OFFICE OF RAIL AND ROAD

Approach to the PR18 recalibration of charges and incentives

Detailed description for Recalibration Leads

May 2018

Introduction

- Charges and incentives send signals to operators and Network Rail about the costs and impacts of usage of the rail network. They are thus an integral part of helping deliver the PR18 outcomes of ensuring that the network is efficient, better used, reliable and available.
- As part of PR18, the levels of all of the charges and incentives need to be recalibrated to ensure that the signals they send in CP6 are accurate.
- Given their role in determining network outcomes, any errors or weaknesses in the recalibration of charges and incentives could frustrate the ability of PR18 to achieve its objectives. It is therefore important that we have in place an appropriate process to ensure that we mitigate the risk of such errors or weaknesses.
- These slides set out our expectations for that process. They were designed specifically for the recalibration leads. A more high level description of this process is available on our website (here).
- An earlier version of these slides was presented at an ORR workshop for recalibration leads on Wednesday 14th Feburary 2018.

Recalibration leads

- Some areas of the recalibration are being led by Network Rail, some by industry and some by ORR.
- The principles of the recalibration process are the same, regardless of which organisation is leading the recalibration.

Charge/Incentive	Re-calibration Lead	Contact
Infrastructure cost charges (cost allocation)	Network Rail	Ben Worley
Infrastructure cost charges (setting mark-ups)	ORR	Alexandra Bobocica
Variable charges (i.e. VUC, EAUC, EC4T)	Network Rail	Ben Worley
VUC capping policy	ORR	Nicholas Hall
Station charges	Network Rail	Aaren Healy
Passenger Schedule 4 (ACS)	Network Rail	Simon Harding
Passenger Schedule 4 (Notification Factors)	ORR	Sheona Mackenzie
Passenger Schedule 4 (excl. Notification Factors & ACS)	RDG	Chris Dellard
Freight Schedule 4	Network Rail and operators	Alexis Streeter (working group secretary)
Passenger Schedule 8	RDG	Caitlin Scarlett
Freight & Charter Schedule 8	Network Rail and operators	Alexis Streeter (working group secretary)

The Risk-based Approach: Overview

- We are adopting a risk-based approach to scrutiny across PR18. The principle of this approach is that the most resources are put into the areas with the highest risk.
- In keeping with this risk-based approach, for the recalibration of charges and incentives, we expect recalibration leads to:
  - Propose a score for the inherent risk of errors or weaknesses for each source of risk for each parameter in the recalibration;
  - Propose assurance processes for the recalibration lead and for industry that are proportionate to the inherent risk; and
  - Set out clear proposals for the evidence and methodology to be used in each area of the recalibration, along with a rationale for those proposals.
- Where we are not satisfied with any of these proposals, we may require revisions. Further, where we are not or cannot be satisfied by the level of assurance provided by the recalibration lead and industry, we will seek to obtain further assurance ourselves.
- This approach is already implicit in the approach that has been followed to date for the recalibration of charges and incentives. The purpose of these slides is to make this approach explicit and to make the expectations on all parties clear.

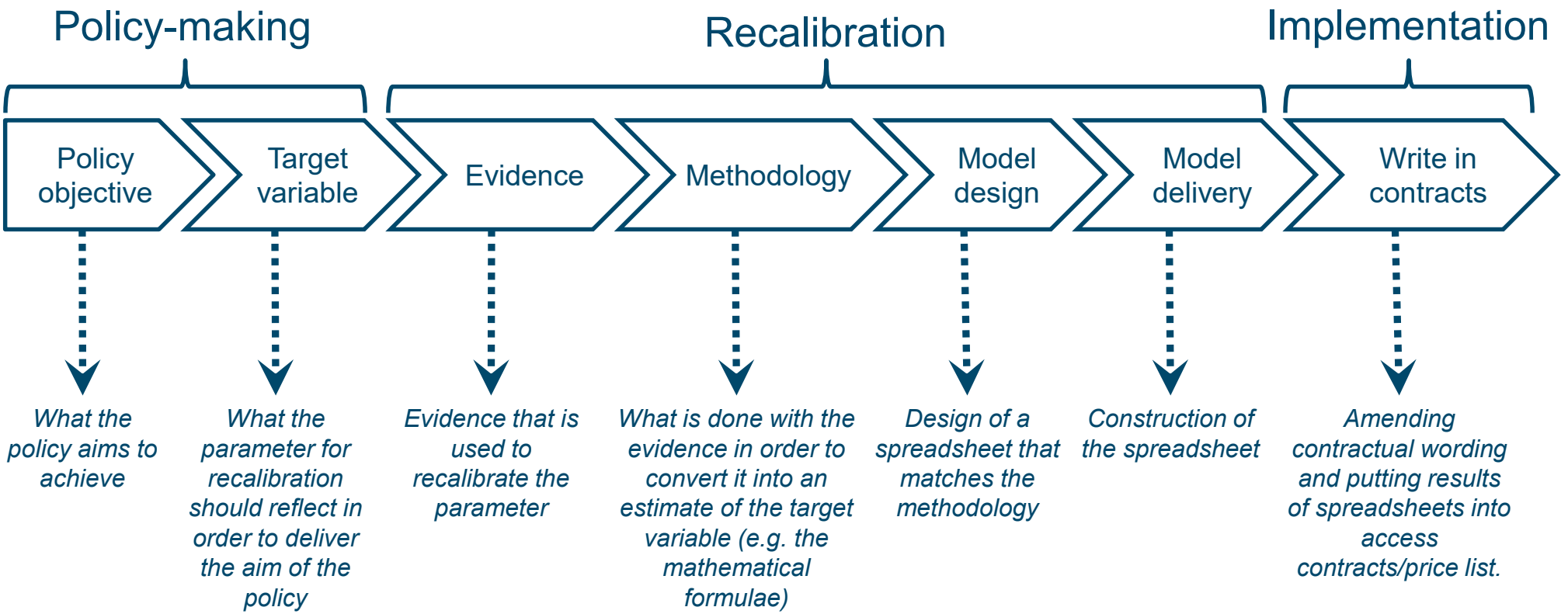
The PR18 review of charges and incentives

Phases of the Review

- For the purpose of this discussion, we divide the review of charges and incentives for PR18 (hereafter, the Review) into three phases:
  - Policy-making phase
  - Re-calibration phase
  - Implementation phase

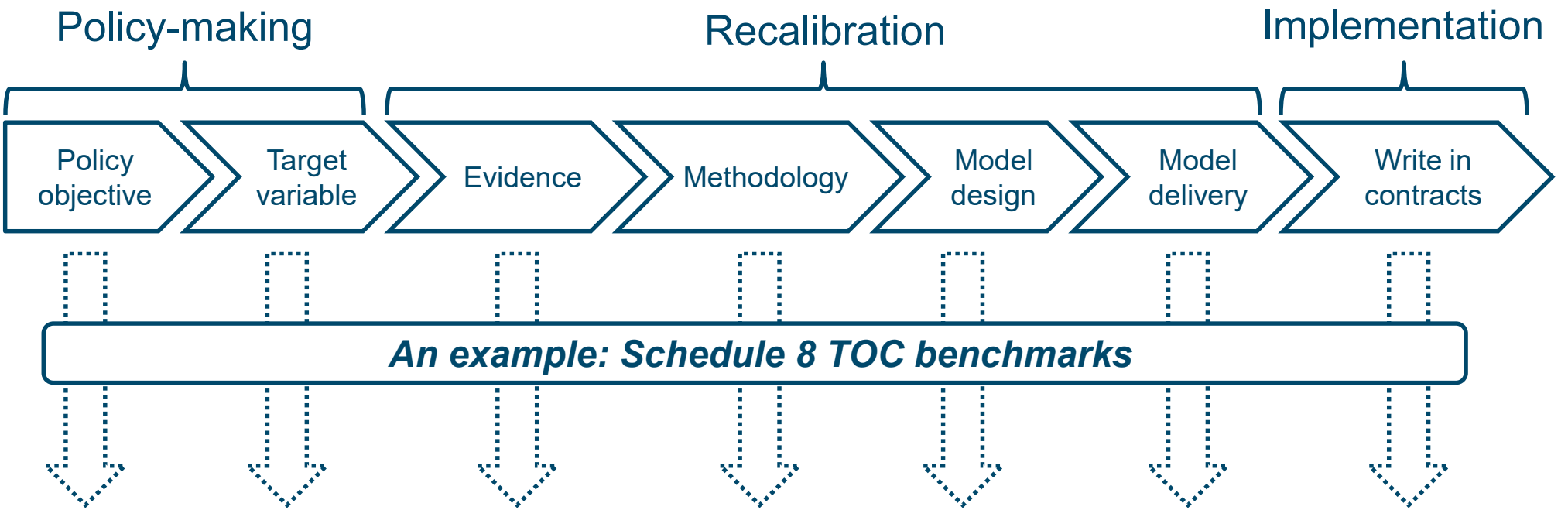
Stages of the Review

- We can divide the different phases of the Review into the following stages



- We consider an example of this process on the next slide.

An example



- Note: this example is only meant to be representative of the process – it should not be read as ORR's view of the appropriate stance on any stage of the review of Schedule 8 benchmarks.

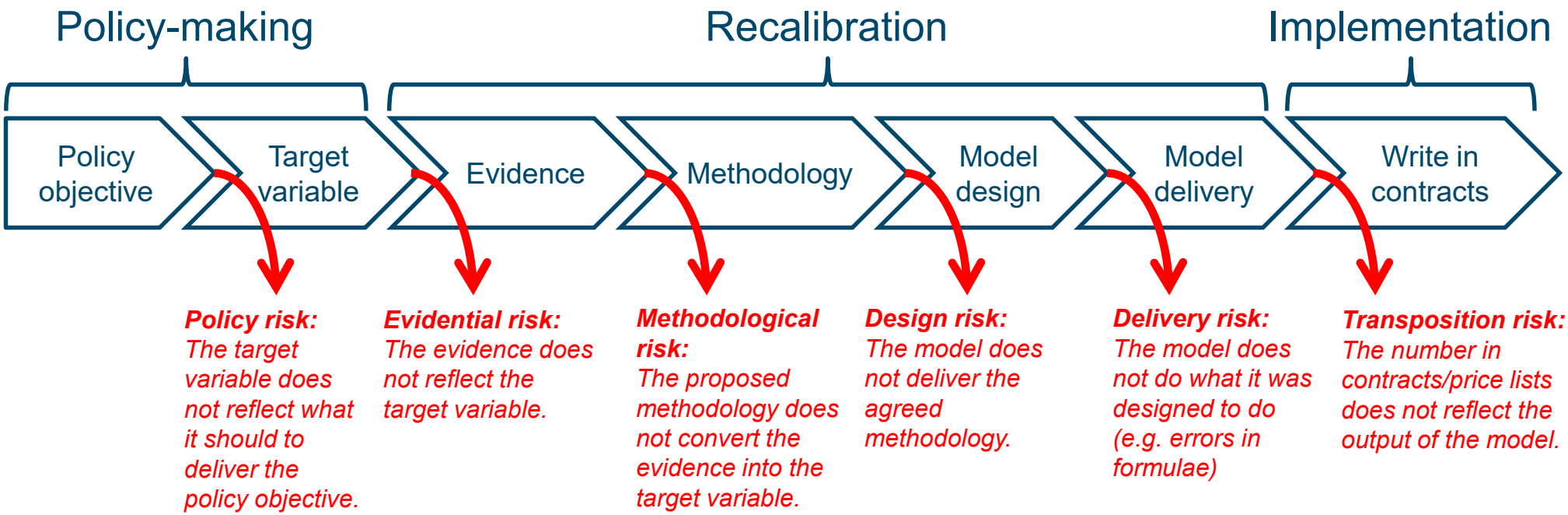
Recalibration parameters

- We can talk about the Review for each *parameter* in the contracts or price lists. *Parameters* are elements of the contracts or price lists that are arrived at by a common process (e.g. monitoring point weightings in Schedule 8, TOC payment rates in Schedule 8, VUC rates).
- The process for assurance, set out below, must be followed for *each* parameter in the contracts or price lists.

Sources of risk in the Review

Sources of risk in the Review

- Every stage of the Review is a source of risk.



- We have our own process for mitigating the risk of weaknesses in the policy-making phase (e.g. impact assessments, consultation on policy proposals).
- These slides set out the process for the other stages.

Weaknesses and errors

- We distinguish between weaknesses and errors in the review:
  - *Evidential* risk and *Methodological* risk are sources of potential weaknesses for PR18.
  - In contrast, *Model Design* and *Delivery* risk, as well as *Transposition* risk are sources of potential errors for PR18.
- Why make this distinction?
  - We recognise that there will be weaknesses in PR18 (it won't be perfect – for instance, the only available evidence may not be very good); *however*, we aim for PR18 to be error-free.
  - We will, in general, not seek to address *weaknesses* until PR23, however we may seek to address *errors* within CP6.
- Nonetheless, we wish to mitigate the risk of *both* weaknesses and errors – both are detrimental to the delivery of PR18 objectives.

Scoring risk

Scoring risk

- The first stage of the risk-based approach to the recalibration is for recalibration leads to score the inherent risk for *each parameter* that is to be recalibrated.
- To facilitate this we have developed a template for recalibration leads to populate, along with a risk framework to support a consistent approach to scoring risks. These are discussed in subsequent slides and are available on our website (here).
- Despite our provision of these materials, and despite the fact that we will be reviewing risk scores, it remains the responsibility of the recalibration leads to ensure that the risks of weaknesses or errors have been scored appropriately.
- To help recalibration leads score the risks accurately, we have set out what we mean by inherent risk on the subsequent slides.

What is inherent risk?

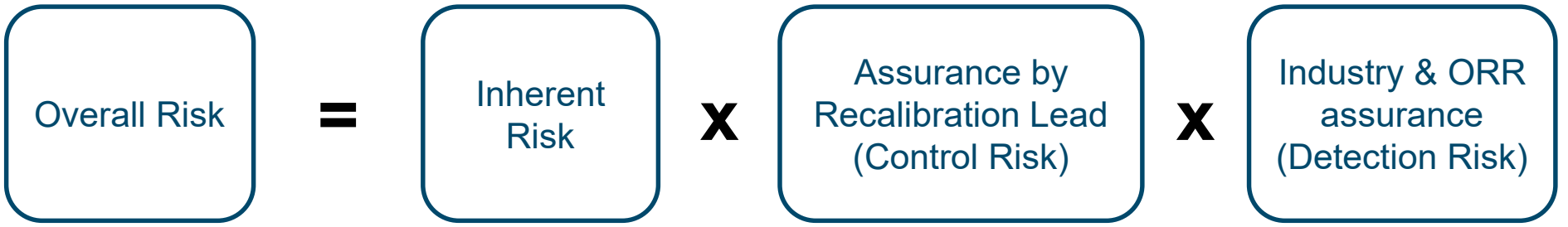
- The language of ‘inherent risk’ is borrowed from audit terminology. Indeed, we can think of this task as being analogous to that facing an auditor.

Audit Risk	=	Inherent Risk	x	Control Risk	x	Detection Risk
Risk of error following audit		Underlying risk of error		Risk that the company’s own controls fail		Risk that auditor does not detect mistakes

Note: this is not a precise mathematical relationship, and is instead intended to illustrate the approximate relationship between each type of risk. We are not expecting recalibration leads to seek to calculate numerical risk scores.

Inherent Risk

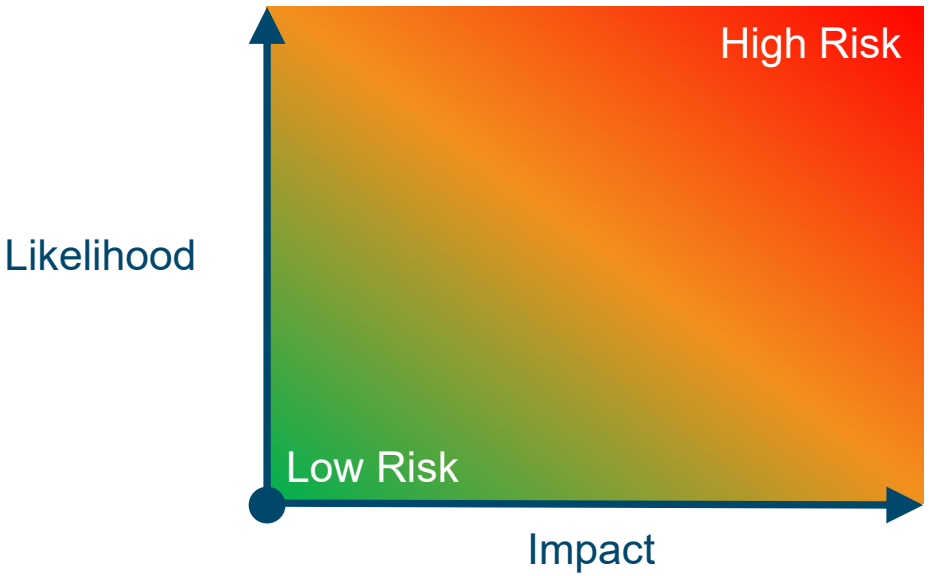
- We can see how this translates to the management of risk in the recalibration by adapting that diagram:



- In managing the risk of errors or weaknesses in the recalibration we are aiming to reduce *control* risk and *detection* risk.
- In order to know where to focus our efforts, we need to know where the inherent risk is higher. Which brings us to how we score the inherent risk.

Components of risk

- Risk is conventionally separated into likelihood and impact.



- Scoring the inherent risk of any particular error or weakness means scoring both the **inherent impact** of such an error or weaknesses *and* the **inherent likelihood**.

Inherent risk in the CANDI review

- Recall the different sources of risk from the recalibration and implementation:
  - Evidential risk
  - Methodological risk
  - Model design risk
  - Model delivery risk
  - Transposition risk
- The **inherent impact** of weakness or errors in any of these stages should be the same – *where* the weakness/error has occurred should not have much bearing on the impact it has.
- However, the **inherent likelihood** varies with different stages of the recalibration. For instance, if the evidence base is very good, the inherent likelihood of a weakness there might be *low*, but if the model is complex and being designed from scratch, the inherent likelihood of an error in the model design might be high.

Risk scoring template

- We are asking recalibration leads to score the inherent impact and likelihood of each of these sources of risk for each parameter – this will inform decisions about how much assurance is required in each area.
- We have developed a template for recalibration leads to fill in (see below) and an associated risk framework to help them do so (see next slide). These are available on our website (here).
- We will review and, where appropriate, revise proposed risk scores.

Charge/Incentive	*e.g. Schedule 8; VUC*
Parameter	*e.g. Monitoring point weightings; VUC rates*

	Inherent impact score	**Rationale for score**
Inherent impact		

Source of risk	**Inherent likelihood score**	**Rationale for score**
Evidential		
Methodological		
Model design		
Model delivery		
Transposition		

Risk scoring template

Scoring inherent risk: Risk framework

- To promote a consistent approach to scoring risks we have developed a risk framework.
- The risk framework describes the considerations that determine the risk score across both the impact and likelihood dimensions. With respect to the likelihood of a risk, the risk framework sets out the different considerations that determine the risk score for each score.
- This risk framework we provide is meant to act as an *aid* to scoring risks – it is not meant to be exhaustive (although no consideration in the risk framework should be ignored). It is the recalibration lead's responsibility to ensure that they score risks appropriately.
- It is important to bear in mind that the inherent risk score (both impact and likelihood) is the risk level without any controls.
  - So, for instance, quality assurance procedures that you may have in place are ways to mitigate inherent risk – they should not affect your score of the inherent risk.

The assurance process

The assurance process

- In line with the risk-based approach, the level of risk in each area determines how much assurance is required.
- There are three main sources of assurance:
  - Recalibration lead
  - Industry
  - ORR
- The subsequent slides detail what we expect from recalibration leads on each of these.

ORR review of assurance

- We are asking recalibration leads to set out the proposed assurance processes for the recalibration lead and industry using the following template:

Charge/Incentive	
Parameter	

Source of risk	Inherent risk	Recalibration lead assurance process	Industry assurance process
Evidential			
Methodological			
Model design			
Model delivery			
Transposition			

- When reviewing the assurance for any given source of risk for any given parameter we will take a view on whether the *totality* of controls in place are proportionate. If we aren't satisfied that they are sufficient, given the level of risk, we will require more.

Recalibration lead assurance

- Recalibration lead assurance processes are the first set of mitigations against the risk of errors or weaknesses in the recalibration.
- These include both the recalibration lead's own assurance processes and the assurance provided by independent audit that the recalibration lead procures.
- The extent of recalibration lead assurance will likely vary depending on the source of risk and the extent of industry assurance.
- As noted, when reviewing the level and nature of recalibration lead assurance we will take into account the proposed level and nature of industry assurance processes.

Industry assurance processes

- Scrutiny from industry is a particularly important source of assurance for all areas of the recalibration.
- When recalibration leads set out the proposed industry assurance process for ORR, they must detail, for each area:
  - Whether and how they are proposing to engage with industry; and
  - The process for recognising and escalating industry disagreement.
- Where there is disagreement within the industry about how to proceed:
  - The recalibration lead should ask ORR to determine the issue
  - The recalibration lead should organise for each side of the disagreement to submit a proposal, and a rationale for that proposal.
  - ORR will then consider the different proposals and reach a determination.
- Clarity about the process for resolving disagreement is particularly important where Network Rail is the recalibration lead – we must be confident that disagreements within industry will be raised with us.

ORR assurance processes

- In most areas of the recalibration we will seek to rely on the recalibration lead and industry assurance processes. However, where we cannot take comfort in the recalibration lead and industry assurance processes alone, we will seek to obtain further assurance ourselves.
- Our contribution to assurance will generally depend on the source of risk:
  - For *evidential* and *methodological* risk we will generally seek to obtain some assurance ourselves. To facilitate this, recalibration leads are required to set out both (a) what the proposal is and (b) the rationale for the proposal.
  - For *model design* and *model delivery* risk, we will generally seek to rely on the recalibration lead and industry assurance processes. In particular: we do not plan to audit spreadsheet models for any of the charges or incentives.
  - For *transposition* risk we will likewise largely be relying on the recalibration lead assurance processes, however we will do some very high-level 'sense-checking' on final numbers before implementation. We should stress that these tests will, by necessity, only be crude order-of-magnitude tests.

ORR Assurance requirements

- On those areas where we are likely to seek assurance ourselves, it is critical that the recalibration lead set out a clear explanation of:
  - What is being proposed; and
  - The rationale for this proposal.
- The rationale for a proposal may include considerations about, for instance:
  - Evidential risk: How robust the evidence is; the availability of alternatives; the costliness of developing alternative sources; other risk-based considerations…
  - Methodological risk: The soundness of the proposed methodology; the availability of alternatives; the costliness of developing alternatives; other risk-based considerations.
- The level of justification needed is again based on the inherent risk associated with that source of risk.

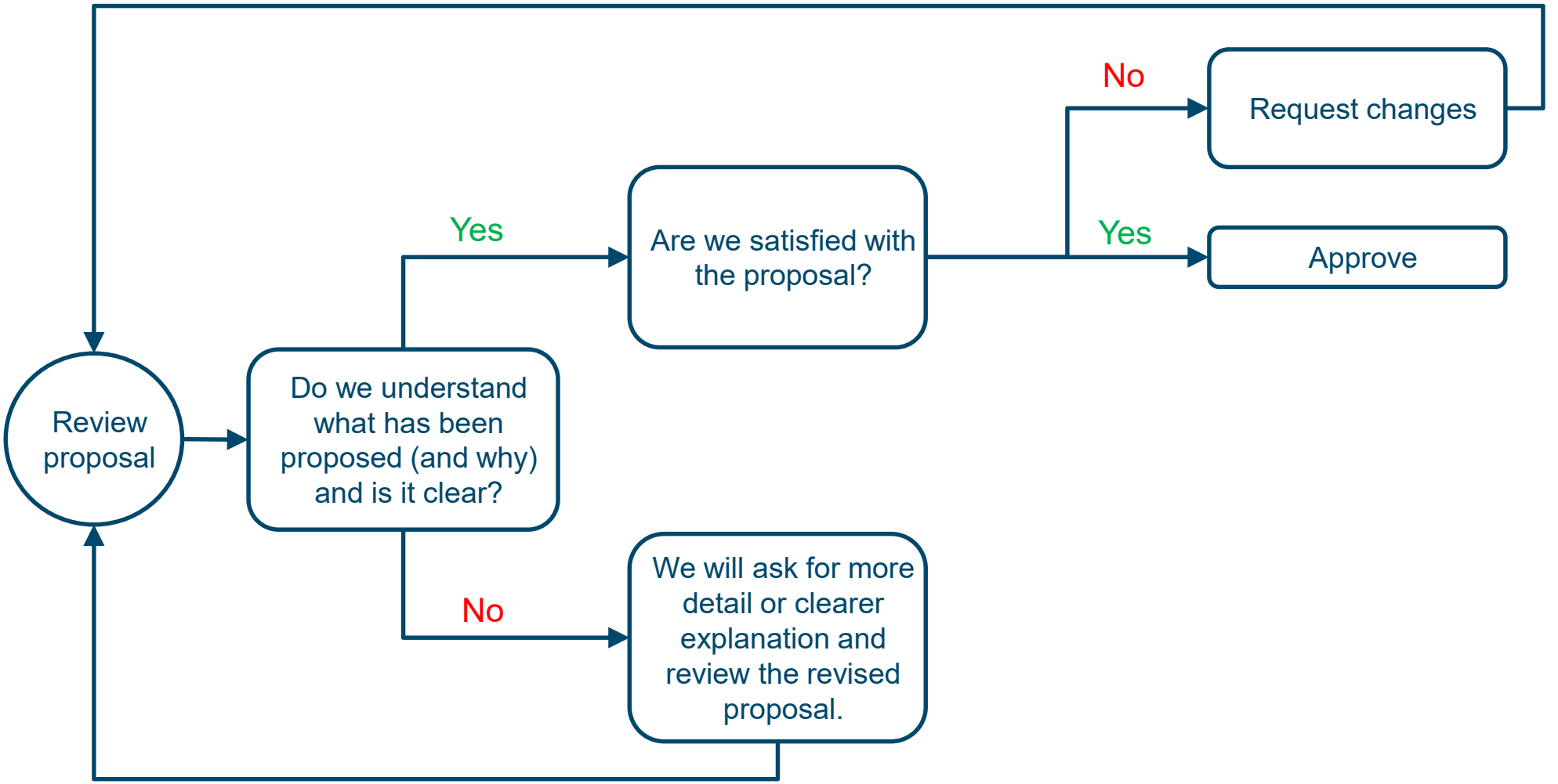
Mitigating risk: Assurance cheat sheet

- For instance, and to aid understanding, we set out some high-level descriptions of assurance processes below:

Source of risk	Assurance processes		
	Recalibration lead	Industry	ORR
Evidential	Re-calibration lead considers intent of policy in proposing evidence.	Industry has opportunity to scrutinise and challenge the evidence used.	We satisfy ourselves that the proposed evidence is reasonably robust and appropriate, and require changes/alternative sources of evidence if it is not. We satisfy ourselves with the proposed recalibration lead and industry assurance processes.
Methodological	Re-calibration lead considers intent of policy in proposing methodology.	Industry has opportunity to scrutinise and challenge the evidence used.	We satisfy ourselves that the methodology delivers the intent of the policy and require revisions where it does not. We satisfy ourselves with the proposed recalibration lead and industry assurance processes.
Model Design	• Skilled staff design model. • Independent quality assurance checks that model delivers agreed methodology.	Industry has opportunity to scrutinise and challenge model design.	We satisfy ourselves that QA procedures are sufficiently robust, and require more if they aren't, and we check that the QA is actually done as proposed (e.g. through auditor reports).
Model Delivery	• Skilled staff construct model. • Independent quality assurance checks that model contains no mistakes	Industry has opportunity to scrutinise and challenge model delivery.	We satisfy ourselves that QA procedures are sufficiently robust, and require more if they aren't, and we check that the QA is actually done as proposed (e.g. through auditor reports).
Transposition	• Robust transposition process in place (this may exclusively be NR responsibility)	Industry has opportunity to scrutinise and challenge contracted rates.	• We satisfy ourselves that transposition process is robust, and require more if it isn't. • We review numbers for 'orders of magnitude' accuracy before implementation.

Controls on these are what we refer to as 'quality assurance'

ORR procedure for reviewing proposals



What does ORR ‘approval’ mean?

- We review and ‘approve’ proposals so as to reduce the overall risk of errors or weaknesses in the charges and incentives framework.
- It is the role of the recalibration lead and industry to ensure that proposals are consistent with the intent of the policy.
- It is important to note that in ‘approving’ a proposal we are not stating that it is consistent with the intent the policy. Our approval role is limited to noting that we have not found a proposal to be inconsistent with the intent of the policy.
- As such, ORR ‘approval’ does not entail that ORR is accountable for any errors or weaknesses that may subsequently be identified with the proposal.

Conclusion

What recalibration leads need to do

- We require recalibration leads to do the following:
  - Send us a risk score for each recalibration parameter – we may ask you to increase the score in areas where we are not comfortable with your score.
  - Set out your recalibration lead assurance process for each source of risk. These should be proportionate to the level of risk, and we may require more assurance where appropriate.
  - Set out your industry assurance process for each source of risk. Again, this should be proportionate to the level of risk, and we may require a more thorough industry assurance process where appropriate. It is important that recalibration leads communicate the industry assurance process to industry.
  - For evidence and methodology, we will likely be doing more assurance ourselves, so you will need to set out: (a) what you are proposing and (b) why.
- We are not insisting on a one-size-fits-all approach. It is important that you follow these steps, but the format of what you send us can vary.