NEW ZEALAND
INFRASTRUCTURE
COMMISSION
Te Waihanga

INVESTMENT
DECISION
ASSURANCE
Whakataurangitanga

Investment Decision Assurance

Point 2 Workbook: Justification and options

November 2026

tewaihanga.govt.nz

New Zealand Infrastructure Commission, Te Waihanga

Te Waihanga seeks to transform infrastructure for all New Zealanders. By doing so our goal is to lift the economic performance of Aotearoa and improve the wellbeing of all New Zealanders.

We are an autonomous Crown entity, listed under the Crown Entities Act 2004, with an independent board. We were established by the New Zealand Infrastructure Commission/Te Waihanga Act 2019 on 25 September 2019.

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1. Introduction to IDA reviews

Investment Decision Assurance

Our future prosperity depends on infrastructure. New Zealand has built extensive networks of roads, water pipes and power lines – as well as social infrastructure like hospitals, schools and courts – that underpin the economy and support our way of life. But we are up against formidable challenges. We spend a lot on infrastructure, but we don't always get good value. New Zealand invests around 5.8% of gross domestic product (GDP) in infrastructure annually, making us one of the top spending countries. Yet we rank towards the bottom for efficiency, or 'bang for buck'.

Decision-makers have not always had clear, consolidated information about whether individual investments are strategically aligned, represent value for money, or are deliverable. Too often, projects are announced without going through a proper planning process. We know that poor planning processes flow through into the delivery phase, substantially increasing the odds of cost overruns and schedule delays.

Investment Decision Assurance (IDA) is an independent, investor-focused assurance process established under the Treasury's IDA Policy. IDA reviews provide independent expert review and challenge at key decision points throughout an investment's lifecycle, providing evidence-based insights on critical risks, delivery confidence and value for money, and forward-looking advice to inform investor decisions.

The Infrastructure Commission is the Assurance Unit (AU) for investments where infrastructure is the primary component and coordinates the delivery of IDA reviews under the Infrastructure Assurance Framework. There are six mandatory IDA Point Reviews across the investment lifecycle. Targeted Investment Reviews (TIRs) may also be undertaken at any time to examine specific issues or areas of concern.

This workbook supports one of the six IDA Point Reviews. It outlines the concepts that are reviewed at this Point and what reviewers are looking for.

Purpose of reviews

IDA reviews provide independent expert review and challenge at key decision points throughout an investment's lifecycle. They assess whether an investment meets New Zealanders' needs, represents value for money, can be successfully delivered on time and budget, and is positioned to achieve its intended benefits and outcomes. Reviews provide evidence-based insights on critical risks, delivery confidence and value for money, together with advice to inform investor decisions. Most reviews are forward-looking, while Point 6 assesses realised outcomes, benefits and lessons.

IDA reviews are not an audit, compliance, approval or endorsement process. They inform investment approval and funding decisions but do not replace those decisions. Accountability for planning and delivery of the investment and its resulting benefits remains with the Investment Agency.

The maturity expected at each Point reflects its place in the investment lifecycle. Reviews are proportionate: the depth of evidence expected reflects the scale, complexity, risk, and maturity of the investment.

Review reports are prepared for investors. Senior Responsible Owners (SROs), project sponsors, project teams, and delivery agencies are important secondary audiences. IDA reviews will also provide targeted advice to project teams addressing SROs' self-identified areas of interest.

Summary of the Policy and Framework

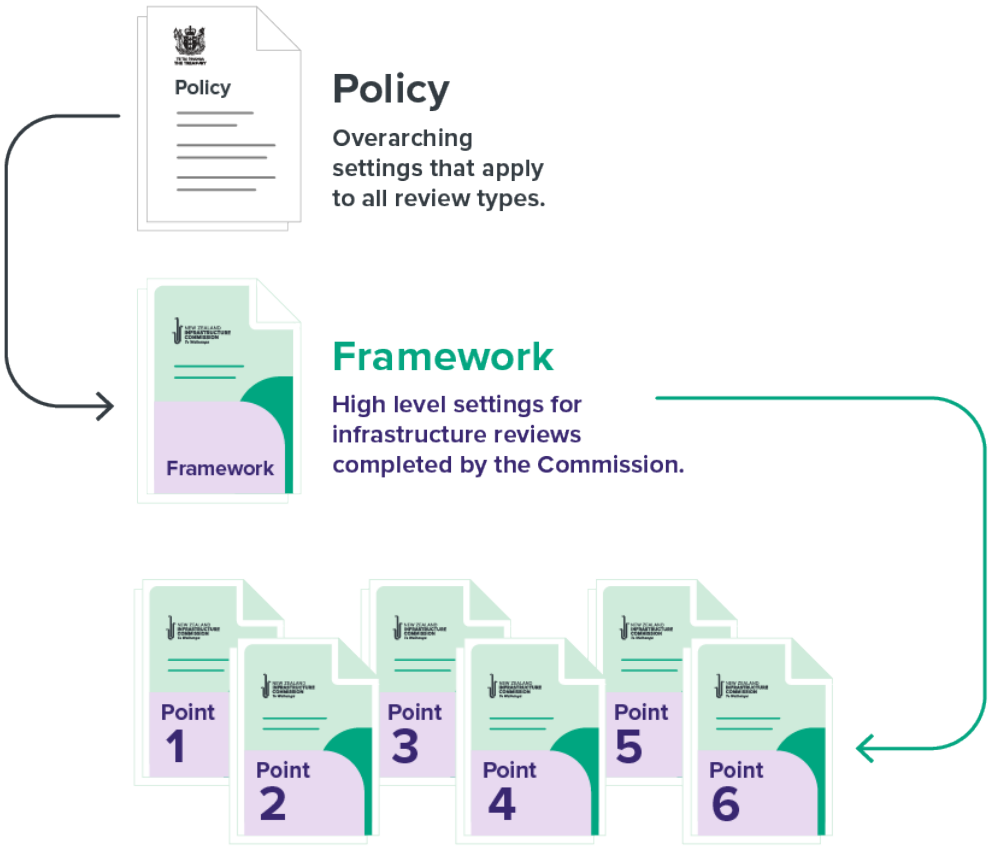
IDA reviews are conducted under the Treasury's IDA Policy, which sets the overarching purpose, principles, and compliance requirements for investment assurance. The IDA Policy identifies seven principles underpinning the assurance process:

1. Value for investor and the agency (SROs).
2. Management of risks – assurance is proportionate to the investment's risk profile, as determined through the Treasury Risk Profile Assessment, taking into consideration scale, complexity, and agency capability.
3. Independent of agency, SRO, and project teams planning and delivering the investment.
4. Outcome-focused – concerned with ensuring benefits and public value of the whole investment and the broader sector/system, considering affordability and whole-of-life cost.
5. Accountability-preserving – responsibility for outcomes remains with agencies.
6. Confidential and transparent – assurance deliberations are confidential, but findings are transparent.
7. An efficient and learning system – insights and feedback loops for continuous improvement to ensure a fit-for-purpose investment management system.

This workbook applies those principles at this evaluation Point.

The Commission has developed the Infrastructure Assurance Framework (IAF), which operates under and gives effect to the IDA Policy. The IAF sets out what the Policy requirements mean in practice for infrastructure investments and how the Commission fulfils its role as the Assurance Unit (AU) for infrastructure investments. Where there is any inconsistency between the IAF and the IDA Policy, the IDA Policy prevails.

How different documents fit together



Which projects qualify

The IDA Policy applies to investments subject to CO (23) 9 that are determined to be high-risk through the Treasury's Risk Profile Assessment (RPA). All high-risk investments must complete the applicable IDA Point Reviews in a timely manner to inform investor decisions. IDA reviews apply to both individual projects and broader programmes.

Ministers may also require an IDA review for a medium- or low-risk investment. Agencies may opt in to IDA reviews for medium- or low-risk investments, subject to the capacity of the relevant AU.

The Infrastructure Assurance Framework applies where infrastructure is the primary investment type, as determined through the RPA process. Reviews where infrastructure is the primary investment type are coordinated by the Infrastructure Commission as the relevant AU.

Investments outside the scope of CO (23) 9, including local government and private sector investments, may request an IDA review, subject to the Commission's capacity and prioritisation of in-scope investments.

Points and triggers

There are six mandatory IDA Point Reviews aligned to key decision points across the investment lifecycle. Targeted Investment Reviews (TIRs) are a separate review type that may be undertaken at any time to examine specific issues or areas of concern.

Point	Project stage	Focus of review
1	**Strategic assessment**	Is this idea worth investing in, is it aligned to Government, sector or system priorities, and should the agency continue to business case development?
2	**Justification and options**	How well has the investment analysed a range of options to meet the service need and maximise benefits at optimal cost, and will the preferred way forward be developed into a good investment proposal?
3	**Delivery strategy**	How well has the investment proven the preferred option best meets the service need and delivers value for money, and should the agency proceed to finalising design, confirming funding, and procuring the solution?
4	**Investment decision**	Will the contract and the supplier procured deliver the benefits outlined in the business case, and should the agency execute agreements and enter delivery?
5	**Readiness for service**	Is the asset ready for operation and should the agency go 'live', and how well have the investment delivery team and asset owner/operator planned the handover that will ensure the benefits outlined in the business case are achieved?
6	**Operational and benefits realisation review**	Is the resulting asset or service delivering the benefits outlined in the business case and how well is the asset owner/operator tracking benefits and recording lessons learnt?

The focus of each review is tailored to the decision it supports. The expected evidence and maturity of project planning increase as the investment progresses through development and delivery. Points 1, 2 and 3 support decisions during investment planning and development. Point 4 supports the decision on whether to execute agreements and enter delivery. Point 5 assesses readiness for the asset or service to enter operation. Point 6 occurs after delivery and focuses on benefits realisation, performance and lessons that can inform future investments.

In addition to IDA Point Reviews, the Commission may undertake a Targeted Investment Review (TIR) at any stage to examine a specific issue or area of concern. TIRs may be used at any stage in the investment lifecycle and are intentionally designed to offer flexibility of scope. TIRs may be initiated for a range of reasons, such as when an investment faces a material change in macroeconomic factors, where an investment does not progress in accordance with its Assurance Plan, when further work is needed to ensure an investment is ready to procure, or when an investment faces a particular issue with a specific key focus area that requires further assurance.

Where an IDA review results in either a 'Pause and revise' or 'Stop or revert' outcome, the Commission is required to follow up on the Investment Agency's progress against its Action Plan under the enhanced notification process. Within three months of the original review, the Commission will follow up on progress and determine whether further review is required. The Commission may use an Assurance of Action Plan (AAP) review to assess whether actions taken in response to recommendations are addressing the issues and risks identified.

Summary of review approach

IDA reviews adopt a consistent and systematic approach to reviewing projects. Reviews provide broad coverage on the topics that are most likely to influence investment success, rather than attempting to assess every possible aspect of a project in depth. Information is gathered to support review conclusions through a combination of document review and interviews. The workbooks are designed as a structured aid to support professional judgement rather than as a checklist or compliance assessment.

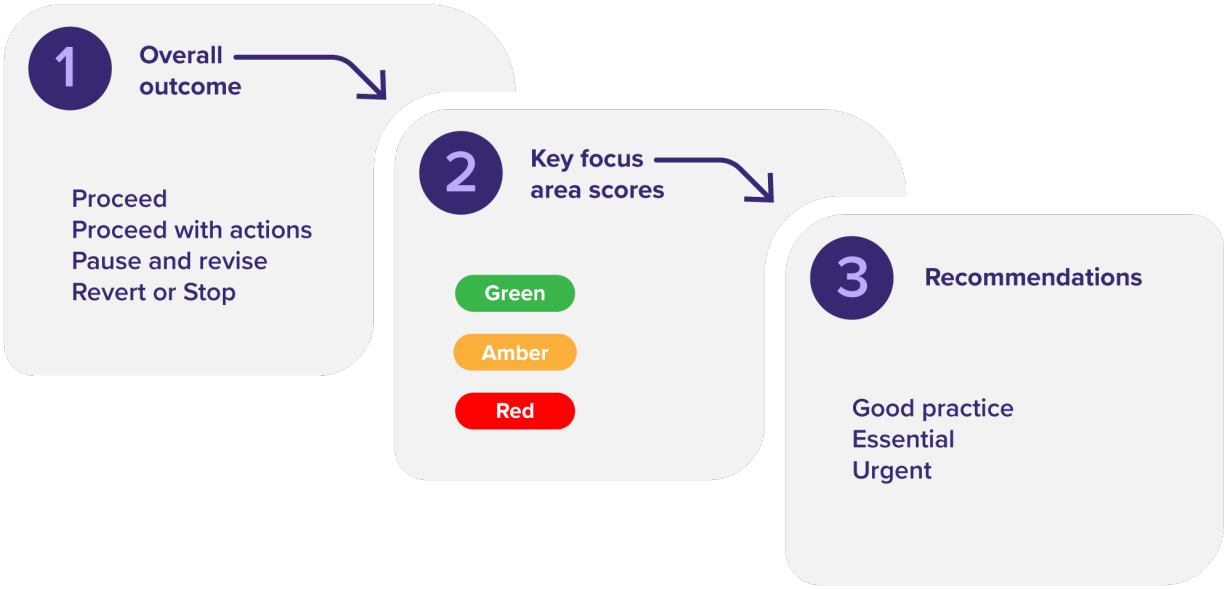
Tiers of advice

There are three tiers of advice provided in reports:

- **Overall IDA review outcome**: independent advice indicating the Review Team's view of what decision investors should make regarding the investment.
- **Key focus area rating:** a rating across each of the six key focus areas which supports the overall review outcome.
- **Recommendations:** specific actions for the SRO to strengthen the successful development or delivery of the investment and its outcomes.

These three tiers of advice are supported by concept evaluation and narrative commentary. Each key focus area is underpinned by a set of concepts and review questions, with supporting commentary and assessment against what good looks like.

Tiers of advice provided in reviews



Overall IDA review outcome

The overall IDA review outcome provides independent advice to investors on the recommended course of action. There are four potential overall IDA review outcomes: 'Proceed', 'Proceed with action', 'Pause and revise', or 'Stop or revert'.

Four potential review outcomes

Proceed	Proceed with action	Pause and revise	Stop or revert
There is confidence that successful development/delivery of the investment against key focus areas appears likely and there are no unmitigated risks or issues that threaten successful delivery. Recommendations may have been identifled, but none are critical to the investment decision or to progressing to the next stage. **The investment is ready to proceed to the next stage.**	There is confidence that successful development/delivery of the investment is feasible provided that recommendations are implemented in a timely manner to mitigate risks or issues. It is believed that the project team is able to address these recommendations and has appropriate support. **The investment is ready to proceed to the next stage provided recommendations are addressed within an agreed timeframe.**	There is a lack of confidence in the successful development/delivery of the investment against key focus areas. There are material risks or issues that cannot be resolved through minor remediation. Investment is not sufficiently developed or ready for the decision sought. Urgent recommendations identified need to be addressed before the investment progresses to the next stage. **The investment is not ready to proceed to the next stage until urgent recommendations are addressed.**	There is no confidence in the successful development/delivery of the investment against key focus reas. The severity of the risks or issues means that proceeding is unlikely to deliver the intended benefits and outcomes. **The investment is not ready to proceed; it is recommended to stop or revert to a previous stage for further development before any investment decisions are made.**

Key focus areas

Overarching advice is supported by a rated evaluation of key focus areas. The key focus areas are designed to provide broad coverage on the topics that are most likely to influence investment success, and are aligned with the five-case model of the Better Business Cases framework.

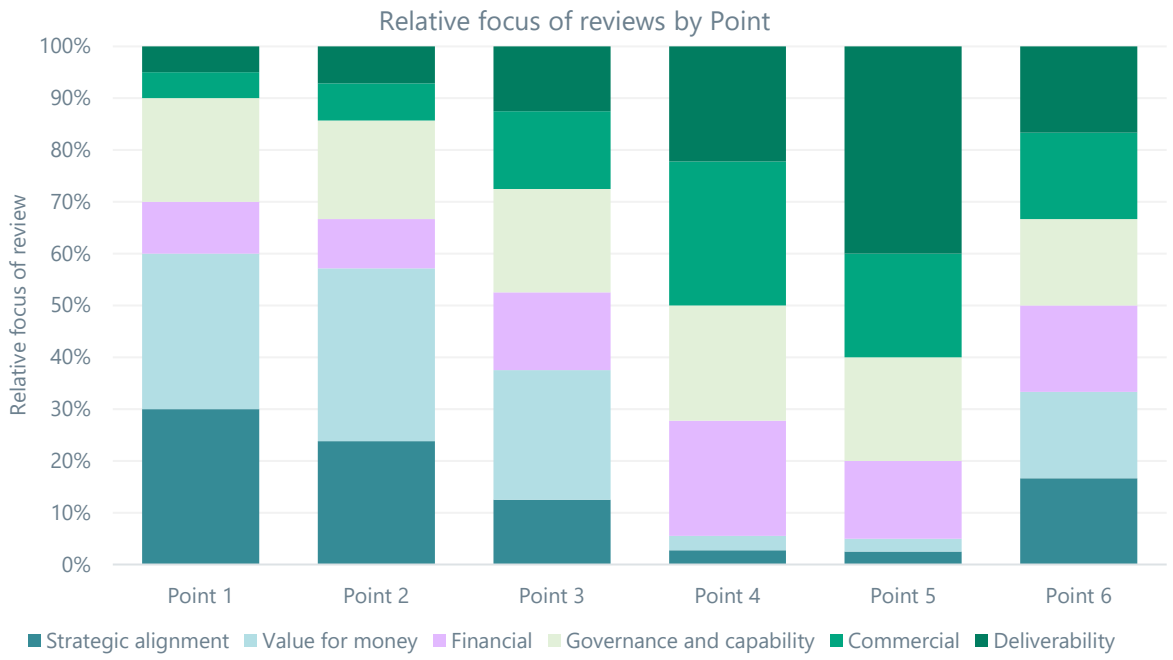
There are six key focus areas explored in every review: strategic alignment, value for money, financial, commercial, deliverability, and governance and capability.

Six key focus areas covered in every review



Each key focus area is reviewed at every evaluation Point. The relative weight placed on each key focus area shifts throughout the investment lifecycle. At Point 1, the main focus of a review is on the strategic alignment and value for money key focus areas. As a proposal progresses in its maturity, the relative focus of reviews shifts towards the financial, commercial, and deliverability key focus areas. At Point 6, the focus becomes more evenly distributed across the key focus areas, reflecting the need to assess both whether the investment has achieved its intended outcomes and value, and how effectively it has been delivered and sustained. The governance and capability key focus area receives a consistent focus across all stages of the investment lifecycle, as governance, leadership, and resourcing arrangements are critical to project success at all phases of a project's development.

The relative weight on each focus area shifts through the investment lifecycle



Each key focus area is given a rating on a three-point Red/Amber/Green scale. While all key focus areas are evaluated during each Point Review, the level of maturity expected for each is tailored to the decision sought at each Point. Key focus area rating scales are specific to each focus area at each Point, reflecting the appropriate level of maturity needed to support each decision.

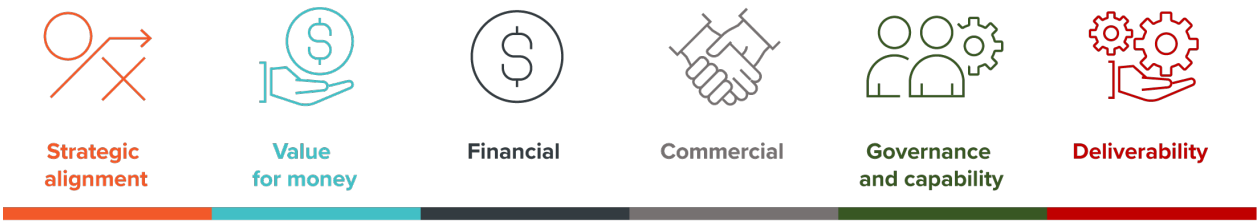
Status	Broad approach for rating scale
Green	Aligned with expectations, high confidence in success.
Amber	Generally aligned with expectations, but some need for improvement or reservations on confidence.
Red	Material issues threaten project success.

Concepts and questions

Each key focus area is supported by a set of concepts representing the core aspects of investment development and delivery relevant to that focus area.

The diagram below shows a comprehensive list of all the concepts that are covered across all Point Reviews. Because different levels of planning and delivery maturity are expected at each Point, the number of concepts covered under each key focus area varies across workbooks.

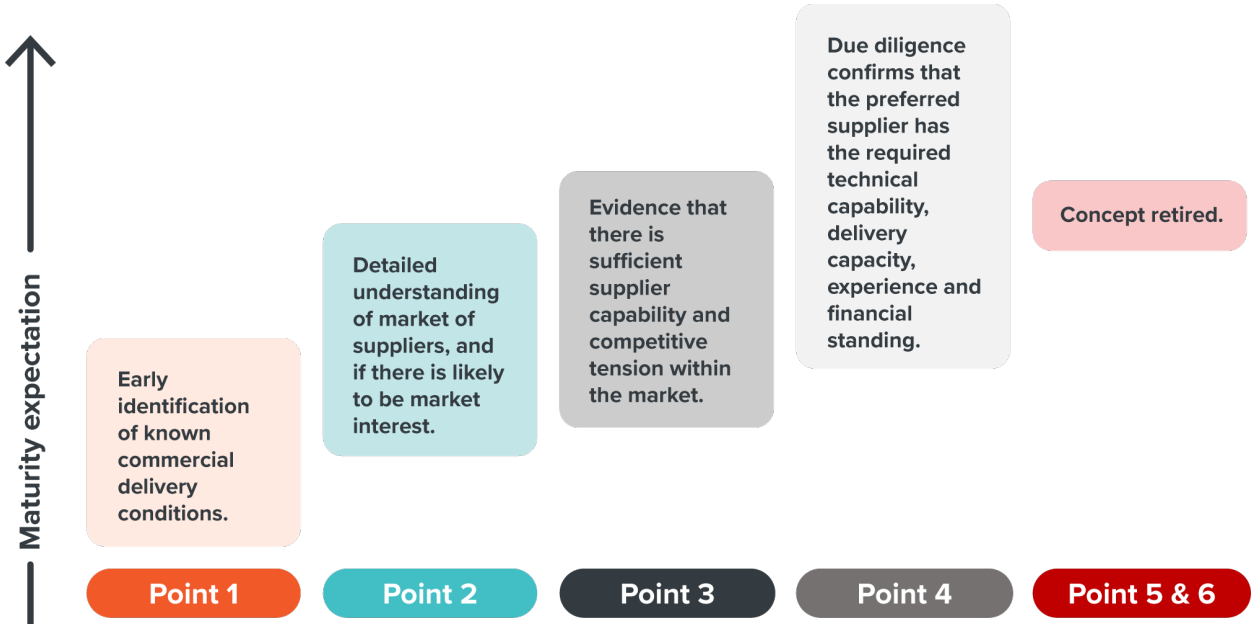
List of all concepts covered in workbooks



Strategic alignment	Value for money	Financial	Commercial	Governance and capability	Deliverability
Defining and sizing the problem	Scope	Affordability	Market conditions	Organisational trackrecord and ability to deliver	Interdependencies and interfaces
Alignment to national and sector strategies	Identifying options	Available funding	Commercial approach	Team capacity and capability	Risk management
Confirming the strategic need	Evaluation approach	Funding approaches	Procurement	Project planning maturity	Stakeholder engagement
Confirming alignment to national and sector strategies	Shortlisting options		Validating commercial approach	Delivery planning and controls	Change management
Confirming the investment can address the strategic need	Develop shortlisted options		Confirming supplier capability in current market conditions	Project assurance	Operational
Extent to which the problem was addressed	Assess shortlisted options		Commercial readiness for contract award	Appropriateness of governance arrangements	Readiness and Transition
	Testing for uncertainty		Commercial arrangements		
	Selecting a preferred option				
	Enabling future review of costs and benefits				
	Managing benefits following service commencement				

Review concepts are designed to follow a 'maturity ladder' approach where investment planning and delivery maturity is expected to increase at each decision point. This concept is demonstrated in the diagram below, using the market conditions concept as an example. At Point 1, a relatively low level of maturity is expected, with expectations growing through Point 2, 3, and 4. At Point 5, the concept has been retired as it is no longer relevant to a review.

Example of maturity expectation progression across workbooks



For each concept, the workbook provides:

- an 'about this concept' section, which provides an introduction to the concept
- a 'what we are looking for' section, outlining our expectations for the concept at each Point
- one or more review questions, supported by bullet points that summarise what good looks like.

Each review question has been designed to enable evaluation expectations to be proportionate to the scale, complexity, risk, and infrastructure sector of the investment being evaluated. Smaller or lower-risk investments are not expected to demonstrate the same level of evidence as very large or highly complex programmes. Professional judgement remains an important component of every IDA review.

Each review question has a Question ID (for example, D12). These IDs are shared across the IDA workbook suite. Questions that recur at later Points keep the same ID, while new questions receive the next available ID. Numbering within an individual workbook may therefore not start at one or run sequentially. The full set of review questions for this Point is in Appendix B.

Recommendations

Each review report includes a set of recommendations, which outline the Review Team's assessment of actions that the SRO can take to improve either the public value or deliverability of the investment.

Recommendations for SROs are categorised as either good practice, essential, or urgent according to the following table.

Types of recommendations that can be given for SROs

Recommendation rating	Description
Good practice *Consider*	The investment would benefit from the uptake of this recommendation.
Essential *Do by <date>*	The recommendation is critical but not urgent. To increase the likelihood of a successful outcome the SRO takes action in the near future.
Urgent *Do now*	The recommendation is critical and urgent. To increase the likelihood of a successful outcome the SRO takes action immediately.

Every IDA review report provides the Review Team's overall independent advice to the investor on the investment and whether it is ready to progress at the relevant decision point. In addition to this overall advice, the Review Team may identify specific matters on which investor action is recommended. These may relate to conditions on progression, risks or issues that the investor should explicitly acknowledge, or decisions or actions required to support the investment. The IDA review report is not itself the formal investor decision document; rather, it identifies the action the Review Team considers appropriate through the relevant decision-making process.

How the different tiers of advice fit together

The different tiers of advice have been designed to fit together to provide a cohesive set of advice for investors, SROs and project teams. Focus area ratings are broadly mapped to the type of recommendations made, while the types of recommendations made are mapped to the overarching advice given to investors.

When a key focus area receives a green rating, there should either be no recommendations given or good practice (consider only) recommendations given. This is because a green rating means that the work completed is aligned with expectations and there is high confidence in success. As a result, there should be no recommendations related to the focus area that are critical to project success or require urgent attention.

An amber key focus area rating can be given in two different scenarios:

- when a review includes either essential or urgent recommendations that have a clear path to resolution while the project continues to move forward
- where there are no essential or urgent recommendations, but there are risks or reservations that reduce confidence and should be noted or monitored as the project proceeds.

A red key focus area rating can be given in three different scenarios where there are material issues that threaten project success:

- when a review includes either essential or urgent recommendations that relate to material issues that threaten project success, but which can be addressed at the current project stage
- when a review includes either essential or urgent recommendations that relate to material issues that threaten project success, but which cannot be addressed at the current project stage, and require either a pause or reset to the project
- when there are material issues that threaten a project's success, which do not have a clear path to resolution.

How different tiers of advice fit together

Focus area rating	Recommendations	Overarching advice	
Green			
Aligned with expectations, high confidence in success.	Either no recommendations or Consider recommendations only.	**Proceed**	
Amber			
Generally aligned with expectations, but some need for improvement or reservations on confidence.	Includes either 1) Essential or Critical recommendation(s) that have a clear path to resolution while moving forward or 2) risks/reservations to be noted/monitored.	**Proceed** For risks or reservations to be noted	**Proceed with action** For essential or critical recommendations to be actioned
Red			
Material issues that threaten project success.	Includes either 1) Critical recommendations that either require a pause/reset/revert to address or 2) do not have a clear path to resolution.	**Pause and revise** For issues that can be addressed at current stage	**Stop or revert** For issues that threaten project success and cannot be addressed

Each review includes six key focus area ratings in total, with supporting recommendations included for each key focus area. A single overarching outcome is provided for the review as a whole, based on the ratings and recommendations given across all six key focus areas. Because maturity of expectations and associated focus area rating scales are tailored to each review Point, all key focus area ratings inform the overall review outcome at all review Points. A material issue in one focus area may determine the overall outcome, but the overarching advice remains a holistic judgement by the Review Team, informed by the ratings, recommendations and supporting evidence across all six focus areas.

2. What we assess at this Point

About this Point

Point 2 provides assurance on whether an infrastructure proposal has developed a sufficiently robust business justification to progress to a Detailed Business Case. The review considers whether the underlying problem is clearly defined, materially important, appropriately sized, and aligned with current government, sector, agency, and asset-management priorities. It also tests whether the investment scope is well understood and whether a broad range of plausible responses, including non-built, lower-cost, staged, and capital-intensive options, has been considered and filtered to a credible shortlist using a transparent and proportionate methodology. Shortlisted options should be developed on a comparable basis and assessed through robust economic analysis of whole-of-life costs, monetised and non-monetised benefits, risks, assumptions, and uncertainty. The aim is not to confirm a preferred option, but to establish that there is at least one credible way forward that could deliver value for money and warrants more detailed investigation.

The review also seeks confidence that the preferred way forward is broadly affordable, that there is a credible funding pathway for further development and implementation, and that potential funding approaches have been sufficiently considered, including their effects on capital and operating budgets and any material affordability or funding constraints. Delivery planning should be sufficiently advanced to show that viable commercial and procurement pathways exist, that likely market capacity and capability have been tested, and that key dependencies, risks, stakeholder interests, organisational impacts, and future operational requirements are being actively managed. Appropriate governance, capability, assurance, resourcing, and funding should also be in place to complete the Detailed Business Case. Overall, the Point asks whether the proposal is mature enough for investors to commit further resources to detailed option development and appraisal, without yet committing to a preferred option or to delivery.

Document and evidence requirements

The documents and evidence below indicate the types of information reviewers would normally expect to be available to support the review at this Point. Evidence should be proportionate to the scale, complexity, and risk of the investment.

Agencies are not expected to prepare every item as a separate document. Evidence may be contained within the relevant business case, supporting analysis, project documentation, or other material available to the review team. Some evidence may also be obtained or supplemented through interviews with the Senior Responsible Owner, project team, or others involved in the investment.

Evidence is grouped as follows:

- **Evidence expected at this Point:** evidence that should normally be available at a level of maturity sufficient to support a decision on whether the investment should progress to Detailed Business Case development.
- **Additional evidence where relevant:** evidence that may be expected depending on the scale, complexity, risk, delivery approach or other circumstances of the investment.
- **Emerging evidence expected to be developed further at later Points:** matters that should have been considered sufficiently to demonstrate a credible pathway forward, but which are not expected to be fully developed or finalised at Point 2.

Documents/evidence

Evidence expected at this Point

Overall

- Programme Business Case, Indicative Business Case or equivalent business case documentation
- Response to relevant recommendations from previous assurance or Point Reviews

Strategic Alignment

- Evidence that the problem or service need remains clearly defined and supported, including appropriate sizing and the consequences of no further investment
- Evidence that the investment remains aligned with relevant strategic priorities
- Evidence that the shortlisted options respond to the identified problem and intended outcomes

Value for Money

- Evidence that the investment scope and boundaries are clearly defined, aligned with the identified problem and appropriate to support options assessment
- Evidence of the longlist-to-shortlist process and rationale
- Evidence that shortlisted options have been developed to a sufficiently comparable level to support meaningful assessment
- Economic analysis of shortlisted options proportionate to the investment
- Evidence of key costs, benefits, risks and uncertainties for the shortlisted options
- Evidence that uncertainty and sensitivity have been considered sufficiently to understand the robustness of the options assessment

Financial

- Indicative capital and whole-of-life cost information for shortlisted options
- Evidence of affordability considerations for the shortlisted options
- Evidence of the likely funding requirement and credible potential funding pathways for further development and implementation
- Evidence that funding is available, or there is a credible plan to secure funding, for Detailed Business Case development and supporting investigations
- Evidence that potential funding approaches have been considered for the shortlisted options, including the credibility of likely sources, contributions or revenues and any material issues requiring further development

Commercial

- Evidence that viable commercial and delivery approaches have been considered for the shortlisted options
- Evidence of the agency's current understanding of relevant market capability, capacity and constraints
- Evidence that key commercial risks and considerations have informed the options assessment
- Evidence that there is a credible pathway to develop the preferred commercial and procurement approach during the next stage including an indicative procurement programme, governance and approval pathway

Documents/evidence

Deliverability

- Evidence that the main delivery requirements, constraints and dependencies associated with the shortlisted options have been identified
- Evidence that significant approvals, interfaces, enabling activities and delivery risks have been considered in assessing the options
- An indicative programme showing the major activities required to develop the investment through the next stage
- Evidence that key risks and uncertainties are being actively considered and managed
- Evidence of stakeholder analysis and engagement undertaken or planned, proportionate to the investment stage
- Evidence of likely organisational, operational and ownership implications, including future asset/service ownership where relevant
- Evidence of alignment between delivery partners, including roles, responsibilities, governance and decision-making arrangements, where delivery depends on other organisations

Governance and Capability

- Evidence of governance and accountability arrangements appropriate to the current stage
- Evidence that capability and capacity requirements for the next stage have been identified
- Evidence of relevant organisational delivery experience, or a credible approach to establishing the capability required to develop and deliver the investment
- Evidence that material capability gaps have been recognised and there is a credible approach to addressing them
- Evidence of assurance arrangements proportionate to the scale, complexity and risk of the investment

Additional evidence where relevant

- Early market engagement or market-sounding information
- Specialist commercial, procurement, legal, technical or financial advice
- Preliminary delivery-model or contracting-model analysis
- Early assessment of risk allocation between the agency and potential suppliers
- More detailed interface or dependency analysis for investments involving multiple agencies, networks or delivery partners
- Preliminary organisational change, workforce, transition or operational-impact analysis where these are material to the options
- Early consenting, property, planning or regulatory strategies where these could materially affect option viability
- More detailed assurance or governance arrangements for particularly large or complex investments

Emerging evidence expected to be developed further at later Points

- Preferred commercial strategy
- Detailed procurement plan
- Detailed procurement timetable and evaluation methodology
- Tender or market documentation
- Detailed contractual terms or draft contract documentation
- Final risk allocation
- Detailed delivery management plans
- Detailed resourcing and mobilisation plans
- Detailed transition, commissioning or operational-readiness plans
- Final supplier performance and contract-management arrangements

3. Strategic alignment

Is the problem well defined, sized and strategically aligned?

Focus of assessment

At Point 2, the strategic alignment assessment focuses on whether the proposal has clearly defined the root cause problem, sized the problem in quantitative or monetary terms where possible, and demonstrated meaningful alignment with current strategic priorities. A strong strategic case at this stage means the agency can show that the problem is material, that the relative importance of problem statements is understood, and that the consequences of no further investment are clearly described. The assessment should provide enough evidence to support longlist and shortlist option development, and to test whether the scale of potential investment is proportionate to the problem being addressed. The proposal should also demonstrate alignment to national or sector priorities for infrastructure.

Reviewer tips

Connection with value for money

A clear understanding of the scale of the problem provides the basis for developing an appropriate investment scope. Assess here whether the scale, significance and consequences of the problem are sufficiently evidenced to support further development of the investment. Whether the developing scope is proportionate to that problem and supports consideration of an appropriate range of options is assessed under **value for money – scope.**

Relevant guidance and resources

Core New Zealand guidance: New Zealand Treasury, *Better Business Cases guidance*, including Strategic Assessment and Strategic Case requirements.

Additional useful resource: Infrastructure Australia, *Assessment Framework – Stage 1: Defining Problems and Opportunities*.

These resources provide further guidance on refining and validating the problem, strengthening the supporting evidence, confirming investment objectives and intended outcomes, and maintaining a clear line of sight between the problem, benefits and subsequent options analysis.

Concepts we are reviewing at this Point

Defining and sizing the problem

About this concept

Defining and sizing the problem is the process of identifying the root cause of the infrastructure problem and estimating the scale of its impacts, so the proposal can test whether further investment is justified and proportionate. A clearly defined and well-sized problem is critical at the Indicative Business Case or Programme Business Case stage. It provides the basis for identifying a longlist of options, assessing their relative merits, and ensuring that potential responses are proportionate to the scale of the problem.

What we are looking for

Problem statements

Problem statements should not imply or pre-select a specific solution. They should be supported by evidence and should be framed in a way that allows a range of options to be considered. A good problem statement identifies the root cause of the problem, rather than the visible symptoms of the problem. Examples of a visible symptom and root cause of a problem are outlined in **Table 1**.

Table 1: Examples of root cause and visible symptom problem definitions

Example of a root cause problem definition	Example of a visible symptom problem definition
An Indicative Business Case for stormwater investment identifies that rapid population growth and historic under-recovery of development contributions have resulted in stormwater volumes exceeding network capacity. This problem definition explains why flooding is occurring and allows a range of options to be considered, such as demand management, staged network upgrades, land-use planning changes, storage, or targeted pipe upgrades.	An Indicative Business Case states that "stormwater pipes are too small and need to be upgraded." This describes a likely symptom and points toward one solution, but does not explain why the problem has occurred or whether other options could address the underlying cause.

The strong example identifies the underlying cause of the service problem rather than defining the problem in terms of a particular asset response. This allows the business case to investigate a broad range of possible interventions and provides a sound basis for subsequent options development.

The weak example describes the problem in terms of an assumed infrastructure deficiency and points directly toward upgrading the pipes. It does not explain why the problem has arisen, increasing the risk that potentially better responses are excluded before options analysis begins.

Problem statements should have allocated weightings to signal their relative importance. These weightings should provide a clear basis for option development and assessment, by showing which problems matter most and how options are expected to respond to them. **Table 2** provides examples of strong practice and weak practice.

Table 2: Weighting problem statements to guide options assessment

Strong practice	Weak practice
A transport Indicative Business Case identifies three weighted problems: safety at 60%, travel time reliability at 25%, and resilience from natural hazards at 15%. The options assessment uses these weightings to show why options that deliver substantial safety improvements are preferred over options that only improve travel time.	A transport Indicative Business Case includes several problem statements but treats them all as equally important, despite evidence that safety risk is the main driver for investment. As a result, the option assessment gives undue weight to travel time improvements and does not clearly show whether the preferred shortlist responds to the most material problem.

The strong example uses evidence-based problem weightings to show which outcomes matter most and carries those weightings through into options assessment. This provides a transparent link between the strategic problem and the basis on which options are compared.

The weak example treats materially different problems as equally important despite evidence that one is the primary driver for investment. This can distort the options assessment and result in options being progressed that do not respond sufficiently to the most important problem.

Problem sizing

Problem statements should be supported by empirical evidence that demonstrates the size and scale of the problem. There are a variety of different tools and approaches that can be used to help identify and measure problems. Examples of strong and weak problem sizing are shown in **Table 3.** The weak problem sizing does not provide any evidence to demonstrate the magnitude of the problem and clearly indicates a preference for a specific solution. In contrast, the strong problem sizing provides evidence regarding the cost and scale of the problem, and avoids selection of a specific solution, leaving many potential options available.

Table 3: Examples of strong and weak problem sizing

Strong practice	Weak practice
An Indicative Business Case for a regional road resilience issue estimates that closures occur on average three times per year and impose $42 million per year in additional travel time, freight, and reliability costs. This evidence is used to test whether potential options are proportionate and to avoid progressing options whose cost would be clearly disproportionate to the problem.	An Indicative Business Case states that the regional road corridor has “poor resilience” but does not quantify the number of closures, users affected, duration of disruption, economic costs, or wider service impacts. The options assessment then progresses high-cost solutions without showing whether the scale of investment is proportionate to the problem.

The cost of the problem should be directly sized in quantitative terms and sized in monetary terms for sectors where economic evaluation guidance exists. For example, NZ Transport Agency's *Monetised benefits and costs manual* includes monetary values for a range of transport costs and benefits. Monetising the problem allows options to be developed that are proportional to the problem. For example, if the cost of the problem is monetised at $50 million per year, or approximately $858 million in present value terms using a 5% real discount rate over 40 years, solutions which cost $2 billion would not be suitable. **Figure 1** summarises the different approaches to problem sizing.

Figure 1: Problem sizing



Problem sizing

Three main methods are available to size the magnitude of the problem.

Monetise the problem (preferred): The size of the problem is expressed in standardised monetary values in dollar terms. If possible, monetisation of problems should employ parameters published in official New Zealand guidance documents, for example NZ Transport Agency's *Monetised benefits and costs manual*. Importantly, it shows the scale of different problems and opportunities, which can be used to consider what scale/type of solutions may be appropriate. It is also a step towards developing the base case in a cost-benefit analysis. Where the problem has been monetised, the methodology and assumptions should be clearly explained.

Quantify the problem: In some cases, it may be possible to measure the size of a problem, but there will not be a clear method to translate these measurements into monetary units, for example, declining numbers of a native species. In these cases, the problem should be clearly quantified, with a description of the unit of measurement that is being used.

Qualitatively describe the problem: In some cases, it may be appropriate to qualitatively describe a problem where benefits cannot be easily monetised or quantified, for example, losses to cultural heritage. In these cases, the problem should be thoroughly described, with supporting evidence presented, for example, interviews with experts or those impacted.

Issues with problem sizing

All projects should provide a compelling description and quantification of the problem, regardless of the project type. Some types of projects, such as renewal or resilience projects, may require different approaches to defining and quantifying the size of the problem. Problems may be more difficult to define and quantify for renewal projects, which involve the replacement of existing infrastructure rather than providing a new or improved service. For renewal projects, the size of the problem might be demonstrated by the value that customers receive from the current infrastructure, or by the quantification of consequences that would occur if the infrastructure did not exist.

Problems may also be difficult to define and quantify for resilience projects, which seek to prepare for and reduce the impact of disruption to current services, rather than providing a new or improved service. For resilience projects, the size of the problem might be demonstrated by calculating both the odds of a disruption occurring and the impact of a disruption, in the case that it did occur. Multiplying the odds of the disruption by its impact yields the total size of the problem addressed by a resilience proposal.

Table 4: Examples of strong and weak quantification of resilience proposals

Strong practice	Weak practice
The district's main drinking water treatment plant is exposed to flooding, creating a risk that drinking water supply could be disrupted during a major flood event. Flood modelling indicates that there is a 2% annual probability of floodwaters reaching critical treatment equipment. If this occurred, approximately 18,000 households and businesses could lose supply for up to five days, with estimated disruption, emergency response, public health, and economic costs of $60 million. This gives an estimated Average Annual Loss of $1.2 million per year. This provides an early estimate of the size of the resilience problem and supports further investigation of a range of options, such as flood protection, relocation of critical equipment, network redundancy, alternative water sources, or staged upgrades.	The district's main drinking water treatment plant needs flood protection because it could be damaged in a major flood. A flood wall is expected to generate $40 million in avoided disruption benefits, which shows that the problem is significant. The proposal does not estimate the likelihood of flooding, the likely duration of service disruption, the number of users affected, the consequences of no further investment, or the Average Annual Loss. It is unclear whether the flood wall addresses the whole problem, whether lower-cost options could address the most material risks, or whether the benefits of the proposed solution have been used as a proxy for the size of the problem.

The strong example assesses both the likelihood and consequence of disruption and uses these to estimate the expected scale of the resilience problem. This provides an evidence-based reference point for comparing the scale and cost of potential responses.

The weak example uses the estimated benefits of a particular solution as a proxy for the size of the underlying problem. Without independently assessing the likelihood and consequences of disruption, it is unclear whether the proposed response is proportionate or whether other options could address the risk more efficiently.

In most cases, it is not appropriate to infer the size of the problem from the benefits of proposed solutions. In cost-benefit analysis, the problem should be defined and quantified before options are assessed. The benefits of a particular option represent the incremental reduction in that problem achieved by that option, not necessarily the full scale of the underlying problem. Inferring problem size from option benefits risks circular reasoning and may underestimate the problem if the option is only partial, or overstate the case if the assumed benefits are optimistic. This is explained in the example below.

Inferring the size of the problem from monetised benefits is only appropriate in limited circumstances, such as where a lower-cost or minimum viable option is compared directly with the do-nothing option. In that case, the option's benefits may provide evidence of the minimum addressable value of the problem. However, this should not be treated as the full problem size unless the option is expected to resolve the problem in full. For larger or more complex options, monetised benefits reflect the incremental impact of that option, not the scale of the underlying problem.

Example

Issues with inferring the size of the problem from monetised benefits

A business case for a flood-prone access road estimates that raising a two-kilometre section of road would generate $30 million in avoided disruption benefits over the assessment period. It then states that the size of the problem is $30 million.

This is not necessarily correct. The $30 million represents the estimated benefit of that particular option, not the full size of the underlying problem. The wider problem may include flooding across several parts of the network, disruption to emergency access, freight delays, community isolation, and damage to other assets. The road-raising option may only address one part of that problem.

Alternatively, the $30 million estimate may overstate the problem if the assumed benefits are optimistic, if closures are less frequent than expected, or if users have practical alternative routes.

A better approach would be to first size the underlying problem independently, by estimating the expected frequency, duration, and consequences of flooding under the do-nothing or do-minimum scenario. Options can then be assessed by estimating how much of that problem each option is expected to address.

Developing a counterfactual

The consequences of no further investment should be clearly understood and presented because the do-nothing or do-minimum scenario forms the counterfactual against which all options are assessed. The counterfactual should set out, in quantitative terms where possible, what is expected to happen without further investment. This type of analysis might include which infrastructure assets or services are expected to deteriorate, when constraints or failures are likely to emerge, how often disruptions may occur, who would be affected, and the likely scale and severity of impacts. This should be supported by evidence such as asset condition assessments, demand forecasts, capacity modelling, maintenance cost trends, and risk assessments. A clear counterfactual is needed to estimate the marginal benefits of each option, compare options on a like-for-like basis, and test whether the scale, timing, and cost of potential investment responses are proportionate to the problem. Examples of strong and weak practice are shown in **Table 5**.

Table 5: Establishing a clear counterfactual for options assessment

Strong practice	Weak practice
An Indicative Business Case for a water supply investment describes the do-minimum scenario, including expected asset condition decline, increasing outage frequency, affected customers, operating cost pressures, and the timing of likely service constraints. This counterfactual is then used to estimate the marginal benefits of different options.	An Indicative Business Case for a water supply investment compares options against a vague baseline described only as "service levels will decline over time." It does not explain when decline is expected, who is affected, or what the practical consequences are. This makes it difficult to compare options or assess their incremental benefits.

The strong example defines what is expected to happen without further investment, including the timing and consequences of deterioration. This provides a clear baseline against which the incremental costs and benefits of shortlisted options can be assessed consistently.

The weak example provides only a vague description of future decline and does not establish when impacts will occur or who will be affected. Without a clear counterfactual, the incremental benefits of options cannot be estimated or compared reliably.

Alignment to national and sector strategies

About this concept

Alignment to national and sector strategies is the extent to which the proposal is supported by current and recognised policy, strategy, investment, regulatory, or asset management documents. Demonstrating alignment to strategic objectives ensures a project is addressing national and sector priorities for infrastructure. This enables limited infrastructure funding available to go to areas where it is needed most. At Point 2, the proposal should update any earlier assessment of alignment to national and sector strategies and explain how the investment contributes to specific current priorities, and why the problem remains strategically important within the relevant infrastructure system or sector. This helps ensure that further business case development is focused on proposals that are consistent with government priorities, sector planning, and long-term infrastructure needs.

What we are looking for

The proposal should show how the project fits within the wider context of its infrastructure network or system, and why the current proposal is important strategically within the sector. For central government projects, relevant documents may include legislation, government policy statements, Cabinet agreements, agency long-term strategies, sector strategies, long-term investment plans, network plans, asset-management plans, and other recognised central government planning documents. For local government projects, they may include legislation, national policy statements, regional policy statements and plans, long-term plans, infrastructure strategies, asset-management plans, and other formally adopted council planning documents.

Documents relied on to demonstrate alignment should be current, relevant, and of sufficient quality to provide confidence that the proposal is responding to an identified infrastructure priority.

The proposal should explain the nature of the alignment, rather than only listing documents. It should identify the specific priority, outcome, objective, or problem that the proposal contributes to, and explain why the proposal is strategically important in that context. **Table 6** provides an example of strong and weak alignment to national and sector strategies.

Table 6: Demonstrating meaningful alignment to national and sector strategies

Strong example	Weak example
An Indicative Business Case for a health infrastructure investment identifies specific priorities in current government and agency strategies, including service access, resilience, and capacity. It explains how the proposal responds to those priorities, why the problem is strategically important, and how this alignment supports further business case development.	An Indicative Business Case lists several strategies and policy documents but does not identify the specific priorities the proposal contributes to. It relies mainly on the fact that the project has political visibility and is included in a funding application, rather than demonstrating alignment with recognised sector or agency priorities.

The strong example identifies specific current strategic priorities and explains how the proposal contributes to them. This demonstrates that the investment responds to a recognised need and that further business case development remains strategically justified.

The weak example lists general strategic material and relies on political visibility or funding applications without explaining the proposal's specific contribution to recognised priorities. This provides limited evidence of meaningful strategic alignment.

Where alignment to national and sector strategies was assessed at the Strategic Case or Point 1 stage, the proposal should update that assessment rather than simply repeat it. This should include identifying any changes to relevant government priorities, sector plans, agency strategies, funding settings, or asset management information since the earlier stage.

It is not sufficient to demonstrate alignment only with political party manifestos, fast-track applications, resource consent status, or applications to infrastructure funds, unless the proposal is also supported by the types of strategic, sector, or planning documents described above. These sources may indicate political priority, planning procedure or funding direction for a project, but they do not generally establish sector-level strategic priority on their own.

Point 2: Strategic alignment review questions

Question	What good looks like
Concept: Defining and sizing the problem	
S1: Is there a clearly defined problem?	• Evidence that the identified problem is the root cause problem • Problem statements have allocated weightings to signal their relative importance
S2: Has the problem been sized in monetary or quantitative terms?	• Value/cost of the problem has been directly sized in quantitative terms • The problem is sized in monetary terms for sectors where economic evaluation guidance exists • Inferring from benefits monetisation only appropriate where a low cost/minimum viable product option is compared to the do-nothing option • The consequences of no further investment are clearly understood and presented (beyond general qualitative statements)
Concept: Alignment to national and sector strategies	
S3: Does the proposal make a meaningful contribution to priorities signalled in sector or agency long-term strategies?	• Clear alignment to at least one priority detailed in: legislation, government policy statements (required where relevant), cabinet agreements, agency long-term strategies or local council long-term plans • Consistent with priorities signalled in agency or council asset management planning • Strategic planning documents referenced are current (including new documents since prior stages) • Long-term strategies do not include priorities signalled in party manifestos, fast-track applications, resource consent status or infrastructure funds unless these are also in the documents listed above

Rating scale

We use a traffic-light system to provide an overall rating for each key focus area. The rating reflects the evaluators' holistic judgement of the evidence against the review questions and the description of what good looks like, using the rating scale below.

Status	Description
Green	The proposal demonstrates a clearly defined and well-evidenced problem, which has been quantified and monetised where possible, with the consequences of no further investment understood and strong alignment with current strategic priorities.
Amber	The proposal demonstrates a defined and strategically aligned problem, but some gaps remain in the evidence, sizing, monetisation, or assessment of the consequences of no further investment.
Red	The problem is not sufficiently defined, evidenced, current or material to justify investment **and/or** the proposal is not aligned with current strategic priorities.

4. Value for money

Has a credible shortlist been developed and assessed?

Focus of assessment

At Point 2, we are looking for a clearly defined, evidence-based investment case that identifies a credible way forward. The agency should demonstrate that the investment scope is aligned with the identified problems and sufficiently realistic to support options analysis. It should identify a broad range of plausible options, including non-built and lower-cost responses, and use a robust method to develop a credible shortlist.

For programmes, options analysis may compare alternative scopes, sequencing, staging, packages and combinations of projects. The assessment should consider both the value for money of the programme as a whole and the contribution of its material components.

Shortlisted options should be developed to a comparable level and assessed consistently through proportionate economic analysis, including whole-of-life costs, monetised and non-monetised benefits, transparent assumptions and uncertainty testing. Overall, Point 2 should provide confidence that at least one option could deliver value for money and warrants further development at Point 3.

Reviewer tips

Connection with value for money

The developing scope should be grounded in the evidence about the scale and significance of the problem. Assess here whether the scope is proportionate to the problem and supports consideration of an appropriate range of options. Whether the scale, significance and consequences of the problem are sufficiently evidenced is assessed under **strategic alignment – sizing the problem.**

Connection with financial

Whole-of-life costs inform both Value for Money and Financial assessment, but for different purposes. Use them here to assess whether expected benefits justify the costs and to compare the public value of options. Whether those costs are affordable and fundable is assessed under **financial.**

Connection with commercial

The scope of shortlisted options may affect which commercial and procurement pathways are feasible. Assess here whether the options are appropriately scoped for comparison and further development. Whether credible commercial pathways exist for those options is assessed under **commercial.**

Connection with deliverability

Scope and deliverability are closely connected. Assess here whether the investment boundary and shortlisted options are appropriately scoped and proportionate to the problem. Whether dependencies, interfaces and delivery constraints associated with those options are understood and manageable is assessed under **deliverability.**

Relevant guidance and resources

Core New Zealand guidance: New Zealand Treasury, *Better Business Cases: Using the Options framework for options analysis*; New Zealand Treasury, *Guide to Social Cost Benefit Analysis*; New Zealand Treasury, *CBAx Tool User Guidance*; New Zealand Treasury, *Approaches to sensitivity analysis*; New Zealand Treasury, *Techniques to quantify risk and uncertainty*; relevant sector-specific economic evaluation guidance, where applicable.

Additional useful resources: Infrastructure Australia, *Assessment Framework Stage 2: Identifying and analysing options*; Infrastructure Australia, *Guide to multi-criteria analysis*; Infrastructure Australia, *Guide to risk and uncertainty analysis*.

These resources provide further guidance on developing and narrowing a credible range of options, applying economic and multi-criteria analysis, testing sensitivity and uncertainty, and selecting between options using a transparent and proportionate approach. The Treasury currently identifies sensitivity analysis and techniques to quantify risk and uncertainty as distinct additional BBC guidance.

For land transport investments, relevant sector-specific guidance includes the *Monetised benefits and costs manual* and, where benefit measures are relevant, the *Land Transport Benefits Framework measures manual*, both published by NZ Transport Agency Waka Kotahi.

What we are reviewing at this Point

Demonstrating value for money at Point 2 involves a series of related steps. These are summarised in the diagram below and explained in the sections that follow.

Figure 2: Key steps required for a high-quality value for money proposal at Point 2

Step	What this involves
Scope definition	Setting boundaries for options analysis (including in scope vs out of scope)
Longlist identification	Identifying a wide range of plausible options (ideally 8–12)
Shortlist options	Using a robust process to filter from a longlist to a shortlist of options (ideally 3–5)
Develop shortlisted options	Developing shortlist options to a comparable level of design and cost maturity
Assess shortlisted options	Evaluating and comparing the relative cost and benefits of shortlisted options
Test for uncertainty	Testing shortlisted options' resilience to a wide range of factors impacting on costs and benefits

Scope

About this concept

In infrastructure investment, scope is the defined boundary of what the investment will and will not deliver. This includes defining the assets, services, locations, users, interfaces and outcomes that an infrastructure investment seeks to deliver.

Having a clear scope is important for having a transparent and shared view of the boundaries of an investment. At Point 2, the focus is on defining the investment boundary sufficiently clearly to guide options analysis, including the types of intervention that are in and out of scope. Scope needs to be clearly defined by the time an investment decision is made at Point 3. Proceeding to delivery phases where scope is not clearly defined, or agreed by key investment partners, risks scope creep which is costly. For a programme, scope should define the intended outcomes, programme boundary, component projects or workstreams, sequencing, interfaces and matters that sit outside the programme.

What we are looking for

At Point 2, agencies need to have a clearly defined investment boundary that shows what is in and out of scope, and how that scope aligns with the identified problems. Agencies should demonstrate that options analysis has been carried out within those bounds, and the scale and cost of the options considered should be broadly proportionate to the evidenced size and consequences of the problem. The case should also show a clear understanding of key dependencies with other investments or assets, including any out-of-scope components needed to realise benefits.

The proposed scope should be sufficiently realistic to support credible options analysis, taking account of known delivery constraints. Detailed assessment of delivery feasibility, dependencies and commercial conditions is covered under the relevant focus areas. The agency should also demonstrate that it has the mandate to lead the investment. For programmes, the scope should explain how the component projects or workstreams collectively address the identified problems and identify any projects that are essential to achieving programme benefits.

Table 7: Examples of strong and weak scope at Point 2

Strong	Weak
Coopertown City Council and Ōtarikākā Regional Council are working together to improve the transport connections between Harton and the Coopertown city centre. The two Councils have signed an agreement to co-fund the redevelopment of the Harton bus interchange, with a maximum funding envelope of $50 million and a 50:50 funding split between the two organisations. The two organisations have agreed on two objectives for the project: to provide more frequent, reliable bus services and to improve station amenity and safety for bus passengers. Interventions that are in scope include: improvements to the passenger waiting area and platform shelters, bus bay capacity increases, and accessibility improvements for passengers.	Coopertown City Council and Ōtarikākā Regional Council are working together to redevelop the Harton bus interchange. The mayor of Coopertown has been championing the project, arguing that it is a once in a generation opportunity to revitalise Harton town centre. A recent engagement exercise led by Coopertown highlighted the potential to pedestrianise the plaza outside the station, improving connectivity and providing urban greening, but it is unclear whether these elements are in scope of the interchange project. Ōtarikākā Regional Council has confirmed its funding contribution, with a maximum funding envelope of $25 million. Ōtarikākā is willing to fund bus improvements only, including waiting area improvements and bus bay capacity increases. Coopertown city's contribution to the interchange project has yet to be confirmed.

The strong example establishes an appropriate early boundary without prematurely selecting a preferred solution. It identifies the broad types of intervention that may be considered and matters that are currently in scope. A signed agreement on project objectives demonstrates that there is a shared understanding of both the problem and the types of solutions they can deliver to address the problems.

In the weak example, there does not appear to be a shared view of problems and project objectives. There also does not appear to be agreement on the type of solutions that should be considered. If this misalignment continues, both agencies will move closer to project delivery with a problem and a scope that are not clearly defined or agreed, risking costly scope creep at later stages.



Key insight

Using problem size to guide scope

At Point 2, the scale and indicative cost of each shortlisted option should be tested against the evidenced size and consequences of the problem. Problem sizing provides an important reference point for assessing whether the options being progressed are proportionate before more detailed design and appraisal are undertaken.

Where an option appears materially larger or more costly than the problem would justify, the agency should consider whether it should be reduced, staged or excluded from the shortlist, or whether a lower-cost option may provide better value for money.

For example, a $250 million bridge proposed to address a connectivity problem valued at $2 million per year is unlikely to be proportionate unless it generates significant additional benefits not captured in the problem estimate. Even on an undiscounted basis, it would take 125 years for benefits of $2 million per year to equal the initial cost, and longer once discounting and whole-of-life costs are included.

Where the problem has not been monetised, the proposal should provide other credible evidence that the scale and indicative cost of the shortlisted options are justified.



Additional notes on scope

Mandates to deliver

Agency proposals need to focus on activities they have been given a mandate to deliver on. There are a number of activities that can require contributions from more than one agency, such as a road transport project involving a national or regional authority. In these instances, the proposal must provide evidence that these agencies are working in partnership, including clarity about each agency's particular role and contribution.

Consideration of dependencies and interfaces

Realising project benefits can be dependent on availability or delivery of another project or asset. Proposals need to identify these and clarify whether these are in or out of scope. Dependencies can also include interfaces with adjacent infrastructure where this requires work to connect assets (in partnership with owners of these assets). Further, agencies should be transparent about out-of-scope projects/assets that are unfunded and are needed to fully realise project benefits. These issues are covered in greater detail in the deliverability focus area.

Identifying options

About this concept

Identifying options involves developing a broad and proportionate range of plausible ways to address the identified problem. At Point 2, the agency should have considered complete/standalone options, including non-built, lower-cost, staged and more capital-intensive responses where relevant.

For programmes, options may include alternative programme boundaries, packages, sequencing, staging, levels of service and combinations of capital and non-capital interventions.

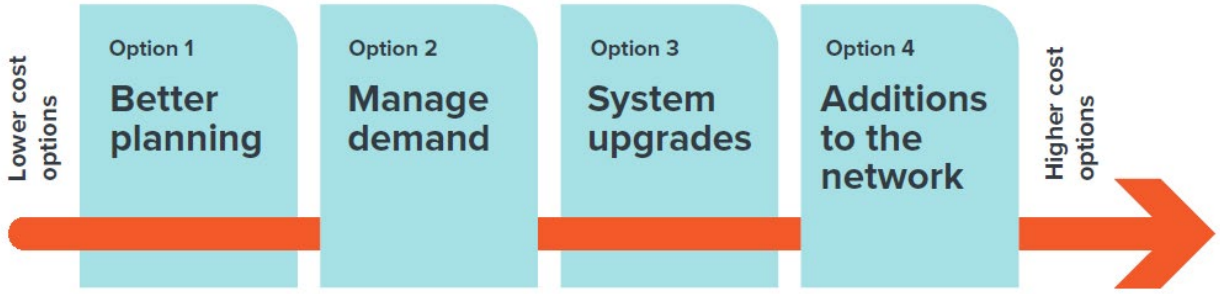
What we are looking for

For identifying options at Point 2, the proposal should demonstrate that the agency has identified a sufficient range of plausible options (ideally 8–12), including non-built and lower-cost options through to more capital-intensive responses. Each option should represent a complete/standalone solution, with no obvious viable options prematurely excluded. Where options have been considered and ruled out, the agency should document them and explain the reasons for exclusion. The longlist should be proportionate to the value and scale of the problem being addressed.

Further, agencies should demonstrate that they are not simply considering a varied mix of capital expenditure. The proposal should demonstrate that agencies have considered a range of options to address the problem, from improved asset management planning to new capital expenditure. Following a robust longlist process provides confidence that a high value for money solution can be found.

For programmes, longlist options may include different programme boundaries, packages of projects, sequencing, timing, levels of service and combinations of capital and non-capital interventions. Existing or proposed component projects should not be treated as fixed if alternative programme configurations could provide better value for money.

Figure 3: Type of options needed for a strong value for money case at Point 2



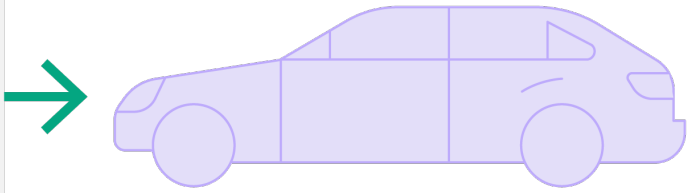
Using Dimensions of Choice analysis to identify options

Dimensions of Choice analysis is a robust and commonly used approach to identify options. The Treasury's Better Business Cases guidance encourages users to explore a range of relevant dimensions, including scope/scale/location, service solution, service delivery and implementation.

When developing a longlist of options, it is important to note that individual choices within a single dimension do not represent an option. Each longlisted option should represent a plausible bundle of choices across identified dimensions. The example below illustrates this point when buying a car. The number of seats and boot size are potential dimensions but are not in themselves complete options. Bundling individual choices enables agencies to identify complete options (as the yellow line highlights). In this example, the complete option is a car you can drive off the lot. This same approach should be used to identify the remaining longlisted options. The analysis should demonstrate broad coverage of the relevant choices across each dimension.

Figure 4: A simple example of identifying options through dimensions of choice analysis

Dimensions	Choices/configurations
# of seats	4, 5, 7
Boot size (lts)	<300, 300-600, >700
Safety rating	3*, 4*, 5*
Fuel efficiency (lt/100k)	3-6, 6-9, 9+
Reliability (Car Reliability Index, out of 10)	6-7, 6-9, 9+



This same approach can be applied to infrastructure investment. Imagine a scenario where an agency is identifying a longlist of options for expanding public transport offerings in an urban area. The route corridor is a highly important dimension. However, on its own it is not a standalone option. To be a complete solution, it would also need to explore dimensions such as mode choices (such as conventional bus or bus rapid transit), route configuration (bus lanes, busways, priority at intersections) and implementation approach (full delivery or phasing). For programmes, dimensions may also include programme scope, project composition, sequencing, timing, geographic coverage, dependencies and delivery phasing.

Presenting individual dimensions as options does not provide compelling evidence that an agency has considered all highly plausible options. This is because this approach would not enable a robust comparison of costs and benefits across identified options. For example, comparing boot sizes of cars, without putting these in context of the whole vehicle, does not offer meaningful opportunity to understand the best solutions available to a buyer.

Table 8: Examples of strong and weak options identification at Point 2

Strong	Weak
The Nunnsburg Regional Water Authority identifies a projected water supply shortfall in 15 years. They have developed a broad longlist of plausible options including: demand-management and behaviour-change measures for reducing water consumption, leakage reduction measures, water metering, volumetric pricing, reuse/recycling solutions, increasing the capacity of the existing reservoir, and two new-reservoir options of different sizes. Each option is packaged as a complete solution. While a few other solutions were identified (such as water desalination plants), the agency explains why these were excluded from the longlist (such as financial viability due to high cost).	The Nunnsburg Regional Water Authority identifies a projected water supply shortfall in 15 years. Their proposal identifies these options: build a small reservoir, build a medium reservoir, and build a large reservoir.

The strong example above shows that the agency is considering a sufficiently wide range of solutions, including non-built and lower-cost options, before the shortlisting process. They are also transparent about potentially viable options that have not been longlisted, including rationale.

The weak example above has a number of deficiencies. The proposal does not show if wider options were considered, in particular lower cost options such as demand reduction, leakage management, and pricing. It is unclear whether these potentially viable solutions were prematurely excluded, and the rationale for ruling these options out is not documented. Overall, this provides limited confidence that the agency has identified a sufficiently broad range of plausible options or that the proposed capital solutions are proportionate to the scale and timing of the problem.

Shortlisting options

About this concept

This step covers filtering from a longlist to a shortlist using a robust methodology that gives appropriate consideration to cost and value for money. At Point 2 this requires agencies to identify a small set of options with the greatest potential to provide value for money. At the next step, the agency develops the shortlisted options to comparable levels of design and cost maturity.

What we are looking for

To shortlist options at Point 2, the agency must use a robust method to filter the longlist to a credible shortlist, typically resulting in 3–5 options. Acceptable approaches include rapid cost-benefit analysis (CBA) or multi-criteria analysis (MCA). When using MCA, project cost should be given equivalent weight to benefits to ensure value for money is central to the filtering process.

For programmes, the filtering process should compare alternative programme configurations, such as the contribution, timing and sequencing of component projects. It should not assume that every proposed component project must be retained.

Consideration of cost when using MCA

Where MCA is used, project cost should be given sufficient weight to ensure that value for money is central to shortlisting, ideally 50%. At a minimum, the total weighting of benefits should not exceed the weighting of cost. This weighting implies that project cost is as important a factor as benefits.

Where cost receives only a small share of the overall weighting, options that perform strongly against non-cost criteria may remain highly ranked despite being materially more expensive. If project cost is given a low weighting, then it may lead to poor value for money choices when choosing between alternative options. For example, if cost is assigned a 20% weighting, while various benefit categories are assigned a total weighting of 80%, then it implies that the project sponsor is willing to accept a 100% increase in project cost in exchange for a 25% increase in project benefits. This can bias the shortlist toward capital-intensive solutions and exclude lower-cost alternatives before their relative value for money has been properly tested.

The example below illustrates the effect of cost weighting by extending the earlier vehicle example to the shortlisting stage. In this hypothetical case, a couple expecting twins needs to replace a small vehicle that is nearing the end of its useful life. They are comparing six vehicles with different sizes, specifications and prices against five assessment criteria.

In the first assessment, all five criteria, including cost, are weighted equally. This results in the 2021 Economy Sedan, the second lowest-cost option, being shortlisted. However, it also results in the Brand New European Luxury Minivan being shortlisted, despite costing eight times more than the least-cost option. This luxury minivan remains highly ranked because it performs strongly against the non-cost criteria and cost does not carry enough weight to offset its substantially higher price.

Figure 5: Case study MCA assessment when weighing all criteria equally

Results of MCA assessment (equal weighting for criteria)							
		Option					
Criterion	Weighting (%)	2015 Economy Hatchback ($15k)	2021 Economy Sedan ($20k)	2022 Economy Wagon ($25k)	2020 Midrange Minivan ($35k)	2024 Crossover SUV ($55k)	Brand New European Luxury Minivan ($125k)
# of seats	20%	0.40	1.00	1.00	2.00	1.00	1.60
Boot size	20%	0.20	0.60	0.80	1.80	1.00	2.00
Safety rating	20%	0.60	1.60	1.60	2.00	1.80	2.00
Fuel efficiency	20%	1.80	1.80	1.20	0.60	1.00	1.20
Cost	20%	2.00	1.60	1.40	1.20	0.80	0.00
MCA Score		5.00	6.60	6.00	7.60	5.60	6.80

In the second assessment, cost is weighted at 50%, with the remaining weighting distributed equally across the non-cost criteria. This gives cost equal weight to the combined non-cost considerations. As a result, the Brand New European Luxury Minivan receives the lowest overall MCA rating and is excluded from the shortlist. The shortlist instead includes the two lowest-cost options and the fourth lowest-cost option.

This example demonstrates how giving greater weight to cost can reduce the risk that materially more expensive options are shortlisted primarily because they perform well against non-cost criteria. Applied to infrastructure investment, this approach can help ensure that lower-cost and potentially higher-value options remain under consideration, supporting more efficient allocation of limited public funding.

Figure 6: Case study MCA assessment when weighing cost at 50%

Results of MCA assessment with capital cost weighted at 50% (holds proportions constant for remaining criteria)							
		Option					
Criterion	Weighting (%)	2015 Economy Hatchback ($15k)	2021 Economy Sedan ($20k)	2022 Economy Wagon ($25k)	2020 Midrange Minivan ($35k)	2024 Crossover SUV ($55k)	Brand New European Luxury Minivan ($125k)
# of seats	13%	0.25	0.63	0.63	1.25	0.63	1.00
Boot size	13%	0.13	0.38	0.50	1.13	0.63	1.25
Safety rating	13%	0.38	1.00	1.00	1.25	1.13	1.25
Fuel efficiency	13%	1.13	1.13	0.75	0.38	0.63	0.75
Cost	50%	5.00	4.00	3.50	3.00	2.00	0.00
MCA Score		6.88	7.13	6.38	7.00	5.00	4.25

Opportunities to address uncertainty in MCA

Where options have materially different levels of uncertainty, the assessment should make those differences transparent. This is likely to occur where a longlist includes solutions that are tried and tested nationally, versus those that are novel for New Zealand. Variance in cost certainty can also occur when some solutions are highly dependent on critical factors such as geotechnical conditions that have yet to be fully assessed. Uncertainty may be addressed through an explicit risk or uncertainty criterion, sensitivity testing of ratings and weightings, or separate analysis of the uncertainty associated with each option. Where uncertainty is used as a weighted criterion, this should reflect the materiality of this uncertainty. The remaining allocations should be split so the cost criterion weighting is at least equal to the total value of all benefits criteria (in other words the total weighting of all benefits should not exceed that of cost).

Figure 7: Note on usage of rapid CBA when shortlisting options



Warning

Usage of rapid CBA

Rapid CBA can be used as a means to filter to a shortlist. However, for this to be credible, agencies must ensure cost and benefit assumptions used are transparent and well-evidenced. Where incremental benefit-cost ratios (BCRs) are used, overall BCRs should also be presented so reviewers can understand both the incremental case and the absolute economic performance of each option.

Develop shortlisted options

About this concept

This step involves developing shortlisted options to a comparable level of scope, design and cost maturity so they can be assessed fairly. At Point 2, indicative or concept-level development is expected; the more detailed design and cost certainty needed for the investment decision are developed at Point 3.

What we are looking for

At Point 2, shortlisted options should be developed to a comparable level of maturity in scope, design and whole-of-life cost. Concept or indicative information should be sufficiently developed to:

- define the option clearly – clearly describe the option, including what is included and excluded
- test feasibility – by identifying fatal flaws, land and property requirements, consenting issues, and preliminary interfaces and dependencies
- provide indicative cost estimates – to enable testing of affordability at rough order of magnitude levels, while building understanding of cost drivers and uncertainties.

Whole-of-life cost estimates for each shortlisted option are critical for a fair comparison of these options. Whole-of-life costs are the total costs of an investment over its full life cycle. In addition to upfront capital costs, these include the overall costs to develop, deliver, operate, maintain, renew and dispose of an asset.

Whole-of-life cost estimates should reflect the most likely cost outcome for each shortlisted option, based on its current design maturity and a consistent estimating basis. Comparable cost estimates are needed which require consistent design maturity (ideally concept or indicative level) for each option. These need to reflect the most likely and plausible outcome for the project. Agencies should be careful to avoid optimistic or underdeveloped assumptions that risk understating the likely cost of the central case.

For programmes, comparable development should cover each alternative programme configuration, including the scope, timing, sequencing and whole-of-life cost of material component projects. The analysis should show how each component contributes to programme outcomes and whether components can be deferred, removed or delivered separately.

Figure 8: Good practice for assurance of cost estimates

Assurance of cost estimates

Reliable and comparable cost estimates are important at Point 2 because they support fair comparison of shortlisted options and confidence in the preferred way forward. For high-value, complex or materially uncertain proposals, independent review or assurance of cost estimates should be considered. The level of assurance should be proportionate to the proposal's scale, complexity, maturity and uncertainty. Seeking this assurance from an independent and credible authority can provide confidence to decision-makers (and Point reviewers) that cost estimates are robust and sufficiently comparable for identifying a preferred way forward.

Assess shortlisted options

About this concept

At Point 2, the analysis should identify which shortlisted options warrant further development and whether there is a credible preferred way forward. It should not constitute final selection or approval of a preferred option. Economic analysis of shortlisted options is critical for identifying which options warrant further development and whether there is a credible preferred way forward. A robust assessment of monetised costs and benefits, through CBA, is the most objective and rigorous way of demonstrating value for money. Cost-effectiveness analysis can be used in situations where benefits cannot be monetised and there is one primary project output. Relying on less robust methods increases the risk that a lower-value option is progressed.

For programmes, economic analysis should assess the programme as a whole and, where material, the incremental contribution of individual component projects. It should test whether the proposed package, timing and sequencing provide better value for money than alternative programme configurations.

What we are looking for

At Point 2, agencies must assess shortlisted options using robust and proportionate economic analysis methodology. This should compare whole-of-life costs and monetised benefits for each shortlisted option using consistent assumptions, including the assessment period, discount rate, treatment of inflation and real values, and what remains at the end of the assessment period (such as renewals or decisions to dispose of assets). Where material benefits cannot be monetised, the agency may supplement the CBA with non-monetised analysis. The Treasury's Better Business Cases guidance and templates provide details on how this can be presented in a business case.

Figure 9: Insights comparing absolute versus relative value for money

Absolute versus relative value for money

Undertaking cost-benefit analysis of shortlisted options at Point 2 is a critical step for identifying the option that is most likely to demonstrate both absolute and relative value for money. Absolute value for money simply demonstrates that an option's expected benefits are likely to exceed its estimated costs. Relative value for money is a higher standard for economic efficiency as this requires an option to demonstrate the highest proportion of benefits to costs compared to other options assessed and/or the highest net present value (NPV). Choosing this option increases the likelihood of maximising public value for an infrastructure investment.

Where an investment case performs CBA solely for the preferred option, this means at best the agency can demonstrate absolute value for money. This does not provide enough evidence that the agency has chosen the option that can maximise net public benefit.

For programmes, relative value for money should also consider the incremental contribution of component projects and whether a different package, scale or sequence would produce greater net public benefit.

Cost-effectiveness analysis may be appropriate where the principal benefits cannot be credibly monetised and options can be compared against a common, clearly defined outcome. For example, when assessing options to build a new school, agencies can present the overall cost per classroom built as a means of comparing the cost efficiency of each option.

Economic impact analysis should not be used as the primary method for assessing value for money because it does not provide a complete comparison of the incremental costs and benefits of options. It may provide supplementary contextual information where relevant.

The agency's analysis should draw on a transparent benefits framework that captures known benefits and disbenefits (such as greenhouse gas emissions, resilience to natural hazards and other risks). Disbenefits include flow-on effects to other users because of an intervention. An example of this is a public transport upgrade that is expected to increase travel times for other road users. Demonstrating value for money for society requires economic analysis to show net public benefit, rather than just benefits confined to a particular user group while disregarding impacts to other groups.

Key assumptions, particularly for demand modelling and benefits calculations, should be evidenced and clearly explained. Proposals that are not transparent about assumptions underpinning benefits calculations and demand modelling will call into question the robustness of their economic analysis.

Economic analysis relies on assumptions that carry varying levels of uncertainty. Agencies should use the best available evidence, clearly explain material assumptions, and undertake proportionate sensitivity, scenario and risk analysis (see guidance in next section). For high-value, complex or uncertain proposals, independent review of the economic analysis should be considered.

Table 9: Strong and weak examples of economic evaluation of shortlisted options at Point 2

Strong example	Weak example
The Fernland Transport Authority is partnering with the Tuihaven Regional Council to replace its fleet of public ferries, including consideration of options to reduce greenhouse gas emissions and improve local air quality. The Authority undertakes a CBA for three propulsion options (hybrid, electric and biofuels) alongside a base case (diesel). The hybrid option achieves the highest BCR (2.5), followed by electric (1.5), diesel (1.1) and biofuels (0.6). As the hybrid option has the highest BCR, the Authority plans to look into the hybrid option in greater detail in a DBC.	The Fernland Transport Authority is partnering with the Tuihaven Regional Council to replace its fleet of public ferries, including consideration of options to reduce greenhouse gas emissions and improve local air quality. The Authority completes an MCA with a strong emphasis on greenhouse gas emissions and air quality. The electric option achieves the highest MCA rating, followed by hybrid, biofuels and diesel. The Authority will undertake a CBA for the electric option at the DBC stage to confirm that it can offer value for money. The Authority does not intend to test if the electric option can demonstrate relative value for money when assessed against other shortlisted options (using CBA).

The strong example demonstrates best practice as it tests the economic efficiency of each shortlisted option, using a robust and established method for comparing the economic efficiency of the shortlisted options. This increases the likelihood that the highest value for money option can be chosen.

The weak example relies on a less reliable and more subjective method for assessing economic efficiency of infrastructure. This is despite the fact that the transport sector has longstanding, tested and robust economic evaluation manuals that should be used to guide investment appraisal. Only completing a CBA for the preferred option does not rule out the existence of other options that may deliver a higher share of benefits relative to costs.

Figure 10: Notes on usage of BCRn vs BCRg



Warning: Presentation of BCRs

BCRn vs BCRg

Where both national or societal BCRs (BCRn) and government BCRs (BCRg) are calculated, the societal measure should be presented alongside the government measure. The two measures serve different purposes and should be clearly defined. This is because BCRn is a better measure of societal value for money and economic efficiency for informing investment decisions. BCRg is more useful when considering fiscal and funding considerations, such as whether or not user charges can materially improve affordability of a proposal for government by reducing the required public funding contribution.

Testing for uncertainty

About this concept

Infrastructure investments are subject to uncertainty in costs, benefits, timing, demand and delivery conditions. Estimates may also be affected by optimism bias, including understated costs, overstated benefits or overly optimistic assumptions about delivery and benefits realisation.

At Point 2, the focus is on understanding how uncertainty could affect the value for money and relative performance of shortlisted options. The analysis should test whether options that perform well under central assumptions remain credible under less favourable conditions and whether uncertainty could change the preferred way forward.

Different approaches to testing for uncertainty serve different purposes:

- Risk analysis identifies material risks and informs contingency or risk-adjusted cost estimates.
- Sensitivity testing assesses how results change when individual assumptions or inputs are varied.
- Scenario analysis tests how options perform under coherent alternative futures involving changes to several related assumptions.
- Probabilistic analysis models the combined effect of multiple uncertain variables and the range or likelihood of possible outcomes.

These approaches are complementary and should not be treated as interchangeable. The depth of analysis should be proportionate to the proposal's scale, complexity, maturity and level of uncertainty.

What we are looking for

At Point 2, agencies should identify and test the uncertainties most likely to affect the costs, benefits, affordability, deliverability or relative ranking of shortlisted options.

A strong proposal should demonstrate:

- risk analysis that informs appropriate contingency or risk-adjusted cost estimates
- sensitivity testing of the assumptions and inputs most material to each option
- scenario analysis using internally consistent alternative futures where related uncertainties may change together
- probabilistic analysis where appropriate for high-value, complex or highly uncertain proposals
- sufficiently consistent testing across shortlisted options
- clear explanation of whether uncertainty could materially affect value for money, affordability, option rankings or the preferred way forward.

The results should inform which shortlisted options warrant further development and identify where further evidence, design work or risk mitigation is needed before Point 3.

For programmes, uncertainty testing should also consider risks affecting the programme as a whole, dependencies between component projects, sequencing and timing, and whether changes to one component could affect the benefits, costs or viability of others.

Figure 11: Note comparing sensitivity testing and scenario analysis



Note on sensitivity testing versus scenario analysis

Sensitivity testing and scenario analysis can look similar in practice. However, the purpose of these analyses is fundamentally different. Sensitivity analysis aims to determine the potential impacts of risks on project outcomes by varying inputs and assumptions to see how much they change expected outcomes. This also highlights which inputs have the largest impact on outputs.

Scenario analysis helps to ensure that preferred options are robust to different futures and uncertainty by testing how robust options are against several alternative scenarios, rather than developing one assumed future.

Risk analysis for contingency

At Point 2, the develop shortlisted options step requires agencies to develop whole-of-life cost estimates for each shortlisted option. This estimate is expected to be the central case, or the most plausible cost based on the design maturity of shortlisted options at the IBC stage.

Project costs for each option at this stage are preliminary/indicative. A robust estimate recognises the limitations of the available design information, and therefore the known risks and uncertainties that are expected to have an impact on final project cost. Risk analysis for contingencies allows agencies to go through a structured process to understand the likelihood of these risks, and their potential impacts on project cost. These relate to design maturity and include factors such as ground conditions, seismic risk, live-site staging, service continuity, interfaces with existing assets, and programme delays.

The analysis should inform a contingency allowance that is proportionate to the nature and maturity of each option. Applying the same contingency percentage to every option may not be appropriate where their risk profiles differ materially. Table 10 provides examples of strong versus weak practice when using risk analysis to calculate contingencies.

Figure 12: Common approaches for risk analysis contingency

Approaches for risk analysis contingency

Below are three common methods for calculating cost allowances or contingencies for a proposal. Agencies should choose the method that best reflects the proposal's scale, complexity, design maturity, risk profile and level of cost uncertainty.

Percentage-based contingency: A benchmarked percentage uplift may be appropriate where the proposal is relatively low value or low complexity, the principal risks are familiar and well understood, and uncertainty is unlikely to affect option ranking. The percentage should be supported by relevant evidence and reflect the maturity of the estimate.

Expected-value risk costing: Expected-value analysis assigns each material risk an estimated likelihood and cost impact. It may be appropriate where significant risks can be identified and assessed individually, but full probabilistic modelling is not warranted.

Quantitative risk assessment/Monte Carlo analysis: Techniques such as quantitative risk assessment or Monte Carlo simulation estimate a range of potential cost outcomes using probability distributions for material risks and uncertainties. These approaches may be appropriate where the proposal is high value, complex or highly uncertain, or where cost risk could materially affect affordability, contingency requirements or option ranking. The reliability of probabilistic analysis depends on the quality of its assumptions, probability distributions and treatment of relationships between risks. The approach should therefore be supported by appropriate expertise and assurance.

Table 10: Strong and weak examples of estimating contingencies at Point 2

Strong example	Weak example
The Shaky Isles Health Authority is building a new hospital to replace a hospital in its second largest city. In its IBC, the Authority compares three shortlisted hospital options using concept designs and indicative whole-of-life cost estimates. It applies a consistent, proportionate contingency framework across the shortlist, assessing each option against design maturity, delivery complexity, uncertainty and likely cost impact. For lower-risk elements, the agency uses benchmarked percentage-based contingency where risks are familiar and unlikely to materially affect option ranking. For material risks, such as ground conditions, live-site staging, utilities, service continuity, escalation and clinical equipment integration, it uses expected-value risk costing informed by risk workshops, adviser input and comparable projects. The agency explains why higher-risk options carry higher contingency, and tests how contingency assumptions affect affordability, BCR ranges and option ranking.	The Shaky Isles Health Authority is building a new hospital to replace a hospital in its second largest city. In its IBC, the Authority compares shortlisted hospital options using high-level capital costs but applies the same 10% contingency to every option. This percentage-based approach is not proportionate because some options have materially higher uncertainty and delivery risk, including live-site staging, ground conditions, service disruption, utilities and clinical equipment integration. The allowance is not linked to design maturity, delivery complexity, risk likelihood or expected cost impact. It also does not use expected-value risk costing for material risks that could significantly affect affordability or option ranking. As a result, higher-risk options may be undervalued and appear more comparable to lower-risk options than they really are, weakening the robustness of the assessment of shortlisted options.

Sensitivity testing

Sensitivity testing assesses how the results of an appraisal change when one material input or assumption is varied. It helps identify which assumptions have the greatest influence on costs, benefits and value for money results. Analysis should be proportionate to the scale, complexity, risk, and maturity of the investment. At Point 2, sensitivity testing should be completed for all shortlisted options. The results should inform which options warrant further development rather than constitute final selection or approval of a preferred option.

The agency should identify and test the assumptions most material to each shortlisted option. Relevant tests may include changes to:

- capital, operating, maintenance and renewal costs
- implementation timing and delivery delays
- demand, utilisation or service uptake
- population or demographic assumptions
- benefit values or benefit realisation rates
- asset life, residual value or appraisal period
- other project-specific assumptions that materially influence results.

For programmes, sensitivity testing may also examine changes to programme scope, project sequencing, dependencies, delivery timing and the inclusion or exclusion of material components.

The discount rate and other standard appraisal assumptions should be applied consistently with current the Treasury guidance. Alternative assumptions should be tested where required by that guidance or where there is a clear, investment-specific reason to do so.

Table 11: Strong and weak examples of sensitivity testing using discount rates

Strong example	Weak example
Whenuamaroke Regional Council is exploring options to build an additional water reservoir to mitigate a 1 in 20-year drought to enable a more resilient municipal water supply. The Council is looking at three options that also enable commercial irrigation to regional farmers to allow for more valuable crops to be grown in summer. The economic analysis shows that the highest performing option achieves a BCR of 1.5, at a non-commercial discount rate (2%) over a 60-year timeline. The BCR for this option drops well below 1 when assessing using a commercial discount rate (8%), and when assessing using a 40-year timeline. The Council is revisiting scope and options to understand if there are likely to be options that are more resilient to changes to these project factors.	Whenuamaroke Regional Council is exploring options to build an additional water reservoir to mitigate a 1 in 20-year drought to enable a more resilient municipal water supply. The Council is looking at three options that also enable commercial irrigation to regional farmers to allow for more valuable crops to be grown in summer. The economic analysis shows that the highest performing option achieves a BCR of 1.5, at a non-commercial discount rate (2%) over a 60-year timeline. The Council has not presented results when using a commercial discount rate or alternative project timelines. The Council intends to proceed to the DBC stage with this option.

The strong example demonstrates good practice as the Council is reconsidering options as no shortlisted option is resilient to variations in discount rates and project timelines. While this initiative has social benefits in terms of securing municipal water supply during dry weather periods, it also has strong commercial elements as it will be used on a more regular basis as irrigation for regional farms. The weak example does not explain why the selected discount rate is appropriate for a proposal with both public-service and commercial elements, or test how the result changes under the alternative rate required by the Treasury guidance.

Scenario analysis

Scenario analysis assesses how shortlisted options perform under coherent alternative futures. Unlike sensitivity testing, which usually varies individual assumptions, scenario analysis changes several related assumptions together to represent plausible future conditions. Scenarios may address:

- demographic or demand growth
- economic and fiscal conditions
- technology change
- climate policy and physical climate effects
- energy and material prices
- changes in user behaviour
- market capacity and supply-chain conditions
- changes in policy, regulation or service-delivery models.

The approach may be qualitative or quantitative, depending on the proposal's scale, complexity and uncertainty. For programmes, scenarios may also test alternative programme sequencing, delayed or cancelled component projects, changes in dependencies, and different rates of benefits realisation across the programme.

Qualitative scenario analysis

Qualitative analysis may be appropriate where uncertainties are understood but cannot be estimated credibly in monetary or probabilistic terms. It may use structured descriptions or ratings to assess how different future conditions could affect demand, benefits, costs, feasibility or delivery. For example, agencies may test:

- slower or faster population growth
- stronger or weaker policy support
- rapid or gradual technology change
- constrained or favourable market conditions.

The analysis should explain the basis of each scenario and its implications for the relative performance of shortlisted options.

Quantitative scenario analysis

Quantitative scenarios use numerical assumptions to estimate how costs, benefits and value for money measures change under different future conditions. They may combine related assumptions about demand, timing, cost escalation, operating costs and benefits realisation. Where appropriate, agencies should consider:

- a central scenario based on the best-supported assumptions
- a plausible downside scenario reflecting adverse conditions
- a plausible upside scenario reflecting favourable but credible conditions.

Scenarios should be internally consistent and evidence-based. They should not simply combine all favourable assumptions into an upside case or all unfavourable assumptions into a downside case.

Probabilistic analysis

Probabilistic analysis models a range of possible outcomes by assigning distributions to uncertain inputs and assessing their combined effect. Techniques may include Monte Carlo simulation and quantitative risk analysis. Reference-class forecasting may also provide evidence about the likely range of cost, time or benefit outcomes based on comparable investments. These approaches can produce:

- expected-value risk allowances
- risk-adjusted cost estimates
- probability distributions for costs or benefits
- percentile estimates such as P50 and P80
- the likelihood that an option will achieve a positive NPV or BCR above 1.

Probabilistic analysis may be appropriate for high-value, complex or highly uncertain proposals. It is distinct from scenario analysis: scenarios represent defined alternative futures, while probabilistic analysis estimates a distribution of possible outcomes.

The method should be transparent about the evidence used to define ranges and distributions, relationships or correlations between inputs, the treatment of extreme outcomes, model limitations, and the effect of key assumptions.

Presenting and interpreting uncertainty analysis

The analysis should show how each shortlisted option performs across material sensitivities, scenarios and, where relevant, probabilistic outcomes.

It should identify whether uncertainty could:

- change option rankings
- materially reduce NPV or the BCR
- undermine affordability or deliverability
- alter the case for progressing an option
- change the preferred way forward.

The agency should explain the benefits, risks and trade-offs of each option rather than rely solely on a central BCR or single summary measure. An option with a slightly lower central BCR may still provide a more credible way forward if it has a stronger downside position, lower cost uncertainty or greater resilience across plausible futures. An example of this, using a quantitative approach, is provided in results below.

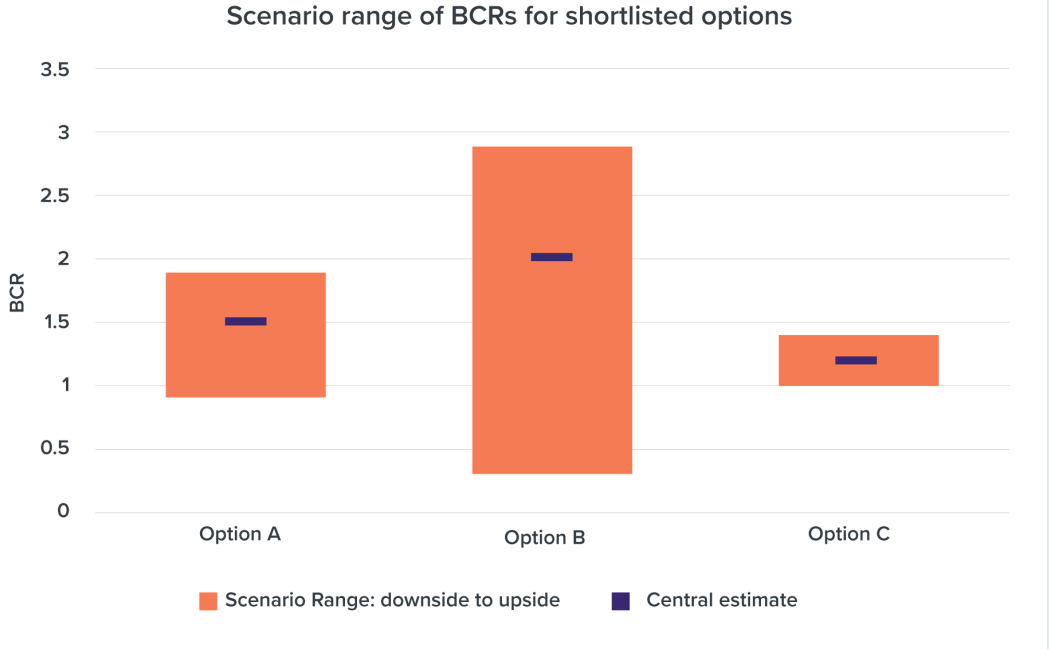
Figure 13: Insights on analysing and presenting scenario analysis results

Strong practice in presenting scenario analysis results

The chart below shows how quantitative scenario analysis can present the central BCR for each option alongside plausible upside and downside ranges. This helps decision-makers understand both expected performance and the uncertainty around each result.

The agency should explain the main benefits, risks and trade-offs. In this example, Option A may be preferred because it has a strong central BCR and a more robust downside position. Option B may be less attractive because it is more exposed to adverse conditions, while Option C may have lower downside risk but weaker overall value for money potential.

The preferred way forward should reflect both expected value for money and uncertainty. Scenario assumptions should be transparent, evidence-based and proportionate to the proposal's cost, complexity and uncertainty.



Point 2: Value for money review questions

Question	What good looks like
Concept: Scope	
V5: Is there a clearly defined scope for this investment?	• Demonstrates a clear view of the potential bounds of an investment (including what is in scope and out of scope) • Clear alignment with identified problems • Options analysis consistent with this scope • Options considered are proportionate to the value of the problem they seek to address, avoiding bias towards solutions that are specified well beyond identified problems/needs • Provides a clear understanding of key interdependencies with other investments or assets, within the agency's portfolio or beyond, relevant to the planning and delivery of this investment; this includes awareness of out-of-scope projects with unfunded components that are needed to achieve identified benefits for this proposal, if any (related to deliverability key focus area) • Demonstrates mandate to lead the investment • Scope is realistically deliverable in anticipated timeframe and delivery environment (related to commercial key focus area)
Concept: Identifying options	
V6: Has the agency identified a sufficient range of options?	• Ideally 8-12 of the most plausible options, noting the final number should be reflective of the value and scale of the problem being addressed and the potential range of solutions available • Each option presents a complete solution. Individual dimensions, drawn from dimensions of choice analysis, are not considered to be discrete options on their own (but this approach can be used to generate a longlist) • Longlist needs to include consideration of non-built and lower-cost options, alongside those that are more capital intensive • There should not be obvious viable solutions that are not surfaced or that are prematurely excluded • Where options are considered and excluded, this should be documented in the business case with supporting rationale • Note the relationship to the "Commercial approach" questions - Evidence that there are approaches that can be procured that are capable of delivering each shortlisted option
Concept: Shortlisting options	
V7: Has the agency used a robust methodology to filter from a longlist to a shortlist?	• Acceptable methodologies are rapid CBA or MCA using weightings with project cost ideally weighted at 50%, or at least equal to the total value allocated to benefits. This can be done using order of magnitude cost estimates for each longlisted option • Agencies should consider uncertainty of costs and benefits as a weighted criterion for proposals with options where these are highly uncertain • Should result in 3–5 shortlisted options (final number should consider the value and scale of problem being addressed)

Question	What good looks like
Concept: Develop shortlisted options	
V8: Has the agency developed the design and cost estimation for each shortlisted option to an appropriate level of maturity?	• Shortlisted options have sufficiently developed scope and indicative/preliminary design to support reliable cost estimation and comparison • At this stage agencies can use indicative/preliminary cost estimates to compare costs across options • Cost estimates enable testing of affordability at a high level to understand whether options are likely to create material affordability pressures • Contingency should be appropriate to the stage, informed by detailed risk analysis with transparent assumptions, and scaled to the size and complexity of the project
Concept: Assess shortlisted options	
V9: Do the shortlisted options enable a fair comparison of options, and has a robust economic analysis method been used?	• All shortlisted options are developed and assessed on a sufficiently consistent basis and level of detail to enable fair, like-for-like comparison • CBA provides a proportionate comparison of whole-of-life costs and monetary benefits for each shortlisted option • All shortlisted options are assessed using the same approach and consistent assumptions, including: the same time horizon and discount rate, the same treatment of inflation and real values, and the same assumption about what remains at the end of the assessment period • A transparent benefits framework captures material benefits and disbenefits, including relevant environmental, resilience and wider societal impacts • Assumptions made in economic analysis are transparent, evidenced and rationalised, particularly for demand modelling and benefits calculations • Where there are material benefits that cannot be monetised, economic analysis of shortlisted options can be supplemented with analysis of non-monetary benefits • Cost-effectiveness analysis is used only where benefits cannot reasonably be monetised and there is one primary quantifiable outcome/objective • Economic impact analysis is not used as the primary method for assessing value for money; it may provide supplementary context but does not provide a complete comparison of the incremental costs and benefits of options • Evidence of external assurance of economic analysis is provided where appropriate, in particular for high complexity and capital-intensive projects
Concept: Testing for uncertainty	
V10: Has the agency assessed shortlisted options against a sufficient range of uncertainties to determine the impact of these	• Test the assumptions and uncertainties most likely to affect each shortlisted option, including relevant changes to costs, timing, demand, benefits and delivery

Question	What good looks like
on each option's potential for achieving VFM?	• Use sensitivity testing to assess the effect of varying material individual assumptions, such as demand, project timing, operating costs or other key appraisal inputs • Use scenario analysis where several related uncertainties may change together, developing coherent alternative futures that are relevant to the proposal • The scope and depth of testing should be proportionate to the proposal's scale, complexity and level of uncertainty, and should show whether uncertainty could materially affect value for money, affordability, option rankings or the preferred way forward
Concept: Selecting a preferred option	
V11: Do we have confidence there is a preferred way forward, where at least one of the final options will provide value for money?	• Evidence that there is a shortlisted option (or options) that indicates a credible direction of travel, based on indicative economic appraisals and early consideration of benefits, costs, risks and trade-offs • Sound case for change identifying a direction warranting further development and testing, with enough confidence to proceed to more detailed appraisal • Does not commit agency to a preferred option or to delivery

Rating scale

We use a traffic-light system to provide an overall rating for the value for money key focus area. The rating reflects the evaluators' holistic judgement of the evidence against the review questions and the description of what good looks like, using the rating scale below.

Status	Description
Green	The proposal has a clearly defined scope. For projects, a wide range of comparable options has been evaluated including lower cost options with sufficient consideration of cost, and some of the identified solutions have a high likelihood of delivering positive value for money under a proportionate range of scenarios and assumptions. For programmes, alternative programme scopes, packages, sequencing and combinations of projects have been assessed. The proposed programme and its material component projects have a high likelihood of delivering value for money under a proportionate range of scenarios and assumptions.
Amber	The proposal has a defined scope. For projects, a credible range of options has been considered and at least one shortlisted option shows a plausible pathway to value for money. However, gaps or uncertainties remain in the scope, development, comparison or testing of options and require further work at the next stage. For programmes, relevant alternative configurations have been considered, and the proposed programme has a credible pathway to value for money. Some gaps remain in the assessment of programme scope, sequencing, component projects or uncertainty, and require further work at the next stage.
Red	The proposal demonstrates a poor understanding of the scope. For projects, the identified solutions are unlikely to deliver positive value for money, **or** all relevant options have not been adequately considered. For programmes, alternative programme configurations have not been adequately assessed, **and/or** the proposed programme or material component projects are unlikely to deliver value for money, **and/or** the analysis does not demonstrate that the proposed package and sequencing are preferable to credible alternatives.

5. Financial

Are shortlisted options affordable, with credible funding pathways?

Focus of assessment

At Point 2, the financial assessment focuses on understanding whether the shortlisted options are broadly affordable over their life, whether there is a credible funding pathway for further development and implementation, and whether potential funding approaches have been sufficiently considered. At the Indicative Business Case or Programme Business Case stage, final funding approval for delivery is not expected. However, the agency should demonstrate that the likely capital and whole-of-life costs of the shortlisted options have been considered within relevant funding settings.

A strong financial case at this stage means the agency has tested whether the shortlisted options remain broadly affordable under reasonable variation in cost assumptions and has identified whether any options are likely to create material affordability pressures, require significant reprioritisation, or depend on future funding decisions. It should also show that potential funding approaches have been considered for the shortlisted options, taking account of the nature of the infrastructure, who benefits, who may contribute, and whether the proposed funding mechanisms appear credible and capable of further development.

We would also expect plans to be in place to secure funding to progress the project or programme to the next stage, including the Detailed Business Case and any supporting technical investigations.

Reviewer tip

Connection with value for money

Whole-of-life costs inform both financial and value for money assessment**.** Use them here to assess affordability and the impact on relevant budgets and funding parameters. Whether expected benefits justify those costs is assessed under **value for money**. An affordable option does not necessarily represent value for money, and vice versa.

Concepts we are reviewing at this Point

Affordability

About this concept

Affordability is the extent to which the expected cost of the investment is realistic and manageable within the relevant funding context, including capital, operating, maintenance, and renewal costs. Reviewing project affordability is important for determining whether it is likely to be realistic, in terms of both short-term capital costs and longer-term operational expenditure.

At Point 2, affordability is about understanding whether the shortlisted options appear financially realistic enough to justify further development. The assessment should consider the likely capital and whole-of-life costs of each shortlisted option and whether these costs appear manageable within the agency's relevant funding settings, including the effect on capital and operating budgets and other long-term funding obligations where relevant.

Because the proposal is still at the Indicative Business Case or Programme Business Case stage, final cost certainty is not expected. However, the agency should have tested whether the shortlisted options remain affordable under reasonable changes to key cost assumptions, including scope, timing, escalation, contingency, operating costs, and other material cost drivers. This helps identify whether any options are clearly unaffordable before further development effort is committed.

What we are looking for

At Point 2, the proposal should demonstrate that the capital and whole-of-life costs of the shortlisted options are sufficiently developed to support an assessment of their affordability.

The whole-of-life costs of the shortlisted options should be considered against relevant approved or anticipated funding settings. The proposal should show whether each option could reasonably be accommodated within those settings, or whether it is likely to create material affordability pressures, require significant reprioritisation, additional funding, or future funding decisions. The effect of the shortlisted options on the agency's capital and operating budgets should also be understood.

The affordability assessment should account for reasonable variation in cost assumptions. This should include uncertainty testing of shortlisted options, such as sensitivity testing around scope, escalation, contingency, delivery timing, market capacity, operating costs, or other material cost drivers.

Where an option appears difficult to accommodate within existing or anticipated funding settings, the proposal should identify the scale of the affordability challenge and explain how this has informed option assessment and further business case development. Examples of strong and weak practice are shown in Table 12.

Table 12: Testing whether shortlisted options are affordable

Strong practice	Weak practice
An Indicative Business Case for a transport corridor compares three shortlisted options. For each option, the agency estimates capital costs, operating costs, maintenance, renewals, and likely escalation. It tests whether each option remains broadly affordable under reasonable cost variation and identifies that one option would require significant reprioritisation from other sector investments. This affordability assessment is used alongside other criterion to inform the preferred way forward.	An Indicative Business Case for a transport corridor presents three shortlisted options but only includes initial capital costs. It does not consider operating costs, maintenance, renewals, escalation, or whether the options could reasonably be accommodated within the agency's existing or anticipated funding settings.

The strong example considers the full whole-of-life cost of each shortlisted option and tests whether affordability remains credible when key cost assumptions change. It also identifies where an option could create significant funding pressure, allowing affordability to inform which options warrant further development.

The weak example focuses only on initial capital cost and does not consider the ongoing costs or uncertainty that could materially affect affordability. Without understanding these wider financial implications, decision-makers cannot determine whether the shortlisted options are financially realistic enough to progress.

Available funding

About this concept

Available funding is the extent to which funding is available, approved, or on a clear pathway for the next stage of the investment. Funding must be committed to a project to advance from one investment phase to the next. This includes when moving to more advanced stages of business case planning through to project delivery. Sufficient funding or credible plans to secure the funding should be demonstrated prior to moving to the next stage.

What we are looking for

At Point 2, available funding is about whether funding is available, or there is a credible plan to secure it, for the work needed to progress to the next investment phase. This does not require delivery funding to be confirmed, but it should be clear that funding is available, or there is a credible plan to secure funding, for the work needed to develop the Detailed Business Case or equivalent next-stage business case.

This includes funding for the investigations, analysis, engagement, option refinement, cost estimation, commercial and financial analysis, and specialist advice needed to support the next investment decision. Without funding for the next stage, a proposal may not be able to progress even if the strategic case and value for money case are strong. Where funding for the next stage is not yet confirmed, the proposal should identify the funding gap, explain how and when funding is expected to be secured, and describe whether this creates a risk to progressing the project or programme. The proposal should identify the expected source of next-stage funding and the status of any material approvals or decisions required before that funding can be committed or accessed.

Funding approaches

About this concept

Funding approaches are the potential sources and mechanisms through which an investment may be funded, taking account of the nature of the infrastructure, who benefits, who may contribute, and how funding could realistically be secured over time.

At Point 2, the final funding approach for delivery does not need to be confirmed. However, the agency should have considered the potential funding approaches for the shortlisted options sufficiently to understand whether credible pathways are likely to exist and whether material funding issues should influence option development or assessment.

Different shortlisted options may have different funding implications. The assessment should therefore consider whether anticipated funding sources, user or beneficiary contributions, co-funding, or other mechanisms are plausible for each option and identify any material uncertainties that will need to be resolved at the Detailed Business Case stage.

Relevant government guidance and principles, including the Treasury's Funding and Financing Framework where applicable, should inform this assessment.

What we are looking for

At Point 2, the proposal should demonstrate that potential funding approaches have been considered for each shortlisted option.

The assessment should consider the nature of the infrastructure, who benefits, who may be expected to contribute, and whether different funding sources or mechanisms are likely to be practical. Where revenues or contributions from users, beneficiaries, development partners or other parties may be required, the proposal should identify the key assumptions and uncertainties associated with those contributions.

The proposal should identify any material issues that could affect the credibility of a funding approach, such as uncertainty about expected revenues or contributions, timing, affordability for users or beneficiaries, policy or legislative requirements, or dependence on future decisions by other parties.

Detailed implementation arrangements are not expected at Point 2. However, there should be sufficient confidence that at least one credible funding approach could be developed further for options that remain under serious consideration.

Relevant government guidance and principles, including the Treasury's Funding and Financing Framework where applicable, should inform the assessment.

Table 13: Considering credible funding approaches early

Strong practice	Weak practice
An Indicative Business Case for a National Sports Museum considers the potential funding sources and funding approaches for each shortlisted option. It assesses whether user charges, beneficiary contributions, Crown funding, local government funding, private capital, or a mixed funding approach may be appropriate. It explains that direct users and beneficiaries can be identified for some options, but that further work is needed to test charging feasibility, affordability impacts, revenue certainty, and whether private capital could be used efficiently. The assessment identifies the key uncertainties associated with each approach, including charging feasibility, user affordability, expected revenues or contributions, timing and any policy or implementation requirements that will need to be tested further at the Detailed Business Case stage. Relevant government funding guidance has informed the assessment.	An Indicative Business Case for a National Sports Museum assumes that all shortlisted options will be Crown funded but does not explain why other funding sources or approaches are unsuitable. It does not assess alternative funding approaches for the shortlisted options, consider who benefits or who may contribute, test whether user or beneficiary contributions are plausible, or identify whether the assumed funding approach could realistically support further development of the investment.

The strong example considers a range of potential funding approaches for each shortlisted option and tests the factors that could affect whether those approaches are credible. It recognises that final arrangements are not required at Point 2, while identifying the revenue, affordability, timing and implementation issues that will need to be resolved before an investment decision.

The weak example assumes a single funding source without testing whether it is appropriate or realistic for the shortlisted options. It does not consider who benefits, who may contribute, or whether the anticipated funding can credibly support the investment, limiting confidence that viable funding approaches exist for the options being progressed.

Point 2: Financial review questions

Question	What good looks like
Concept: Affordability	
F3: Is the preferred way forward broadly affordable?	The assessment should demonstrate that: • capital and whole-of-life costs have been developed on a sufficiently comparable basis across shortlisted options • whole-of-life costs include significant operating, maintenance, renewal and financing obligations where relevant • the likely costs of each option have been considered against relevant existing or anticipated funding settings • the effect of each option on the agency's capital and operating budgets is understood • the preferred way forward's affordability remains credible under reasonable variation in material cost assumptions
Concept: Available funding	
F2: Is funding in place to progress the project/programme to the next stage?	This should include: • evidence that the activities required to complete the Detailed Business Case, including necessary technical investigations and specialist advice, are funded or there is a credible plan to secure funding • the expected source of next-stage funding and the status of any material approvals or decisions required before it can be accessed • where funding is not yet confirmed, the funding gap and whether this creates a material risk to progression
Concept: Funding approaches	
F4: Have credible potential funding approaches been considered for the shortlisted options?	Potential funding approaches have been considered for the shortlisted options, including: • whether the proposed sources or mechanisms are appropriate for the nature of the infrastructure and who benefits • who may be expected to contribute and whether anticipated revenues or contributions appear plausible • where users or beneficiaries may be expected to contribute, whether affordability and willingness or ability to pay have been considered at a level proportionate to this stage • any material policy, legislative, timing or implementation requirements that could affect the feasibility of the approach • consistency with relevant government guidance and principles, including the Treasury's Funding and Financing Framework where applicable • evidence that credible approaches can be developed further for the options being progressed

Rating scale

We use a traffic-light system to provide an overall rating for the financial key focus area. The rating reflects the evaluators' holistic judgement of the evidence against the review questions and the description of what good looks like, using the rating scale below.

Status	Description
Green	There is high confidence that affordability has been considered in options analysis, there is confidence that the preferred way forward is financially realistic within relevant funding settings, **and** funding is in place to progress the project or programme to the next stage or plans are in place to secure this, **and** credible potential funding approaches have been identified for the options being progressed.
Amber	Affordability has been considered across the shortlisted options, but some cost or funding assumptions require further development. Funding for the next stage is available or supported by a credible plan to secure it, and potential funding approaches have been identified but material aspects require further investigation before the investment decision.
Red	Affordability has not been meaningfully assessed across the shortlisted options, **or** there is insufficient confidence that any credible shortlisted option is financially realistic within relevant funding settings, **or** there is no credible pathway to fund the next stage, **or** no credible potential funding approach has been identified for the options being progressed.

6. Commercial

Are viable commercial and procurement pathways understood?

Focus of assessment

At Point 2, we are looking for evidence that the agency has identified viable commercial approaches for each shortlisted option. These approaches should be developed to a level that is proportionate to the project stage. The agency should understand the strengths, trade-offs and risk allocation implications of each approach. It should also identify the capabilities, expertise and resources likely to be required to procure and deliver the shortlisted options. The agency should demonstrate a sound understanding of the complexity, commercial risks and implementation challenges that may need to be addressed as the commercial approach and procurement strategy are developed. It should provide evidence that suppliers with the required capability, capacity and interest are likely to exist. Early market engagement or other appropriate market evidence should support this view, and any indicative procurement timeframe should be credible for the current level of project development.

Reviewer tips

Connection with value for money

Commercial feasibility may differ between shortlisted options. Assess here whether credible commercial and procurement pathways exist. Whether the shortlisted options themselves are appropriately scoped and proportionate is assessed under **value for money – scope.**

Connection with deliverability

Commercial arrangements can affect how risks are allocated between the agency, suppliers and other parties. Assess here whether the potential commercial allocation of risk is understood and appears appropriate and realistic for the shortlisted options. Whether material risks are identified, assessed and managed across the wider investment is assessed under **deliverability – risk management.**

Market capability, capacity and interest are assessed here as commercial matters. Where those market conditions create material implications for programme, interfaces, dependencies or delivery risk, assess whether those implications are recognised and being managed under **deliverability**.

The proposed commercial pathway may create specific governance, decision-making and capability requirements. Assess here whether the commercial and procurement approach itself is credible. Whether the agency has the governance and capability needed to implement that approach is assessed under **governance and capability.**

Relevant guidance and resources

Core New Zealand guidance:

New Zealand Government Procurement, *Government Procurement Rules*, 5th edition; New Zealand Government Procurement, *Plan your procurement*, within the Guide to procurement; New Zealand Government Procurement, *Construction Procurement Guidelines*, where relevant.

These resources provide further guidance on understanding the market, defining requirements, planning the procurement approach and considering how procurement decisions may affect value for money and deliverability. NZ Government Procurement's planning guidance specifically covers sourcing, market analysis, risks, evaluation methodology and contractual arrangements.

Concepts we are reviewing at this Point

Commercial approach

About this concept

Commercial approach is the strategy for how an investment will be taken to market, contracted and commercially managed. This step determines the commercial model that can most effectively and efficiently deliver the investment outcome. This precedes detailed procurement planning as it sets the strategy/parameters for procurement processes to take place. At Point 2, the focus is on understanding the relative merits of different approaches.

Choosing an approach ultimately enables an agency to determine delivery and contract models, risk allocation across agencies and suppliers, client-side capability, whole-of-life operating models, and affordability/pricing strategies. This step is critical for the effective and efficient delivery of an investment.

What we are looking for

We are looking for evidence that the agency has identified viable commercial approaches for each shortlisted option. These approaches should be developed to a level that is proportionate to the project stage. At this point, agencies do not need to provide detailed analysis; however, they should demonstrate an understanding of the strengths, trade-offs and risk allocation implications of each approach.

At this point, agencies should identify the capabilities, expertise and resources likely to be required to implement these approaches. Whether the agency has, or can credibly secure, the required capability is assessed under governance and capability. In identifying viable commercial approaches, the agency should give confidence that there is a credible pathway for procuring and delivering the shortlisted options, considering the expected procurement complexity, commercial risks and implementation challenges.

Table 14: Examples of strong and weak commercial approaches at Point 2

Strong example	Weak example
Jackson's Bay District Council is planning an upgrade to an ageing wastewater treatment plant that is approaching capacity and has recurring consent compliance issues. The Council identifies several viable commercial approaches for the shortlisted options, including traditional design-bid-build, design and construct, and an alliance-style model for the more complex option involving treatment plant upgrades, wetland polishing and network improvements. It explains the strengths and trade-offs of each approach, including how risks relating to design, consenting, ground conditions, commissioning and operational performance could be allocated for each option. It also identifies the internal capability needed to manage technical advisers, procurement, contract management and transition to operations. The business case provides a credible procurement pathway as it has presented realistic timeframes for: consenting, design development, market engagement, tendering, construction and commissioning.	Jackson's Bay District Council proposes a wastewater treatment plant upgrade, and is intending to use a traditional construct only contract for delivering solutions as its staff has strong experience with this model, and it has delivered good results for past investments. The council prefers allocating key risks to suppliers in order to maintain cost certainty, including consent conditions, ground conditions, and existing asset conditions. The council plans to manage procurement and delivery using existing staff. The Council intends to work at pace to deliver the upgraded plant before their resource consent is due to expire in three years' time.

In the strong example, the Council has identified multiple commercial approaches for delivering shortlisted options, and compared the relative merits of each. This is important as it is unlikely a single approach can deliver all options in effective and cost-efficient ways. The Council is also signalling they are considering a range of approaches to risk allocations between their organisation and the supplier. This will ensure risks are allocated to the party that are best placed to manage them, which in turn is more likely to reduce overall project cost to the Council. There is evidence of credible pathways for delivery as project planning suggests:

- required expertise for procuring options has been identified
- timelines for consenting, design, procurement and delivery are realistic.

In the weak example, the Council has committed to a construct-only model without demonstrating that it has considered whether that approach is appropriate for the shortlisted options, their design maturity and risk profile. It also proposes transferring significant risks to suppliers without demonstrating that those risks are sufficiently understood or within supplier control. In addition, there is limited evidence that the Council has assessed the specialist commercial, technical and contract-management capability likely to be required. As a result, there is insufficient confidence that the proposed commercial pathway is appropriate and credible at this stage.

Market conditions

About this concept

Market conditions are key factors enabling suppliers to deliver infrastructure solutions to agencies. These typically relate to suppliers' capability, capacity and interest to deliver. Successful delivery of an investment will require a market of suppliers with capability, capacity and interest to deliver a project. This is a particular challenge for New Zealand given its relatively small market size and isolation from other markets, in particular for projects that are novel, highly complex or large scale in nature. Early consideration of market conditions can help identify gaps in the market while there are still opportunities to take action to mitigate these issues (or not if the constraints are too difficult or costly to overcome). At Point 2, the focus is on gathering insights from market engagement to understand suppliers' expected capability and capacity to deliver.

What we are looking for

At Point 2 the agency should show that it understands the supplier market for the proposal. This includes the capabilities, expertise and capacity needed to deliver the project. The agency should provide evidence from proportionate early market engagement, market analysis or other credible market intelligence that suitable suppliers are likely to exist. Where market soundings have been undertaken, these should indicate whether suppliers have the capability, capacity and interest to participate. This should give confidence that there is a credible market pathway for procurement and delivery.

Table 15: Examples of strong and weak assessment of market conditions at Point 2

Strong	Weak
The South Haven National Roading Authority is exploring ways of connecting two cities separated by a deep-water channel: Muttonborough and Possum Creek. Their options analysis includes a pontoon / floating bridge as the crossing faces site constraints of unstable ground conditions and a large distance over water. This type of bridge has unique technical requirements and has never been built in South Haven. The Authority has undertaken early market soundings with domestic and global suppliers (due to the novel requirements). These soundings show that no domestic supplier has the capability to design and deliver this type of solution. However, two overseas suppliers have expressed interest in partnering with domestic suppliers, with three domestic suppliers also expressing interest and capacity for such an arrangement. The Authority intends to approach other suitable global bridge builders with an aim of having a greater pool of suppliers to choose from.	The South Haven National Roading Authority is exploring ways of connecting two cities separated by a deep-water channel: Muttonborough and Possum Creek. Their options analysis includes a pontoon / floating bridge as the crossing faces site constraints of unstable ground conditions and a large distance over water. This type of bridge has unique technical requirements and has never been built in South Haven. The Authority intends to assess suppliers' capacity and interest (domestic and international) at the DBC stage as this is their standard practice.

In the strong example above, the Authority has undertaken formal market soundings to understand market interest and capacity with domestic and global bridge builders. While market sounding has identified two global suppliers with the capability to deliver this type of solution, the agency is seeking a wider pool of bidders to increase competitive tension in the tender process. This has prompted the agency to cast a wider net for suitable suppliers. Market sounding at Point 2 also enables early identification of barriers to accessing suitable suppliers, reducing the likelihood that these barriers disrupt the project at later Points.

In the weak example, while the Authority is aware of the novel requirements of the solutions being considered, it proposes waiting until the DBC stage to engage with suppliers. This may leave insufficient time to understand and respond to material market constraints before the investment decision and subsequent procurement planning, creating avoidable programme and cost risk if supplier interest, capacity or capability is limited.



Using the National Infrastructure Pipeline

The National Infrastructure Pipeline gives agencies a forward view of planned infrastructure activity by sector, region, and funding status, showing where competing investments may constrain market capacity, and where investment timing can be coordinated with other providers and the construction market.

Procurement

About this concept

The procurement process involves planning, sourcing, evaluating, contracting and managing suppliers to deliver the required assets. Procurement planning gives effect to a clearly defined commercial approach by translating it into a practical market process for procuring all components of an infrastructure investment. Delivering an investment on time and within budget requires effective planning and implementation across key procurement tasks, including the procurement method, market approach, project timetable, tender documentation, evaluation strategy, governance and probity arrangements, contract negotiation, and robust contract management. At Point 2, the focus is on understanding the complexity of the proposal and the level of planning and effort required to procure the proposed solutions.

What we are looking for

At Point 2, the agency should show that it understands the procurement process needed to deliver the project, including the key technical and process requirements for procurement. The agency should identify any procurement complexities that may affect timing, resources or delivery confidence and provide a credible high-level procurement pathway and indicative timeframe appropriate to this stage. Key procurement decision points, accountabilities and anticipated approvals should be identified sufficiently to demonstrate that the pathway is practicable. Detailed procurement governance and procurement planning are not expected at this point.

At Point 2, this includes demonstrating an understanding of potential solutions:

- scope and output – works, services and assets that are in and out of scope
- potential design maturity – to inform possible commercial approaches
- requirements for consenting and approvals – key approvals or statutory matters that may materially influence the procurement approach
- procurement complexity – including specialist supplier requirements, significant interfaces and other matters likely to influence the procurement approach, timing or level of procurement effort
- key procurement decision points, accountabilities and anticipated approval pathway.

This Point does not require detailed procurement planning. Rather, planning at this stage is intended to identify the principal procurement challenges, dependencies and decisions that will need to be addressed as the investment progresses. This provides confidence that there is a credible pathway to procurement without prematurely testing procurement readiness, which is addressed at later Points.

Point 2: Commercial review questions

Question	What good looks like
Concept: Commercial approach	
C2: Has the agency identified potentially viable commercial approaches, and are these sufficiently developed for this project stage?	• Potentially viable commercial approaches have been identified for each shortlisted option, providing confidence that there is a credible pathway to procurement and delivery • The strengths and trade-offs of the potential commercial approaches are understood, including the implications of different approaches to risk allocation • The capabilities, expertise and resources likely to be required to implement the potential commercial approaches are understood, including any material gaps requiring further development • Key commercial, procurement and implementation complexities associated with the shortlisted options are understood at a level proportionate to this stage
Concept: Market conditions	
C3: Does the agency have an appropriate understanding of the supplier market and likely market interest in the proposal?	• The supplier capability, capacity and expertise likely to be required to deliver the shortlisted options are understood • Relevant market conditions and constraints have been assessed, including material capacity, supply-chain, labour, competition or specialist capability issues, with potential responses identified where required • Proportionate market evidence provides reasonable confidence that suppliers with the necessary capability, capacity and interest are likely to be available
Concept: Procurement	
C4: Has the agency identified a credible high-level procurement pathway appropriate to this stage of the investment?	• A credible high-level procurement pathway has been identified that is appropriate to the scale, complexity, risk and maturity of the shortlisted options • The indicative procurement programme is realistic for this stage and reflects the principal activities, dependencies and likely decision points • Key procurement accountabilities, decision points and anticipated approval pathways have been identified • Material procurement complexities, risks and dependencies have been identified and are informing the further development of the procurement approach

Rating scale

We use a traffic-light system to provide an overall rating for the commercial key focus area. The rating reflects the evaluators' holistic judgement of the evidence against the review questions and the description of what good looks like, using the rating scale below.

Status	Description
Green	The proposal demonstrates a credible commercial approach that is appropriate to the stage of project development. There is confidence that suitable market capability is likely to exist and that a credible high-level procurement pathway has been identified, including an indicative programme and key decision and approval requirements appropriate to the next stage of the investment.
Amber	The proposal demonstrates a generally credible commercial approach that is appropriate to the stage of project development. There is reasonable confidence that suitable market capability exists and that an appropriate procurement approach has been identified; however, further development of the commercial or procurement pathway, market understanding, indicative programme or key procurement risks and dependencies is required before progressing.
Red	The proposal does not demonstrate a credible commercial pathway appropriate to this stage of project development. There are material weaknesses or uncertainties in the proposed commercial approach, market capability or procurement pathway that call into question whether one or more shortlisted options can be successfully procured and delivered. These issues require substantive resolution before the investment progresses.

7. Governance and capability

Are governance, leadership and capability sufficient for the next stage?

Focus of assessment

At Point 2, consideration is given to whether the organisation has sufficient governance, leadership, capability, planning and assurance arrangements, or credible plans to establish them, to successfully progress the preferred way forward through Detailed Business Case development. It focuses on whether governance arrangements are proportionate to the scale, complexity and current stage of the investment, organisational capability is sufficient for the work ahead or can credibly be secured, project planning is realistic, and assurance arrangements support effective oversight and future decision-making.

Reviewer tips

Reviewers should have confidence that the organisation has, or has a credible plan to secure, the governance, capability, planning, and assurance necessary to successfully complete the next stage of business case development.

Connection with commercial

Governance and capability requirements should reflect the proposed commercial and procurement pathway. Assess here whether the agency has appropriate authority, governance, capability and resources to progress that pathway. Whether the commercial approach itself is appropriate is assessed under **commercial.**

Delivery dependencies, risks and organisational change may create governance, capability and resourcing requirements. Assess here whether the organisation has, or has credible plans to establish, the governance, leadership, capability and resources needed to manage those requirements. Whether the underlying delivery dependencies, risks, stakeholder issues and organisational or operational impacts are sufficiently understood and manageable is assessed under **deliverability.**

Concepts we are reviewing at this Point

Organisational track record and ability to deliver

About this concept

An organisation's ability to successfully develop and deliver an investment is a critical determinant of project success. Even where there is a strong strategic case, investments can encounter delays, poor decision-making, procurement challenges, or delivery risks if the organisation lacks the capability, capacity, leadership, or experience required. Early assessment of organisational capability and delivery track record provides confidence that the organisation is appropriately positioned to successfully progress the investment through the next stage of business case development and subsequent decision points.

What we are looking for

The proposal should demonstrate that the organisation has relevant experience developing and delivering investments of a similar scale, complexity, or risk profile. Where previous experience is limited, there should be credible evidence that the required capability and delivery arrangements are being established through recruitment, partnerships, external advisers, or other appropriate means.

The organisation should have access to the leadership, governance and specialist expertise required to progress the preferred way forward through the next stage of business case development. Relevant previous development and delivery experience, including lessons learnt, should inform the proposed approach to governance, planning, resourcing and management of delivery risks. The evidence should provide confidence that the organisation is appropriately positioned to continue developing the investment.

Team capacity and capability

About this concept

Successful delivery of an investment depends on having the right people, with the right skills, available at the right time. At Point 2, the focus is on whether the project team has the capability and capacity required to successfully progress the next stage of business case development, including access to specialist expertise appropriate to the scale and complexity of the investment. Early identification of capability and resource gaps allows these to be addressed before they impact programme, quality, cost, or decision-making.

What we are looking for

The proposal should demonstrate that appropriate leadership and governance arrangements are in place for the next stage and that the project team has sufficient capability and capacity to complete the required work. The skills and resources needed to undertake technical investigations, commercial and financial analysis, planning, environmental assessment, legal work, stakeholder engagement, and business case development should be identified.

Required specialist expertise should be available through internal resources, partnerships, or external advisers when needed. Roles, responsibilities, reporting lines, and accountabilities should be clearly defined, with responsibility for project leadership and day-to-day management appropriately assigned. The resourcing approach should be proportionate to the scale, complexity, and risk of the investment and should account for capability gaps, competing organisational commitments, and the timing of key activities.

Project planning maturity

About this concept

Mature project planning provides confidence that the work required to progress the investment has been properly considered. At Point 2, this includes planning for progression to the next stage of business case development rather than implementation of the project itself.



Warning

Research into Australian megaprojects found that although only one-third of funded projects commenced without a completed business case, these projects accounted for almost 80% of total cost overruns. This highlights the importance of completing robust planning before committing to implementation.[1]

[1] Terrill, M., O Emslie, and G Moran. The Rise of Megaprojects: Counting the Costs. Grattan Institute Report No 2020-15. 2020. Accessed September 20, 2021. https://grattan.edu.au/wp-content/uploads/2020/11/The-Rise-of-Megaprojects-Grattan-Report.pdf

What we are looking for

The proposal should include a realistic and proportionate programme for completing the next stage of business case development. The programme should identify the principal activities, investigations, approvals, future procurement work, technical assessments, stakeholder engagement, decision points, dependencies, and statutory timeframes required to support the next investment decision.

The scope of the next stage should be clearly defined, including the required level of design development, technical investigation, cost estimation, and analysis. Appropriate resources, capability, funding, governance, and project-management arrangements should be identified. Key assumptions, risks, dependencies, constraints, and critical decision points should be actively managed, supported by project controls proportionate to the current stage. The programme should be realistic and achievable and provide confidence that the next stage can be completed to the standard required for an informed investment decision.

Project assurance

About this concept

Project assurance provides independent challenge, verification, and confidence that investments are progressing appropriately through the lifecycle. At Point 2, the focus is on whether assurance arrangements are proportionate to the scale, complexity, and risk of the investment, and whether they provide decision-makers with confidence that the investment is ready to progress to the next stage. Effective assurance improves the quality of project information, identifies emerging risks and issues, supports better investment decisions, and reduces the likelihood of avoidable delivery failures, cost escalation, and unrealised benefits.

What we are looking for

The proposal should demonstrate that assurance arrangements are proportionate to the scale, complexity, and risk of the investment and provide suitable independent challenge and verification. Assurance may include internal quality assurance, peer review, specialist technical or commercial review, governance oversight, or other independent review activities appropriate to the investment.

Findings and recommendations from assurance activities should inform governance, project planning, option development, and investment decision-making. Actions arising from reviews should be clearly assigned, monitored, and addressed. Future assurance requirements should also be identified and aligned with significant activities, decisions, and risks during subsequent stages of the investment lifecycle. The evidence should provide confidence that appropriate oversight and challenge will support completion of the next stage.

Appropriateness of governance arrangements

About this concept

Effective governance provides the leadership, accountability, oversight, and decision-making necessary to successfully deliver investments and realise intended benefits. At Point 2, the focus is on whether governance arrangements are proportionate to the scale, complexity, and risk of the investment, and whether they support timely decision-making, clear accountability, effective oversight, and successful progression to the next stage. Poor governance can contribute to delays, cost escalation, ineffective risk management, unclear responsibilities, and failure to achieve intended outcomes.

What we are looking for

Governance arrangements should be clearly defined and proportionate to the scale, complexity, risk, and stage of the investment. An appropriately authorised Senior Responsible Owner, or equivalent, should have overall accountability, with responsibility for day-to-day project management clearly assigned.

Governance roles, responsibilities, delegations, authorities, reporting lines, and decision-making arrangements should be understood and operating as intended. Governance forums should include appropriate expertise, representation, and delegated authority and should support timely decisions, effective oversight, and escalation and resolution of significant issues.

Where multiple organisations are involved, governance arrangements should clearly define shared responsibilities, contributions, and decision-making processes. Governance should receive appropriate reporting on project scope, programme, cost, risk, dependencies, and key investment decisions, providing confidence that the preferred way forward can be effectively overseen through the next stage of business case development.

Table 16: Confirming the organisation has the governance and capability to progress to detailed business case development

Strong example	Weak example
The Whenuamaroke Health Precinct Redevelopment is being led by an organisation with experience delivering investments of a similar scale and complexity and is supported by governance arrangements that have evolved to reflect the increasing maturity of the investment. A Senior Responsible Owner and Project Manager have been appointed, governance responsibilities are clearly defined, and decision-making arrangements are operating as intended. The project team includes the engineering, planning, commercial, environmental, financial and stakeholder engagement expertise required to complete the Detailed Business Case. Where specialist capability is provided externally, appropriate arrangements are in place to secure those resources when required. A realistic programme has been developed for the next stage, identifying the key investigations, technical assessments, approvals, design development, assurance activities and decision points needed to support the next investment decision**.** Independent assurance has informed refinement of the proposal, with recommendations incorporated into project planning and governance reporting. Overall, the organisation has the governance, capability, planning and assurance necessary to successfully complete the Detailed Business Case and support the next investment decision.	The Whenuamaroke Health Precinct Redevelopment has identified a preferred option, but the arrangements for completing the Detailed Business Case remain underdeveloped. Governance responsibilities are unclear, leadership roles have not been fully established, and decision-making responsibilities are inconsistently documented. The proposal identifies several specialist capability gaps, including commercial, planning and environmental expertise, but provides little evidence that these resources will be available when required. The programme for the next stage is high level, with limited detail on investigations, approvals, assurance activities or critical decision points. Assurance reviews have either not been undertaken or have not been used to improve the proposal. The evidence does not provide sufficient confidence that the organisation currently has, or has credible plans to secure, the governance, capability, planning and assurance arrangements needed to successfully complete the Detailed Business Case.

At Point 2, governance and organisational capability should be sufficiently established to provide confidence in successful completion of the Detailed Business Case. Reviewers expect clear leadership, proportionate governance arrangements, an appropriately resourced project team, a realistic programme for the next stage and evidence that assurance is actively informing governance and project planning. While some capability and arrangements may continue to develop, there should be a credible pathway for securing what is required. Where material gaps remain without a credible plan to address them, there is insufficient confidence that the organisation is ready to progress through Detailed Business Case development.

Point 2: Governance and capability review questions

Question	What good looks like
Concept: Organisational track record and ability to deliver	
G7: Does the organisation have an appropriate track record and capability to successfully develop and deliver an investment of this size and complexity?	• The organisation demonstrates relevant experience developing or delivering investments of comparable scale, complexity or risk, or has identified how gaps in organisational experience will be addressed • Relevant lessons from previous investment development and delivery have informed the proposed approach to progressing this investment
Concept: Team capacity and capability	
G8: Is the agency building the appropriate capability and capacity to deliver the next stage of business case development?	• The leadership, skills and specialist expertise required for the next stage have been identified • The project has sufficient internal and/or external capability and capacity available, or credible arrangements to secure it when required • Project-team roles, responsibilities and accountabilities are sufficiently clear for the next stage • Current organisational commitments and known capability or capacity constraints have been considered where they could materially affect the organisation's ability to progress the investment through the next stage • The resourcing approach is realistic and proportionate to the scale, complexity, risk, programme and competing organisational demands
Concept: Project planning maturity	
G9: Does the project have a credible and sufficiently mature plan to successfully complete the next stage of business case development?	• A realistic and proportionate programme has been developed for completing the next stage, including key activities, investigations, approvals, future procurement work, stakeholder engagement and decision points • The scope and expected maturity of the work required for the next investment decision are sufficiently defined, including relevant design development, technical investigation, cost estimation and analysis • The resources, funding and project-management arrangements required to undertake the work have been identified and aligned with the programme • Material assumptions, risks, dependencies, constraints and critical decision points are reflected in the programme and supported by project controls proportionate to this stage
Concept: Project assurance	
G10: Are the assurance arrangements proportionate to the scale, complexity, and risk of the investment, and do they provide confidence that the investment is ready to progress to the next stage?	• Assurance undertaken is proportionate to the scale, complexity and risk of the investment and includes appropriate independent challenge • Material assurance findings and recommendations are being addressed, with actions appropriately assigned and monitored • Assurance is informing governance, project planning and investment decision-making, and future assurance requirements have been identified for the next stage
Concept: Appropriateness of governance arrangements	

Question	What good looks like
G11: Are governance arrangements clearly defined, proportionate and operating effectively to support progression through the next stage?	• An appropriately authorised and sufficiently engaged SRO (or equivalent) has overall accountability for the investment, with responsibility for day-to-day project management clearly assigned • Governance roles, responsibilities, accountabilities, delegations and decision-making authorities are clearly defined • Governance arrangements are proportionate to the scale, complexity, risk and current stage of the investment • Governance forums include appropriate expertise, representation and authority to provide effective oversight and support timely decision-making • Where multiple organisations are involved, shared governance responsibilities, contributions and decision-making arrangements are clearly defined • Reporting and escalation arrangements support timely decision-making and resolution of material issues • There is evidence that governance arrangements are operating as intended and receiving appropriate information on project scope, programme, cost, risk, dependencies and key decisions

Rating scale

We use a traffic-light system to provide an overall rating for the governance and capability key focus area. The rating reflects the evaluators' holistic judgement of the evidence against the review questions and the description of what good looks like, using the rating scale below.

Status	Description
Green	The proposal demonstrates that governance, organisational capability, project planning and assurance arrangements are sufficiently established and appropriate for this stage. Any remaining capability or resourcing requirements have credible plans for resolution. There is confidence that the organisation is appropriately positioned to successfully complete the next stage of business case development.
Amber	The proposal demonstrates that governance, organisational capability, project planning and assurance arrangements are generally appropriate for this stage. Some gaps or uncertainties remain, but there are credible arrangements to address them and they do not materially undermine confidence in progression, provided they are resolved during the next stage.
Red	The proposal does not demonstrate sufficiently established governance, organisational capability, project planning or assurance arrangements to support successful progression through the next stage. Material gaps in leadership, decision-making, capability, resourcing, planning or assurance remain unresolved, without a sufficiently credible pathway for addressing them. These deficiencies require substantive resolution before there can be confidence in progression through Detailed Business Case development.

8. Deliverability

Are key risks, approvals, interfaces and operational needs understood?

Focus of assessment

At Point 2, consideration is given to whether the preferred way forward is sufficiently enabled from a delivery perspective to support progression to detailed business case development. It focuses on whether key interdependencies, strategic risks, stakeholder interests, organisational impacts and future operational requirements have been identified, sufficiently investigated and are actively informing development of the preferred way forward and planning for the next stage.

Reviewer tips

Reviewers should have confidence that there are no known significant delivery barriers that would prevent progression of the preferred way forward, and that appropriate arrangements are in place to further develop delivery, implementation and transition planning during the next stage of business case development.

Connection with value for money

Dependencies and interfaces may arise from how shortlisted options are scoped. Assess here whether those dependencies and interfaces are sufficiently understood and manageable. Whether the investment boundary and shortlisted options are appropriately scoped is assessed under **value for money – scope.**

Connection with commercial

Some project risks may ultimately be allocated between the agency, suppliers and other parties through the commercial approach. Assess here whether the overall project risk profile is understood and whether material risks are being appropriately managed. The potential commercial allocation of those risks between parties is assessed under **commercial**.

Market capability, capacity and other constraints may have implications for programme, interfaces, dependencies and delivery risk. Assess here whether those implications are recognised and are informing development of the delivery approach. The underlying assessment of market capability, capacity, interest and supplier conditions is assessed under **commercial – market conditions**.

Delivery dependencies, risks and organisational change may create governance, capability and resourcing requirements. Assess here whether those delivery requirements have been identified and are being appropriately managed. Whether the agency has the governance, decision-making arrangements, capability and resources required to progress the investment is assessed under **governance and capability.**

Concepts we are reviewing at this Point

Interdependencies and interfaces

About this concept

Many investments rely on activities, approvals, infrastructure, services, organisations, or decisions outside the direct control of the project team. Poor understanding of these dependencies and interfaces is a common cause of delivery delays, cost escalation, procurement challenges, operational disruption, and unrealised benefits. Early identification and active management of these dependencies and interfaces improves delivery confidence, planning accuracy, accountability, and successful integration with wider programmes, infrastructure, organisations, and services.

What we are looking for

The proposal should demonstrate that the project's critical internal and external dependencies, interfaces, and enabling activities have been identified and assessed at a level appropriate to this stage of development. This should include consideration of how those dependencies could affect planning, approvals, future procurement, programme, and delivery of the preferred way forward.

Dependencies that may materially affect future benefits realisation should also be identified at a level appropriate to this stage, including external enablers, partner actions, service changes or related investments outside the project scope.

Key statutory approvals, land and property requirements, utility interfaces, third-party contributions, and other enabling activities should be recognised. The associated risks and opportunities should be understood and actively managed, with credible governance, coordination, and stakeholder arrangements in place. Where delivery depends on other organisations, roles, responsibilities, decision-making arrangements, timing, and expected contributions should be sufficiently clear to provide confidence that the dependencies can be managed as the investment progresses.

Risk management

About this concept

Effective risk management provides confidence that the key uncertainties affecting the investment have been identified, assessed, and are being actively managed. At Point 2, the focus is on whether the risks affecting successful progression of the investment have been considered and reflected in project planning, governance, procurement, and decision-making. Early identification and active management of risks supports more realistic planning and improves investment decisions.

What we are looking for

The proposal should demonstrate that the key strategic, delivery, commercial, financial, statutory, environmental, and operational risks affecting the investment have been identified and assessed. This should include risks common to the investment as a whole and risks specific to the shortlisted options, with differences in risk profile informing option assessment and selection.

Appropriate mitigation strategies, ownership, governance, monitoring, and review arrangements should be established for significant risks. Risk information should inform project planning, programme development, future procurement planning, governance, cost estimation, and investment decision-making. The implications of key risks for future costs, programme, feasibility, and delivery should be recognised, and the overall approach should be proportionate to the scale, complexity, and risk profile of the investment.

Stakeholder engagement

About this concept

Successful delivery depends on understanding and appropriately engaging the individuals, groups, communities, organisations and users who influence or are affected by an investment. At Point 2, the focus is on whether stakeholders have been identified, their interests and concerns understood, and whether engagement has been proportionate to the stage of project development. Effective stakeholder engagement improves decision-making, helps identify risks and opportunities, builds understanding and trust, and supports successful implementation.

What we are looking for

The proposal should demonstrate that key stakeholders, mana whenua, affected parties, users, communities, delivery partners, and other relevant organisations have been identified and that their interests, concerns, influence, and potential contribution are understood. Engagement should be proportionate to the stage, scale, complexity, risk, and likely impacts of the investment.

In most cases, stakeholder feedback should have informed project planning, option development, and decision-making. Engagement activities should be planned, coordinated, and appropriately resourced, with suitable approaches in place for different stakeholder groups. Significant stakeholder issues, risks, opportunities, and commitments should be identified and actively managed, providing confidence that stakeholder relationships can continue to support development of the preferred way forward.

Change management

About this concept

Successful investments require more than the delivery of physical assets or services, they also require organisations to be ready to operate, support, and realise the intended benefits. At Point 2, the focus is on whether the organisational impacts of the investment have been recognised, including operational ownership, workforce capability, benefits ownership, and transition requirements. Early consideration of these matters improves organisational readiness, supports service continuity, and increases confidence that the intended benefits can be successfully realised.

What we are looking for

The proposal should demonstrate that the needs of the future asset owner, service owner, operator, and end users have been considered in developing and assessing the preferred way forward. Organisational, operational, workforce, service-delivery, and wider system impacts should be identified at a level appropriate to this stage.

Future ownership, operating requirements, maintenance responsibilities, and service implications should be considered alongside the physical or technical solution. Benefits owners and accountability arrangements should be identified, and the business units responsible for implementing, operating, and supporting the investment should be engaged. While detailed transition planning is not yet expected, the principal organisational change and operational-readiness requirements should be recognised and included in the work planned for the next stage of business case development.

Table 17: Confirming the preferred way forward is enabled to progress to detailed business case development

Strong example	Weak example
The Possum Creek Housing Regeneration Project has identified a preferred way forward following a structured assessment of the shortlisted options. The proposal demonstrates that the principal delivery dependencies have been investigated and are informing development of the preferred way forward. Key statutory approvals, land acquisition requirements, utility relocations, and interfaces with local authorities, mana whenua, and infrastructure owners have been assessed. The proposal identifies the actions required to address these dependencies during the Detailed Business Case and demonstrates that delivery partners understand their respective roles, responsibilities and expected contributions. Strategic, environmental, commercial and delivery risks have been identified, assessed and are informing project planning, programme assumptions and option selection. Stakeholder feedback has influenced refinement of the preferred way forward, and the future asset owner has helped assess operational, maintenance and service delivery requirements to ensure the preferred direction can be successfully implemented and operated. Overall, the preferred option has a credible and achievable pathway to Detailed Business Case development.	The Possum Creek Housing Regeneration Project has selected a preferred option, but provides little evidence that it has been tested from a delivery perspective. Although the proposal acknowledges that statutory approvals, land requirements and utility interfaces may be required, these issues have not been adequately assessed and there is little evidence that delivery partners have been involved in developing the preferred direction. Stakeholder engagement has been limited and there is little evidence that stakeholder feedback has influenced option development or project planning. Key strategic and delivery risks have been identified only at a high level, with little consideration of how they affect programme, cost, feasibility or future delivery. The future asset owner has had minimal input into assessing operational or maintenance implications. As a result, the evidence does not provide sufficient confidence that the preferred option is ready to progress to Detailed Business Case development.

At this stage, a strong case involves more than recognition of delivery issues. The proposal should demonstrate that key dependencies, risks and stakeholder issues have been investigated and are actively informing the preferred way forward. While detailed implementation planning is still to come, there should be confidence that the principal delivery challenges are understood, appropriate governance, coordination and management arrangements are in place, and there are no known significant barriers that would prevent progression to the Detailed Business Case.

A common weakness at this stage is selecting a preferred option before adequately testing whether it can be successfully delivered. It is expected that evidence that delivery dependencies, stakeholder issues, operational considerations and key risks have been investigated and have informed development of the preferred way forward. Without this, there is insufficient confidence that the preferred way forward is mature enough to justify further investment in detailed business case development.

Point 2: Deliverability review questions

Question	What good looks like
Concept: Interdependencies and interfaces	
D7: Have the project's critical interdependencies and interfaces been identified, and are there credible arrangements for managing them?	• Critical internal and external dependencies, interfaces and enabling activities have been identified and assessed at a level appropriate to this stage • Dependencies material to future benefits realisation, including external enablers outside the project scope, have been identified at a level appropriate to this stage • Their implications for planning, approvals, programme, future procurement and delivery have been assessed, including associated risks and opportunities • There is reasonable confidence that the critical dependencies and interfaces can be managed as the investment progresses, with actions identified where further work is required
D8: Are dependencies on other organisations or delivery partners clearly understood, with a common understanding of respective roles and responsibilities?	• Key delivery partners are sufficiently aligned on the investment objectives, scope, intended outcomes and delivery expectations • Their respective roles, responsibilities, expected contributions and key interfaces are sufficiently clear for this stage • Appropriate coordination and decision-making arrangements are in place, or there is a credible pathway for establishing them as the investment progresses
Concept: Risk management	
D9: Have the key risks affecting successful progression of the investment been identified, assessed, and are they being actively managed?	• The key strategic, delivery, commercial, financial, statutory, environmental, geotechnical and operational risks have been identified and assessed at a level proportionate to this stage • Material differences in the risk profiles of the shortlisted options have been identified and have informed option assessment and selection • Appropriate mitigation actions and ownership have been identified for significant risks • Material risks are informing project planning, programme development, future procurement, cost estimation and investment decision-making • Risk management arrangements are proportionate to the scale, complexity and risk profile of the investment and provide a credible basis for further development at the next stage
Concept: Stakeholder engagement	
D10: Has the agency demonstrated stakeholder engagement that is proportionate to the stage of project development?	• Key stakeholders and delivery partners have been identified, and their interests, concerns, influence and potential contribution are understood • Engagement undertaken to date is proportionate to the stage, scale, complexity, risk and likely impacts of the investment • Stakeholder feedback has informed project planning, option development and decision-making

Question	What good looks like
	• Material stakeholder issues, risks, opportunities and commitments are being actively managed, with appropriate ongoing engagement planned for the next stage
Concept: Change management	
D11: Have the organisational and operational changes required to successfully implement and operate the investment been considered?	• The future asset owner, service owner, operator and end-user needs have informed development and assessment of the preferred way forward • Material organisational, operational, workforce, service-delivery and wider system impacts have been identified at a level appropriate to this stage • Future ownership, operating, maintenance, service and benefits-accountability requirements are sufficiently understood to inform further development • The principal organisational change, transition and operational-readiness requirements have been identified for further development at the next stage
D12: Is there organisational support for the need, scope, and intended outcomes of the investment?	• Senior leadership demonstrates appropriate support for progression of the investment • The future asset/service owner and operator have been appropriately engaged and support the preferred way forward, or any material concerns are understood and being addressed • Business units with material implementation, operational or support responsibilities have been engaged and understand their likely future roles

Rating scale

We use a traffic-light system to provide an overall rating for each key focus area. The rating reflects the evaluators' holistic judgement of the evidence against the review questions and the description of what good looks like, using the rating scale below.

Status	Description
Green	The proposal demonstrates that key delivery and benefits-realisation dependencies, strategic risks, stakeholder requirements, and organisational impacts have been identified, sufficiently investigated and are being appropriately managed for this stage. There is confidence that no known material delivery barrier prevents progression of the preferred way forward and that there is a credible basis for further development at the next stage.
Amber	The proposal demonstrates that the principal delivery and benefits-realisation dependencies, strategic risks, stakeholder requirements and organisational impacts have generally been identified and there is a credible pathway to managing them. Some gaps or uncertainties remain, but these are considered manageable and do not materially undermine confidence in progression, provided they are addressed during the next stage.
Red	The proposal does not demonstrate a sufficiently credible delivery pathway for the preferred way forward at this stage. Material delivery or benefits-realisation dependencies, risks, stakeholder issues, organisational impacts or operational requirements remain unresolved or insufficiently understood, and these could materially affect the feasibility, successful delivery or intended benefits of the investment. These issues require substantive resolution before there can be confidence in progression to Detailed Business Case development.

9. Glossary

Term	Definition
Affordability	The extent to which the capital, operating, maintenance, and renewal costs of an investment are realistic and manageable within the relevant funding context
Asset owner	The organisation accountable for the ownership, stewardship, condition, renewal, and long-term management of an infrastructure asset
Assurance Unit (AU)	The organisation responsible for coordinating assurance activities for a particular type of investment; Te Waihanga performs this role for infrastructure investments
Assurance of Action Plan review	A follow-up review that may occur when a Point Review results in a 'Pause and revise' or 'Stop or revert' IDA review outcome
Benefits	The measurable improvements expected from an investment, such as better service quality, safety, resilience, capacity, access, productivity, or environmental performance
Benefits realisation	The process of monitoring, managing, and confirming whether the intended benefits and outcomes of an investment are being achieved and sustained
Business case	The evidence and analysis used to support an investment decision, including strategic alignment, options, value for money, affordability, commercial arrangements, and deliverability
Commercial approach	The proposed arrangements for delivering and managing an investment, including delivery and contract models, risk allocation, packaging, market engagement, and supplier management
Concept	A specific topic assessed within a key focus area that supports the reviewer's evaluation and commentary
Contingency	An allowance included in cost estimates to account for identified risks and uncertainty that may affect the final cost
Counterfactual	The do-nothing or do-minimum scenario describing what is expected to occur without further investment and used as the baseline for assessing options
Delivery	The implementation of an investment following the relevant investment decision, including procurement, construction, commissioning and transition into operation; references at earlier Points to future delivery are forward-looking and do not imply that detailed delivery planning is expected at that stage
Dependency	An activity, approval, organisation, asset, service, or decision outside the direct control of the project team that may affect successful development, delivery, operation, or benefits realisation
Detailed Business Case (DBC)	The business case that develops and assesses the preferred option in sufficient detail to support progression to detailed design and procurement planning
Disbenefit	A negative impact caused by an investment, including adverse effects on users, communities, the environment, other services, or the wider infrastructure system
Governance	The structures, roles, authorities, reporting arrangements, and decision-making processes used to direct and oversee an investment
High-risk investment	An investment identified through the Treasury's Risk Profile Assessment as requiring Investment Decision Assurance

Indicative Business Case (IBC)	The business case that develops and compares a credible shortlist of options and identifies a preferred way forward for detailed investigation
Infrastructure	Fixed, long-lived structures and associated systems that support economic performance, public services, and wellbeing
Infrastructure Assurance Framework (IAF)	The framework describing how the requirements of the IDA Policy are applied in practice to infrastructure investments
Investment	A project or programme involving resources committed to creating, renewing, improving, or maintaining infrastructure, services, or related capability
Investment Decision Assurance (IDA)	The independent, risk-based assurance process established under the Treasury's IDA Policy to support investor decisions on high-risk investments
IDA Policy	The Treasury policy that sets the purpose, principles, roles, and requirements for investment assurance
Investor	The person or body responsible for deciding whether an investment should proceed, receive further resources, or be subject to conditions
Key focus area	One of the six broad areas rated during a review: strategic alignment, value for money, financial, commercial, deliverability, and governance and capability
Lifecycle costs	The total costs of developing, delivering, operating, maintaining, renewing, and disposing of an asset or service over its expected life
Operational readiness	The extent to which the owner, operator, people, systems, procedures, funding, documentation, and support arrangements are ready for service commencement
Option	A complete and plausible response to an identified problem, including its scope, delivery approach, timing, costs, benefits, and risks
Overall investor advice	The review's high-level recommendation to the investor on whether and under what conditions the investment should progress
Point	A milestone or decision point in an investment's lifecycle at which an IDA review may be undertaken
Point Review	An independent, risk-based assessment of whether an infrastructure investment is strategically justified, provides value for money, and can be successfully delivered
Programme	A coordinated group of related projects and activities managed together to deliver shared strategic outcomes
Programme Business Case (PBC)	A business case for a coordinated programme of related investments intended to deliver shared strategic outcomes
Project	A temporary undertaking established to deliver a defined infrastructure asset, service, or outcome
Project assurance	Independent or objective review and challenge that provides confidence in project information, planning, governance, risk management, and readiness
Residual risk	A risk that remains after mitigation measures have been applied and must continue to be monitored, managed, transferred, or formally accepted
Risk allocation	The assignment of responsibility for managing particular risks between the agency, suppliers, delivery partners, owner, operator, or other parties
Risk Profile Assessment (RPA)	The Treasury assessment used to determine the level of risk associated with an investment and the assurance requirements that apply
Scope	The defined boundary of what an investment will and will not deliver, including assets, services, locations, users, interfaces, outputs, and outcomes

Senior Responsible Owner (SRO)	The individual designated by the agency Chief Executive who is ultimately accountable for ensuring an investment meets its objectives, remains within budget, and delivers its projected outcomes
Service commencement	The point at which an asset or service begins operating and responsibility transfers into operational or business-as-usual arrangements
Strategic alignment	The infrastructure problem or service need that provides the justification for considering investment, and the extent to which an investment contributes to recognised and current government, sector, agency, network, regulatory, or asset-management priorities
Targeted Investment Review	An additional review that may be undertaken at any time to provide deeper analysis of specific concerns
Transition	The planned transfer from project delivery into operation, including handover, commissioning, training, acceptance, ownership, and governance
Uncertainty testing	Analysis of how changes in assumptions, costs, benefits, timing, risks, or external conditions affect value for money or deliverability
Value for money	The extent to which an investment is expected to maximise public value by delivering benefits that justify its whole-of-life costs, risks, and impacts

Appendix A: Recommended guidance and resources

Core New Zealand guidance

New Zealand Treasury, *Project Business Cases – Guidance*

New Zealand Treasury, *Better Business Cases: Using the Options framework for options analysis*

New Zealand Treasury, *Guide to Social Cost Benefit Analysis*

New Zealand Treasury, *CBAx Tool User Guidance*

New Zealand Treasury, *Approaches to sensitivity analysis*

New Zealand Treasury, *Techniques to quantify risk and uncertainty*

New Zealand Treasury, *Funding and Financing Framework*

New Zealand Government Procurement, *Government Procurement Rules*, 5th edition

New Zealand Government Procurement, *Plan your procurement*

New Zealand Government Procurement, *Construction Procurement Guidelines*, where relevant

Relevant sector-specific economic evaluation guidance, where applicable

Examples of sector-specific guidance

NZ Transport Agency Waka Kotahi, *Monetised benefits and costs manual*

NZ Transport Agency Waka Kotahi, *Land Transport Benefits Framework measures manual*

Additional useful resources

Infrastructure Australia, *Assessment Framework Stage 2: Identifying and analysing options*

Infrastructure Australia, *Guide to multi-criteria analysis*

Infrastructure Australia, *Guide to risk and uncertainty analysis*

Appendix B: Point 2 review questions

Review questions at Point 2

Information only questions

I1: What are the Investment Objectives for this project?

I2: What are the governance arrangements for this project?

Strategic alignment

S1: Is there a clearly defined problem?

S2: Has the problem been sized in monetary or quantitative terms?

S3: Does the proposal make a meaningful contribution to priorities signalled in sector or agency long-term strategies?

Value for money

V5: Is there a clearly defined scope for this investment?

V6: Has the agency identified a sufficient range of options?

V7: Has the agency used a robust methodology to filter from a longlist to a shortlist?

V8: Has the agency developed the design and cost estimation for each shortlisted option to an appropriate level of maturity?

V9: Do the shortlisted options enable a fair comparison of options, and has a robust economic analysis method been used?

V10: Has the agency assessed shortlisted options against a sufficient range of uncertainties to determine the impact of these on each option's potential for achieving VFM?

V11: Do we have confidence there is a preferred way forward, where at least one of the final options will provide value for money?

Financial

F3: Is the preferred way forward broadly affordable?

F2: Is funding in place to progress the project/programme to the next stage?

F4: Have credible potential funding approaches been considered for the shortlisted options?

Commercial

C2: Has the agency identified potentially viable commercial approaches, and are these sufficiently developed for this project stage?

C3: Does the agency have an appropriate understanding of the supplier market and likely market interest in the proposal?

C4: Has the agency identified a credible high-level procurement pathway appropriate to this stage of the investment?

Review questions at Point 2

Governance and capability

G7: Does the organisation have an appropriate track record and capability to successfully develop and deliver an investment of this size and complexity?

G8: Is the agency building the appropriate capability and capacity to deliver the next stage of business case development?

G9: Does the project have a credible and sufficiently mature plan to successfully complete the next stage of business case development?

G10: Are the assurance arrangements proportionate to the scale, complexity, and risk of the investment, and do they provide confidence that the investment is ready to progress to the next stage?

G11: Are governance arrangements clearly defined, proportionate and operating effectively to support progression through the next stage?

Deliverability

D7: Have the project's critical interdependencies and interfaces been identified, and are there credible arrangements for managing them?

D8: Are dependencies on other organisations or delivery partners clearly understood, with a common understanding of respective roles and responsibilities?

D9: Have the key risks affecting successful progression of the investment been identified, assessed, and are they being actively managed?

D10: Has the agency demonstrated stakeholder engagement that is proportionate to the stage of project development?

D11: Have the organisational and operational changes required to successfully implement and operate the investment been considered?

D12: Is there organisational support for the need, scope, and intended outcomes of the investment?