developed Should Cost Modelling – A more detailed model that provides an evaluation framework for options to help demonstrate value for money. (Outline Business Case).
- Evaluative Should Cost Modelling – This is a full cost model that includes all cost drivers and data to support evaluation of the costs of supplier returns that have been received. This is possible only where the SCM has been made available to tenderers during the procurement. Contracting authorities should carefully consider the potential risks and benefits of sharing SCMs (Full Business Case).
- Performance Should Cost Modelling – This is a full cost model using actual cost data and volumes, allowing comparison to expectations and robust open book contract management (Full Business Case).

Using Should Cost Models to understand whole life costs

Having a clear understanding of the whole life cost of delivering a service, and/or the cost of transforming a service is best achieved by producing a SCM. As summarised below, a SCM can be used to help evaluate different delivery model options:

- In-house – This is the whole life cost to deliver a service in-house using internal resources and expertise. It includes the cost of acquiring assets and the necessary capability. This should be used early in the procurement to compare costs against the ‘expected market cost’ and/or ‘mixed economy’ options at a high level to inform your delivery model assessment.
- Expected market cost – This is the expected whole life cost of procuring a service from an outside supplier. It includes the cost of additional market factors such as risk and profit. Use early market engagement to help ensure that the model structure can be evolved to enable comparison to the tenders you expect to receive from the market.
- Mixed economy – A delivery model will often be a combination of insourcing and outsourcing different components of the service. In these cases, a combination of the ‘in-house’ and ‘expected market cost’ options, referred to as a ‘mixed economy’ option, can be used to calculate the cost of the service.

It is good practice to produce a SCM for the procurement of a complex service. Should Cost Models used early in the procurement process will:

- Drive a better understanding of the financial risks and opportunities associated with different service delivery options and scenarios;
- Drive more realistic budgets by providing greater understanding of the impact of risk and uncertainty;
- Inform the Strategic Outline Case; and
- Inform engagement with suppliers and the appropriate procurement strategy, including methods to incentivise the supply chain to deliver whole life value.

SCMs can be used throughout the procurement lifecycle and can help to support wider requirements, such as demonstrating value for money or helping to protect government from ‘low cost bid bias’. As requirements change and more information becomes available, for example, the anticipated costs linked to the proposed KPI targets, they will evolve and the level of detail, which can vary significantly, should be iteratively developed over time.

Cabinet Office has developed a number of Guidance Notes relating to SCMs:

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

Cabinet Office has also produced a number of practical Tools and Templates¹ to support the development of SCMs and to help reinforce good practice approaches. These are aligned to different phases/ stages of the model development lifecycle.

Why produce an SCM?

Benefits of Should Cost Models

The three fundamental benefits of SCMs are to provide a better understanding of the costs associated with different delivery model options; to provide insight into the potential delivery models; and help protect the Government from ‘low-cost bid bias’ (the tendency to favour the lowest cost bid as the preferred option).

SCMs are powerful tools that can be used to support a much wider range of analysis. These may be best understood by reference to the Five Case model.

<http://nics.intranet.nigov.net/finance/documents/introduction-five-case-model>

- **Strategic Case** – Supporting the case for change by clearly defining the scope of the offering and associated delivery costs, including confidence ranges around the costs. Depending on the required scope of the SCM, this may also include providing a quantitative understanding of aspects of the current situation, referred to as Business as Usual (BAU).
- **Economic Case** – Having a should cost model will allow for the costing elements of the business case to be better articulated and understood, and support discussions around options and value for money. In assessing value for money, whole life cost considerations will extend beyond those of just the contracting authority and benefits

¹ <https://www.gov.uk/government/publications/should-cost-modelling-tools-and-templates>

will also form part of the evaluation. The required scope of the SCM and the extent to which it will be used to support the Economic Case will drive its overarching design.

- **Commercial Case** – Designing an SCM for first generation outsourcing or where services, projects or programmes are novel will help to drive an understanding of their commercial viability through a better understanding of cost components, including risk and timing, and whether or not there is a market from which they can be procured.
- **Financial Case** – Having a granular cost profile of a target service, project, or programme will help to determine issues of affordability and financial viability through highlighting whole life costs and confidence ranges around them. Akin to the Economic Case, the extent to which the SCM will be used to support the Financial Case will impact the broader costs and benefits included within the SCM and drive its overarching design.
- **Management Case** – Having a view of what the delivery costs should be will assist in overall project management. It can provide structure to reporting by providing a baseline set of costs against which deviations can be measured.

In addition to the initial delivery model assessment and helping to protect government from low-cost bid bias, SCMs can support different elements of the procurement lifecycle, provided they are supported with accurate management information and market data.

This can include:

Options Analysis – Gives objective views on cost estimates and drivers for different option combinations, broadening insight into delivery options;

Switching Values – Enables, through sensitivity analysis, the threshold at which changes in input values would make an option no longer viable;

Key Cost Driver Analysis – Provides additional insight through enabling a more detailed understanding of key factors that influence cost and raise awareness of their underlying drivers;

Maximising Value for Money – Establishes cost by cost category, providing transparency over the cost of something and the output delivered in return;

Negotiation Support – Allows for element level comparison between different tenderers' proposals and the SCM to identify and understand differences between a tenderer's proposed price and the expected baseline during competitive procedure with negotiation or competitive dialogue procurement processes;

Budget Setting – Can be used to give a framework to inform budgets;

Project Performance Review – Once a contract has been awarded, the supporting SCM can be updated with the contracted costs to provide a cost baseline against which analysis can be performed, highlighting variances between outturn and plan at a granular level and enabling further investigation; and

Contract Management – Provides a cost baseline which, along with actual costs, can be used to manage the performance of the contract and supplier, challenge VFM and inform contract change.

When to produce an SCM

The SCM development should be agreed as part of the planning stage of the business case and procurement, prior to advertising the contract and the publication of any procurement documents.

Initially, an SCM should be used, in conjunction with an analysis of non-cost criteria (e.g. whole life carbon and social value), as part of a delivery model assessment to inform the recommended delivery model.

Prior to developing the SCM it is important to create a definition of the service, project or programme, including what good looks, the desired outcomes and KPIs to ensure modelling is completed to the right level.

Using Should Cost Models to assess the deliverability of tenders

Through providing insight into potential delivery models and cost drivers, SCMs can be used to help devise the evaluation model. The SCM can inform the understanding of what costs should be included and inform discussion with the tenderers.

SCMs can be used during a competitive dialogue or competitive procedure with negotiation to help ensure that suppliers provide transparency throughout the dialogue/negotiation of all key cost drivers over the whole life of the service, project or programme. An SCM can provide contracting authorities with a better understanding of costs. Where they are higher or lower than expected this should prompt a discussion with the tenderer around how they arrived at their costing. The SCM will not normally be shared with tenderers during dialogue/negotiation but used to inform the contracting authority's negotiation position and the robustness and deliverability of tenders.

Using Should Cost Models as formal evaluation criteria

SCMs can only be used as formal evaluation criteria for final tenders if they have been disclosed to tenderers during the procurement. How the SCM will be used for the evaluation and how tenders will be scored against the SCM shall be clearly set out in the procurement documents. If the SCM is not disclosed within the procurement documentation, it cannot be used for evaluation purposes. If disclosed, an SCM can be used to provide:

- **Better understanding of the make-up of costs and cost components.** SCMs can be used to provide deeper insight into the costing of components of a tender. An SCM can provide granular insight into the components that make up the cost of a service, project

or programme. Notably, the components may differ between delivery options and this can impact the level at which comparisons can be made. However, using early market engagement can help to ensure that the SCM is designed in a way that is comparable to the tenders you expect to receive from the market.

- **Insight into potential risks relating to costing.** Whilst SCMs cannot inform assessment of delivery risks directly, they can show the impact of risks materialising and highlight areas where costs may appear to be too low or high, and therefore represent a risk. Having a well-reasoned and internally agreed SCM provides an opportunity to investigate where delivery costs are higher or lower and allow for targeted clarification if appropriate. This will provide greater insight into the supply side assumptions and costs.

Producing an SCM

Five stages

Whether sophisticated or simple, producing an SCM will follow a process with five distinct phases or stages. Interaction may be required across a number of different functions ranging across financial, economic, statistical or commercial disciplines.

The approach to model development can be summarised as follows:

- **Plan: create a model Scope and prepare provisional Delivery, Data and QA Plans.** Set out why an SCM is required and what it needs to do. Establish the high-level design, complexity, data, delivery and resource requirements and whether to develop the SCM internally or procure from the market. Confirm the stakeholders, timelines, governance and Quality Assurance (QA) requirements. The model Scope will evolve into a more detailed model Specification (Inc. Design) and provide the blueprint for the model's technical development.
- **Design: create a model Specification (inc. Design) for the SCM.** Codify the inputs to and outputs from the model, set out in writing the key calculations and formulae that will be designed into the model and articulate the model's overall design. Update the Data, Delivery and QA Plans and, together with the model Specification, have them approved prior to commencing model build. The SCM Development Guidance provides guidance on preparing Delivery, Data and QA Plans and producing a model Specification and Design.

- **Develop: Build and Populate the model.** It is important to follow good practice modelling principles to help reduce risk and increase usability of the SCM. These principles should be used to guide development of the model in line with the agreed model Specification. The SCM Technical Build Guidance provides guidance on good practice model development principles. As the model is developed, the model developer should perform self-testing prior to submitting it for formal QA and testing.
- **Test: undertake formal QA and testing and sign-off the model.** The model Scope will highlight QA and testing requirements and these will be set out within the QA Plan. This phase of model development is when formal QA and testing is performed.
- **Use: put in place governance and control processes to help ensure the model remains fit-for-purpose.** Once developed, tested and appropriately signed off as fit for purpose, the model is ready to be used. At this point appropriate governance and control is required to help ensure that the SCM remains fit for purpose over its lifecycle.

The following practical Tools and Templates can be used to support the development of SCMs and to help reinforce good practice approaches:

- **Initial Model Assessment Tool** – informs the SCM development approach and informs setting an appropriate level of QA and testing;
- **Scoping Template** – proforma document containing key questions to help structure and formalise the SCM Scope;
- **Planning Template** – project management aid to support scheduling of SCM tasks and tracking roles & responsibilities, delivery risks and project status;
- **QA Plan Template** – for agreeing and formalising the SCM QA and testing activities over the model development lifecycle;
- **Development Checklist** – checklist containing QA and governance checks to be performed at each stage of the model development lifecycle;
- **Specification Template Example** – key headings, with content examples, to inform production of a model Specification (inc. Design);
- **SCM Build Template** – model build template with embedded good practice elements (e.g. error check network, timelines, style guide etc.);

- **Book of Assumptions / Data Log Template** – customisable template for documenting SCM data and assumptions and guiding data collection;
- **Good Practice Build Toolkit** – toolkit to structure and help automate the review of an SCM's adherence to good practice approaches;
- **Version Control Log** – template tool to help manage and provide a record of changes to an SCM over its life;
- **User Guide Example** – key headings, with content examples, to inform production of a model User Guide; and
- **Testing Procedures** – procedural level guidance for testing an SCM (also includes QA Report and Test Memos).

Planning an SCM

Structured approach

Once the decision to produce an SCM has been taken, it is important to plan it properly and provide a structured approach to onward development by:

- Undertaking an Initial Model Assessment (IMA) to determine the SCM's criticality and sophistication and, in-turn, the associated requirements for its governance, QA and testing;
- Outlining the SCM's purpose, functionality, data requirements, high-level design, stakeholders and delivery timelines; and
- Establishing the resourcing requirement and whether this is available in-house or needs to be procured from the market.

The approach to model development should be captured in a model Scope, with accompanying Delivery, Data and QA Plans. These documents form the bridge that helps to translate requirements into practical SCM development activities. The model Scope, Delivery, Data and QA Plans, should be created on a model-by-model basis. SCMs that inform critical decisions may be more sophisticated, require more granular data and contain more advanced features than models used to support less critical decisions. Greater sophistication adds to development time and invariably brings a greater risk of error. There is a balance to be struck and the development of SCMs should be driven by the principle of proportionality.

To assist in determining how to approach the development of an SCM, including QA and testing, an Initial Model Assessment (IMA) should be undertaken. It is important to consider both the criticality of the decision that the SCM is designed to support as well as its level of sophistication. For example, consider how detailed the analysis needs to be, how well defined the service being sourced is, the accessibility and robustness of data and the availability of appropriately skilled resources may impact the risk profile of the SCM. An IMA Tool has been developed by Cabinet Office to support this assessment. It is informed by the Cabinet Office Tiering Tool which can be used to provide an initial indicator of the criticality to the business of the decision that the SCM is designed to support.

These considerations should inform thinking around:

- **Procedures and Controls** – how the SCM should be managed and controlled over its lifecycle, including what QA and testing should be applied to help assure its fitness for purpose; and
- **Roles and Responsibilities** – what are the various roles and responsibilities across the SCM's lifecycle. This will include determining whether people are suitably qualified and have sufficient experience to perform the task.

When preparing the model Scope, the factors outlined below should be considered proportionally in the context of the criticality of the SCM. The model Scope should be owned by the Model Senior Responsible Owner (Model SRO), who has overall responsibility for the SCM, including its development and use. Once prepared, the model Scope, Delivery and QA Plans should be agreed and signed off via appropriate governance.

Key factors in developing the model Scope

1: Overview

- Frame the challenge by setting out why the SCM is required, what its primary function is (e.g. what does it need to show or compare?) and what the required accuracy is.
- Outline user requirements, key outputs, and what supporting documentation will be required (e.g. a model Specification, Book of Assumptions / Data Log, User Guide etc.).
- Identify if similar modelling has been undertaken previously, any lessons learnt and whether there are any materials (in addition to the Cabinet Office Tools and Templates) that could support development of the SCM.

- Set out the overall model development timelines and key milestones, considering interdependencies with other activities (e.g. the delivery model assessment, whole-life carbon assessment, etc.).
- Identify key stakeholders and their roles and responsibilities, including who will sign-off the various aspects of model development.
- Keep modelling cost and complexity proportionate to the cost of the service, project or programme/issues being modelled and as simple as possible to achieve the goal.

Key Questions

- What decision or issue is the model intended to solve?
- What is the approximate value of the decision?
- What outputs are required from the model?
- How accurate does the model need to be?
- What are the key deliverables (e.g. SCM, model Specification, User Guide, Book of Assumptions / Data Log, QA Report)?
- Who are the key stakeholders? What are the roles and responsibilities?
- What are user requirements and how will you support them?
- What are the procurement and model development timescales?
- Who needs to sign off the model Scope, model Specification (inc. Design) and Delivery, Data and QA Plans, QA Reports and the SCM for use?
- Who will run and operate the model? How will it be handed over?

2: Costs

- Capture the range of cost components for the service, project or programme that will be included in the model. For services this should include costs required to deliver and/or transform a service (e.g. people, including TUPE if applicable, licences, utilities and any Capital Expenditure costs such as space/property, equipment) as well as the costs of a service itself (e.g. cloud storage costs). For public works projects or programmes this should include design and build costs as well as the costs of operation and maintenance over the design life. Costs associated with broader business factors (e.g.

management fees, overheads, indexation and profit), socioeconomic factors (e.g. social value) and benefits (e.g. cost savings) should also be considered. If the SCM is required to support aspects of the Business Case (e.g. the Economic Case), consider the wider breadth of costs and benefits that may need to be included. For each component, set out the level of detail or granularity required.

- These considerations allow for early discussion about the nature of the service, project or programme under consideration. They can also help set the agenda for the DMA. For example, what costs (or benefits) could differentiate between potential delivery options and at what level of detail does analysis have to be undertaken in order to be meaningful. Detailed scoping of costs (and benefits) helps to set the limits around where the model will be able to operate and what decisions it can support.

Key Questions

- What are the range of costs (and benefits) to be included in the model? What are the main assumptions behind them and what are their key drivers?
- Do costs (and benefits) need to be split between fixed and variable, direct or indirect? What assumptions should be used to drive this?
- What depth of analysis will the model go to? Is the level of granularity appropriate?
- What is the time period being modelled and what is the required periodicity?
- Are there any KPIs? Have these been captured through the cost (and benefit) components?
- Are there any out-of-scope areas? What are the key limitations?

3: Modelling Techniques

- Specify what modelling techniques will be used to provide analytical insight. For example, whether top-down (e.g. analogous or parametric) or bottom-up approaches will be used. Consider this in light of the required accuracy, the impact on associated data requirements and the time and resource required to develop the model.
- Set out within the model Scope how risk and uncertainty will be addressed. Consider if the model should be designed to incorporate different scenarios and sensitivities and

whether more advanced techniques, such as Monte Carlo simulation² are required. Consider how risk and uncertainty will be treated in different delivery model options (e.g. in 'In-house' and 'Expected Market Cost' models) to allow a fair and robust comparison between them.

- Consider the need for input from Subject Matter Experts (SMEs) in relation to the application of advanced modelling techniques or other specialist areas, such as tax, pensions, econometric or statistical analysis. Consider the need to balance the potential for additional insight with the impacts from a resourcing perspective.

Key Questions

- What modelling techniques will be used?
- What specialist input is required? When and how will this be secured?
- How will risk be managed? What risks will be included in the model and have these been tested with the market?
- How will uncertainty be managed? Which inputs are subject to uncertainty and how will their impact on model outputs be assessed?
- Will the model include different scenarios? What are the scenarios?
- Is sensitivity analysis required? Which inputs will be sensitised?
- Are switching values required? Which inputs should be changed to assess the point at which an option is no longer viable?
- How will Optimism Bias be accounted for?

4: Data and assumptions

- Costs (and benefits) to be included in the model and the applicable modelling techniques inform the model's design but also provide direction on what data is necessary to operate it. The model Scope will highlight the data requirements and these, together with details such as where data will be sourced from, when it will be available, who will provide it and its quality or maturity will be set out within the Data

² Monte Carlo simulation is a technique that can be used to understand the impact of risk and uncertainty in cost forecasts. It gives the decision maker a range of possible outcomes and the probabilities that they will occur

Plan. This will help to reduce the risk of misalignment between the data that the model needs to operate and its availability.

- Focusing on data availability and data quality at the planning stage will shape model development. Where data is not available or not sufficiently mature, it provides early awareness to develop alternative plans to source, develop or mature data to the required level for the model.
- Where data is not readily available or there are gaps in a data set, it is important to consider whether assumptions will need to be made in the model and where they are going to be used.

Key Questions

- What are the key data inputs? What is the process for collecting the data?
- How much data is going to go into the model? Financial? Volumetric? Transformational? Operational (e.g. headcount, service levels)?
- What format will the data be in? Are validation checks required?
- Is the data likely to change during development and after the final version?
- Where will assumptions have to be used in place of data sets?

5: Tool Selection

- Documenting the model requirements, the cost components of the model, the techniques it will use and the volume of data it will consume will help to inform selection of an appropriate tool.
- SCMs will most likely be built using Microsoft Excel. However, where data volumes are significant and cannot be reduced, database programmes, may be more appropriate to manage the additional requirement.

Key Questions

- What tool will be used to undertake the modelling? Is there a pre-existing model or will a new one need to be developed? Are model templates available? What is the software version and operating environment (e.g. IOS, Windows)?

- Are add-ins or specialist software required (e.g. for Monte Carlo simulation, schedule risk analysis, model Verification)?
- Does the model need to interact with other systems? Are there feeder files?
- Does the model need to conform to specific guidelines? Are guidelines available?
- How long will the model be required for? Will the model be reused or adapted to support other activities?

6: Quality Assurance Plan

- Performing an Initial Model Assessment (IMA) will help to identify appropriate and proportional QA and testing to be performed. It is important to understand the QA and testing that will be performed to help ensure that it is appropriately planned and sufficient time and resources are set aside to undertake it.

Key Questions

- What is the result of the IMA?
- What formal QA and testing will be required? (e.g. Verification and Validation, including Analytical Review and Commercial Review)
- Are independent, suitably qualified and experienced resources available to undertake QA and testing?
- Are software or other tools that may be required to undertake testing available?
- Has sufficient time been allocated to undertake formal QA and testing? Is time included for multiple review 'cycles' (where any issues address by the developer are re-tested)?
- Has sufficient time been allowed for the model developer to undertake their own self-testing prior to formal QA and testing?
- Is User Acceptance Testing required and has it been scheduled?
- What level of assurance will be required over the model's outputs?
- Is model review by an external or third party entity required?
- How will development of the model be governed and controlled?

Establishing the resource requirement

Suitably qualified and experienced people

The model Scope will inform resource requirements. For all models it is necessary to have suitably qualified and experienced people with sufficient time and resource to perform their responsibilities. These two factors, time and resource, are key to developing robust models in a manner that is informed by good practice and manages risks. Typical roles that should be considered when establishing resource requirements are set out below. These are roles, not job titles, and several roles may be performed by the same person. For example, the model architect and developer roles may be performed by the same individual for less complex models.

A distinction should be maintained between individuals responsible for developing models and those who will undertake formal QA and testing.

It is important to assess whether internal resources possess sufficient skills and experience, and are available to support SCM development and testing, or whether external resources are required. There are no universal professional qualifications to cover the development and testing of a model, however analytical, commercial, finance and economic expertise is required to produce a robust SCM. Individuals responsible for financial input should have relevant financial qualifications and appropriate costing experience; individuals performing any kind of statistical function should have appropriate qualifications to support. See the next section on procuring an SCM.

Typical roles in the development of an SCM

Role	Typical Responsibilities
Model Developer	<ul style="list-style-type: none">• Driving production of the model Specification (inc. Design), Data, QA and Delivery Plans, and seeking their approval and sign-off ahead of model development.• Updating the model Scope, Specification (inc. Design) and other documentation to reflect any agreed changes.• Building the SCM in line with requirements and good practice guidance.• Populating the SCM with data for self-testing and to support formal QA and testing, handover and release of the SCM for use.

	<ul style="list-style-type: none"> • Producing and updating the Book of Assumptions / Data Log with key information pertaining to the collected data. • Undertaking self-testing of the SCM throughout development and prior to release for formal QA and testing. • Working with Quality Assurers to implement changes required to address issues identified as part of QA and testing processes. • Producing the model User Guide and, if required, handover training materials and the model Technical or Developer Guide. • Undertaking demonstrations and familiarisation sessions as required and producing interim results to support in-flight QA and testing. • Implementing any file management procedures that may be applicable during the development of the SCM.
Model SRO	<ul style="list-style-type: none"> • Model Senior Responsible Owner who takes overall responsibility for the SCM and its use, including its QA and testing and governance throughout its lifecycle.
Model Customers	<ul style="list-style-type: none"> • Inputting to the model Scope and Specification and confirming the suitability of the model’s design to support decision-making requirements. • Inputting to the Delivery Plan and confirming that the overall timescales are in-line with requirements.
Model Operator	<ul style="list-style-type: none"> • Undertake familiarisation and/or training as required to operate the model. • Implementing the required file management processes and procedures. • Running the model to produce the required outputs and to interpret the result. • Refreshing the input data as required to run the model and produce the outputs.

Model Architect	<ul style="list-style-type: none"> • Leading the model design and taking responsibility for the associated model documentation, including agreeing any required changes during development. • Overseeing the model development process and providing technical and design support and challenge during build.
Data Providers	<ul style="list-style-type: none"> • Inputting to all relevant aspects of the Data Plan including the provisional timescales and risks. • Sourcing the data required by the model and undertaking any data pre-processing that may be required. • Updating key stakeholders.
Quality Assurers	<ul style="list-style-type: none"> • Undertaking QA and testing and producing associated documentation, such as QA Reports and Test Memos. • Liaising with the Model Developer to explain identified issues where further clarity is needed and undertaking re-testing, as required.

2.2 Quality Data and Asset Registers

We should be collecting and maintaining sufficient data and information about our assets and services to enable us to make informed decisions when we need to. This includes early delivery model assessments; those that shape commercial strategies; decisions that promote market health; and designing fair contracts and making good deals. All of which depend on the quality of information and data.

Suppliers are dependent on us having good data. The only way they can assess whether the delivery model and pricing structure that we take to market is deliverable and sustainable is if it is based on quality data.

We are committed to providing accurate data and/or building in flexibility to allow for subsequent validation of data (consistent with procurement legislation), particularly with first generation contracts, and expect pilots to be used to generate this information.

Where we are carrying out second (or subsequent) generation procurements, we rely on data provided by the incumbent. Good contract management throughout the life of the contract is essential to ensure that the incumbent consistently provides and updates this information.

It is only once we have these elements in place that we can engage the market in a fair and open way and provide sufficient information for suppliers to make an informed decision about whether they want to submit a tender.

2.3 Clear Specifications

A precursor to fair and open market engagement is a clear unambiguous specification, which shall provide sufficient information.

Without this shared understanding, we cannot expect to be able to relate the price offered by tenderers to our own understanding of costs. And if we cannot do that, then we will always be open to risk that we will not get the desired outcomes at the appropriate price and we will not be able to effectively manage contract variations.

2.4 KPIs and Baselines

Contracts should include performance measures that are relevant and proportionate to its size and complexity.

Getting this right will form the foundation of effective contracts designed to incentivise better outcomes and provide clarity to the public about how the service is working for them.

Appropriate specifications and performance measures are the foundation of a good contract.

In preparing to go to market, you should develop a robust set of well-structured KPIs relevant and proportionate to the size and complexity of the contract. Getting this wrong can create confusion and tension. For instance, having too many KPIs (i.e. more than 10 to 15 per service) will lead to overcomplicated contracts and ambiguity with suppliers. KPIs should also be set to align with the intended benefits to be realised during contract delivery (e.g. working within cost thresholds; achieving minimum performance outputs; and/or maintaining a minimum level of customer satisfaction). Consider how the delivery model will guarantee ongoing service quality, innovation

and continuous improvement. What management structures will be required? How will you collect, manage and monitor the KPI's?

At the Outline Business Case (OBC) stage, the KPIs should be aligned with and support delivery of overarching project goals. These can be further refined through piloting and market engagement.

Misunderstandings about how KPIs work or how they are measured can make it difficult for suppliers to price them, and can result in unintended outcomes and/or service failures. It is important to robustly test your KPIs during your market engagement to ensure that they are shaped correctly and understood by the relevant industry.

KPIs should also be developed to align with the project's broader social value outcomes to help ensure that identified social, economic and environmental benefits are delivered through the contract.

Periodic reviews of benefits realisation should be carried, it is suggested these are carried out on an annual basis.

It is useful to check the KPIs which are reported publically by Cabinet Office as these may be relevant to the services you are procuring. These can be found at: [Key Performance Indicators \(KPIs\) for government's most important contracts - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/key-performance-indicators-for-government-s-most-important-contracts).

2.5 Designing Evaluation Criteria and Avoiding Unsustainable Tenders

To help avoid the risk of unsustainably priced tenders, the following can be considered when designing evaluation criteria:

- Pre-market engagement to test that suppliers can deliver the required services at an affordable cost.
- A 'Should Cost Model' has been developed to help understand what the right cost (or cost-range) is and what financial elements should form the whole life cost calculation.
- The approach to evaluating quality, including objective criteria that are relevant to the service requirement, weightings applied according to the importance of the criteria and a scoring approach that promotes effective differentiation.

The evaluation model can be tested as part of early market engagement.

2.6 Managing the Risks of Insolvency (Resolution Planning)

Supplier insolvency can have a detrimental impact on the delivery of critical public services. Resolution planning can help mitigate the impacts of insolvency on services. Where we are procuring a critical service contract, we will want the successful tenderers to provide us with resolution planning information during the life of the contract and should make this clear in the procurement documentation.

2.7 Protecting Against Supply Chain Risk

Most standard public sector Terms and Conditions of Contract will include various protections against supply chain risk (e.g. step-in rights, the prior approval for a change of key sub-contractors; assignment and novation provisions etc.).

When planning a procurement, you should consider the relevant supply chain risks to identify if additional protections are required.

Bodies covered within the scope of NI Public Procurement Policy must also adhere to the obligations in PPN 03/21³ (Supply Chain Resilience).

2.8 Protecting Against Costs Arising From Supplier Insolvency

As part of procurement planning, we should consider how best to protect ourselves against costs arising from supplier insolvency.

In most cases the optimal approach will be through self-insurance, although performance bonds are common in high value construction contracts and can be used where:

- it is proportionate to do so; and
- where it delivers value for money.

³ [PPN 03 21 Supply Chain Resilience \(pdf version 22 November 2021\).PDF \(finance-ni.gov.uk\)](#)

2.9 Prompt Payment

The government understands the importance of prompt, fair and effective payment in all businesses. Being paid promptly for work delivered ensures businesses have a healthy cash flow.

Public Sector standard Conditions of Contract will include a requirement for suppliers to be paid within 30 days of receipt of a valid invoice. Suppliers are required to have the same 30 day payment terms with their sub contractors.

While this mechanism operates well in most sectors, there are industries that require a stronger payment mechanism to ensure payments to sub contractors are not delayed. For example, project back accounts are used widely for construction projects.

2.10 Formal Engagement with the Market

Suppliers have a choice whether to work with us or not. Genuine and meaningful formal market engagement helps to ensure that more suppliers want to work with government. This, in turn, leads to more competitive and resilient markets.

Setting the tone

It is important for suppliers to know what is expected of them when tendering for government contracts. A Supplier Code of Conduct is a useful mechanism for setting the standard for supplier's interactions with government. This recognises the joint nature of public service delivery and sets out how we achieve constructive and collaborative engagement with suppliers. The contract notice and tender documentation can carry a statement to indicate that the procurement will be run in the spirit of the Supplier Code of Conduct. This also helps to ensure that government is seen as an attractive client to do business with.

Examples of Supplier Codes of Conduct can be found at:

- [Supplier Code of Conduct | Department of Finance \(finance-ni.gov.uk\)](https://finance-ni.gov.uk)
- [Supplier Code of Conduct - v2 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)
- [Microsoft Word - Final Supplier Code Feb 2021.docx \(qub.ac.uk\)](https://qub.ac.uk)

2.11 Risk Allocation

Overview

This section helps with the consideration of risk allocation when you are developing your procurement strategy. Inappropriate or disproportionate risk allocation is recognised widely by government, suppliers and independent bodies (such as the Northern Ireland Audit Office) as one of key reasons why government contracts underperform or fail.

This section seeks to provide procurement practitioners with some key information about the critical facets of risk allocation such as:

- why it is important;
- what they should be considering in regard to risk allocation in formulating commercial strategies; and
- how they might allocate various types of risk throughout the commercial lifecycle.

It is aimed at supporting practitioners in the identification of risks and development of appropriate ways in which to allocate such risks.

Ensuring that risks sit with the party best able to manage them is central to delivering value for money and partnering with the private sector.

Inappropriate allocation of risk remains one of the main concerns of suppliers looking to do business with government and a more considered approach will make government a more attractive client to do business with, it will therefore be a key area of discussion with prospective suppliers. Proposals for risk allocation should be subject to extensive scrutiny prior to going to market. Formal engagement should include the sharing of risk registers with prospective suppliers.

A good approach is to apply appropriate focus during procurement strategy development to agree the balance of risk between both parties. This should then be iterated through dialogue with potential tenderers, and then managed proactively during the life of the contract.

Using the appropriate Conditions of Contract is also important in ensuring an equitable balance of risk. Standard Conditions of Contract for supplies and services can be found on the [Department of Finance website](#). For complex projects, the Cabinet Office's [Model Services Contract](#) can be used.

Market engagement can also be used to understand prospective suppliers' views of proposed KPIs, address any concerns around KPI validity and price sensitivity through clarification, and recalibrate as required.

Ultimately, we aim to get three things right:

- identification, by studying the nature of the market, risk registers and lessons learned documents from related projects.
- quantification, by assessing how likely, for example, based on past experience, an event is to occur and what the impact might be.
- allocation, by compiling a risk allocation matrix that considers who is best placed to manage the risk (i.e. whether it is a supplier, government or joint risk).

Getting risk allocation right in our contracts should lead to:

- optimal pricing from the tenderers;
- suppliers being paid a fairer profit margin in return for the risk they are accepting and the commitments and investments they make in order to deliver better public services;
- fewer performance and commercial issues during the life of the contract; and
- reduced likelihood that the contract fails completely, and the supplier prematurely exits the contract or becomes insolvent.

When outsourcing, it is important:

- not to ask suppliers to take unlimited liabilities,
- to ensure that contracts include appropriate indexation where the supplier is managing pricing risks outside their control;
- to share risk registers with tenderers;
- agree joint risk registers with suppliers;
- share all data (that is appropriate to do so) relating to the procurement;
- not to hold incoming suppliers responsible for errors in data (excluding forecasts) where they are unable to complete due diligence. Where data turns out to be incorrect,

(subject to procurement law) there should be a contractual mechanism for reflecting this adjusting for errors as soon as possible after contract commencement.

What is risk allocation?

Core commercial principle

Allocation and management of risk is central to all commercial contracts and is one of the core commercial principles informing the approach to contracting with third parties. Each party seeks to minimize its overall risk and maximize its reward, which creates an inherent tension between contracting parties. Government can manage risk by carefully negotiating provisions to transfer or share risk with suppliers.

If a supplier is put in a position where they are managing an inappropriate balance of risk then the outcome is highly likely to be poor value for money (a high-risk premium will be loaded into the price), underperformance against the core contract objectives (as supplier focus increasingly shifts to cost cutting) and/or an onerous contract which could ultimately lead to its collapse.

Importance of risk allocation

Effectiveness and value for money of contracted services will only be achieved where risk allocation is equitable and where the party managing the risk is the one most reasonably able to do so. The objective of risk allocation is not to transfer as much risk as possible to suppliers, but to distribute risk appropriately across the parties.

In the past, government has made poor decisions about how it allocates and manages risk in contracts and this has contributed towards many high-profile public sector contract failures, particularly where a party has been responsible for something out of its control. Risk allocation is crucially important to get right for the future of major contracts.

When is risk allocation required?

Procurement lifecycle

A structured approach should be taken to the assessment of the risks in the contract early in the procurement lifecycle, so that all parties are clear as to the risks each is being required to bear and that they can make provision for mitigating and managing these risks in the most effective and economical manner.

An initial risk identification and assessment should be undertaken as part of the process of completing the outline business case (and well before the commencement of procurement process) and the acquired information used to inform the procurement strategy.

A review of risks should then be carried out periodically as the process evolves, new information emerges and circumstances change. Risk management is a continuous process and should not be treated as a ‘one-off’ exercise in the procurement/commercial lifecycle. Risks that were identified at the outset of the procurement process or contract can and do change throughout the procurement or contract for a variety of reasons and new risks can arise which can affect the procurement or the operation of a contract. Care should be taken when any contract changes are considered in relation to risk allocation once the contract is in operation. Any proposed changes should be fully impact assessed and legal advice sought if required.

Figure 1 sets out the key points throughout the procurement lifecycle where risk should be considered. Table 1 describes the steps in further detail.

Figure 1: Risk within the Commercial Lifecycle

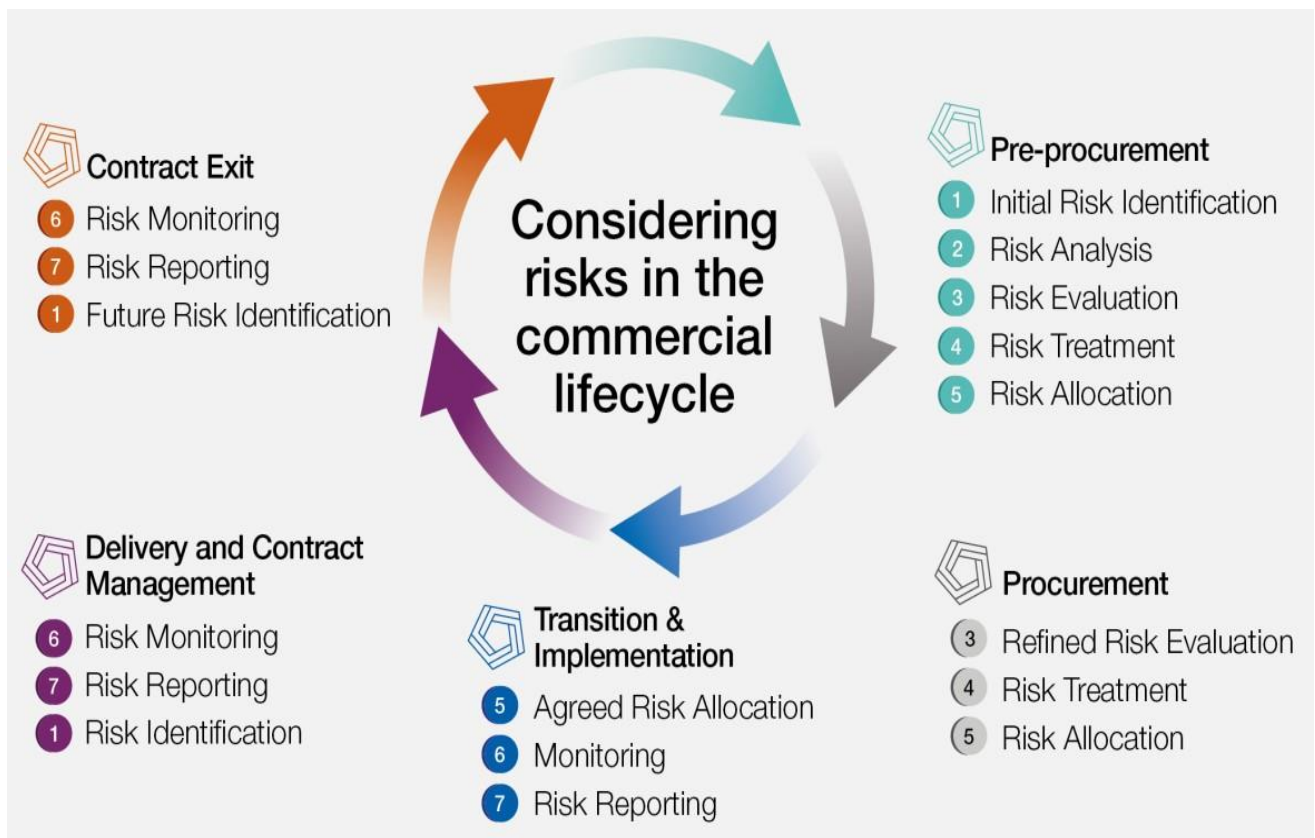


Table 1: Descriptions of risk within the commercial lifecycle

Stage	Title	Description
1	Risk Identification	<ul style="list-style-type: none"> • Process of producing an integrated and holistic view of risks, often organised by taxonomies or categories of risk, to understand the overall risk profile. • Identification of the key risks that could impact delivery or users of the services and risks around service transfer on termination or partial termination. • Mapping the timing and impact in relation to these risks.
2	Risk Analysis	<ul style="list-style-type: none"> • Consider the likelihood of each risk arising. • Process of considering the nature and level of risk through use of a comprehensive risk register structured under a common set of risk criteria.
3	Risk evaluation	<ul style="list-style-type: none"> • Involves comparing the results of the risk analysis with the nature and extent of risks that the contracting authority is willing to take to determine where and what additional action is required.
4	Risk Treatment	<ul style="list-style-type: none"> • Deciding whether to avoid, accept, reduce / mitigate, or transfer each risk.
5	Risk Allocation	<ul style="list-style-type: none"> • Defines which party will assume each risk, identifying which risks the supplier will be (or remain) responsible for and to what extent, and identifying which risks the contracting authority will be responsible for and to what extent. • A 'risk allocation matrix' or 'risk transfer matrix' should be developed to aid the approach.

6	Risk Monitoring	<ul style="list-style-type: none"> Continuous process of understanding whether and how the risk profile is changing and how well each party is managing the risks.
7	Risk Reporting	<ul style="list-style-type: none"> Process of providing information to defined stakeholders to enable them to decide whether decisions are being made within their risk appetite to successfully achieve objectives. Consideration of whether any changes are required to reassess strategy, policy and objectives.

Risk allocation matrix

A risk allocation matrix can be used to directly inform the proposed commercial model and pricing approach. During market engagement both before and during the procurement, the risk allocation matrix can be shared with potential tenderers in order to seek their input. A high-level example of a risk allocation matrix is provided below.

Table 2: Example risk allocation matrix

Risk Category	Potential Risk Allocation		
	Contracting authority	Supplier	Joint
Design Risk			
Delay Risk			
Transition & Implementation Risk			
Availability & Performance Risk			
Specific Change in Law Risks			

Risk 5			
Risk 6 etc.			

How to ensure successful risk allocation

Allocating risk

Risk can be allocated in a number of ways but typically through the pricing and performance mechanisms; and/or express provisions within the contract e.g. representations and warranties, insurance provisions, and indemnities.

For specific guidance on dealing with risk through contractual provisions such as insurance, see table 3 below.

Table 3: Further detail on contractual provisions relating to risk

Provision	Description
Insurance	Some of the risks identified may be covered by commercially available insurances which the Supplier or Authority already hold, or should acquire for the purposes of the contract.
Specific liability limits	Having established what identifiable risks may materialise in the course of the contract, and arrived at a financial scale of such occurrence, limits of liability should be set for each risk, whether or not covered by insurance. The limit for each risk should be arrived at through some rationale and explicable relationship to the assessed risk level. For example, if a particular risk event can occur in year 1 and year 3 of the contract term, then it may be logical to set the limit of liability for that risk at twice the assessed impact level.

Residual liability limits	<p>Once the main risks in the contract have been dealt with using these steps, then any residual risk, comprising of lesser or undefinable areas of risk, can be considered. It may then be appropriate to establish a limit of liability for these residual risks. Significant variance may be considered justification to depart from the standard but legal advice should be taken in such cases.</p>
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Key principles of risk allocation

Principles

Risk is inherent in everything government does in order to deliver high-quality services. It is recognised that the public sector will not achieve the best outcomes by being risk averse. It is to be expected, therefore, that successful contracting will involve government taking an appropriate degree of risk as well as transferring some risks to their suppliers.

Suppliers can often price and manage certain risks better (and more cost effectively) than government. There are some types of risks that suppliers are well placed to manage such as day-to-day operational delivery risk. There have, however, been examples of less successful risk transfer, especially where risks that are beyond the supplier's control are transferred from government.

One of the main drivers for risk allocation is achieving value for money. In general terms, transferring risk will promote value for money when the supplier is adding value in bearing and managing risk. Transferring risk appropriately to a supplier can create incentives for that supplier to deliver the contracted requirements to the scheduled timeframes, costs and to the right standards and conditions in an efficient way.

This principle is based on the theory that the party in the greatest position of control, in relation to a particular risk, has the best opportunity to reduce the likelihood of it materialising as well as ability to deal with the consequences of the risk if it does materialise.

This capability to manage the risk most effectively and apply an efficient price may be due to one or more of the following features:

- Greater ability to assess the risk (and associated issues or losses);

- Greater ability to negotiate with third parties and/or potential to pass through the risk to them at a reasonable or efficient price;
- Higher capacity to reduce the probability of the occurrence of a risk; and
- Higher capacity to mitigate the consequences of the risk occurring and repairing the damage more efficiently.

When considering the risk allocation profile and the payment mechanism, be mindful of how this may impact the supplier’s ability to innovate over the term of the contract. Consult with the market in advance of the procurement process to assess whether the proposed approach is likely to restrict innovation and to ensure that the risk allocation and payment mechanism is appropriate for the term of the contract and the authority’s requirements.



When it is clear that a risk transferred to the supplier will result in a higher cost (because of risk premiums) than the expected potential loss if that risk were to be retained and managed directly by government, then the contracting authority should consider retaining that risk. However, it will only be fully possible to assess this if the probability of the risk occurring can be reasonably estimated and the consequences realistically measured. It is therefore crucial that a robust process is undertaken for achieving this.

Table 4: Key principles of risk allocation

Ref	Provision	Description
1	Invest time and resource in understanding and evaluating risks	Successful risk transfer from the public sector to the private sector requires a clear understanding of risks, the likely impact they may have on the suppliers’ incentives and financing costs and the limits of risk transfer which are possible. Commercial arrangements should reflect where the private sector has clear ownership, responsibility and control of certain risks it can manage more effectively.
2	Responsibility for a risk should sit with the party best placed to manage it	Successful contractual arrangements rely on appropriately apportioning risks between government and suppliers so that the party best placed to manage

		the risk is responsible for them. It may be appropriate for some risks to be jointly owned and managed (or 'shared') by both parties.
3	Risk allocation should be equitable	Whilst suppliers must accept a degree of risk and are compensated for doing so, they should not take unreasonable or unnecessary risks that may affect their ability to deliver the contract and realise their profit. Where this is the case, performance will likely deteriorate and the future of the contract, and even the supplier, can be placed at risk.
4	Reputational risk cannot be transferred	Although certain risks may be transferred from government to a supplier, public perception is that the public does not always see it this way. In relation to public facing or public impacting services, the view is that government is responsible for the delivery of those services. If services fail or performance falls below acceptable levels, government will be held to account in the public's eyes regardless of the contractual position on risk.
5	Understand what you are procuring in detail and engage early with the supply market from which you are procuring	A key feature of poor government contracts has been a lack of engagement with the market early and clarity about what it is buying. Government cannot be in a position to understand key risks if it has not done this and therefore the approach to risk allocation is likely to be ill informed.

Table 5: Benefits of allocating risk appropriately

 Placing risk with the party best able to manage it should create:	 Placing risk with the party which is not best placed to manage it is more likely to create:
Better pricing from suppliers which more accurately reflects the risk they are managing	Artificially high tenders from suppliers (or tenders that are potentially too low for a supplier to make appropriate profit)
Fewer performance and commercial issues during the contract term	Increased likelihood of performance and commercial issues during the term of the contract
A reduced likelihood that the contract fails completely, and the supplier prematurely exits the agreement or becomes insolvent	Increased likelihood of contract failure and early termination/exit
Greater opportunity for open and honest dialogue for mutual benefit	Increased likelihood of sub-optimal dialogue and relationship with the supplier

Common risks

Addressing risks

There are a multitude of risks that will need to be address through the risk allocation process depending on the service being procured and on what basis. Some commonly faced risks are set out within table 6 below.

These risks require careful consideration before and during contractual relationships between a supplier and department.

Table 6: Table of common risks with key considerations regarding risk allocation

Ref	Risk Area	Description	Key Considerations
1	Data inaccuracy	Risk that inaccurate (or incomplete) data is provided to tenderers during the procurement exercise leading to inaccurate pricing or solution	<ul style="list-style-type: none"> • Have tenderers been afforded sufficient time to conduct due diligence. Where this is the case they may be able to bear the risk reasonably. • Can a sufficient quality and quantity of data be provided? What processes have been followed in order to assure as far as possible data quality? • Incoming suppliers should not be held responsible for errors in data, or incomplete data, where they have not been able to perform sufficient due diligence and that there should be a contractual mechanism to cater for this. <p>Further information on this risk is provided in appendix I.</p>
2	Inflation	Risk that the cost of supplier's 'inputs' will rise over time due to inflation	<ul style="list-style-type: none"> • Supplier will take this risk in 'firm price' approach (described at table 8), although may include risk premium to compensate for taking risk. • Other pricing mechanisms include provisions to uplift prices linked to specific index.

			<ul style="list-style-type: none"> Index/indices within the contract should be appropriate and contracting authorities should be cognisant of the risks of specifying inappropriate indices. <p>Further information on this risk is provided in appendix I.</p>
3	Performance/availability	Risk that the services will not be delivered to the requisite performance/availability levels	<ul style="list-style-type: none"> The Supplier must take this risk. Risk is allocated through the performance mechanism through which the supplier is incentivised to deliver through placing profit at risk. Sufficient work and consultation should have been carried out to ensure that the planned performance mechanism is proportionate, cannot be 'gamed' and does not create unintended/perverse outcomes. Any dependencies on the contracting authority should be clearly articulated to enable the supplier to meet performance measures. <p>Further information on this risk is provided in appendix I.</p>
4	Volume / Demand	Risk that the actual usage of the service varies from the levels forecast	<ul style="list-style-type: none"> Risk for volume forecasting should sit with the party who is best placed to manage the volume forecasting process.

			<ul style="list-style-type: none"> Is there historical volume/demand information available and to what extent can it be relied upon i.e. how accurate is it? Guaranteeing a minimum volume to suppliers may need to be considered in order to allocate risk more equitably. <p>Further information on this risk is provided in appendix I</p>
5	Currency	Risk that the cost of supplier's inputs will rise due to fluctuations in foreign exchange rates	<ul style="list-style-type: none"> The party which bears the risk will depend on the pricing approach/payment mechanism employed e.g. in fixed and firm price contracts, assuming the contracting authority pays in sterling, the Supplier takes the risk, although may include risk premium to compensate and will benefit to the extent that the fluctuation is favourable. In a cost-plus contract, the contracting authority takes the risk. Suppliers with global supply chains may seek to mitigate their risk through currency hedging.
6	Change in Law - General	Risk that a general change in law affects the supplier's ability to deliver any aspect of the	<ul style="list-style-type: none"> The supplier generally takes this risk. The supplier shall neither be relieved of its obligations to supply services under the contract nor be

		contract to time, budget and performance	<p>entitled to an increase in charges as the result of the general change in law.</p> <ul style="list-style-type: none"> • A general change in law is one where the change is of a general legislative nature (including taxation or duties of any sort affecting the supplier) or which affects or relates to a ‘comparable supply’ or other contracts for the supply of similar services with other customers i.e. it isn’t unique to the contract with the contracting authority. <p>Further information on this risk is provided in appendix I.</p>
7	Change in Law - Specific	Risk that a specific change in law affects the supplier’s ability to deliver any aspect of the contract to requirement time, budget and performance	<ul style="list-style-type: none"> • A specific change in law is one that relates specifically to the business of the contracting authority and which would not affect a ‘comparable’ supply (see general change in law). • The supplier takes this risk if the specific change in law was reasonably foreseeable at the time of entering into the contract. • If the specific change in law occurs during the term of the contract then the supplier may, through the change control procedure in the contract, be entitled to an increase in charges and/or relief of

			<p>obligations to provide services provided it has sought to mitigate the effect.</p> <p>Further information on this risk is provided in appendix I.</p>
8	Solution / Design Risk	Risk that the services have/project has not been designed adequately for the purpose required	<ul style="list-style-type: none"> • The supplier will usually have the main responsibility for the adequacy of the design of the system/solution and its compliance with the output/performance specification and in principal will take the risk. • The contracting authority may, in some cases, retain a proportion of design risk in certain aspects of the system/solution, depending on how prescriptive the contracting authority is in the output specification. • For this reason, it is extremely important that the specification, roles and responsibilities and dependencies for each party are as clear as possible.
9	Delivery risk (Project delay)	Risk that the design and build phase of the project runs behind the planned timescales	<ul style="list-style-type: none"> • Suppliers can be incentivised to deliver projects on time through a variety of mechanisms, principally in the payment mechanism, but to the extent that the contracting authority is involved, it must understand and manage its obligations effectively.

			<ul style="list-style-type: none"> Where the contracting authority has obligations, the risk is usually shared and the party responsible for the delay should be responsible for it.
10	Scope change / Specification	Risk of a change in requirements or scope over the course of the project	<ul style="list-style-type: none"> This is dependent on the reason for the change in scope or specification. If the change is driven by an inadequate design, the supplier likely takes the risk. Where the change is driven by the contracting authority then it would be managed through the change control procedure in the contract. <p>Further information on this risk is provided in appendix I.</p>
11	Supplier defaults	Risk of losses to the contracting authority as a result of supplier defaults e.g. data loss.	<ul style="list-style-type: none"> The contract should set out clearly which party takes the risk on a range of scenarios, including data loss, through indemnity provisions. In the model services contract, the supplier's liability in respect of certain indemnities provided under the contract is unlimited. This is either because the law states that liability cannot be limited or because a cross-government position has been taken that liability should not be limited.

			<ul style="list-style-type: none"> • Liability in respect of other events is not limited, including for example, data loss and damage to authority premises and assets. Any liability cap can be expressed as a percentage of charges payable annually or over the contract term. • Suppliers should not be asked to take unlimited/uncapped liabilities.
12	Termination	Risk that the contracting authority will terminate (or partially terminate) the contract early i.e. before the end of the initial contract term	<ul style="list-style-type: none"> • There are various reasons for seeking to terminate a contract early. • The termination provisions/events are identified within the relevant Conditions of Contract. • The supplier must take the risk on these events occurring (for its default) - but not for other causes for termination e.g. where the contracting authority terminates for convenience. • If the contracting authority terminates for convenience, they should be aware of any obligations under the Contract to pay termination and compensation costs.
13	Subcontractor insolvency	Risk that a subcontractor within the supplier's or	<ul style="list-style-type: none"> • The supplier must take this risk as it is responsible for its own supply chains. Failure in the subcontractor

		subcontractors' supply chain becomes insolvent during the course of the contract term	supply chain should be explicitly excluded from the definition of a 'Force Majeure Event' in the Conditions of Contract.
14	Unforeseen events (Force Majeure)	Risk of unforeseen events affect the supplier's ability to deliver any aspect of the contract to requirement time, budget and performance	<ul style="list-style-type: none"> In recognition that the supplier can't be held liable for such events, this is a shared risk and force majeure provisions within the contract cater for such events arising.

2.12 Payment Mechanisms

Overview

The pricing and payment mechanism approach goes hand in hand with risk allocation and should similarly be subject to greater considerations and scrutiny to ensure it incentivises the desired behaviours. If the contracting authority wishes to control how the services are delivered, it should adopt an input-based pricing model and transfer no or minimal risk to the suppliers. This normally means procuring resources on a 'cost plus' or 'time and materials' basis. The pricing and supplier margins should only reflect the input costs and scarcity of those inputs, i.e. there is no 'risk premium'.

If the contracting authority considers that the supply market is best placed to determine the solution, it should specify the required solution or services outputs – i.e. what to deliver. It is the supplier's responsibility to find the optimum way to deliver those outputs. In this scenario the contracting authority should also ensure that the supplier takes any risks associated with delivering this output. It is accepted that margins will be higher for contracts where suppliers take on the risk of delivery. In theory, this is more than offset by greater expertise in delivery and greater efficiencies.

Fixed price payment mechanisms should be avoided where the scope of the contract is not fixed (and relevant volume risks are outside the control of the supplier).

Fair return

Short-term thinking can reduce the value for money that government as a whole is able to derive from markets. There are many examples where we have mandated unreasonable payment mechanisms, applied unreasonable terms and conditions and/ or sought unsustainable cost reductions. This can create a bias towards low quality and can increase the probability of contract failures. In addition, suppliers may exit the market to the point where competition is severely weakened.

While it is important to guard against firms making excessive profits, the fundamental principle is that contracts need to be profitable and expectations need to be reasonable for suppliers to remain interested.

Onerous contracts

A possible consequence of getting risk allocation and payment mechanisms wrong is that contracts can become onerous (loss making) for a supplier. When a contract is publicly designated by a supplier as loss making, this should prompt a root cause analysis and detailed discussions with the supplier about the options available to address this. Any amendments to the contract should be in accordance with procurement law.

Pricing approaches and payment mechanisms

Effective payment mechanisms

The payment mechanism is used as a means to allocate the burden of delivery risk and incentivise the supplier to deliver to time and quality. The payment mechanism and the approach to risk allocation go hand-in-hand.

The 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 link payment to the delivery of service outputs and the supplier's performance.

Where a risk is transferred to the supplier, the price paid reflects this and there is no adjustment mechanism if the event does occur and impacts the supplier's cost base (because it has already priced in the risk of the event occurring).

Where a risk (e.g. inflation risk) is not transferred (or not wholly transferred) to the supplier, contractual mechanisms exist to adjust the price paid to the supplier by adjusting the price, or elements of the price, linked to a specified index.

To determine the most appropriate payment mechanism structure, it is necessary to understand:

- Whether the pricing applies to inputs or outputs/outcomes (along this range, there is increasing risk transfer to suppliers, their payment being increasingly contingent on results).
- Whether the pricing applies to projects (with suppliers incentivised to deliver on time and budget e.g. by applying delay payments applied for late delivery of milestones) or for services (with suppliers incentivised to deliver expected quality by applying service credits for underperformance).

Table 7: Pricing: Input vs output/projects vs services

	Inputs	Outputs/Outcomes	Hybrid Incentivised Input & capped output
Milestones/projects	<ul style="list-style-type: none"> • Time & Materials • Cost Plus 	<ul style="list-style-type: none"> • Fixed Price • Firm Price 	<ul style="list-style-type: none"> • Guaranteed Maximum Price with Target Cost
Services	<ul style="list-style-type: none"> • Time & Materials • Cost Plus 	<ul style="list-style-type: none"> • Volume Based 	

Where the contracting authority wishes to exercise a significant degree of control over how the services are delivered, it should be responsible for managing all or most of the risks and in such circumstances adopt an input-based pricing model. This normally involves adopting a Cost Plus or a Time and Materials pricing mechanism. The pricing and supplier margins should reflect the input costs only - i.e. there is no risk premium.

Where the contracting authority considers that the supply market is best placed to determine how the services are delivered, it should specify only the outputs or outcomes it requires i.e. what to deliver. It is the supplier’s responsibility to find the optimum way to deliver those outputs. In this

scenario, the risks associated with delivering the supplier's solution sits with the supplier. Buyers can also expect the margins to be higher for contracts where suppliers take on the risk of delivery.

If a contracting authority is specifying an output-based pricing model and transferring delivery risk to the supplier, it should refrain from also specifying inputs i.e. how the supplier should deliver this model. There are many examples of government requiring output-based solutions and services and then specifying the inputs. This can potentially result in confusion about who is responsible for delivering the output and result in poor performance.

Table 8 considers the most common payment mechanisms and sets out some high level considerations, related to risk transfer, to bear in mind when constructing each payment mechanism.

Table 9 sets out some key considerations for contracting authorities to bear in mind when designing the payment mechanism.

Indexation

Where not addressed through the payment mechanism, ensure that contracts include appropriate indexation (i.e. using an index or basket of indices or measure that reflect the underlying costs of delivering the service) where the supplier is managing pricing risks outside of their control.

The right index will depend on the specific cost drivers of a contract. Developing a Should Cost Model will help to identify costs and where indexation may be required. For services where costs can decrease over time, no indexation or a negative index may be appropriate.

The index should not include any factors which the contract aims to incentivise. See Table 13 in Appendix II for further detail on indexation.

Table 8: Table of payment mechanisms with key considerations regarding risk allocation

Payment Mechanism Definition	Description	Level of Risk Transfer to the Supplier	Key Risk Allocation Considerations	Key Risk Allocation Considerations
Firm Price	Charges will <i>not</i> be subject to increase due to indexation	High	Supplier takes the cost risk of the resources (or input) required to deliver the services to the agreed standards/performance and/or timeframe within the firm price. It also takes the risk that inflation will be higher than that profiled within the tender price.	<ul style="list-style-type: none"> • An unambiguous scope and specification is required or a high risk premium may be included. • The supplier benefits where inflation is below that profiled potentially leading to poor vfm.
Fixed Price	Charges will be subject to increase due to indexation	Medium/High	Supplier takes the cost risk of the resources/inputs required to deliver the services to the agreed standards/performance and/or timeframe within the fixed price. It does not take risk on inflation as there is a mechanism to index prices.	<ul style="list-style-type: none"> • An unambiguous scope and specification is required. • Contract should include an <i>appropriate index or indices</i> of inflation linked to the underlying cost

				of service provision.
Cost Plus	Allows for the supplier to recover all actual costs incurred for the management and delivery of the services including overheads with an additional profit margin applied	Low	Uncertainty in output definition means that the contracting authority should not seek to transfer delivery risk as it could under a different pricing approach. There is minimal/no cost risk transfer to the supplier as it is able to recover all costs incurred in delivering a service over the contract term. A degree of risk on performance can be transferred to the supplier via addition of a success fee for achieving performance outcomes.	<ul style="list-style-type: none"> • Complete transparency over the supplier's cost base, actual costs and allocation of overheads is required. • Resources will be required to manage the burden of assuring the suppliers costs in order to ensure that costs are appropriate and that only allowable costs are recovered. • Supplier isn't incentivised to innovate or make efficiencies since payment is based on actuals.

<p>Time & Materials (T&M)</p>	<p>As for cost plus but T&M is normally based on a pre-agreed rate card plus an agreed profit applied to costs</p>	<p>Low</p>	<p>There is minimal/no cost risk transfer to the supplier as it is able to recover all costs incurred in delivering over the contract term.</p>	<ul style="list-style-type: none"> • Day rates include amounts to cover staff costs and other overheads. If rates are not discounted to reflect volumes purchased, supplier may over-recover. • Resources will be required to manage the burden of assuring the suppliers costs in order to ensure that costs are appropriate
<p>Volume Based</p>	<p>The amount paid to the supplier varies according to how much the service is used, typically on a price per unit basis (but can be combined with a fixed element to</p>	<p>Low to High</p>	<p>Level of risk transfer is dependent on the extent to which likely volumes (linked to demand for the service) are known/unknown and are certain/uncertain.</p> <p>Level of risk transfer is <i>high</i> where volume data is poor and therefore likely volumes are uncertain.</p>	<ul style="list-style-type: none"> • Where there is significant volume risk (i.e. volumes are unknown/uncertain) suppliers may take a risk averse view and provide a unit cost appropriate for a low volume of activity – leading to poor vfm.

	cover any fixed costs)			<ul style="list-style-type: none"> • Operation of the model requires a clear and agreed approach to measuring actual volumes. • Does not provide cost certainty for the Authority or profit certainty for the supplier. • Large reductions in volume from predicted levels can lead to contract instability, renegotiation or failure • Ability to price volume-based contracts is often dependent on the contracting authority's ability to provide accurate historic data. Where data is not accurate then there may be a high risk premium and/or potential for
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				disputes during the term. See <i>information in appendix I for further information about the importance of data accuracy.</i>
Payment by Results (Outcome based contracting)	A variant on the volume-based payment mechanism but rather than the amount paid to the supplier varying by usage, the amount paid varies by outcome achieved by the supplier	Medium to High	<p>Level of risk transfer is dependent on the extent to which likely volumes are known/unknown and are certain/uncertain plus the extent to which suppliers are truly able to influence the outcome.</p> <p>Level of risk transfer is <i>high</i> where supplier is not able to truly influence outcomes - extent to which it can do this must be understood in detail by all parties.</p>	<ul style="list-style-type: none"> • As above for volume-based contracts. • There is a risk that the supplier may be incentivised to prioritise delivery of outcomes which are easier to deliver than more difficult ones • If it is difficult for the supplier to influence the outcomes, they might be paid for outcomes which they did not achieve or fail to recover costs despite poor

				<p>outcomes not being their fault.</p> <ul style="list-style-type: none"> • The requirement to demonstrate results may lead to cash flow issues for the supplier.
<p>Guaranteed maximum price with target cost (Target Cost Incentive Fee)</p>	<p>Based on a 'target cost' and a 'guaranteed maximum price,' under this mechanism, there is gain and pain share between the parties depending on the extent to which there is a difference between actual costs and the target cost. The supplier is wholly</p>	<p>Medium to High</p>	<p>This is a variant of cost plus and can be used in similar circumstances of output uncertainty. However, it transfers some risk to the Supplier as an incentive should actual costs be lower or higher than the target cost.</p>	<ul style="list-style-type: none"> • Complete transparency over the supplier's cost base, actual costs and allocation of overheads is required • Supplier is incentivised to make efficiencies, unlike under the 'cost plus' approach. • The burden of assuring the supplier's costs in order to ensure that costs are appropriate and that only

	responsible for costs above the guaranteed maximum price.			allowable costs are recovered is typically even higher than under the 'cost plus' approach.
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Table 9: Key considerations in the design of payment mechanisms

Make sure to...	Description
Ensure that the level of definition of service requirement matches the level of prescription of the payment mechanism	Any payment event (whether for an input, service delivery or milestone completion) should have a sufficiently clear definition of the trigger for payment. Selection of the appropriate procurement route will help achieve the appropriate level of definition
Provide sufficient explanation and rationale for the payment mechanism	If the rationale for the prescribed payment mechanism is not adequately explained, or does not incentivise tenderers in areas of risk that they can influence, then this can lead to suboptimal pricing submissions from tenderers.
Ensure supplier cash flow variances are reasonable	The design of the payment mechanism should seek to avoid a material adverse impact on cash flow for suppliers. This does not mean that there should be no cash flow risk to the supplier, but that it should be clearly defined and agreed from the outset. Sometimes the contract structure demands up-front investment in assets that is only recovered over time, and the cash flow risk is a key incentive to perform effectively.

<p>Rigorously test the proposed payment mechanism</p>	<p>Time should be built into the design phase to scenario test the payment mechanism. This can impact evaluation (if the mechanism is so complex it reduces the ability to properly evaluate tender responses) and contract management (through creating an unreasonable burden on suppliers). Providing worked examples in tender and contract documents will reduce the risk of lack of understanding of how the payment mechanism works.</p> <p>Further information on the risk of an overly complex payment mechanism is provided in appendix I.</p>
<p>Use of risk pots and allowable assumptions</p>	<p>In developing their tender responses, tenderers will evaluate the risks they are taking in a particular deal or transaction and incorporate within their price a value for taking those risks. The contracting authority should have visibility over the level of risk priced into a tender and should consider use of ‘risk pots’ where the specific value of each risk is set out. Having visibility on each risk and the associated value should enable negotiation between the parties to ensure that the value is appropriate and proportionate. Consideration can also be given to a mechanism where the value of a specific risk can be drawn down if it materialises – with the remainder potentially shared.</p> <p>Suppliers can also price for risk in their operating assumptions within their tender. This is sometimes less obvious than pricing for the risk in a risk pot. ‘Allowable assumptions’ can deal with this through introducing a formal mechanism whereby the value associated with a specific assumption is only released should the assumption prove to be inaccurate.</p>

<p>Reflect the delivery payment mechanism in the tender pricing schedules</p>	<p>Wherever possible the pricing matrix or model included in the tender document and evaluation should reflect the desired payment mechanism. This should enable better tenderer price comparisons and also avoid surprises once in delivery.</p> <p>Where volumetric pricing is to be used actual or projected data should be provided and used for evaluation.</p>
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Other barriers to entry and competition

Market engagement can also be used to understand other barriers that may be stopping suppliers from entering a market or competing on a level playing field. These barriers may include overly restrictive participation criteria, overly aggregated contracts, use of disproportionate liability clauses, or lack of access to certain information that is only held by incumbent suppliers. Once these barriers are understood, an assessment can be made as to whether they can be reduced without compromising other objectives.

2.13 Practical Questions for Testing Proposed Approach to Risk Allocation

Checklist

This section provides a checklist of questions to confirm your approach to risk allocation is effective.

Figure 2: Potential questions on proposed risk allocation approach



Section 2 Appendix I: Further Detail on Risk Areas

This section of the document expands on some of the specific key risk areas set out in table 7 and seeks to set out in further detail a description of the risk, why it is a risk to both parties and some specific factors for the contracting authority to consider when devising its approach to risk allocation.

Table 10: Detailed examples of risks

Data Accuracy Risk
Description of risk
Lack of appropriate data, incomplete data and/or poor accuracy of data is provided to tenderers during tender phase e.g. inaccurate data related to: staff transfer (TUPE) e.g. the number and length of employment of staff, details related to pension provision, benefits packages, working practices; volume & demand information; asset data e.g. the number and condition of existing assets, complexity of changes, existing contracts to be assigned or novated to the incoming supplier.
Risk to the supplier
<ul style="list-style-type: none"> Suppliers use data provided during the tender stage to inform the pricing of their tender/ the contract. If data provided was incomplete / inaccurate then there is a risk that the contract price tender is insufficient to the supplier in contract life e.g. the supplier may incur higher costs in running the service than forecast. The contract price may not allow the supplier sufficient profit or even to cover their costs - making the contract onerous.
Risk to the contracting authority
Where data is insufficient, there are several key risks to the contracting authority:

1. Tenderers may request extensions to key submission deadlines on the basis of deficient data - causing timing risks.
2. Receiving heavily caveated tenders (risking non-compliance) or a no-bid decision meaning there may not then be a viable competitive procurement, reducing the number of potential solutions available.
3. Tenderers may account for inaccurate data by including a 'risk premium' in their tender price to mitigate their risk that the incurred costs will be greater than the forecast costs. The contracting authority will pay this even if this is not the case.
4. Tenderers may simply get the price 'wrong' and tender a greater price than it would have, had it been able to rely on better data.
5. With a high degree of competitive tension, tenderers may drop risk premiums in order to secure the business, however these risks suppliers making insufficient profit or making a loss. The supplier may seek to reduce cost by reducing performance, which may lead to higher contract administration burden, or they may decide to seek to partially or fully terminate the service.

Risk allocation - factors to consider

- sufficient effort should be made to obtain a comprehensive and detailed set of tender data, share all appropriate data, and be prepared to explain any gaps and how this will affect evaluation and / or contracting terms - e.g. providing a data room and enabling tenderers to undertake a process of due diligence, query and ask for additional data. The nature of this will depend on the type, scale and route of procurement.
- Where tenderers have been able to undertake sufficient due diligence and satisfied themselves as to the status of the data then it is appropriate that suppliers are asked to take the risk on data accuracy. Where tenderers consider that data is not complete and/or accurate then the risks to both parties as set out above may apply.

- The contracting authority may choose to warrant that the data is complete and accurate and thereby take the risk of data accuracy. Tenderers will then be given certain rights if the warranty is breached, however tenderers should reasonably be expected to demonstrate that there is no risk premium associated with data inaccuracy within their tender. Contracting authorities considering warranties should seek legal advice.
- Incoming suppliers should not be held responsible for errors in data (excluding forecasts) where they are unable to complete due diligence. Contractual mechanisms should cover erroneous data (subject to restrictions relating to material variations under public procurement law). Any adjustments should take place as soon as possible after contract commencement.
- Mechanisms may include a 'true up' mechanism and/or use of allowable assumptions which permit suppliers to verify aspects of a contract after it has been awarded - reflecting the practical reality that it is not always possible to conduct full due diligence prior to signing nor always appropriate for this risk to sit fully with the supplier. Where a supplier can demonstrate that an assumption is inaccurate and where both parties agree there is a cost impact then the supplier can propose a change to the contract charges, subject to this not exceeding a specified cap.
- Where service provision is already outsourced, there will generally be a dependency on incumbent suppliers to provide relevant data. An obligation to provide and maintain a 'virtual library' throughout the contract should be included in future contracts. The supplier should warrant that the information uploaded to the virtual library is accurate, complete, up-to-date, meaning at the point of re-procurement there should be greater confidence in the data.

Inflation Risk
Description of risk
Inability to appropriately recognise that inflation is a factor which will impact the cost base of suppliers; either through lack of inflationary mechanism or use of inappropriate indices within the contract.
Risk to the supplier
<ul style="list-style-type: none"> • Where prices are firm and include an element of indexation, the submitted bid price, could be, after actual inflation is considered, incorrect and insufficient to allow for recovery of costs. • Where inappropriate indices are used, the submitted bid price, could be incorrect and insufficient to allow for recovery of costs. • Lack of appropriate mechanism/use of inappropriate indices could lead to risk pricing which makes bid uncompetitive and bidders are not successful. • Reputational damage could be caused if margins are deemed too high after applying a mechanism which leads to over-recovery of costs.
Risk to the contracting authority
<ul style="list-style-type: none"> • Industry may choose not to tender if the mechanisms and/or indices are not appropriate. • Industry may include risk pricing which will increase the overall cost of the tender and erode the value to the taxpayer. • Supplier's performance may decrease if the treatment of indexation leads to under-recovery of costs. If the supplier cannot bear losses arising from an inappropriate mechanism and exits market/becomes insolvent. • Reputational damage could be caused if margins for the supplier are deemed too high after applying a mechanism which leads to over-recovery of costs.

Risk allocation - factors to consider

- Length of contract – the longer the contract, the more important it is to consider the impact of inflation.
- There is a compound effect of issues arising in the early years of a contract.
- Ensure that all parties understand the nature of cost base and movement of those costs i.e. staff costs as opposed to consumables costs.
- Consider the supplier's ability to manage different cost types e.g. utilities cost, wage levels
- Agree and use appropriate indices for different cost types - which reflect the nature of the actual costs.

Performance/Availability Risk

Description of risk

Risk that the performance mechanism for a contract is not appropriate or proportionate (noting that suppliers should expect there to be a mechanism by which their performance is assessed).

Risk to the supplier

- Disproportionate mechanism i.e. excessive deductions adversely impacting profitability in relation to the actual level of failure. Ultimate consequences could be a loss-making contract/insolvency.
- Wrong metrics assessed which are not linked to desired deliverables thus causing a distraction to the delivery of the contract outcomes.
- Complexity of measurement increasing the likelihood of error in reporting.
- Reputational risks of failure of key performance indicators (KPIs).

Risk to the contracting authority

- Disproportionate mechanism i.e. excessive deductions adversely impacting profitability in relation to the actual level of failure. Ultimate consequences could be a supplier's withdrawal from the contract/market and/or insolvency.
- Incorrect focus of the mechanism which does not correctly incentivise the supplier to deliver i.e. the supplier is not penalised for significant failure and the authority has paid for a service it has not received or not received to the required standard.
- Wrong metrics assessed which are not linked to desired deliverables thus causing a distraction to the delivery of the contract outcomes.
- Complexity in measurement and increase in risk of error AND increase in cost of contract overall as more resources are required to measure, record etc.
- Reputational risks of failure of KPIs.

Risk allocation - factors to consider

- At a high level, any performance regime should be simple, relevant and proportionate.
- All KPIs should align to the specific scope/specification of service and business objectives. Such measures should be meaningful and relevant and should not include things outside the supplier's control.
- The number of specific measures to be kept to a minimum; too many measures impacts on the risk profile of the overall contract and becomes too unwieldy to measure and manage (which has a cost implication for the Authority in terms of additional resource required on the contract).
- Measures must be simple to understand (with defined joint understanding), simple to measure and sensibly measurable; all measurements must be objective and not based on subjective judgement. There should be minimised manual intervention to minimise margin for error.

- Measures should be achievable where a 'good' level of service is delivered. 'Good' in this context should be considered in the same way as benchmarking provisions and should be consistent with industry norms.
- Consider a 'bedding in period' during which the KPIs do not apply.
- Escalation triggers to a termination event should be proportionate i.e. consider 'hair triggers.'
- Relief should apply when failure occurs as a result of a failure of a dependency.
- Remedies in the form of liquidated damages (LDs) or service credits should be proportionate to the value and risk of the service. Deductions should be proportionate to the contract value, capped at contract profit, not linked to revenue and should not include ratchet mechanisms which can quickly escalate to unreasonable levels of deductions. LDs should be a genuine compensation to the innocent party based on a pre-estimate of loss and must not be out of all proportion to the innocent party's legitimate interest in enforcing the counterparty's obligations under the contract.

Volume/Demand Risk

Description of risk

There are two main challenges associated with volume/demand risk:

1. Changing volumes change over time;
2. Availability and provision of data with enough granularity to assess timing factors e.g. seasonality

Volumes can change over the lifetime for several different reasons including:

1. Changes in policy which can either have an immediate or gradual effect on service usage;
2. Trends in service user behaviour e.g. increasing adoption of online self- service;
3. Sudden and unforeseen demand e.g. deployment of troops into or out of a location.

Data is often summarised to tenderers in the form of averages. Averages can be helpful when a reasonable reference period is used but can be an issue when the reference period lacks sufficient granularity e.g.

- a) To use the average number of helpdesk calls per day could mask a peak call volume time between 0900 and 0920 each day;
- b) To use the average number of letters received per year could mask seasonal factors (e.g. tax returns) which cause peaks in particular weeks or days;
- c) To use the average number of meals served per week could mask that building occupancy is much lower on a Friday than any other day of the week.

In some cases tenderers will be able to use their market experience to understand the distribution of the average. This is often not feasible and can prevent new entrants making viable first steps into the market-place.

Risk to the supplier

- The risks to the supplier will depend on the extent of the volume/demand movement, how far in advance the movement can be predicted. The impact of the risk is dependent on the pricing mechanism adopted.
- Suppliers develop their solutions, including entering into sub-contracts, based on the volumes provided in tender documents. In mature markets suppliers may have an appreciation that generally volumes can, and historically have, been variable. Without perfect foresight, or a set of consistent assumptions, provided by the contracting authority, suppliers are unable to assess the probability and extent of changes in volume.
- In entering into sub-contracts suppliers will provide the data contained in tender documents to their supply-chain partners. When choosing to subcontract work suppliers to government are increasingly doing so to small and medium sized enterprises (SMEs) recognising policy initiatives, in particular social value. Suppliers have a choice when working with their supply chain. They can either:
 1. flow down the risk of volume movement to their supply chain partners;
 2. hold the risk themselves rather than flow it down; or

3. adopt a hybrid approach where part of the risk is transferred, and part is retained.

Risk to the contracting authority

There are two primary risks:

1. Value for money
2. Service quality
 - Where either an inappropriate pricing mechanism is used the contracting authority will not achieve a reasonable value for money position. For example pricing variable services on a fixed price basis will result in the authority paying more than if it had adopted an appropriate variable pricing mechanism in the instance of decreasing volumes.
 - Service quality can be impacted by volume movements which weren't anticipated by the supplier in designing the solution. Where volume fluctuations can be predicted suppliers will build an appropriate amount of flexibility/spare capacity into their solutions. If tenderers are required to rely on averages in building their solutions they will, most of the time, be over or under-resourced.

Risk allocation - factors to consider

1. Consider how much confidence the contracting authority has in the accuracy of the data provided during the procurement process
2. Consider how volume variations may occur:
 - a) as a function of customer demand;
 - b) dependent on seasonal activity;
 - c) as the consequence of a programme of change.
3. Consider how predictable the variability is:

- a) Is there an annual, weekly, daily cycle?
 - b) Is there a known programme of work? e.g. a transition plan of estate consolidation
 - c) Is it entirely unpredictable/uncontrolled
4. If it is a service that is likely to be sub-contracted how do sub-suppliers price their services to multi-service suppliers?

There are three key provisions to manage variable volumes: Change control procedures; Contractual pricing mechanism; Due diligence and warranted data.

All provisions must work in synchronicity to ensure a coherent contractual model.

Risk of Change in Standards/Legislation

Description of risk

Contracts are formed at a point in time and the services must stay up-to-date with changes in policy, standards and legislative requirements; such changes are often not wholly predictable.

Government contracts have a broad definition of 'Law' which extends to non-legislative but mandatory guidance to which the supplier must adhere. Contracts seek to differentiate between:

1. Specific (sometimes also known as discriminatory or qualifying) change in law; and
2. General change in law.

The protections provided to the supplier vary between specific and general changes in law. The model services contract defines:

- 'Specific Change in Law' as: "a Change in Law that relates specifically to the business of the Authority and which would not affect a Comparable Supply." A

Comparable Supply is defined as “the supply of services to another customer of the Supplier that are the same or similar to any of the Services”

- ‘General Change in Law’ as: “a Change in Law where the change is of a general legislative nature (including taxation or duties of any sort affecting the Supplier) or which affects or relates to a Comparable Supply”.
- Specific Changes in Law are considered, in government contracts, to be the contracting authority’s risk except where the effect of the change was reasonably foreseeable at tender stage and General Changes in Law are considered, in government contracts, to be the supplier’s risk.

Risk to the supplier

- Some changes in legislation or mandatory industry standards which fall within the definition of a General Change in Law may have a significant impact on the cost of delivering the services either as:
 - A one-off cost of making a change (e.g. an upgrade to IT security systems); or
 - Recurrent costs (e.g. labour costs either as a function of labour rates, or additional time taken to perform tasks due to a new standard)
- These changes may not be predictable at the point of forming the contract.
- It is not the change in law, which necessarily creates risk for a supplier but the way in which other contractual mechanisms either compound or mitigate the impact of the change
 - Firm Price: Firm Price arrangements offer no protection to the supplier where a change in law does not fall within the definition of a Specific Change in Law since prices are held for the duration of the contract period.
 - Fixed Price: Fixed Price arrangements can offer some degree of protection to suppliers where an appropriately blended indexation mechanism is used. The key word here is ‘appropriate’ where headline CPI is used as the indexation mechanism this may mask or ignore movements in the cost base of the supplier

due to the change in law. It is also important to note that a change in law may occur at any time whilst contractual indexation will be applied only once per year often on the anniversary of the contract commencement date. This results in a lag in cost recovery for the supplier.

Risk of Change in Standards/Legislation

- The risk impacts not only the prime supplier but their SME sub-suppliers/suppliers. A supplier could seek to mitigate its own exposure by engaging in fixed/firm price contracts with its supply chain which mirror the terms of the contract it has with government. Many suppliers won't or can't adopt this approach as to do so would cause significant harm to SMEs in its supply chain.

Risk to the contracting authority

- Under the standard Conditions of Contract, the change in law provisions allocate most risk to the supplier. The category of General Change in Law (where risk falls to the supplier) is much wider than the category of Specific Change in Law (where risk falls to the contracting authority). In addition, changes in law that would otherwise be classed as Specific Changes in Law but which were foreseeable at contract signature are excluded from the definition and therefore the risk falls to the supplier.
- The risk to the contracting authority occurs prior to, and during the procurement process. When assessing whether to submit a tender, suppliers will assess risks that may prevent it from achieving their strategic and financial objectives. Where the balance of risk v. reward is too great prospective suppliers will not tender or will withdraw. This risk will be particularly great for SMEs since they may lack the financial resilience of larger suppliers for whom it is still a material consideration when electing whether to tender and at what price.

- Since the contract offers no protection a prospective supplier who decides to proceed with submitting a tender has two options to seek to mitigate the risk: treat or tolerate.
 - Treating the risk will see the supplier make a provision for the possible impact of changes in law within their price i.e. including a risk premium to mitigate their view of the financial risk. Due to the nature of competitive tendering it is unlikely that a supplier who seeks to fully ‘treat’ all risks will be successful.
 - Tolerating the risk will see the supplier make no financial provision for the risk gambling on the risk not manifesting. Most organisations, acting reasonably, will adopt a blended approach of treatment and toleration. An inappropriately treated and/or a tolerated risk may both lead to budgetary pressures for the supplier which can in turn impact upon quality of service.

Risk allocation - factors to consider

The following contractual provisions need to be designed to work in a complimentary fashion:

1. Change in Law provisions
2. Open Book Audit Rights and Benchmarking
3. Indexation
4. Contract duration

Risk of Vague, Incomplete, Poorly Drafted Specification

Description of risk

The specification forms the basis of the tendered solutions offered by suppliers. The successful supplier’s tender forms their costed proposition in response to the specification. If the specification is ‘wrong’ the solution will also be ‘wrong.’ A poorly drafted specification will result in solutions that fail to deliver the contract objectives.

It is important to note that the specification extends to more than a textual description of the services. The specification includes the data which supports the specification which typically describes the scope, volumes and location details.

Risk to the supplier

Conditions of Contract generally provides an order of precedence which places the supplier's solution below the specification in the hierarchy of documents/schedules. This is not uncommon and is rarely a problem where a precise and accurate specification has been drawn up and there is alignment with the purchased solution. Where a specification is unclear the following issues may arise for the supplier:

- Reputational damage caused by delivering services which fall below, unwritten, expectations or standards;
- Costs of entering into disputes to obtain required clarity;
- Costs of redesigning solutions or in extreme cases developing new capabilities;
- Scalability issues can be experienced where volume data is inaccurate (see volume risk).

Risk to the contracting authority

The public sector risks include:

- Services which fail to deliver intended results;
- Cost uncertainty relating to the solution and/or disputes;
- Requirement to pause the procurement resulting in programme delays whilst a less ambiguous specification is drafted;
- Procurement challenge if the specification is significantly amended during the procurement process such that other suppliers may have been interested in tendering or if the contract is materially amended during its term to fix issues relating to an ambiguous specification.

Risk allocation - factors to consider

There are two main reasons why an ambiguous specification may exist:

- poor drafting;
- genuine lack of clarity of the required outputs/outcomes at the point of contracting.

In any event the contracting authority is best placed to manage the risk so should not seek to allocate ambiguity to industry.

Entering into a procurement recognising that the specification has been poorly drafted should be avoided. Contracting authorities should perform meaningful pre market engagement on the draft specification to test how it would be interpreted by potential suppliers. This will ensure that tendered solutions are designed on the same basis. This must be paired with:

- Due diligence provisions which recognise, where appropriate that suppliers cannot conduct meaningful due diligence until after signing the contract ;
- KPIs which are measurable and which suppliers can risk assess when designing their solutions;
- An appropriate payment mechanism e.g. it may be appropriate to use a cost-plus method where there is genuine uncertainty of specification when forming the contract.

Risk of Overcomplicated Payment Mechanism

Description of risk

Risk that the payment mechanism for a contract is too complicated or not appropriate.

Risk to the supplier

- Risk that the payment mechanism is misunderstood at tender stage impacting contract profitability.

- Risk that the payment mechanism is so complicated that additional resources are required at tender stage that increases the cost of tendering or precludes a tenderer from submitting a proposal.
- Risk that the payment mechanism shifts unmanageable risk onto the supplier resulting in a loss-making contract/insolvency.
- Margin for error in calculating invoice increases which could result in under/over-charging and have a reputational impact for the supplier.

Risk to the contracting authority

- Risk that the payment mechanism, pricing pages for submission and evaluation criteria are not aligned which can confuse the evaluation process and may not lead to the most favourable result overall.
- Risk that the payment mechanism is misunderstood at tender stage impacting contract profitability for the supplier. Ultimate consequences could be a loss-making contract/insolvency.
- Risk that the payment mechanism is misunderstood at tender stage resulting in risk pricing and a more expensive contract.
- Risk that the payment mechanism is so complicated that additional resources are required within the contract leading to a more expensive price.
- Risk that the payment mechanism shifts unmanageable risk onto the supplier resulting in a loss-making contract/insolvency.
- Margin for error in calculating invoices increases that could result in under/over-charging and could have a reputational impact for the contracting authority.

Risk allocation - factors to consider

- The more complicated the mechanism, the greater the margin for error in terms of application and evaluation. Simplicity is best as far as possible.

- Consideration must be given to the nature of the cost base and how the payment mechanism should take this into account. For example, variable pricing against a fixed cost base would not be appropriate.
- The payment mechanism, pricing pages and evaluation method should all be aligned and consistent.
- Consideration must be given to the treatment for mobilisation costs for suppliers and the likely impact on cash.
- Where tenderers are requested or mandated to consider/embed savings or some sort of efficiency factor, this requires very careful consideration in terms of how this will drive behaviour both at tender stage and when under contract.
- Treatment of early termination – there should be consideration of how tenderers might ‘arrange’ their costs if there are concerns around early termination provisions.
- Consider use of worked examples provided with the procurement documentation and contract to enable understanding and application of mechanisms.
- Profit caps/gain share mechanisms that are easy to follow and genuinely seek to share excessive supplier profits.

Section 2 Appendix II: Further Detail on Pricing Approaches

This section of the document expands on the pricing approaches some of the key risk areas set out in table 4 above and seeks to set out in further detail a description of the risk, why it is a risk to both parties and some specific factors for the contracting authority to consider when devising its approach to risk allocation.

Table 11: Further detail on pricing mechanisms

Fixed Price
<p>Where a service is specified using an output specification, with appropriate performance measures and incentives in place, the supplier takes on the cost risk of the resources (or inputs) required to deliver the services i.e. if the costs escalate then the supplier must manage this. It also takes on the performance risk of delivering the services to the agreed standards within the fixed price. This allows the contracting authority to achieve price certainty for a defined scope and standard of service, and the price will only vary should it wish to amend the scope or standard of service.</p> <p>The key component of fixed price has to be “fixed scope”. Floating or variable scope is not suitable for fixed pricing.</p> <p>In fixed price payment mechanisms, the charges will be subject to indexation. For contracts of long-term duration the contracting authority should specify, or request and agree, the elements of the contract that will be subject to indexation during the tendering exercise to ensure transparency from the outset.</p>
Common Application
<p>Fixed price approaches are most suited to medium- to long-term agreements whereby the movement of prices as a result of macro-economic factors cannot reasonably be predicted. The specification should be well-defined and easily understood and the quantum (volume/frequency) should be known or predictable. The price for the first year or 2 years, is fixed. Thereafter the prices may be adjusted by either a direct link to published indices or a volume/scope movement +/- a stated tolerance</p>

Benefits

- Relative price certainty for the supplier: Notwithstanding indexation risks, the supplier can make a reasonable estimate of the likely revenue it will generate and any margin impacts.
- Relative price certainty for the contracting authority: Since prices will move only through contract variation or through indexation, financial planning is more straightforward.
- Encourages supplier efficiency: On the basis that the price to the contracting authority can only be varied by a specific quantum, the Supplier is encouraged to maintain efficiency to keep costs at least in line with forecast (notwithstanding the inflationary impact).
- Process certainty: There is an agreed approach to inflation management from the outset, this is easy to track and agree.
- For services defined as fixed price services in the contract, the financial and operational risk for delivery of the defined services and standards is transferred from the client to the supplier

Risk Considerations

- The clarity of the specification is critical in underpinning price risk transfer. If the specification is ambiguous, or is not comprehensive, then it provides the supplier with 'wriggle room' once appointed to argue that certain aspects of the service were not included in the fixed price.
- Divergent price and cost relationship: If used for short term agreements cost, within a set scope, can be reasonably predictable. The more ambiguous the scope or the longer the contract period, the greater the uncertainty. The market, acting responsibly will respond to the unknowns by pricing for risk.
- Value for money: The pricing of risk is subjective and prone to error. Risk can be over-priced as easily as it is under-priced. Whilst Firm pricing mechanisms

transfer all inflation risk to the supplier, they also transfer any future inflation and efficiency benefits reducing the potential for achieving value for money.

Firm Price

As for fixed pricing but using the 'Firm' pricing mechanism means that charges will NOT be the subject of increase due to indexation. Firm prices should be agreed during the tender process for those specific areas of non-variability from Implementation through to service delivery.

The key component of firm price has to be "firm scope". Floating or variable scope is not suitable for firm pricing.

Common Application

Firm priced models are generally most suitable for short-term agreements, however it is possible to use Firm pricing for services within a longer term agreement where the impacts of inflation are more predictable.

Benefits

- Price certainty for the contracting authority: It has complete budget certainty for the duration of the term of service provision.
- Encourages supplier efficiency: The supplier is encouraged to maintain and/or create efficiency within the contract to maximise profitability against a predetermined revenue stream.

Risk Considerations

- The key risk considerations in relation to fixed price payment mechanisms relate to clarity of the specification and the appropriateness of the index used.
- The clarity of the specification is critical in underpinning price risk transfer. If the specification is ambiguous, or is not comprehensive, then it provides the supplier

with 'wiggle room' once appointed to argue that certain aspects of the service were not included in the fixed price.

- The correct index must be used which reflects the nature of the service being delivered. The 'moving parts' which must be considered in relation to inflation are the indices selected the blend/ratio of indices e.g. 85% RPIx: 15% AWE, phasing. If an incorrect index is used then the level of risk transfer to the supplier may become inappropriate.

Cost Plus

A cost plus mechanism is one where the payments to the supplier are calculated based on the cost of delivering the services, plus an extra amount to allow for profit (the profit paid often dependent on the percentage tendered). Costs are calculated by reference to directly incurred supplier costs (often subject to tests to determine allowable and disallowable costs). Cost Plus requires transparency over the supplier's actual, direct costs and allocation of overheads plus an agreed margin. It should be noted that the financial management burden for Cost Plus contracts may be significant so as to ensure that only allowable costs are recovered and that cost levels claimed are appropriate.

Common Application

Cost Plus is particularly suited to first generation contracts. The mechanism allows for reasonable costs (of hours spent and materials purchased) plus a fixed fee (either monetary value or percentage) to be paid to the supplier. In certain scenarios, or pilots, where neither party can reasonably predict how the service requirements, and therefore cost, may evolve, the Cost Plus approach can work well. Since the service benefit can be offset by cost challenges, it may be appropriate to scale the pilot appropriately to constrain the impact of cost uncertainty. Milestones should be used to track operational delivery against payments made. Over time, elements of a contract can be migrated to different pricing mechanisms when requirements and delivery challenges are better understood.

Benefits

- Price and cost relationship: Since these arrangements are necessarily open book, the contracting authority has full visibility of costs. The price then moves proportionally to cost.
- Reasonableness for supplier in unknown environment: Where the specification is unclear, using Cost Plus, although it does not provide certainty, does introduce a level of reasonableness i.e. based on actuals, subject to open book, capped profit levels. The quality of materials is pre-determined and services can be flexed throughout the term of the agreement without either party taking an unreasonable, and unforeseen, level of risk.
- Removes service pressures such that the security of delivery is more assured: Since suppliers are paid against actual costs, the risk of service deterioration is reduced should costs be higher than anticipated.

Risk Considerations

- Price uncertainty for the contracting authority: contracting authorities may enjoy the flexibility that Cost Plus arrangements provide. The ultimate budget holders for the authority can experience difficulties in forecasting and maintaining appropriate budgetary control. It is very difficult to gain complete certainty on total outturn spend, although the relationship between costs and margin should be fully understood. However, as above, this does give suppliers greater flexibility to perform operationally; they will be paid for work undertaken without the restriction of a 'cap' on what is payable.
- In contrast, stifled innovation and strive for efficiencies: Since payment to the supplier is based on actual spend, there can be little motivation to introduce cost saving innovation or other efficiencies.

Volume Based Payments
A Volume Based mechanism is one where the amount paid to the supplier varies according to how much the service is used. Typically on a price per unit basis but can be combined with a fixed element to cover certain fixed costs.
Common Application
Volume-based pricing is appropriate in instances where there is: <ul style="list-style-type: none"> • A defined schedule of rates • Variable volume/demand • Rates themselves may be Fixed, Firm or Cost Plus • Volume bands may exist recognising economies of scale/stepped pricing increments
Benefits
<ul style="list-style-type: none"> • Volume risk distribution for the contracting authority and supplier: The contracting authority pays for the volume of services actually consumed and the supplier does not have to make assumptions for how volumes, which are outside of their control, will vary over time.
Risk Considerations
<ul style="list-style-type: none"> • Value for money: Where volumes are unknown, or uncertain, a supplier may take a risk-averse view and provide a unit cost appropriate to a low volume of activity (i.e. no recognition for economies of scale). • ‘Cottage industries:’ Supporting evidence for invoices issued to the contracting authority can require significant supporting data to be consolidated from a variety of sources and presented in a range of formats which can be very time-consuming and expensive. • Lack of total price/cost/profit certainty for the contracting authority and supplier: Both public sector and suppliers require a level of certainty regarding

the total value of agreements to ensure that budget holders and the market can make investment decisions. Estimates can of course be made based on historic volume data taking into account trends but accuracy will vary.

- Recovery of fixed supplier costs: Mechanisms need to recognise that fixed or semi-variable costs may have been incurred during mobilisation or are incurred routinely throughout the contract life and that significant changes in volume require adjustment to unit rates to allow for total absorption of fixed or semi-variable costs.

Payment by Results

A variant on the volume-based mechanism. Payment by Results as a structure is most commonly applied when the focus of outcomes is solely on the results achieved by the supplier e.g. reduced rates of reoffending for ex-prisoners or numbers of long-term unemployed back into work.

Benefits

- Promotes focus in terms of outcome delivery: The specific focus of this mechanism is the delivery of results which should, broadly, be compatible with the objectives of the contracting authority (unless this focus becomes misdirected, see below).
- This mechanism can be innovation-generative when structured correctly because suppliers are very well incentivised to deliver.

Risk Considerations

- Misdirected focus of service provision: Although the overall focus of service is on delivery of results, the emphasis may not be as intended. If payment is made based on results, suppliers will focus their attention on outcomes which are more likely to result in payment which may not be the aligned to the intention of the department.

- Burden of proof on actual achievement of results: The demonstration of actual results can be difficult to prove, subject to subjective opinion and hard to document. There can be difficulty in establishing direct correlation between service quality/outputs and 'measurement of results' e.g. as was the case for supplier owned Community Rehabilitation Companies in relation to re-offending data.
- Cash management issues: The requirement to demonstrate results before payment is made can introduce significant cash flow issues for suppliers and could introduce additional cost of capital charges to departments.
- Lack of appeal for SMEs: Due to likely payment structure and delay in cash receipts, this structure is unlikely to appeal to SMEs who are not likely to be able to afford to fund operations up to the point of payment.

Guaranteed Maximum Price with Target Cost (GMPTC)

Under this mechanism, tenderers provide a target cost for delivery of milestones or services and a margin. The target cost and the margin are together referred to as the target price. A guaranteed maximum price is set which is a specified percentage above the target price or target cost (10% above target price in the model services contract).

Where the supplier's actual costs are less than its target cost, the savings made are shared with the contracting authority and the effect is an increase in margin achieved by the supplier. Where actual costs are greater than the target cost, the difference between the actual costs and the target cost is shared equally provided that the most the contracting authority will pay is the guaranteed maximum price. This has the effect of reducing the margin achieved by the supplier.

Common Application

This model can be applied when outputs are known but delivery methods are not firm/defined.

Related models are also used where it is believed that changes to ways of working, or output requirements, will deliver significant efficiencies but the service quality risk attached to a wholesale movement to a new way of working is considered too great by the contracting authority.

Benefits

- **Transparency of cost:** Open book accounting is necessitated through the application of the mechanism thus providing transparency of costs. Open book provisions should be as simple as is reasonably possible to achieve the required transparency objectives. The ability to fix an overhead percentage during the tender which carries into the open book process may simplify reporting.
- **Sharing of cost increase risk and savings benefit:** The shared impact of both cost increases and savings benefit can help to form a true partnering relationship as both parties are incentivised to identify cost savings. The mark-up applied by the supplier can be treated as a percentage or as a fixed cash value. The fixed cash value approach reduces the risk of margin dilution for the supplier in the event that costs decrease but would dilute margin returns where the Supplier is ineffective in managing costs.

Risk Considerations

- **Uncertainty of cost for both the department and supplier:** Subject to the overall cap for the department, there is uncertainty for the authority in terms of outturn cost. There is greater uncertainty for the supplier as, although there is an element of pain sharing up to the maximum cap, any costs above the cap are the responsibility of the supplier.
- **Complex measurement:** Supporting calculations for qualifying costs (as defined as a Target Cost) can be complex as can calculations around gain share and pain share.
- **Cottage industries:** Supporting evidence for invoices issued to the department can require significant supporting data to be consolidated from a variety of

sources and presented in a range of formats which can be very time-consuming and expensive.