UK Government

Turning a Policy Question into an Analytical framework: Scope development checklist v1.5

Modelling Integrity Team

November 2025

Purpose of Exercise:

To bring together modellers, customers and other stakeholders to think divergently about the task at hand before the project begins. This will help to provide a common understanding of what the model will and will not do ("acceptability criteria") given time and resource constraints.

The points below aim to stimulate discussion during an initiation meeting. It is recommended that notes are recorded against each point and stored on SharePoint. After the scoping, a clearly defined model specification should follow (available here):

1. **Decisions Being Supported**

- What does the project aim to achieve?
    - Is there a clear articulation of the purpose of the model?
    - How will you evaluate the success of the project / model?
- Understand the key business decisions/questions that the model will address
    - Keep asking “why” to find the real decisions and questions
    - Match outputs to the decisions/questions

2. **Context - identify the wider landscape in which this piece of work sits**

- What are the key drivers behind this piece of work for the customers?
- Are there other relevant models built, in progress or planned in this or other Government Departments or beyond which could support the development of this model? Check the Model Integrity Team Tracking Log.
- Is the work aligned with departmental priorities?
- Is the work business critical? (see Annex A)
- How does this fit with the overall analytical work programme?
- Is the intended scale of this work compatible with policy timings and other milestones?
- What options are available – could similar outputs and outcomes be achieved through different approaches that require less resource?
- What is the appropriate balance between using existing evidence that may not be ‘ideal’ and devoting resource to collecting new evidence?
- What are the anticipated benefits and costs of filling the evidence gap?
- What are the consequences if the work is not carried out now?

3. Stakeholders, Owners, Users

- Identify who the decision owners are for different tiers of decisions in line with the Department's QA guidance, as well as:
    - Who will use the output? (key customers day-to-day and at the end)
    - Who will provide the input?
        - Advice on how the system or process works
        - Data
        - Assumptions
    - Who will populate the model?
    - Who will develop, review and update the model?
    - If there are other beneficiaries, teams/groups affected, users (e.g. academics, the public), identify these and what they will be using the model for.
    - Are there additional requirements for publishing the model – e.g. do you need to work with Government Digital Service?
    - Who is the
        - Assurer
        - Approver
        - Commissioner (Senior Responsible Owner, SRO)

  to sign off the key decisions? – both for the scope and the remaining stages of the model?

4. Model Scope - Proposed level of quality, detail & accuracy [this stage will inform model specification]

- Agree the level of detail the model will go to (e.g. month/quarter/year, fuel type, sector, technology)
    - Required level of accuracy will depend on the business question and circumstances – from 'back of an envelope' to full model.
    - Key Inputs / assumptions
        - Identify as far as possible at this stage the key inputs and assumptions that will be required (both quantitative and qualitative)
        - Obtaining data can be the long-lead-time items in the modelling lifecycle - be ready to request data in the specification stage.
- As well as identifying what is in scope, be clear about what is excluded.

- Where key business questions have been prioritised, note those that are excluded from current development but may be answered in the future.
- Does the analysis need to be robust to use in different contexts?
- Factors influencing scope include:
    - Business criticality of output / decision
    - Time scales
    - Data availability (don't create a model you cannot populate)
    - Source data accuracy (lowest common denominator)
    - Project / policy timescales
    - Resources / skill mixes available (internal and external)
- Discuss the merits of building a 'shadow model' for business-critical models.

5. Dependencies

- Include anything on which this project is dependent as well as anything which is dependent on this project to support critical path planning.
- Please outline the nature of the dependency and extent of potential impacts where appropriate.
- May include anything from resource availability, software availability, availability of key data sources, other modelling output from a project's suite of models, 3rd party tendering.

6. High-Level Plan

- Based on the information gathered so far, develop a high-level plan
- Estimate length of project
- Include key dependencies
- As a minimum, sketch out the modelling lifecycle stages (scope, specification, design, build, test, peer review, sign-off, use) alongside key project milestones
- Explore whether key milestones / deadlines are fixed or flexible

7. Risks

- Spend some time anticipating and discussing potential risks and opportunities with the customer so that these can be factored into the project's design and planning
- What mitigation plans can be made?
- Ensure risks are registered.

8. Skills & Resources

- Using the high-level plan, identify likely skills required
- Follow a skills-based approach in identifying appropriate resources
- Are analytical skills critical to the work?
- Add a resource profile to the high-level plan – if necessary, add to the key dependencies
- What level of quality assurance will be required and who will be able to provide this?

This document has been developed in the Department for Departmental colleagues but is built upon on material kindly supplied by HMRC and MoD.

Annex A

A model is Business Critical if is judged as High for both question 1 (either for a or b) and question 2:

Either

a) How much dependence does the given programme in the Department have on the model for delivery of our current and future business (e.g. of payments, policy, publications; are there alternative quality-assured sources that can be used?)

Or

b) Are your model or its outputs used to calculate the size of payments involved in financial transactions, regulations or tariffs which exceed £1 million?

If the model is used and then subsequently found to have an error, what is the risk of damage to the Department (e.g. damaged reputation, financial risk over £1million, legal risk)?

This decision whether a model is business-critical should be made through a discussion between the model Analyst, Commissioner, and the Modelling Integrity Team.