

# Overview

## Assessment Framework



The Assessment Framework comprises an overview, stages 1 to 4 and technical guides:



### **Overview**

- 1 Defining problems and opportunities
- 2 Identifying and analysing options
- 3 Developing a business case
- 4 Post completion review

Technical guides

Infrastructure Australia is an independent statutory body that is the key source of research and advice for governments, industry and the community on nationally significant infrastructure needs.

It leads reform on key issues including means of financing, delivering and operating infrastructure and how to better plan and utilise infrastructure networks.

Infrastructure Australia has responsibility to strategically audit Australia's nationally significant infrastructure, and develop 15-year rolling infrastructure plans that specify national and state level priorities.

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Requirements



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Worked example



Case study

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# 1

## Introduction

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## At a glance

- Infrastructure Australia is the nation’s independent infrastructure advisor. We are responsible for evaluating proposals for investment in nationally significant infrastructure and other infrastructure determined by our responsible Minister.
- Nationally significant proposals are included on the *Infrastructure Priority List*. We also assess business cases where more than \$250 million in Australian Government funding has been committed.
- The Infrastructure Australia Assessment Framework is **designed to help proponents (you) to develop high-quality infrastructure proposals for submission to Infrastructure Australia (us)**. It provides a national standard for best-practice infrastructure development, and explains our requirements and process for assessing proposals.
- The Assessment Framework is divided into **four main volumes**, covering project initiation to completion. It is supported by detailed technical guidelines.
- This edition of the Assessment Framework reflects our own research and experience, responds to stakeholder feedback, better aligns with state and territory approaches, and incorporates new and enhanced guidance.
- Updates since the last edition include:
  - a simpler four-stage process
  - new guidance on our Assessment Criteria
  - a more holistic approach to capturing the value of a proposal
  - updates to our cost–benefit analysis methodology
  - more worked examples.
- Our Assessment Framework requires you to use robust analysis (drawing on quantitative and qualitative evidence) to demonstrate the merit of each proposal across **three overarching Assessment Criteria**:
  - Strategic Fit (is there a clear rationale for the proposal?)
  - Societal Impact (what is the value of the proposal to society, the environment and the economy?)
  - Deliverability (can the proposal be delivered successfully?).
- We encourage you to **engage with us as early as you can** in proposal development, so that we can provide advice to improve your proposal, strengthen your submission and help you navigate our assessment process.

## 1.1 How to navigate this document

This document provides an overview of Infrastructure Australia’s Assessment Framework (the Assessment Framework). The Assessment Framework is designed for proponents submitting infrastructure proposals to us for evaluation. It explains best practice proposal development and how we assess proposals.

- **Section 1** of this document explains the role Infrastructure Australia plays in assessing infrastructure proposals, the purpose of the Assessment Framework and how you can use it.
  - **Section 2** explains the changes since the last edition of the Assessment Framework, including how we have structured this edition, a detailed list of changes, how we align the Assessment Framework with other guidelines, new guidance areas and possible future areas for change.
  - **Section 3** provides an overview of our four-stage process and the analysis tools and approaches we recommend.
  - **Section 4** gives an overview of our assessment process (from our perspective), our Assessment Criteria, and the kind of qualitative and quantitative evidence we look for.
  - **Section 5** provides an overview of the submissions process (from your perspective) and how we can collaborate with you to strengthen your submission.
- See **Section 2.2** to understand how this document fits in with the rest of the Assessment Framework and which other volumes will be most relevant to you.





## Box 1: Key terms

**Assessment Criteria:** three overarching criteria we use to assess the merit of every proposal, at every stage of the Assessment Framework – Strategic Fit, Societal Impact and Deliverability.

**Business case:** A document that brings together the results of all the assessments of an infrastructure proposal. It is the formal means of presenting information about a proposal to aid decision-making. It includes all information needed to support a decision to proceed, or not, with the proposal and to secure necessary approvals from the relevant government agency. Unless otherwise defined, we are referring to a final or detailed business case, rather than an early (for example, strategic or preliminary) business case, which is developed in accordance with state or territory requirements. A business case is prepared as part of Stage 3 of the Assessment Framework.

**Option:** a possible solution to address identified problems and opportunities. A wide range of options should be considered and analysed to determine the preferred option, which will be recommended in the business case.

**Program:** a proposal involving a package of projects that are clearly interlinked by a common

problem or opportunity. The package presents a robust and holistic approach to prioritise and address the projects, and there is a material opportunity to collaborate and share lessons across states, territories or agencies. The projects can be delivered in a coordinated manner to obtain benefits that may not be achieved by delivering the interventions individually.

**Project:** an infrastructure intervention. A project will move through the stages of project initiation, planning, delivery and completion. A suite of related projects to address a common problem or opportunity will create a program.

**Proponent:** an organisation or individual who prepares and submits infrastructure proposals to us for assessment. To be a proponent of a business case (a Stage 3 submission), the organisation must be capable of delivering that proposal.

**Proposal:** the general term we use for successful submissions to the *Infrastructure Priority List*, across the key stages of project development, specifically – early-stage (Stage 1), potential investment options (Stage 2) and investment-ready proposals (Stage 3). Proposals that have been delivered would be assessed in Stage 4.

## 1.2 About Infrastructure Australia

Infrastructure Australia is the nation's independent infrastructure advisor. As an independent statutory body established under the *Infrastructure Australia Act 2008* (Cth), we advise governments, industry and the community on the investments and reforms needed to deliver better infrastructure for all Australians.

Infrastructure Australia provides a **national, long-term perspective on infrastructure planning**, to improve the quality of Australia's infrastructure networks. Our advice reaches across sectors, spanning transport, energy, communications and water, as well as social infrastructure (such as health, education and social housing facilities).

Guided by the *Infrastructure Australia Act 2008* and the Statement of Expectations<sup>1</sup> issued to us by our responsible Minister (the Minister for Infrastructure, Transport and Regional Development), our role is to:

- maintain the *Infrastructure Priority List*, to provide Australia's governments with a pipeline of investment-ready proposals expected to contribute to national productivity or to be otherwise socially beneficial
- evaluate proposals where Australian Government funding of \$250 million or more is sought
- evaluate any other infrastructure proposals referred to us by our responsible Minister.

1. To find out more about the Act and our Statement of Expectations, visit the 'Accountability and reporting' section of our website: [www.infrastructureaustralia.gov.au/about/accountability-and-reporting](http://www.infrastructureaustralia.gov.au/about/accountability-and-reporting)

We also support governments and industry to develop quality infrastructure investment proposals by:

- providing a rich evidence base through our research work, including the *Australian Infrastructure Audit*, which details the key challenges and opportunities facing our nation
- setting the agenda on the long-term opportunities for infrastructure reform that will improve living standards and national productivity through the *Australian Infrastructure Plan*

- providing guidance on best-practice infrastructure development through the Assessment Framework, our nation-wide education workshops for proponents and our wider engagement with government and industry.

**Infrastructure Australia is not responsible for funding decisions** (see **Box 2**). Our recommendations regarding infrastructure proposals are not influenced by known or anticipated funding commitments. The advice we provide is independent and underpinned by robust evidence.



## Box 2: Infrastructure Australia does not fund projects

Australian Government funding for infrastructure projects is administered by the department or agency with responsibility for the relevant funding program. For example, Australian Government funding programs for road and rail infrastructure projects are typically administered by the Department of Infrastructure, Transport, Regional Development and Communications.

Each Australian Government funding program is subject to its own rules, regulations and processes. These requirements are separate from Infrastructure Australia's requirements. For example, a proponent of a transport infrastructure project seeking Australian Government funding should make a funding application under the relevant department's rules and, if seeking funding of more than \$250 million, also submit a business case to us for evaluation.

## The role of the Infrastructure Priority List

Through our *Infrastructure Priority List*, we provide governments with a credible pipeline to guide major infrastructure investment decisions. The Priority List identifies nationally significant gaps and needs in our infrastructure networks through robust analysis.

We engage with proponents as you develop proposals to define infrastructure problems and opportunities, analyse options, and ultimately develop business cases for solutions that respond to those problems and opportunities. Further information on the Priority List is provided in **Box 3**.



### Box 3: What is the Infrastructure Priority List?

We develop and maintain the *Infrastructure Priority List* (Priority List) as a evidence-based pipeline of nationally significant infrastructure proposals that are seeking investment. Every proposal on the Priority List is expected to contribute to national productivity or to be otherwise socially beneficial.

The Priority List is informed by our independent research, including the 2019 *Australian Infrastructure Audit* and extensive collaboration with governments, industry and the community.

#### How we define proposals on the Priority List

The Priority List contains proposals using the key stages of project development – specifically **early-stage (Stage 1), potential investment options (Stage 2) and investment-ready proposals (Stage 3)**.

The Priority List also highlights the timeframe of different proposals. For early-stage proposals and potential investment options we list the timeframe in which a problem is expected to have a nationally significant impact, to help decision-makers understand when that proposal should be progressed. For investment-ready proposals,

the timeframe provides the proponent's indication of when the preferred solution is likely to be delivered and operational.

The timeframes we use for proposals are:

- within 5 years (near term)
- within 10 years (medium term)
- within 15 years (longer term).

Proposals that will not have a nationally significant impact within the next 15 years are not included in the Priority List.

#### An up-to-date reflection of national priorities

The Priority List is a living document, with new proposals added as we positively assess them. It is also reviewed and updated as proposals move through stages of development and delivery – that is, as they progress from early-stage to investment-ready, or are removed from the list once they receive delivery funding.

You can view the Priority List on our website: [www.infrastructureaustralia.gov.au/infrastructure-priority-list](http://www.infrastructureaustralia.gov.au/infrastructure-priority-list)

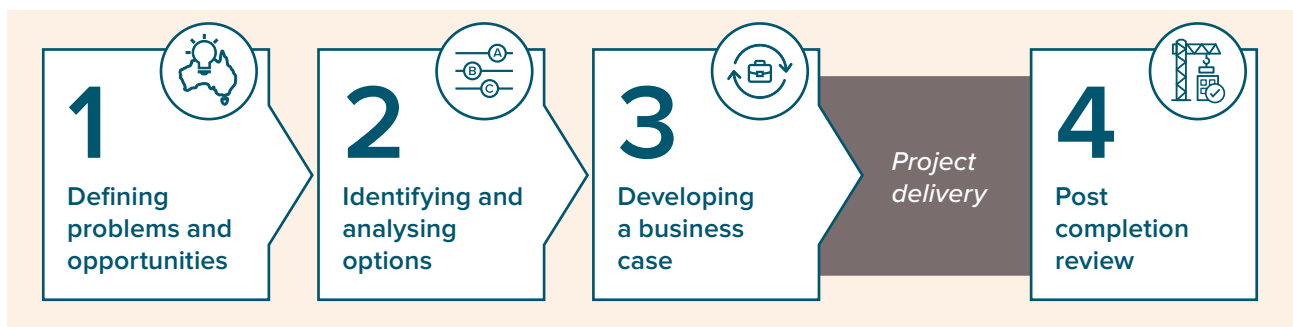
## 1.3 Purpose of the Assessment Framework

The Assessment Framework provides a structured and objective approach for making decisions about infrastructure. It also explains how we assess proposals for inclusion on the Priority List. It is divided into four stages (as shown in **Figure 1**), reflecting the role we play in assessing proposals at different stages of the project lifecycle.

The Assessment Framework is designed for proponents (you), to assist in developing high-quality infrastructure proposals for submission to Infrastructure Australia (us). It provides a national standard for best-practice infrastructure development and describes our requirements and process for assessing proposals.

The Assessment Framework serves the interest of governments and the community by helping to ensure rigorous planning and analysis underpins investment decisions. Evidence-based development of infrastructure proposals is critical to the sustainable delivery of infrastructure that will increase productivity and improve quality of life. The Assessment Framework provides clear and detailed advice on how to gather this evidence and defines a range of guiding themes to help you demonstrate a proposal's strategic alignment, maximise societal benefits and promote successful delivery.

**Figure 1: Assessment Framework stages**



### Box 4: When to submit a proposal to us

There are two reasons to submit an infrastructure proposal to us:

1. **To have the proposal considered for the *Infrastructure Priority List*.** We will determine if the proposal is nationally significant and suitable for the Priority List.
2. **For review where more than \$250 million in Australian Government funding has been committed.** We are required to evaluate business cases for infrastructure proposals with funding committed above this threshold.

Your proposal could also be referred to us by our responsible Minister.

## The purpose of the four stages

The Assessment Framework describes the progressive stages of proposal development, the steps you need to take to deliver a high-quality proposal and what to include in each submission to us.

We accept four submission types. Moving through these stages ensures you have gathered the necessary evidence and conducted the necessary analysis for government and the community to have confidence in your investment proposal. As you move through the stages of development, you will:

1. Clearly identify the problems and opportunities you are seeking to solve and the opportunities you are seeking to realise (**Stage 1 of the Assessment Framework**). This includes monetising or quantifying their current and future value where possible. This provides a sound basis for identifying and developing options that could respond to a defined need and that these options are proportionate to the scale of the problems and opportunities.
2. Undertake detailed analysis to identify and develop a full range of innovative, deliverable, infrastructure and non-infrastructure options, then shortlist potential options through a structured analysis process (**Stage 2 of the Assessment Framework**). This ensures that all feasible options are properly considered.
3. Develop a robust business case that adequately justifies the strategic case, captures all relevant impacts, considers deliverability for each shortlisted option, and demonstrates how the preferred option would be delivered (**Stage 3 of the Assessment Framework**). This ensures that there is clear and robust evidence for moving forward with the preferred option.
4. Review your project after implementation, to understand whether benefits have been realised as expected, estimated costs were accurate and the delivery model was appropriate (**Stage 4 of the Assessment Framework**). These important reviews allow you to capture lessons learnt and strengthen future proposals.

## A transparent approach to infrastructure investment

By detailing a clear process and Assessment Criteria in the Assessment Framework, we ensure governments and the community can have confidence that all proposals included on the Priority List have clearly demonstrated their significance to the nation.

We assess all proposals in the same way for consistency and rigour. We do not attempt to compare different proposals against each other. Instead, we use the Assessment Framework as a guide to assess the need and value of each proposal on its own merits.

We also publish the findings of our evaluations and reviews on our website to improve the transparency of major investment decisions.

## 1.4 Using the Assessment Framework

The Assessment Framework is not a prescriptive ‘how to’ manual for developing infrastructure proposals. Its key purpose is to set out the minimum requirements and Assessment Criteria for submissions made to us. As such, the **main reason you will use the Assessment Framework is to understand what analysis and evidence you need to include in your submission** to demonstrate your proposal’s need and value for money (see **Section 2.6** for detail on how to progress through the four submission stages).

However, you can also use the Assessment Framework for guidance and case studies on good practice infrastructure proposal development.

Throughout the suite of documents, **we clearly signal what is a minimum requirement for a submission and what is best-practice advice**. This will help you to understand what is required to meet our expectations and streamline assessment processes.

You should develop proposals in accordance with the relevant national, state or territory guidelines, and use the Assessment Framework to find tools and methodologies to strengthen your analysis. We take a pragmatic approach to assessing submissions and will accept submissions that conform to the relevant state or territory guidelines, as long as they contain all the information we need. **The Assessment Framework includes submission checklists** for each stage, to ensure your submission contains all the required information.

The Assessment Framework has been designed to align with national, state and territory frameworks and can be applied to all types of infrastructure in all parts of Australia (although it is usually applied to proposals within our remit, as described in **Section 1.2**). If a proposal is developed in accordance with its own state or territory requirements, that would satisfy the requirements of the Assessment Framework.

We recommend all proposals also align with relevant **sector-specific guidelines**, which include technical detail and requirements that may not be described in detail in the Assessment Framework. For example:

- Australian Transport Assessment and Planning (ATAP) Guidelines at [www.atap.gov.au](http://www.atap.gov.au)
- National Water Grid Authority, *National Water Infrastructure Investment Policy Framework* at [www.nationalwatergrid.gov.au/framework](http://www.nationalwatergrid.gov.au/framework)
- Australian Energy Regulator, *Guidelines to make the integrated system plan actionable* at [www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/guidelines-to-make-the-integrated-system-plan-actionable](http://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/guidelines-to-make-the-integrated-system-plan-actionable)
- NBN Panel of Experts, *Analytical framework for independent cost–benefit analysis* at [www.communications.gov.au/departmental-news/analytical-framework-independent-cost–benefit-analysis](http://www.communications.gov.au/departmental-news/analytical-framework-independent-cost–benefit-analysis)

The Assessment Framework does not define sector or project objectives. Instead, it provides a framework for you to develop infrastructure proposals that contribute to wider policy objectives of governments, and a framework for us to assess them.

If you have used the Assessment Framework in the past, we encourage you to read **Section 2.4** to understand what has changed in this latest edition. We regularly review and update the Assessment Framework and this edition reflects a major reset from the previous release in March 2018. Updates incorporate lessons from our own experience in assessing proposals, external research, and feedback from users. **Section 2.6** identifies potential future updates.

If you need further advice on any of the information in the Assessment Framework, please refer to [www.infrastructureaustralia.gov.au/publications/assessment-framework](http://www.infrastructureaustralia.gov.au/publications/assessment-framework), contact us via email at [proposals@infrastructureaustralia.gov.au](mailto:proposals@infrastructureaustralia.gov.au), or telephone on **02 8114 1900**.

## 1.5 Infrastructure Decision-making Principles

We released the Infrastructure Decision-making Principles in July 2018 to drive greater transparency and accountability in infrastructure decision-making. They were designed to ensure major public infrastructure investments deliver the best outcomes for the community and the best value for taxpayers, and should help guide proponents through project development. The guidelines aim to promote greater accountability and transparency, and reduce instances of major projects receiving funding before appropriate planning and assessment.

**Table 1** details the published principles, which we may update as best practice evolves.

**Table 1: Our Infrastructure Decision-making Principles**

Description	Relevant stage
1. Governments should quantify infrastructure problems and opportunities as part of long-term planning processes.	Stage 1
2. Proponents should identify potential infrastructure needs in response to quantified infrastructure problems.	Stage 2
3. Proponents should invest in development studies to scope potential responses.	Stage 2
4. Where an infrastructure need is identified, governments should take steps to ensure potential responses can be delivered efficiently and affordably.	Stage 2 and Stage 3
5. Governments should undertake detailed analysis of a potential project through a full business case and should not announce a preferred option or cost profile before undertaking detailed analysis involving multiple options.	Stage 3
6. Proponents should assess the viability of alternative funding sources for each potential project.	Stage 3
7. Project proposals should be independently assessed by an appropriate third-party organisation.	All stages
8. Governments and proponents should undertake meaningful stakeholder engagement at each stage, from problem identification and option development to project delivery.	All stages
9. Governments and proponents should publicly release all information supporting their infrastructure decisions.	All stages
10. Governments should commit to, develop and release post-completion reviews.	Stage 4
11. Where projects are funded as part of a broader program, the corresponding decision-making processes should be robust, transparent and prioritise value for money.	All stages

Throughout the Assessment Framework, we explain how different parts of the project development process align with these principles. **Meeting the requirements of the Assessment Framework will support you in fulfilling these principles in your decision-making process.**

You can find more detail on these principles on our website: [www.infrastructureaustralia.gov.au/publications/infrastructure-decision-making-principles](http://www.infrastructureaustralia.gov.au/publications/infrastructure-decision-making-principles)



# 2

## This edition of the Assessment Framework

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## At a glance

In this section, we give an overview of what's new in this edition of the Assessment Framework.

- The Assessment Framework now consists of **five volumes and four technical guides**.
- We have made changes to **increase harmonisation** with national, state and territory business case guidelines.
- There are **no new mandatory requirements** in this edition of the Assessment Framework. Changes include new and enhanced best practice guidance that you can apply during project development.
- We have developed **two new technical guides**: the **Guide to program appraisal** and the **Guide to multi-criteria analysis**.
- This edition provides **new, practical guidance** on: stakeholder endorsement; quality of life; sustainability; resilience; programs; regional and remote areas; equity and distributional effects; place; and estimating employment numbers.
- We have identified potential areas for new or enhanced guidance to further develop the Assessment Framework in the future.

## 2.1 Keeping the Assessment Framework up to date

We have released this updated edition of the Assessment Framework to ensure it remains contemporary and useful. This edition reflects current industry best practice, our own research and experience, responds to stakeholder feedback, and better aligns with state and territory approaches.

This section (**Section 2**) explains how the Assessment Framework is now structured, what has changed and where we have added new guidance.



### Box 5: When will the changes to the Assessment Framework come into effect?

This edition of the Assessment Framework provides a clearer explanation of our expectations for submissions across all four stages of project development, and shares additional tools to enhance your analysis.

We recognise that it may take time for proponents to begin applying this new guidance to Stage 2 and Stage 3 submissions, which may already be in development.

On this basis:

- **Stage 1** submissions are expected to adopt the new guidance **immediately**.
- **Stage 2 and Stage 3** submissions are expected to align with the new guidance **from 1 January 2022**.

We encourage you to contact us if these timeframes are not achievable for your submission.

## 2.2 The new structure of the Assessment Framework

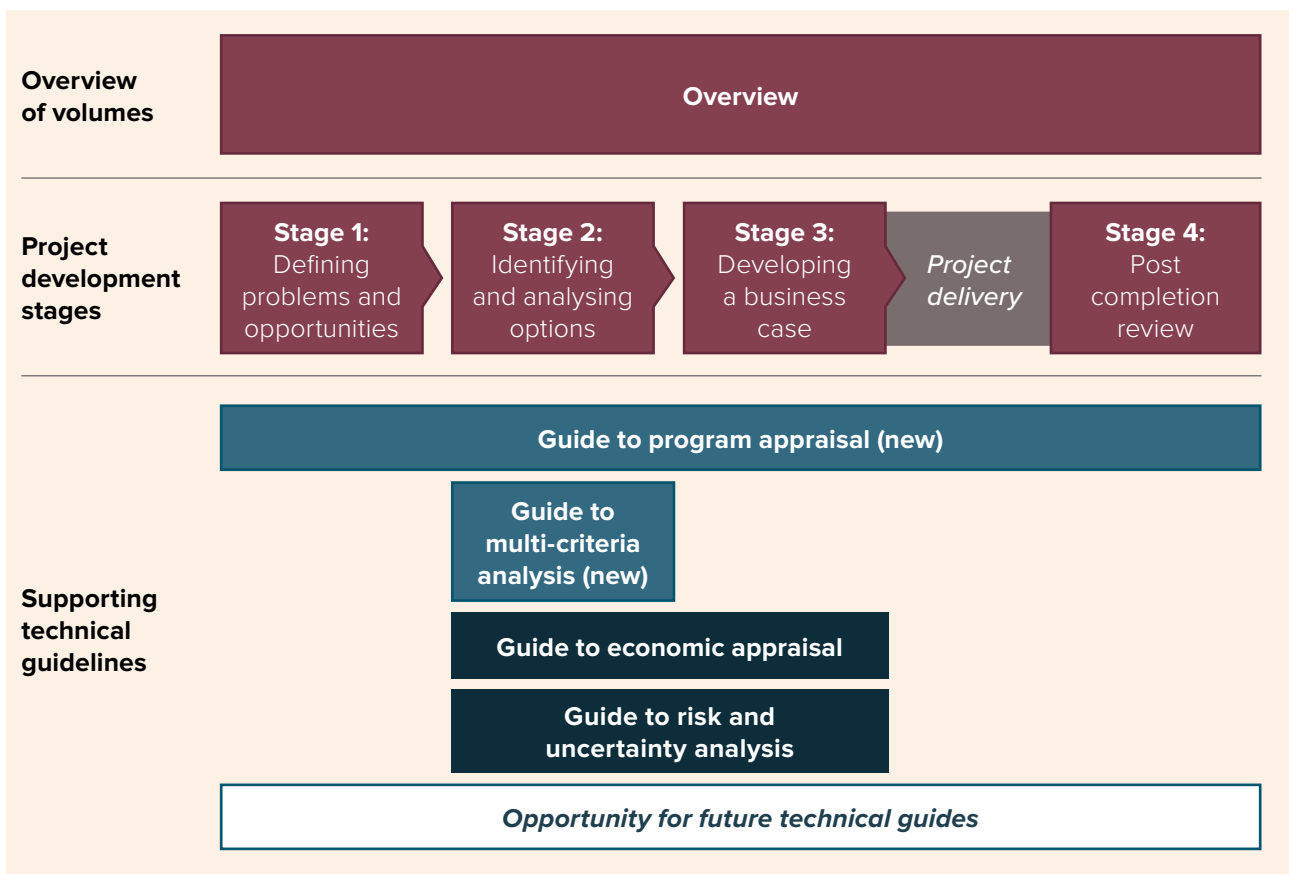
The Assessment Framework now consists of **five volumes and four technical guides**. Together, they describe the activities in a typical project development process and how we assess proposals that are submitted to us.

For practicality and ease of use, each submission stage is described in a separate document and supported by the technical guides. This allows you to focus on the guidance most relevant to the type of submission you are making, and the stage you are up to in project development.

The structure of the Assessment Framework is shown in **Figure 2**. The suite of Assessment Framework volumes is available at [www.infrastructureaustralia.gov.au/publications/assessment-framework](http://www.infrastructureaustralia.gov.au/publications/assessment-framework).

As you can see from this new structure, there are now four stages to our assessment process (rather than the five stages detailed in past editions). For more information on this, see **Section 2.6**.

**Figure 2: Structure of the Assessment Framework**



## 2.3 Harmonisation with other guidelines

Making a submission to us is a step in highlighting your proposal as a national priority for investment (by inclusion on the *Infrastructure Priority List*) or securing funding from the Australian Government (required if you are seeking funding of more than \$250 million).

We appreciate how important it is for our assessment process to align with the requirements of state and territory guidelines and those of key industry organisations. This avoids duplication, helps to streamline planning and approvals processes, and makes infrastructure delivery more efficient.

To inform this edition of the Assessment Framework, we have reviewed all national, state and territory business case guidelines, considering their assessment stages and technical requirements. We identified where existing guidance is not already aligned, how new guidance could be introduced harmoniously and areas for change. **Section 2.4** outlines the changes we have made in this edition of the Assessment Framework to achieve this.

If you are unsure of how the Assessment Framework stages line up with other gateway and assurance processes, we encourage you to get in touch with us. **We will help you to identify where work you have already completed is sufficient to meet our requirements, or where additional detail can strengthen your submission.**

For example, during the ‘Establish need’ phase of the Infrastructure South Australia Assurance Framework process, you will have gathered evidence you can use in a Stage 1 submission to us, while in the

‘Strategic assessment’ phase of the Western Australia Gateway process you will gather relevant evidence for Stage 1 and 2.

**Figure 3** shows the alignment of state and territory business case guidelines with the Assessment Framework stages. This demonstrates how the states and territories have different requirements and how the Assessment Framework sits across them

### The role of detailed sector-specific guidance

The Assessment Framework largely reflects the policy positions and advice of the Australian Transport Assessment and Planning (ATAP) guidelines and their detailed technical guides. The ATAP guidelines are comprehensive and have been developed by state and territory representatives. Further, the ATAP guidelines are regularly reviewed and updated with state and territory input, which aligns with our goal of continually improving best practice advice.

Although the ATAP guidelines are transport focused, our alignment with those guidelines reflects the fact that the majority of submissions we assess are transport related, and many of the concepts and principles in those guidelines are transferable to other sectors. We also use sector-specific advice from other organisations, such as the Australian Energy Regulator, as required.

We continue to regularly engage with state and territory governments to explore further opportunities to harmonise relevant guidelines and the Assessment Framework.







### Box 6: Alignment with state and territory requirements

We aim to align closely with state and territory gateway assurance processes (see **Figure 3**). Some of our requirements and considerations also align with other state and territory processes. For example, an environmental impact statement (EIS) typically requires proponents to complete comprehensive stakeholder consultation and determine the environmental impact associated with a proposal. These are important inputs to decision-making. Any analysis that has been

completed through other processes may be used as evidence to meet the requirements of a submission to us.

Where relevant, it is appropriate to use the outputs of these state and territory processes to support your submissions. Similarly, when investment proposals precede planning approval, the outputs of the business case may become valuable input to the planning approval process.

Figure 3: Alignment of the Assessment Framework with state and territory guidelines

	 <b>Stage 1</b>		 <b>Stage 2</b>		 <b>Stage 3</b>		<i>Project procurement and delivery</i>			 <b>Stage 4</b>	
<b>Australian Transport Assessment and Planning Guidelines</b>	Goals, objectives, targets	Problems identification & assessment	Options generation and assessment		Business case for proposed initiative		Prioritisation and program development	Delivery		Post completion review	
<b>NSW Gateway</b>	Project justification		Strategic assessment		Business case		Pre-tender	Tender eval.	Readiness for service	Post implementation	
<b>INSW Infrastructure Investor Assurance Framework</b>	Needs confirmation		Needs analysis		Investment decision		Procure	Deliver and initial operation		Benefits realisation	
<b>Victoria Gateway</b>	Concept and feasibility				Business case		Readiness for market	Tender decision	Readiness for service	Benefits analysis	
<b>Victoria High Value High Risk</b>					Business case		Procurement	Delivery			
<b>Queensland Project Assessment Framework</b>	Strategic assessment		Preliminary evaluation		Business case development		Supply strategy dev.	Source supplier/s	Establish service capability	Benefits realisation	
<b>Queensland Business Case Development Framework</b>	Strategic assessment		Options analysis		Detailed business case						
<b>Infrastructure South Australia Assurance Framework</b>	Establish need		Strategic analysis		Business case		Procure	Delivery		Operation	
<b>Western Australia Gateway</b>	Strategic assessment				Business case		Readiness for market	Tender decision	Readiness for service	Benefits evaluation	
<b>WA Strategic Asset Management Framework</b>	Strategic assessment				Investment		Procurement and delivery			Operations and maintenance	
<b>Tasmania Structured Infrastructure Investment Review Process</b>	Investment concept and options analysis				Business case		Budget committee decision		Project review		
<b>Australian Capital Territory Capital Framework</b>	Investment logic workshop		Early project overview		Single assessment framework		Procure	Implement		Post implementation review	
<b>Northern Territory Project Development Framework</b>	Strategic assessment and planning				Project development		Prioritisation and project delivery			Project implementation and evaluation	

## 2.4 Key changes in the 2021 Assessment Framework

Updates and changes made for this edition of the Assessment Framework reflect extensive stakeholder input to ensure that it remains useful and valuable for practitioners and decision makers. The changes incorporate better practice approaches, improve alignment with national, state and territory requirements and clarify our requirements for assessment.

**There are no new mandatory requirements presented in this edition of the Assessment Framework. The changes include new and enhanced good practice guidance** that you may apply during project development and provide the mechanism for us to recognise good practice where it has been applied.

Key changes to streamline the Assessment Framework and further align with other guidelines include:

- Adopting a simpler, four-stage process that is compatible with most state and territory frameworks (see [Section 2.6](#)).
- Recommending, but not requiring, that a business case includes at least two options in addition to the base case (see [Box 7](#)).
- Taking a more pragmatic approach in defining a base case to accommodate all state and territory practices (see the [Guide to economic appraisal](#)).
- Updating our cost–benefit analysis (CBA) methodology steps (see the [Guide to economic appraisal](#)).
- Clearly defining our recommended approach to cost estimates (presented in each stage volume).
- Defining our requirements for disruption costs (see the [Guide to economic appraisal](#)).
- Removal of templates for stages 2 to 4 to reduce submission effort. The templates have been replaced by comprehensive submission checklists to increase transparency of our information requirements.

Other major changes to incorporate better practice approaches include:

- Resetting our Assessment Criteria to include 15 supporting themes (see [Figure 4](#) and [Section 4.2](#)). We explain how each theme is considered in each assessment stage and have also included more subject-specific guidance on:
  - considering Societal Impact (previously ‘social, economic and environmental value’) as one of our Assessment Criteria to holistically assess all impacts, not just those that have been monetised
  - the importance of transparent and meaningful stakeholder engagement activities, including engagement with Aboriginal and Torres Strait Islander stakeholders, to improve endorsement for each proposal
  - how quality of life is defined and assessed, including providing a set of dimensions that can help structure your evidence of social impacts
  - how sustainability and resilience is defined and assessed, including the interconnected nature of these supporting themes, whereby one proposal outcome may satisfy Assessment Criteria across multiple themes
  - how to analyse the capability and capacity of the market to deliver the proposal.
- A clear definition for how a proposal is determined to be nationally significant (see [Section 4.3](#)).
- Standardising the terminology in the Priority List by using the term ‘proposal’ consistently and progressively, rather than the two terms ‘initiatives’ and ‘projects’. The Priority List will now identify which stage each proposal has reached, in line with the Assessment Framework stages (see [Figure 6](#)):
  - Stage 1 – Early-stage proposals
  - Stage 2 – Potential investment options
  - Stage 3 – Investment-ready proposals
  - Stage 4 – Delivered proposals
- Specific guidance and worked examples on how to measure and account for the benefits and costs (monetised and non-monetised) associated with projects in regional and remote areas (see the [Guide to economic appraisal](#)).



- Two new technical guides on multi-criteria analysis (**Guide to multi-criteria analysis**) and how we assess proposals for programs (**Guide to program appraisal**).
- Extracting existing guidance on economic appraisal into a separate technical guide (**Guide to economic appraisal**), which contains:
  - An updated methodology for social cost–benefit analysis (see **Glossary**), which responds to a third-party review published in March 2020.<sup>2</sup> This includes updated guidance on base case specification, capital cost treatment, equity and distributional impacts, sensitivity analysis and data requirements for post completion reviews.
  - Updated CBA methodology steps to better align with national, state and territory guidance.
  - Updated guidance on non-monetised information, health and education benefits, rapid economic appraisal and induced demand.
- Extracting existing guidance on risk and uncertainty analysis into a separate technical guide (**Guide to risk and uncertainty analysis**), and adding new guidance on real options analysis.
- New guidance on how to estimate, as part of a business case, the employment supported by an infrastructure investment (see **Section 2.5**).
- Updated checklists to match the broadened Assessment Criteria and clarify our submission requirements (presented in each stage volume).
- New worked examples throughout the volumes to complement technical guidance.

**Figure 4: Our Assessment Criteria and new supporting themes**

<p><b>Strategic Fit</b></p> <p><i>‘Is there a clear rationale for the proposal?’</i></p>	<ul style="list-style-type: none"> <li>• Case for change</li> <li>• Alignment</li> <li>• Network and system integration</li> <li>• Solution justification</li> <li>• Stakeholder endorsement</li> </ul>
<p><b>Societal Impact</b></p> <p><i>‘What is the value of the proposal to society and the economy?’</i></p>	<ul style="list-style-type: none"> <li>• Quality of life</li> <li>• Productivity</li> <li>• Environment</li> <li>• Sustainability</li> <li>• Resilience</li> </ul>
<p><b>Deliverability</b></p> <p><i>‘Can the proposal be delivered successfully?’</i></p>	<ul style="list-style-type: none"> <li>• Ease of implementation</li> <li>• Capability and capacity</li> <li>• Project governance</li> <li>• Risk</li> <li>• Lessons learnt</li> </ul>

2. Centre for International Economics (CIE) 2018, *Review of Infrastructure Australia’s methodology for assessing business cases*, CIE, available at: [www.infrastructureaustralia.gov.au/about/accountability-and-reporting](http://www.infrastructureaustralia.gov.au/about/accountability-and-reporting)



## Box 7: Number of options in a business case

The Assessment Framework **recommends, but does not require, that a business case** (submitted at Stage 3) **includes at least two options** (that is, two possible responses to the identified problems and opportunities) and a base case (see [Glossary](#)).

This approach is consistent with the majority of national, state and territory guidelines for business case development. Including at least two feasible options enables a rigorous and defensible analysis to determine the most appropriate investment response. Considering more than one option is important because it:

- increases the transparency of analysis
- helps establish the economic merit of the proposal by comparing it to other feasible solutions
- helps to consider additional societal benefits that may be achieved as part of each option
- may increase confidence in the results, by reducing the risk of there being a superior option that was not considered in the business case.

We expect you to demonstrate a rigorous and defensible Stage 2 process to identify and analyse an appropriate range of potential options – particularly if a business case includes only one option.

**Where only one option is considered in the business case, we require a Stage 2 submission or equivalent analysis with an indicative value-for-money analysis** (for example through rapid CBA). **This should demonstrate that the preferred option is clearly better than the alternatives and that those alternatives do not warrant further investigation.**

If a single option has been identified for detailed analysis, there are usually variations to it that can be considered. It may be possible to build the same option more cheaply without any impact on benefits, to progress a more expensive scope of work that derives proportionally higher benefits, or to package options, including with non-build interventions such as policy reform or demand management.

When we assess your options analysis, we will consider the following:

1. Have an appropriate range of options been considered to ensure maximum value to society?
2. Is the preferred option the best response to addressing the problems and opportunities, compared to other options?

Further guidance is provided in the [Stage 2](#) volume.

## Who we consulted with on these changes

We consulted an Assessment Framework Reference Group, comprising representatives from the Australian Government and all states and territories, to gather input and feedback as part of the Assessment Framework's refresh. In addition, we engaged with other government and industry stakeholders to discuss how the Framework could better meet the needs of proposals in regional and remote areas.

Further, we commissioned a customer experience review in 2019, which included interviews with a range of practitioners and proponents, to identify opportunities for improving our evaluation and engagement processes. The outputs of this review have informed ongoing improvements to our internal processes and procedures for handling submissions and engaging with stakeholders. These improvements have reduced the time taken to complete our evaluations and increased transparency of our activities.

## 2.5 New guidance areas

In our review of existing national, state and territory guidelines, we identified areas where guidance may be limited or inconsistent. This edition of the Assessment Framework seeks to address some of these areas, to ensure best practice guidelines are available regardless of the state or territory you work in, and provide leadership in areas of emerging practice.

This edition provides new, practical guidance on:

- stakeholder endorsement
- quality of life
- sustainability
- resilience
- programs
- regional and remote areas
- equity and distributional effects
- place
- employment numbers.

These new guidance areas are described in the following sections, with further detail on how they are assessed in [Section 4.4](#).

### Stakeholder endorsement

The 2019 *Australian Infrastructure Audit* (the Audit) emphasised the need for meaningful engagement to enable communities to shape infrastructure planning and delivery. It is estimated that around \$20 billion worth of infrastructure projects was delayed or cancelled due to community opposition over the past decade.<sup>3</sup>

Meaningful stakeholder engagement builds trust and is needed to achieve endorsement for the delivery of an infrastructure proposal. Effective stakeholder engagement:

- improves communication channels between parties
- creates and maintains support for projects
- gathers information for the organisation
- manages stakeholder expectations, reducing the potential for conflict or other project-crippling issues
- identifies risks of opposition or risks that project benefits may not be realised
- enhances the reputation of proponents and, ultimately, the project.

The International Association for Public Participation defines a stakeholder as ‘any individual, group of individuals, organisations, or political entity with a stake in the outcome of a decision’.<sup>4</sup> Within infrastructure decision-making, we consider stakeholders to be the relevant governments, communities and industries that are expected to be impacted by or contribute to a proposal.

Stakeholder engagement is equally important for non-government proponents, who also need to engage with the relevant government stakeholders.

Our goal is to promote and encourage robust stakeholder engagement to improve stakeholder endorsement during project development and manage the associated risks. Our evaluations explicitly recognise the importance of meaningful stakeholder engagement in deriving endorsement. For further detail, see [Section 4.4](#). Key characteristics of meaningful stakeholder engagement are described in [Box 8](#).

Engagement practices should grant equal opportunity to diverse communities, including people with disability, people from culturally and linguistically diverse backgrounds, and those experiencing socioeconomic disadvantage, while also leveraging input from Aboriginal and Torres Strait Islander peoples. [Box 9](#) outlines the importance of engaging Aboriginal and Torres Strait Islander peoples.

3. Infrastructure Australia 2019, *Australian Infrastructure Audit 2019*, Infrastructure Australia, Sydney, p. 221.  
4. International Association for Public Participation 2021, *IAP2 Code of Ethics*, viewed May 2021, available at: [www.iap2.org.au/about-us/about-iap2-australasia/code-of-ethics/](http://www.iap2.org.au/about-us/about-iap2-australasia/code-of-ethics/).



## Box 8: Key characteristics of meaningful stakeholder engagement

Drawing on the findings in the Audit, we have identified the key characteristics of meaningful stakeholder engagement for successful project development.

Stakeholder engagement	
Must be...	This requires you to...
<b>Transparent</b>	Disclose information about all aspects of the project during engagement, identifying the elements stakeholders can influence and the reasons why elements either are or are not up for negotiation. Transparency should extend to infrastructure decision-making processes to build trust in the community.
<b>Timely</b>	Provide stakeholders with enough time to adequately consider and provide feedback to meaningfully impact decisions on options analysis, project design or delivery.
<b>Inclusive</b>	Grant an equal opportunity to all members of the community to engage. Ensure engagement is fit for purpose and adjustable to any specific communication medium or language requirements.
<b>Collaborative</b>	Meaningfully draw on the deep knowledge communities have of their local places and the services they need in order to live productive, healthy lives that grow Australia's cities, towns and regions.
<b>Accountable</b>	Monitor and evaluate if engagement has effectively informed decisions, making changes if required. Report back to communities on how their feedback was used in decision-making.



## Box 9: Recognising the importance of engaging Aboriginal and Torres Strait Islander stakeholders during infrastructure development

In planning for the future of our infrastructure, we acknowledge the importance of learning from Aboriginal and Torres Strait Islander peoples' unique history of land management and settlement, art, culture and society that began over 60,000 years ago.

All of Australia's governments have commitments under the Closing the Gap National Agreement, and proposals should consider how they contribute to this strategic objective.

We promote positive outcomes for Aboriginal and Torres Strait Islander peoples through our work as a national infrastructure advisory body and recognise these outcomes in our evaluations. As such, we encourage you to develop Aboriginal and Torres Strait Islander engagement plans (see **Box 19**) and consider alignment to Closing the Gap policy targets and priority reforms when developing your proposal.

### Quality of life

One of Infrastructure Australia's strategic goals is to improve the quality of life of people living in regional areas, remote areas and cities. How projects or programs impact quality of life (see **Glossary**) is an important consideration in our assessments.

There is limited advice in national, state and territory guidelines about how to estimate, monetise or analyse quality-of-life impacts when developing an infrastructure proposal. To meet this gap, we have built on our existing guidance to more explicitly recognise quality-of-life impacts in our Assessment Criteria and explain how to consider these impacts during project development. Our goal is for the

Assessment Framework to promote and influence the development of projects that maximise positive quality-of-life impacts for Australians. Guidance for analysing quality-of-life impacts is provided in **Section 4.4** and described in detail in each of the stage volumes.

Quality of life is inherently linked with sustainability and resilience, as improved quality-of-life outcomes align with sustainability outcomes and aid in building community resilience.

## Sustainability

Sustainability and sustainable social, economic, environmental and governance outcomes are increasingly important to government, industry and the community. In assessing the Societal Impact of your proposal, we will consider how it contributes to sustainability outcomes.

We adopt the United Nations' definition of sustainability as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs'.<sup>5</sup> The United Nations measures and reports progress on sustainability across 17 Sustainable Development Goals, including goals for improved quality of life and climate resilience. We recognise that the achievement of sustainability outcomes is likely to also improve outcomes for resilience and quality of life.

Sustainability focuses on delivering better outcomes that improve and protect our social and natural environments. Incorporating sustainability into investment considerations ensures government expenditure contributes towards positive social, economic, environmental and governance outcomes as well as cost savings and resource efficiencies today and into the future. It differs from *resilience*, which focuses on the ability to mitigate and adapt to future uncertainty so that sustainable outcomes can be achieved.

The Audit highlighted that adopting sustainability-enhancing approaches for infrastructure assets has social, economic and environmental benefits that improve project outcomes, and relieve the associated risks of inaction. Expanding these considerations to include governance ensures that the Assessment Framework captures the full breadth of sustainability objectives.

While sustainability is implied in most national, state and territory frameworks, only a few explicitly require a specific sustainability analysis (for example, the Queensland Government). We have now embedded sustainability considerations throughout the Assessment Framework in a pragmatic way. We include advice on how we assess sustainability and provide suggested activities on how you can consider and embed sustainability in your project development process. For further detail, see [Section 4.4](#).

We have developed a set of Sustainability Principles that guide our approach, to ensure consistency in the way we assess a proposal's sustainability (see **Box 10**). Our goal is that infrastructure investment enables sustainable economic development, simultaneously improving our quality-of-life, protecting and restoring our natural environment, and promoting more effective and efficient use of financial resources.

## Resilience

Over the course of 2019 and 2020, Australians experienced the unprecedented extremes of bushfires, droughts, floods and the COVID-19 pandemic, combined with increasingly intensive cyber-attacks. These events emphasised the importance of our resilience to shocks and stresses (see **Table 9** in [Section 4.4](#)).

Infrastructure has a critical role to play in supporting community resilience. With increasing uncertainty and a changing risk landscape, the role and function of infrastructure will need to change – as will the way infrastructure is planned, built and operated.

### **We need to move from risk to resilience planning.**

While traditional risk planning focuses on avoiding threats, resilience acknowledges some impacts are unavoidable and shifts the focus to absorbing, managing and recovering from disruption.

We broadly define resilience as:

*the ability of communities to be able to anticipate, resist, absorb, recover, transform and thrive in response to shocks and stresses to realise positive economic, social and environmental outcomes.*

The 2018 Assessment Framework recommended the use of sensitivity analysis to test the robustness of economic appraisals and included guidance on analysing the physical risks associated with climate change. This kind of analysis helps proposals to demonstrate economic merit against a range of different futures.

5. World Commission on Environment and Development 1987, *Our common future (the Brundtland Commission report)*, United Nations, available at: [www.sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf](http://www.sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf).



## Box 10: Our Sustainability Principles

We have developed a set of Sustainability Principles to set our organisational objectives for sustainability and provide a reference point to ensure it is considered consistently in our work.

Sustainability	Component	Principle
<i>Infrastructure is sustainable if it meets the needs of the present without compromising the ability of future generations to meet their own needs.</i>	<b>Social</b>	Infrastructure and policies should improve quality-of-life, access and wellbeing, to create an inclusive and fair society.
	<b>Economic</b>	Infrastructure and policies should grow productivity, the Australian economy and allow equitable access to economic and growth opportunities, while efficiently using financial resources.
	<b>Environmental</b>	Infrastructure and policies should protect environmental outcomes by reducing pollution, balancing resource consumption, conserving natural ecosystems and resources, and supporting climate mitigation and adaptation.
	<b>Governance</b>	Infrastructure and policies should build trust in governance and institutions through transparent, accountable and inclusive decision-making.

Please see our website for more information:  
[www.infrastructureaustralia.gov.au/publications/sustainability\\_principles](http://www.infrastructureaustralia.gov.au/publications/sustainability_principles)

This edition of the Assessment Framework goes a step further by including enhanced guidance on how to consider other shocks and stresses to build broader resilience. While not mandatory, the new guidance can help you to embed resilience considerations from the early stages of project development through to implementation, improving resilience outcomes cumulatively across the Assessment Framework stages.

**Box 11** outlines seven key characteristics that contribute to resilience outcomes. Many of these factors align with or are supported by outcomes that fall under other themes in our Assessment Criteria, including quality of life and sustainability.

This illustrates the multiple benefits of resilience. The interconnected nature of these themes means that one project outcome may satisfy Assessment Criteria across a number of themes, without adding additional requirements. See **Section 4.4** for more detail on how we assess resilience and suggested activities to consider and embed resilience in your project development process.

This new guidance aims to promote the development of infrastructure that manages risks and uncertainty, to absorb shocks and stresses and minimise disruption to communities and the economy.





### Box 11: Key characteristics of resilience in infrastructure

We have identified seven key characteristics that should be considered in project development to achieve resilience outcomes.

Resilience		
<i>Infrastructure is resilient if it enables communities to anticipate, resist, absorb, recover, transform and thrive in response to shocks and stresses.</i>	<b>Robustness</b>	Ability to withstand shocks and stresses without significant damage or disruption.
	<b>Redundancy</b>	Ability to maintain operations without significant deterioration in quality or value through additional capacity, flexible systems or substitution.
	<b>Resourcefulness</b>	Ability of operators, users and infrastructure itself to use resources in alternative ways to respond to shocks and manage stresses.
	<b>Recovery</b>	Ability to respond and mitigate the consequences of shocks and stresses.
	<b>Adaptability</b>	Ability to continually assess, build knowledge, learn and improve, to inform future decisions (introduce new tools, procedures and systems to improve the other qualities ahead of future shocks).
	<b>Integration</b>	Ability to embed resilience in all decision-making, across systems, sectors, activities and risks.
	<b>Inclusivity</b>	Ability to involve all citizens and stakeholders to reflect diversity of those using or in proximity to the infrastructure.

### Programs

There is a growing trend of program-level planning and investment decision-making in the infrastructure sector. Programs take a more holistic and integrated approach to infrastructure delivery by focusing on outcomes that can be achieved through the coordinated delivery of a collection of inter-related projects. However, different states and territories offer different policy and guidance for the development and assessment of program business cases across Australia.

This edition of the Assessment Framework includes a **Guide to program appraisal** that describes the characteristics of programs and pathways for developing program business cases (see **Section 4.5**). The guide explains the appropriate level of rigour required for programs (and projects within a program) and how we will consider and assess program business cases.

By providing this guidance, we intend to standardise practices and support the development of infrastructure programs that demonstrate holistic infrastructure planning and improve individual project outcomes.

## Regional and remote proposals

We take a nationally consistent approach to evaluating infrastructure proposals. However, we also recognise that remote, regional and urban areas have different characteristics and their own unique challenges.

In remote areas, existing infrastructure and services can be of poor quality and subject to constraints such as seasonal factors or skills shortages. As detailed in our 2019 Audit, many remote communities lack reliable energy supply, quality telecommunications, clean water services and adequate access to transport and community facilities.<sup>6</sup> This affects health, education and other social outcomes, and makes it harder to sustain a local economy that supports jobs.

We understand the challenges of developing regional and remote proposals, which can often be difficult to justify by purely economic metrics, due to low population densities and high costs of construction. We have added new guidance to the Assessment Framework that responds to these challenges by:

- broadening the considerations within our Assessment Criteria (see [Section 4.2](#)) to take a more holistic view of each proposal
- expanding our criteria for national significance to better consider alignment with strategic policy goals and potential outcomes for disadvantaged areas (see [Section 4.3](#))
- providing new guidance on quality-of-life characteristics and how benefits can be captured quantitatively and qualitatively (see [Section 4.4](#))
- analysing equity and distributional effects as a supplement to economic analysis (see the [Guide to economic appraisal](#))
- providing new guidance on calculating benefits for regional and remote proposals, with a focus on health and education benefits (see the [Guide to economic appraisal](#))
- promoting the value of programs in generating scale, cumulative benefits and achieving cost efficiencies for delivery (see the [Guide to program appraisal](#)).

This updated guidance is supported by worked examples specific to regional and remote contexts. Together, they aim to help you demonstrate all the benefits of your proposal and how it may meet strategic or social policy objectives, alongside the monetised economic analysis.

Our goal is for the right infrastructure to be delivered where it is required to achieve equitable outcomes for all Australians.

## Equity and distributional effects

Analysis of equity in an infrastructure proposal is concerned with how desirable or ethical the distributional effects are across a population, often with a focus on whether the proposal meets the basic needs of the community or delivers minimum service levels to all users. Distributional effects consider how the impacts (positive or negative) of a proposal are distributed across different individuals and groups.

Some proposals that may not be supported by economic merit alone may be justified on equity grounds. Distributional effects also help you demonstrate the real impact for different groups. This analysis is particularly relevant for regional and remote proposals (as discussed previously), but is also an important consideration for proposals that may impact disadvantaged groups in urban areas.

While CBA is an effective tool for identifying the optimal outcome in terms of overall economic efficiency, we recognise the aggregation of outcomes means it has limitations in analysing equity and distributional outcomes. To help us assess equity and distributional outcomes in submissions, alongside the CBA, we have:

- expanded our criteria for national significance to better consider socially beneficial proposals (see [Section 4.3](#))
- considered equity impacts in our Assessment Criteria, under the quality-of-life theme (see [Section 4.4](#))
- added new guidance on analysing equity and distributional effects as a supplement to economic analysis (see the [Guide to economic appraisal](#)), including for the recognised approaches of:
  - distributional analysis
  - descriptive analysis.

6. Infrastructure Australia 2019, *Australian Infrastructure Audit 2019*, Infrastructure Australia, Sydney.

This updated guidance is supported by worked examples of how to link equity and distributional outcomes to infrastructure proposals, including the quality-of-life components of our Assessment Criteria. This aims to help you demonstrate the wider benefits of your proposal and how it may meet strategic and social policy objectives alongside the economic analysis.

Some state and territory guidelines suggest weighted CBA as another approach for analysing equity and distributional impacts. However, **we do not recommend using weighted CBA**, as it introduces a degree of subjectivity into an otherwise quantitative, evidence-based approach.

## Place

A place-based approach to infrastructure applies a wide lens to consider the total impact and needs of a particular community or place over the longer term, and adopts an integrated approach to land use and infrastructure planning. It takes a cross-sectoral view of the interrelated infrastructure and amenity needs of a place, and identifies how and when these should be delivered. Infrastructure needs may span across all infrastructure types, including social (such as green, blue, cultural, housing, education, health and justice), transport, telecommunications and utilities.

As we adopt a more holistic approach to our assessment, and provide more clarity in the Assessment Framework on how to demonstrate non-monetised benefits and strategic need, we encourage you to take a more place-based approach in your submissions to us.

To help you take a place-based approach in your submission, the Assessment Framework now includes a comprehensive list of considerations (see **Section 4.2**) to help you respond to our Assessment Criteria and supporting themes. While place is not a specific theme, place-based thinking is inherent in our updated guidance and assessment process. This helps you to demonstrate the contribution your proposal makes to existing places, systems and networks, including the overall effects on communities.

An important feature of a place-based approach is to connect infrastructure decision-making with the needs of a community at a local level. This improves the creation and use of places to unlock greater benefits of both the infrastructure and the place. Place-based models provide the opportunity for **engagement at the strategic planning stage**, enabling communities to contribute to developing a vision for their local area. Meaningful stakeholder and community engagement is recognised in our stakeholder endorsement theme and is also a key underpinning of our approach to sustainability.

Our **Guide to program appraisal** also provides guidance on how to develop program solutions to address the complex needs of a place in a coordinated and timely way. A program is a suite of related interventions (projects) to address a common problem or realise a common opportunity that will be delivered in a coordinated manner to obtain benefits not achievable from delivering the interventions individually. The guide recognises the value of a place-based program that focuses around one geographical area and applies a broad lens to consider the impacts and needs of a particular community or place over the longer term. It also identifies how a place-based program should be undertaken, provides recommendations for practitioners, and explains how we assess place-based program proposals.

## Estimating jobs supported by infrastructure projects

The infrastructure sector is a significant employer in the Australian economy. Decision-makers, including governments across Australia, are interested in understanding how many jobs a specific infrastructure investment will support. This has become an even more important consideration as the economy recovers from the impact of COVID-19.

There remains, however, a degree of inconsistency around the calculation of jobs generated by infrastructure investment. Expenditure on infrastructure supports both direct and indirect jobs:

1. Direct – jobs supported specifically for the construction and operation of the project.
2. Indirect – jobs supported by the intermediate products and services used in the construction and operation of the project.

To help you, the Assessment Framework now includes **guidance on how to estimate, as part of business case development, the number of jobs supported by an infrastructure investment over the asset's life** (see the [Stage 3](#) volume). We are focused on direct jobs at the business case stage to reflect both our remit and to ensure the guidance is pragmatic and useable.

**We do not assess job numbers as part of our evaluations.** However, we acknowledge that they are an input to decision-making, so we will include relevant information in our evaluation outputs where it is provided in business cases submitted to us.

## 2.6 What's next

Our guidance constantly evolves as new lessons are learnt from research and practical experience. We have identified a range of topics for new or enhanced guidance in future updates to the Assessment Framework, including:

- conducting social impact evaluation
- conducting sustainability analysis
- details on climate impact analysis
- community engagement strategies, including Aboriginal and Torres Strait Islander communities
- place-based approaches to infrastructure development
- defining transformative infrastructure.
- discount rates, if necessary to align with changes to the central discount rates used by state and territory treasuries (see **Box 12**).

We welcome your suggestions on other areas for update that we should consider, and invite you to share examples with us of emerging practices or projects that can inform this work.

The revised structure of the Assessment Framework (as a series of volumes and supporting technical guides) means that updates can occur more easily and new technical guides can be added if required.

Our Act requires that our cost–benefit analysis methodology (as outlined in the Assessment Framework) is reviewed every 24 months. The next review is due by early 2022 and will provide a source for future updates.



### Box 12: Discount rates

The majority of current national, state and territory guidelines on CBA in Australia require the use of a 7% discount rate (see [Glossary](#)) as the central rate for analysing infrastructure proposals. In addition, most guidelines require economic appraisals to present results using 4% and 10% discount rates as sensitivity tests. We also adopt these rates to maintain our alignment with other guidelines and to test the rigour of the economic analysis.

It is usually the role of treasuries to set the central discount rate (and sensitivities).

We will consider a change to the discount rates used in the Assessment Framework in future editions if it accompanies a consistent change across national, state and territory guidelines.

To increase transparency, our proposal evaluation reports present the economic appraisal results using all three discount rates (where it is available) to show the range of analysis.

# 3

## Four stages of analysis and submission

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## At a glance

In this section, we give an overview of our four-stage process for project development and the analysis tools and approaches we recommend.

- Each volume of the Assessment Framework relates to a different stage of project development and provides specific guidance on our submission requirements at that stage.
- Progressing through the stages saves you from wasting resources developing unsuitable options and allows you to demonstrate that your proposal is evidence based.
- Cost–benefit analysis (CBA) is required to inform your final business case (Stage 3 submission). However, it can be supplemented with other tools to develop your proposal. The Assessment Framework provides you with detail on how to apply these tools.

## 3.1 A simpler, four-stage approach

The Assessment Framework now consists of four stages (rather than the five stages detailed in past editions). These stages reflect the role we play in infrastructure project development and review, and align with state and territory frameworks:

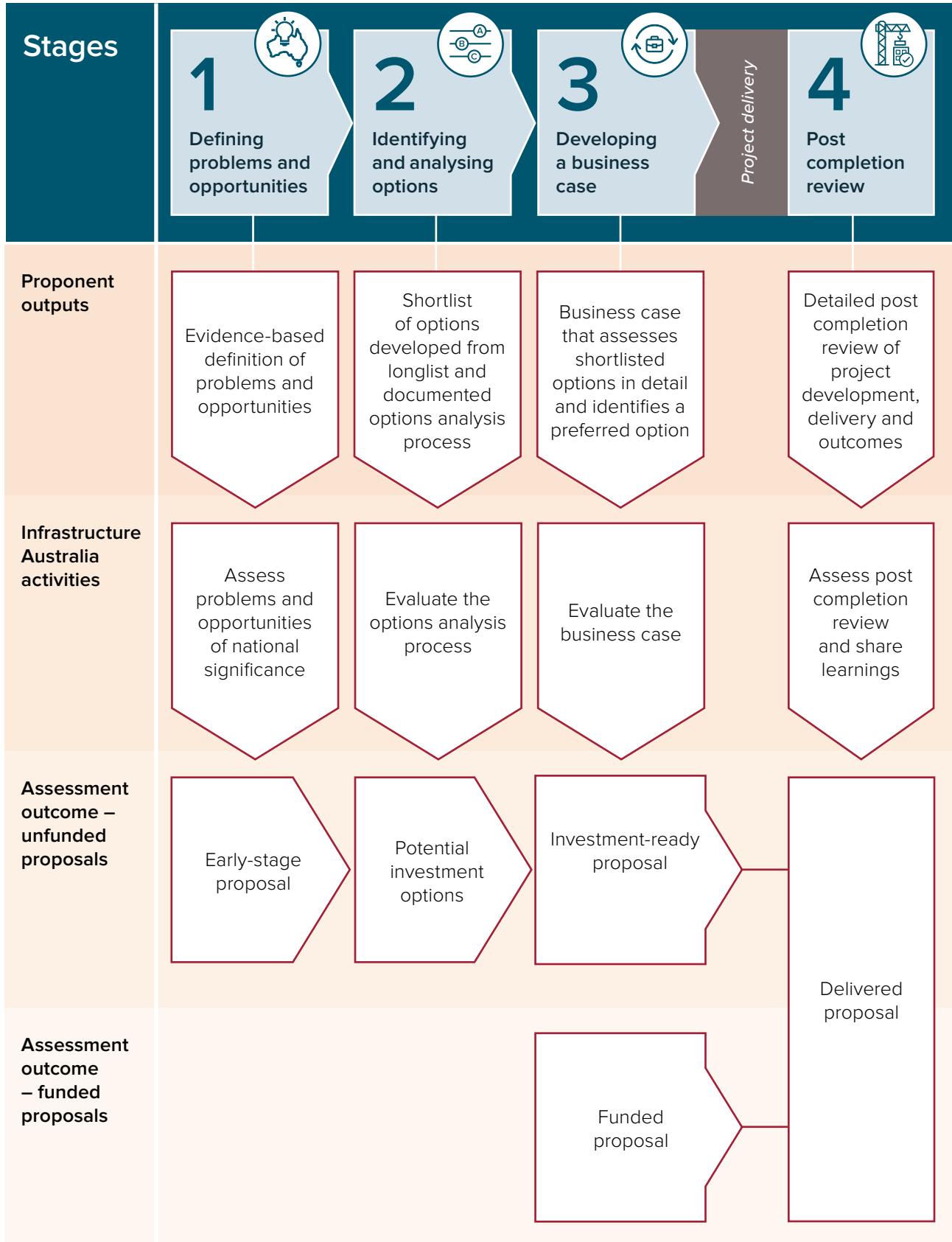
- **Stage 1: Defining problems and opportunities**
- **Stage 2: Identifying and analysing options**
- **Stage 3: Developing a business case**
- **Stage 4: Post completion review**

The Assessment Framework’s stages are a cumulative process, with activities in each stage building on the last. Each stage of the Assessment Framework has clearly defined outputs, as outlined in **Figure 5**.

We welcome submissions at any stage of the assessment process. However, **your submission must include the relevant information to address the preceding stages if it has not been previously provided**. For example, a business case submission for Stage 3 assessment will need to provide the information to address Stage 1 and Stage 2, if these stages have not previously been completed.



Figure 5: Assessment Framework stages, outputs and assessment outcomes



## Assessment stages and submissions

The Assessment Framework explains the steps we expect you to take at each stage and what evidence we expect to see in your submission to us.

Each volume of the Assessment Framework relates to a different stage and provides specific guidance

on our submission requirements at that stage, as well as our recommended or preferred planning tools, approaches and methodologies. **Table 2** gives a brief overview of what actions you should be taking in each stage, and where to find additional guidance.

**Table 2: The Assessment Framework stages, submission documents and further guidance**

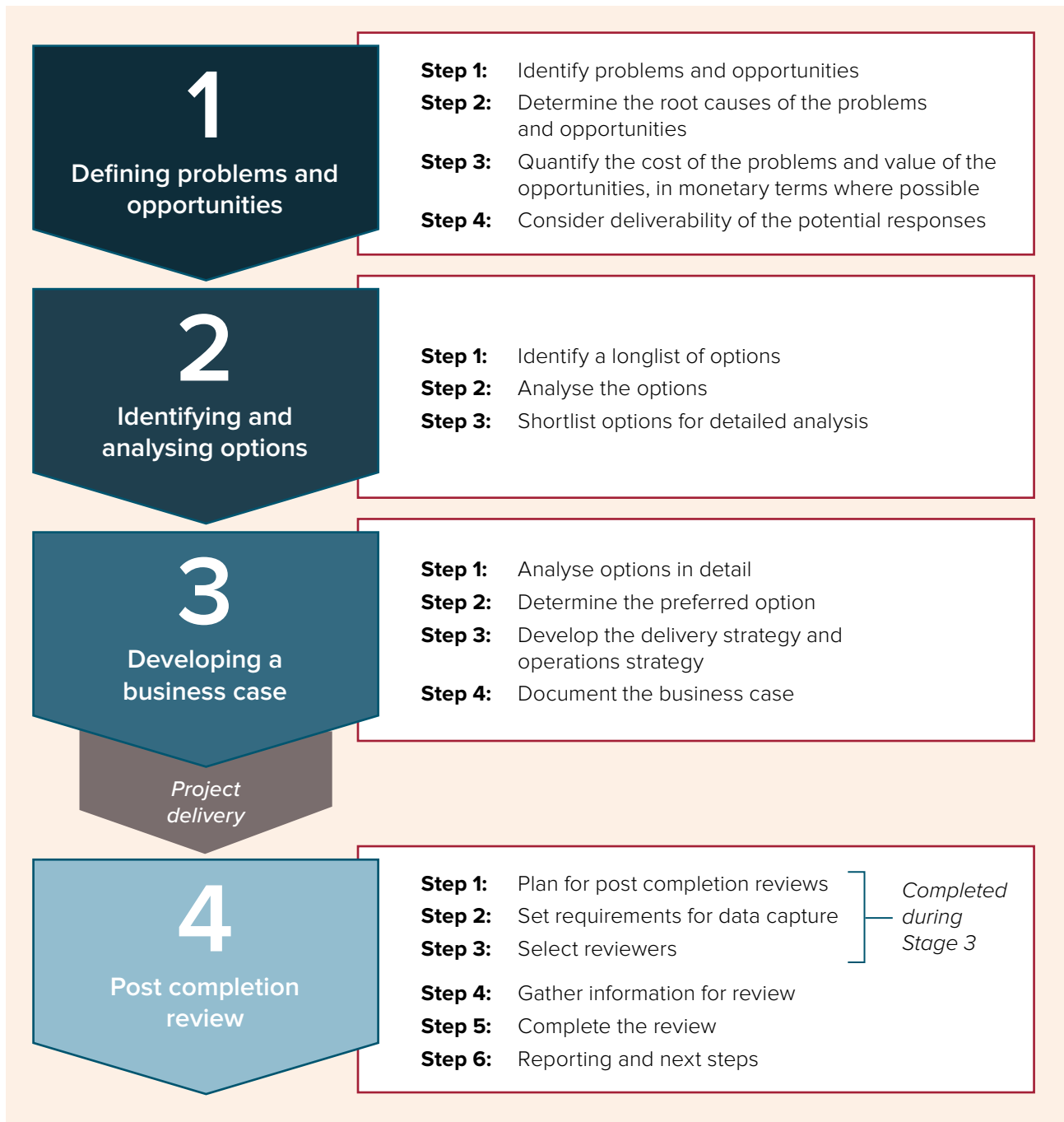
<p><b>1</b></p> <p><b>Defining problems and opportunities</b></p>	<p><b>Stage overview</b></p> <p>In Stage 1, you will define evidence-based problems and opportunities that are worth addressing and set the required outcomes. This will ensure your proposed interventions address the underlying problems and opportunities at hand.</p> <p>During Stage 1, you should identify, quantify and monetise problems and opportunities with clear evidence.</p> <p>At the end of this process, you can make a Stage 1 submission to us. If we assess the problems and opportunities you have identified as nationally significant, we will add your proposal to the <i>Infrastructure Priority List</i>.</p> <p>See the <b>Stage 1</b> volume for more detail.</p>
	<p><b>Submission documents</b></p> <p><b>Stage 1 Submission Template</b></p>
<p><b>2</b></p> <p><b>Identifying and analysing options</b></p>	<p><b>Stage overview</b></p> <p>In Stage 2, you will develop a wide range of options that could address the problems and opportunities you identified in Stage 1, and analyse these options to select a shortlist of options most likely to be of benefit to the Australian community.</p> <p>You can then make a Stage 2 submission to us, which we will assess to determine if you have identified a comprehensive longlist of options, if your options analysis process is robust and if you have proposed an appropriate shortlist of options that can be analysed in detail in Stage 3. Your Stage 2 submission will usually include at least two shortlisted options, noting that sometimes one option may be appropriate.</p> <p>If we positively assess your Stage 2 submission, we will update the existing proposal on the <i>Infrastructure Priority List</i>.</p> <p>See the <b>Stage 2</b> volume for more detail.</p>
	<p><b>Submission documents</b></p> <p><b>Stage 2 Submission Checklist</b></p>

<h1>3</h1> <p>Developing a business case</p>	<p><b>Stage overview</b></p> <p>In Stage 3 you will develop the options you shortlisted in Stage 2 to select the option with greatest value to the Australian community and to determine if that option is worth proceeding with. You will also define how you can reduce risks for delivery.</p> <p>To do this, you will complete a rigorous and unbiased assessment to select a preferred option and develop the delivery strategy and operations strategy for the preferred option. You will capture this process and its outputs in the business case (a Stage 3 submission).</p> <p>We will assess your submission, which should include the business case and supporting information, to determine if your analysis of the shortlist is robust and you have proposed an appropriate preferred option. We will engage with you to clarify content and seek more information where required.</p> <p>The outcome of our evaluation will depend on the reason for review:</p> <ul style="list-style-type: none"> <li>• If you are seeking inclusion on the <i>Infrastructure Priority List</i> – we will add positively assessed proposals to the Priority List and update any existing related proposal. All Stage 3 evaluations will be published on our website.</li> <li>• If you are seeking an evaluation following an Australian Government funding commitment of greater than \$250 million – we will publish our evaluation, but your proposal will not be considered for the <i>Infrastructure Priority List</i>.</li> </ul> <p>See the <b>Stage 3</b> volume for more detail.</p>
	<p><b>Submission documents</b></p> <p><b>Stage 3 Submission Checklist</b></p>
<h1>4</h1> <p>Post completion review</p>	<p><b>Stage overview</b></p> <p>In Stage 4, you will help improve future infrastructure projects by reviewing the planning and delivery of the project once it is operational. Our post completion review process builds on the benefits realisation process to also review costs.</p> <p>In this stage, you will review the project delivery and outcomes against the information described in the business case (Stage 3) to understand the success of the project and capture lessons learnt.</p> <p>We will review your submission to provide feedback on the process and capture lessons for future projects.</p> <p>See the <b>Stage 4</b> volume for more detail.</p>
	<p><b>Submission documents</b></p> <p><b>Stage 4 Submission Checklist</b></p>

### Progressing through the stages

The stage volumes describe in detail our recommended approach for project development. For context, **Figure 6** shows the steps within each stage of the Assessment Framework.

**Figure 6:** Overview of the steps in each stage

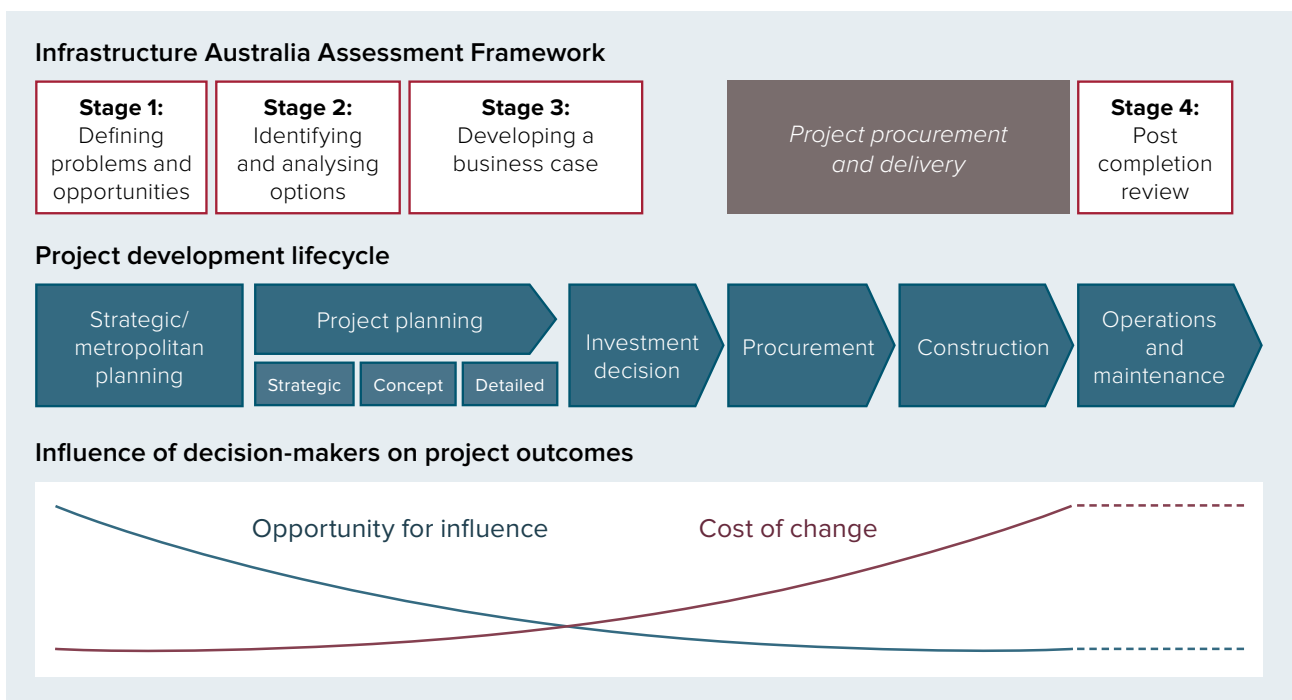


### The value of a staged process

The Assessment Framework stages present our recommended project development process and align with state and territory frameworks. Progressing through the stages **saves you from wasting resources developing unsuitable options** and allows you to justify that appropriate investigation has been completed to drive the greatest net societal welfare from the proposal.

**Figure 7** describes how the Assessment Framework aligns to the typical project development lifecycle and highlights how rigorous work up-front is essential for effective decision-making and investment.

**Figure 7: Alignment with project development and the ability to influence project outcomes**



Importantly, changes made early in the project development lifecycle have the biggest impact on outcomes. Completing more comprehensive analysis early in development can identify a broader range of options and identify those that will deliver a better end result. As proposals are developed, analysed, designed and procured, the flexibility to change decreases and the cost of these changes often increases. Comprehensively considering what projects are seeking to achieve, and narrowing down risk and uncertainties to inform clear project outcomes are critical front-end steps for successful projects.

By meeting the requirements of the Assessment Framework, you will invest proportionate time, effort and resources to the front-end of projects, to deliver the most appropriate solution for a diverse range of end users, and to understand and manage risks prior to procurement and delivery.

## 3.2 Analysis tools for each stage

Our evaluation of infrastructure proposals is designed to capture all consequences of problems and opportunities, including social, economic and environmental consequences. While we consider a wide range of evidence in our assessments, from both qualitative and quantitative sources, at its core, the Assessment Framework is built around robust appraisal and evaluation.

We assess submissions against three overarching Assessment Criteria, described in detail in [Section 4.2](#):

- Strategic Fit – is there a clear rationale for the proposal?
- Societal Impact – what is the value of the proposal to society and the economy?
- Deliverability – can the proposal be delivered successfully?

We recommend that you use a range of tools to support your proposals. Those tools should reflect the stage of project development.

Ultimately, a business case (prepared as part of Stage 3) seeks to determine the most appropriate response to identified problems and opportunities. This response will have been identified from a longlist of options (considered as part of Stage 2) to demonstrate that it is the best response against our three Assessment Criteria.

This section outlines our recommended evaluation techniques and methods to be applied throughout project development and particularly to inform the identification of the preferred option. Further details on the analysis of options are provided in the [Stage 2](#) and [Stage 3](#) volumes.

### Key appraisal and evaluation techniques

Appraisal and evaluation methods differ in their levels of effort and costs. Consequently, they will also differ in their robustness and information requirements.

To inform final decision-making in a business case, you are required to use cost–benefit analysis (CBA). CBA measures the costs and benefits to the Australian community and aligns with our legislation to consider infrastructure that materially improves national productivity. **While CBA is a tool that supports decision-making, it is not the sole determinant of an investment decision.** Some social outcomes are less tangible and are more difficult to measure using CBA; where this is the case, other tools are relevant to inform decision-making.<sup>7</sup>

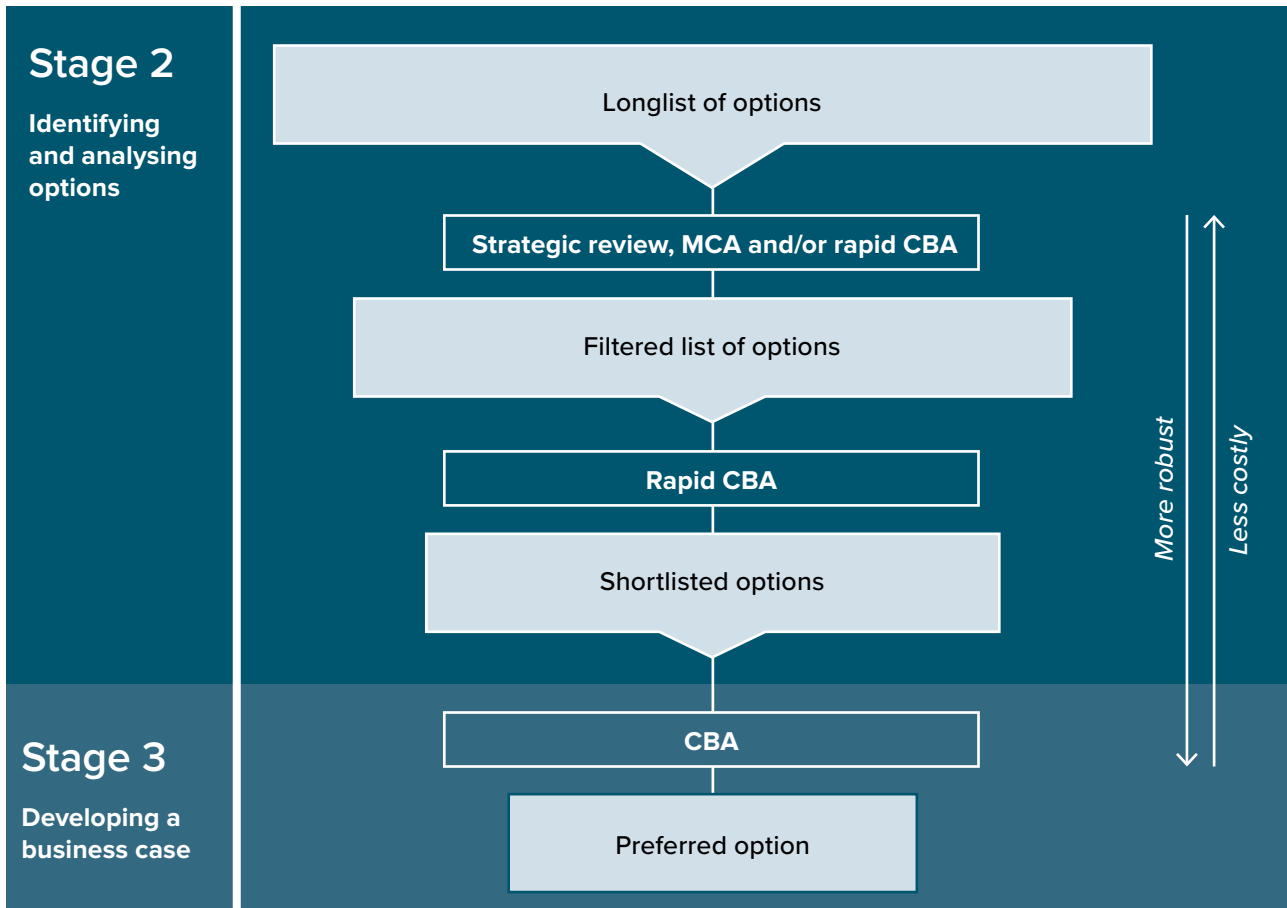
We also recognise that detailed CBA requires considerable effort, and at earlier stages in the options development process, less costly (and less robust) methods can be employed to analyse and remove options. **Figure 8** sets out our recommended tools to inform decision-making through Stage 2 and Stage 3. Note that these tools should be considered in the wider context of our Assessment Criteria.

**Strategic review** involves a high-level review of the strategic fit and feasibility of options before moving on to more structured analysis. This is intended to form an initial view of each option and can be conducted informally with less effort than is required for quantitative analysis. More information on strategic assessment tools is provided in the [Stage 2](#) volume.

**Multi-criteria analysis (MCA)** differentiates and evaluates options using a set of project-specific criteria with weights assigned to each criterion. The analysis involves scoring and weighting each option against each criterion. MCA can be used for analysing a longlist of options against how they address problems and opportunities, but should not be used by itself to develop a shortlist of options. For further information, please refer to our [Guide to multi-criteria analysis](#).

7. Other tools used for project evaluation include cost effectiveness analysis, multi-criteria analysis and deliberative methods.

Figure 8: When to use different evaluation techniques



**Rapid cost–benefit analysis (rapid CBA)** incorporates standard CBA principles and techniques but at a lower level of accuracy. Rapid CBA allows multiple options to be compared using a common metric (for example, net present value or ratio of benefits to costs). It quantifies the most material economic costs and benefits only, and uses simplifying assumptions, which is why it is called a rapid appraisal. Further information on rapid CBA is included in our [Guide to economic appraisal](#).

**Cost–benefit analysis (CBA)**<sup>8</sup> is widely recognised as the most appropriate tool for considering and comparing the costs and benefits of a wide variety of policies and projects, including infrastructure projects. It is often referred to as **Social CBA**, because it evaluates the social, economic and environmental value over the life of a proposal. CBA seeks to identify, measure, value and compare the costs and benefits of each option over time.

We require the CBA to be from the perspective of the Australian community. CBA can be applied to different levels of scope and different types of interventions. It can be applied to policy and regulation changes, projects and programs. Further information is included in our [Guide to economic appraisal](#).

**CBA should be used to undertake the economic appraisal for a business case**, and divergence from this should be discussed with us before undertaking a business case.

**Table 3** provides a summary of key appraisal methods and their merits and limitations.

8. CBA is sometimes referred to as benefit–cost analysis (BCA).



**Table 3: Merits and limitations of appraisal methods**

	Description	Merits	Limitations	Applicability
<b>Strategic assessment</b>	High-level qualitative analysis against objectives or minimum standards	<ul style="list-style-type: none"> <li>• Low cost and quick to implement</li> <li>• Low data intensity</li> <li>• Transparent</li> </ul>	<ul style="list-style-type: none"> <li>• Low level of information accuracy</li> <li>• Largely qualitative</li> <li>• Potential for subjectivity and bias</li> </ul>	<p>Applies to Stage 2.</p> <p>Further guidance provided in the <b>Stage 2</b> volume.</p>
<b>MCA</b>	Analysis against objectives including qualitative and quantitative measures	<ul style="list-style-type: none"> <li>• Flexible and scalable (cost and timeliness depend on scale of task)</li> <li>• Can accommodate qualitative and quantitative information</li> </ul>	<ul style="list-style-type: none"> <li>• Affected by subjectivity and bias</li> <li>• Results may not be reproducible</li> <li>• Does not provide a value for money analysis</li> <li>• Does not indicate absolute performance of options, only their comparative performance against stated objectives</li> </ul>	<p>Applies to Stage 2.</p> <p>Detailed guidance provided in the <b>Guide to multi-criteria analysis</b>.</p>
<b>Rapid CBA</b>	Applies standard CBA principles to compare options based on their net benefits to the community	<ul style="list-style-type: none"> <li>• More rigour than qualitative methods</li> <li>• Provides a value-for-money analysis</li> <li>• Analyses options using a common metric, allowing comparison between options</li> <li>• Low to moderate cost and speed to implement</li> <li>• Low to moderate data intensity</li> </ul>	<ul style="list-style-type: none"> <li>• Does not analyse qualitative information</li> <li>• Accuracy/quality of inputs not as robust as detailed CBA</li> <li>• Only most significant costs and benefits are examined</li> </ul>	<p>Applies to Stage 2.</p> <p>Further guidance provided in the <b>Stage 2</b> volume and the <b>Guide to economic appraisal</b>.</p>

Table 3 continued

	Description	Merits	Limitations	Applicability
<b>Detailed CBA</b>	Detailed analysis of the total costs and benefits to the community to determine the net benefit of an option	<ul style="list-style-type: none"> <li>Rigorous analysis underpinned by robust methodologies providing greater confidence in decision-making</li> <li>Highly quantitative and structured, providing greater decision transparency</li> <li>Robust analysis of value for money</li> </ul>	<ul style="list-style-type: none"> <li>Does not consider qualitative information</li> <li>High degree of complexity, cost, and data intensity</li> <li>Intangible benefits are not able to be incorporated in the quantitative analysis where accepted measures do not yet exist</li> </ul>	<p>Applies to Stage 3.</p> <p>Further guidance provided in the <b>Stage 3</b> volume and the <b>Guide to economic appraisal</b>.</p>
<b>Financial appraisal</b>	Detailed analysis of financial flows	<ul style="list-style-type: none"> <li>Highly quantitative and structured, providing greater decision transparency</li> <li>Considers overall financial impact, including financial transfers between parties that would be excluded from economic appraisal</li> </ul>	<ul style="list-style-type: none"> <li>Only examines financial impacts (i.e. does not consider welfare benefits)</li> <li>Perspective of an individual company, industry, or government agency rather than community</li> <li>Includes financial transfers between parties where there is not a net societal benefit</li> </ul>	<p>Applies to Stage 3.</p> <p>Further guidance provided in the <b>Stage 3</b> volume.</p>

### 3.3 Other infrastructure planning techniques and approaches

In addition to a staged appraisal approach, we expect that you will also use a range of infrastructure planning techniques and approaches to assist with development, implementation and evaluation of projects. Using a broad range of techniques and approaches can provide additional quantitative

and qualitative data to feed into either the CBA or to be included in your submission as supporting information. **Table 4** provides a non-exhaustive list of techniques and approaches we expect to be employed at a minimum as part of project development.

**Table 4: Planning techniques and approaches**

Technique/ approach	Overview	Further details
<b>High-level policy development</b>	The critical up-front phase of proposal development. Along with setting network or system goals and objectives, this phase provides the direction-setting guidance for all infrastructure decisions.	Refer to the <b>Stage 1</b> volume.
<b>Strategic planning</b>	Longer-term planning is critical for the success of infrastructure networks or systems. It should consider relevant national, state and territory land use, transport, environmental and planning strategies.	Refer to the <b>Stage 1</b> volume.
<b>Demand forecasting</b>	The process of making estimations about future demand over a defined period, using historical data and other available information.	Refer to the <b>Stage 1, Stage 2</b> and <b>Stage 3</b> volumes.
<b>Sensitivity and Scenario Testing</b>	Analyses the possible impact of risks and uncertainty on project outcomes. This is performed by determining the change in project outcomes with respect to changes in specific project variables, inputs and assumptions.	Refer to the <b>Stage 3</b> volume and the <b>Guide to risk and uncertainty analysis</b> .
<b>Option value (i.e. real options approach)</b>	Determines the value that consumers place on being able to keep an option available, even though they may never in fact choose it.	Refer to the <b>Stage 3</b> volume and the <b>Guide to risk and uncertainty analysis</b> .
<b>Probabilistic cost estimation</b>	Identifies cost components and determines the probability distribution for each cost component. It also undertakes a simulation to generate a probability distribution of project costs.	Refer to the <b>Stage 3</b> volume.
<b>Market capability and capacity analysis</b>	Provides a clear picture of a sector's capacity in terms of strengths, weaknesses and available assets. It is a structured approach for analysing capacity across three dimensions: individuals, organisations and the enabling environment.	Refer to the <b>Stage 3</b> volume.
<b>Risk analysis plans</b>	Identify issues, situations and processes that may cause harm and/or negatively impact delivery. It will also analyse and evaluate how likely and severe the risks are and develop mitigating measures.	Refer to the <b>Stage 3</b> volume and the <b>Guide to risk and uncertainty analysis</b> .
<b>Willingness to pay analysis</b>	Willingness to pay (and willingness to accept) are used as measures of human preference to value changes in societal wellbeing. They are a useful approach to quantify the social impacts of a proposal. There are a variety of approaches to measure willingness to pay.	Refer to the <b>Guide to economic appraisal</b> .



## Box 13: Assessment Framework in practice

### Stage 1: Defining problems and opportunities

- Engage Infrastructure Australia to seek guidance on recommended infrastructure appraisal methods.
- Use quantitative evidence to measure the magnitude and timing of problems and opportunities, such as transport/traffic modelling, and to measure the economic cost of the problems and economic value of the opportunities.
- Where evidence cannot be quantified, provide qualitative reasoning for the problems and opportunities to supplement the quantitative data.
- Understand the problems and opportunities properly before developing solutions.

### Stage 2: Identifying and analysing options

- Establish governance structures that allow for identification and analysis of a range of options.
- Consider a wide range of options, including non-infrastructure solutions, and narrow this range objectively using a structured, quantitative and unbiased analysis.
- Undertake the options filtering process using tools such as strategic assessment, MCA and Rapid CBA. Other detailed analysis may also be relevant, such as sensitivity or scenario, risk analysis, sustainability and resilience analyses.

### Stage 3: Developing a business case

- Include detailed quantitative and qualitative analysis on all shortlisted options, and not just the preferred option. This should support our three Assessment Criteria:
  - Demonstrate strategic fit, including alignment with stated goals, the existing and future infrastructure network and response to the needs of identified beneficiaries and stakeholders.

- Demonstrate the impact on societal wellbeing, by considering the full range of project costs and benefits, including those that are difficult or costly to monetise. This will be underpinned by a social CBA that is evidence-based and robust, and supported by any supporting analysis (e.g. environment, sustainability, resilience, equity and distribution). Test the robustness of results.
- Demonstrate deliverability, by considering the maturity of proposal design and costs, market capability and capacity, risks, governance, procurement models, and funding and financing.
- Provide all relevant information in a business case, to help us carry out a complete assessment.
- Develop the delivery strategy and operations strategy for the preferred option, and plan for post completion review.

### Stage 4: Post completion review

- Undertake a detailed post completion review to consider whether:
  - the proposal achieved its intended objectives
  - net benefits have been realised as per the business case
  - assumptions adopted in the CBA of the business case were appropriate
  - outcomes could have been achieved in a more effective and efficient way.

# 4

## How we assess submissions

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## At a glance

In this section, we describe our process and detailed criteria for assessing your proposal.

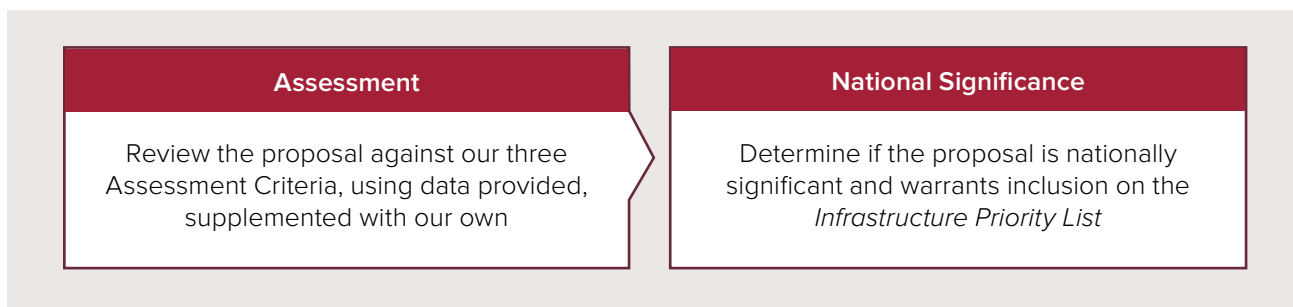
- We use **three overarching Assessment Criteria** to assess the merit of every proposal, at every stage:
  - **Strategic Fit** – is there a clear rationale for the proposal?
  - **Societal Impact** – what is the value of the proposal to society and the economy?
  - **Deliverability** – can the proposal be delivered successfully?
- We have included **five themes under each criterion**, to highlight our key considerations during assessment. This guides you in responding to these criteria and helps us capture the broader merits of your proposal.
- **Key focus areas** for our assessment include stakeholder endorsement, quality of life, sustainability and resilience.
- As far as possible, you should demonstrate the impacts of your proposal via cost–benefit analysis (monetised evidence), however, we also take into account quantitative and qualitative evidence to capture benefits that cannot be monetised.

## 4.1 Our assessment pathway

We use a two-step pathway to assess and prioritise each proposal, shown in **Figure 9**. We follow these steps for submissions at Stages 1 to 3 of

the Assessment Framework, applying our Assessment Criteria in progressively more detail through each stage.

**Figure 9:** Overview of our assessment pathway





## 4.2 Our criteria for assessing submissions

The Assessment Framework uses three overarching Assessment Criteria to assess the merit of every proposal, at every stage:

- 1. Strategic Fit – is there a clear rationale for the proposal?** We assess whether there is a strong case for action, the proposal aligns to the achievement of stated goals and there is a clear fit with the community.
- 2. Societal Impact – what is the value of the proposal to society and the economy?** We assess whether the social, economic and environmental value of the proposal, and its contribution to community sustainability and resilience, is clearly demonstrated by evidence-based analysis.

- 3. Deliverability – can the proposal be delivered successfully?** We assess whether the proposal is capable of being delivered successfully, whether risks have been identified and sufficiently mitigated, and whether there is a plan in place to realise the benefits.

In this edition of the Assessment Framework, we have included five themes under each criterion, to highlight our key considerations during assessment (see **Table 5**). You should consider every theme, and make reference to them in your submissions as relevant. Please note that **the level of significance will differ and not all themes may be applicable to all proposals**. Case studies are provided in each stage volume to illustrate how the significance of themes will differ between proposals.

**Table 5: Assessment Criteria summary**



Criteria	Theme	What we are looking for
<b>Strategic Fit</b> There is a strong case for action, the proposal aligns to the achievement of stated goals, and there is a clear fit with the community.	<b>Case for change</b>	The underlying causes and effects of the problems and opportunities make a clear case for the proposal.
	<b>Alignment</b>	The proposal directly contributes to relevant national, state, territory and local government goals, objectives, policies and strategic plans.
	<b>Network and system integration</b>	The proposal is compatible with the existing and future infrastructure network, system or place in which it is situated. It is an essential part of a coherent program of work.
	<b>Solution justification</b>	The proposal is the most appropriate response to addressing the problems and opportunities.
	<b>Stakeholder endorsement</b>	There is sufficient support for the proposal and buy-in from identified beneficiaries, stakeholders and/or community that it responds to their needs.

Table 5: Continued



Criteria	Theme	What we are looking for
<b>Societal Impact</b> The social, economic and environmental value of the proposal is clearly demonstrated by evidence-based analysis.	<b>Quality of life</b>	The proposal will improve the quality of life of Australians.
	<b>Productivity</b>	The proposal will improve productivity of the economy, by reducing the costs and/or increasing the output of production activities.
	<b>Environment</b>	The proposal has identified environmental effects and a plan is in place to manage them.
	<b>Sustainability</b>	The proposal meets the needs of the present without compromising the ability of future generations to meet their own needs.
	<b>Resilience</b>	The proposal improves the ability of the community to anticipate, resist, absorb, recover, transform and thrive in response to shocks and stresses, to realise positive social, economic and environmental outcomes.
<b>Deliverability</b> The proposal is capable of being delivered successfully, with risks being identified and sufficiently mitigated. A plan is in place to realise the benefits.	<b>Ease of implementation</b>	There are deliverable solutions for responding to the problems and opportunities.
	<b>Capability &amp; capacity</b>	The proponent, and the industry, have appropriate skills and capacity to deliver the proposal.
	<b>Project governance</b>	The governance and procurement model is appropriate for successful delivery.
	<b>Risk</b>	The risks of delivering the proposal have been identified and can be appropriately managed.
	<b>Lessons learnt</b>	Lessons from similar projects have been used to inform analysis during each stage of project development. A post completion review has been considered, with a measurement strategy in place.

By breaking the Assessment Criteria into these themes, we aim to improve transparency and ease of use by:

- better defining our Assessment Criteria
- broadening the range of factors we consider in our assessment, to ensure we capture the merit of a given proposal
- identifying other benefits that may not be monetised through traditional economic analysis, but may strengthen your submission.

Each of the stage volumes of the Assessment Framework relate to a stage of project development, and provide explicit guidance for how the criteria and themes apply to that stage. There is a consistent but progressive consideration of the themes through each stage.

We recommend that you consider these themes from the outset of your investigation, so you can effectively demonstrate the merit of your proposal. We also invite you to engage with us in the early stages of proposal development to discuss how the criteria and themes may apply to your proposal.

## Balancing monetised, quantitative and qualitative evidence

The themes within the Strategic Fit and Deliverability criteria are relatively independent of each other, and will generally be demonstrated using qualitative evidence. You can use monetised, quantitative and qualitative evidence to demonstrate elements of Societal Impact, and some evidence will relate to multiple themes. For example, some benefits may be classified as improving quality-of-life, but may also have significant effects on community resilience to shocks. Rather than double count benefits in your submission, we recommend you attribute them to the theme most relevant given the nature of the proposal.

Social CBA remains the key tool for analysing how your proposal performs against the Societal Impact criterion, as it aims to capture all effects on societal welfare. In most cases, the CBA will capture benefits

across all five themes within this criterion. It will also capture considerations of the network and system integration and risk themes. As far as possible, we expect impacts to be considered and included in the CBA. However, we also take into account benefits that are not readily monetised by considering supporting quantitative and qualitative evidence. Considering all five themes, alongside the benefit–cost ratio (BCR, see [Glossary](#)), enables us to make a more holistic assessment of each proposal.

**More broadly, this approach enables better recognition of the full range of benefits and wider considerations, alongside the CBA results.** How these are considered together is discussed in each Assessment Framework stage. See [Box 14](#) for detail on how we take a holistic approach to evaluation.



### Box 14: A holistic approach to evaluation

The Assessment Framework applies a broad Assessment Criteria to evaluate proposals holistically. Strategic Fit and Deliverability criteria are fundamental considerations, alongside the Societal Impact criterion.

For proposals to be positively assessed by us at Stage 3, a business case must demonstrate a proposal's merit against all three criteria:

- 1. Strategic Fit:** There is strong strategic fit for the proposal, the problems and opportunities are well understood, the proposal aligns to declared government objectives, the preferred solution is demonstrated to be the most appropriate response, and there is evidence that the proposal is supported by stakeholders, including the community. If the proposal is being put forward for social equity reasons or is directly responding to government policy, this should be clearly explained.
- 2. Societal Impact:** There is a thorough and balanced analysis of the costs and benefits of the proposal to society as a whole. The CBA is detailed and robust, capturing all quantifiable costs and benefits effectively. Although CBA is the key input to Societal Impact, we recognise that some benefits cannot be quantified in CBA. There should be confidence that the results of the CBA are an accurate reflection

of the proposal, that it is robust to a range of sensitivity tests, and that it contributes to community sustainability and resilience. Further, there should be clear evidence of the non-monetised benefits that can supplement the economic appraisal results, irrespective of whether the CBA result is positive or not.

- 3. Deliverability:** The proposal can be successfully delivered. This includes demonstrating that the proponent has a successful track record for delivering projects of a similar nature, that identified risks can be appropriately mitigated, and that regulatory approval processes can be achieved.

Adopting a balanced and holistic approach means that we are able to better consider the merit of each proposal, taking into account the economic appraisal results and other evidence. **Subject to the strength of evidence presented, proposals with a benefit–cost ratio of less than 1 (where the estimated costs exceed the quantified benefits) can be supported where they make a significant contribution to strategic or social policy objectives (see Box 17).**

Conversely, we still review proposals against all three of our Assessment Criteria, even when the economic case is strong.

## 4.3 What makes a proposal nationally significant?

The *Infrastructure Priority List* presents an evidence-based list of nationally significant infrastructure proposals (see **Box 3** in **Section 1.2**).

The *Infrastructure Australia Act 2008* (the Act) defines nationally significant infrastructure as being:

1. transport infrastructure; and
2. energy infrastructure; and
3. communications infrastructure; and
4. water infrastructure;

in which investment or further investment will **materially improve national productivity**.

We also consider social infrastructure, such as health, social housing, education and community facilities.

Our Statement of Expectations provides further direction, stating that the Priority List should include a future pipeline of proposals expected to contribute to national productivity (see **Box 16**) or be otherwise socially beneficial (see **Box 17**). It also states that proposals should be included on the Priority List based on assessed merit.

**As a guide, for a proposal to be considered nationally significant, it should concern a problem or opportunity that will have more than \$30 million per annum impact on the economy (nominal, undiscounted). We also take potential unquantified social benefit considerations into account.**

The monetised impact reflects the economic cost of the problems and/or value of the opportunities, not the financial (capital) cost of addressing them. We expect potential impacts cited in submissions to be quantified and supported by evidence, but recognise that some types of social and environmental impacts (such as irreversible environmental damage, loss of cultural heritage, or health and safety impacts) may not be readily quantifiable, particularly during the early stages of project development.

**Alongside the impact on the economy, the following characteristics can inform our assessment of national significance:**

- The proposal will contribute to the Australian Government fulfilling its declared strategic priorities (e.g. Closing the Gap targets).
- The proposal affects or is likely to affect more than one state or territory, such as a network utility operation.
- The proposal relates to an asset or location that is unique and will have a materially positive effect on national identity or cultural standing.
- The proposal relates to an asset that is demonstrated as critically important for access/connectivity, where the only alternatives are cost-prohibitive (for example, water pipeline, freight rail line, road corridor). This would be most relevant for access/connectivity during a critical incident and/or for assets serving remote communities.

For each of these characteristics, a proposal should demonstrate its broad impact on the wider community or infrastructure system. That is, it should not be limited to the local area and instead have wide-reaching influence. National significance does not require the asset to operate nationally, or provide a service that impacts the entirety of Australia. Rather the asset, and its functioning, must be significant from a national perspective.

For Stage 2 and Stage 3 submissions to be considered for the Priority List, we require them to address a problem and/or realise an opportunity that is nationally significant.

**If a proposal is not deemed nationally significant, it will not be included on the Priority List. However, this does not preclude you from seeking or receiving Australian Government funding for that proposal.**

As part of our legislative responsibilities, **Infrastructure Australia will evaluate all business cases where more than \$250 million in Australian Government funding has been committed, regardless of whether it has been previously assessed as nationally significant in Stage 1 (early-stage proposal).**



## Box 15: Our threshold for national significance

Our economic productivity threshold for national significance (\$30 million per annum impact on the economy) has been in place since 2016. We have retained the economic productivity threshold in this edition of the Assessment Framework, and have supplemented it with other factors that will assist in identifying nationally significant priorities.

We may consider an increase to the threshold for future updates to the Assessment Framework. This may also consider a separate, higher threshold for programs of work.



## Box 16: What do we mean by productivity?

The Australian Productivity Commission defines productivity as:

the efficiency with which the economy as a whole, convert inputs (labour, capital, and raw materials) into outputs. Productivity grows when outputs grows faster than inputs, which makes the existing inputs more productively efficient.<sup>9</sup>

We have identified some common ways in which infrastructure proposals can directly raise productivity:

- Increasing access through capacity enhancements to infrastructure networks (transport, energy, telecommunications, etc.).
- Increasing an infrastructure network's efficiency, reliability and/or resilience to disruption.
- Reducing maintenance costs for an infrastructure network.

- Improving travel times for workers and freight transport.
- Reducing vehicle operating costs for workers and freight transport.
- Providing health benefits from increased use of active transport.

You should demonstrate the net productivity benefits (that is, benefits minus costs) of your proposal via the CBA.

**Table 5** explains how we consider productivity as part of our Societal Impact criterion. We assess the productivity benefits of each proposal submitted to us and it informs our decision-making. For further guidance on how you can demonstrate productivity benefits in your submission, see the **Stage 3** volume and our supplementary **Guide to economic appraisal**.

9. Commonwealth Productivity Commission 2015, *What is productivity and how is it measured?*, 20 May 2021, available at: [www.pc.gov.au/news-media/pc-news/previous-editions/pc-news-may-2015/productivity-and-how-measured](http://www.pc.gov.au/news-media/pc-news/previous-editions/pc-news-may-2015/productivity-and-how-measured)



### Box 17: What do we mean by socially beneficial?

There are a number of ways you can demonstrate how your proposal is socially beneficial:

Criteria	Theme	What you need to demonstrate
<b>Strategic Fit</b> There is a strong case for action, the proposal aligns to the achievement of stated goals, and there is a clear fit with the community.	<b>Alignment</b>	The proposal directly contributes to relevant national, state and local government goals, objectives and policies relating to social welfare (e.g. Closing The Gap) or there is a Community Service Obligation (see <b>Glossary</b> ) in place.
	<b>Network and system integration</b>	The proposal is a key enabler, catalyst or ‘first piece’ in a transformational program of work.
<b>Societal Impact</b> The social, economic and environmental value of the proposal is clearly demonstrated by evidence-based analysis.	<b>Quality of life</b>	There is a clearly defined social (equity) problem or opportunity that requires addressing.
	<b>Sustainability</b>	The proposal will significantly influence the behaviour and sustainability of our communities.
	<b>Resilience</b>	The proposal significantly improves the ability of communities to anticipate, resist, absorb, recover, transform and thrive in response to shocks and stresses.





## Box 18: Proposals on the 2021 Priority List that include significant unquantified characteristics

The following proposals on the Priority List include significant unquantified social benefits:

**Australian Institute of Sport revitalisation (ACT)** – a unique national facility, the proposal recognises the potential loss of world-class athletes to other countries.

**Indigenous art and cultural facilities program (National)** – recognises the cultural (as well as economic) benefits for Aboriginal and Torres Strait Islander peoples and the potential to improve national identity.

**Northern Territory remote community power generation program (NT)** – recognises the value of energy supply sources for remote Northern Territory communities.

**Remote housing overcrowding (National)** – recognises the opportunity for better health, safety, education and employment outcomes from good-quality housing.

Some impacts of these proposals have been identified qualitatively at Stage 1, but would be quantified in subsequent stages.

## 4.4 Other focus areas for our assessment

### Assessing stakeholder endorsement

In line with our Infrastructure Decision-making Principles and the 2021 *Australian Infrastructure Plan*, we now specifically consider stakeholder endorsement in the Assessment Framework, as a key theme in our Strategic Fit criterion. In our Assessment Criteria, we now explicitly ask you to demonstrate: ‘There is sufficient support for the proposal and buy-in that it responds to the needs of identified beneficiaries and stakeholders and/or community’.

In your submission, you should consider stakeholder and community views of your proposal and demonstrate the level of support it has. In this edition of the Assessment Framework, **we are not setting specific stakeholder engagement requirements. It is, however, an important part of demonstrating Strategic Fit** and our assessment will consider the level of endorsement that has been achieved at each stage of the proposal’s development process.

We expect you to demonstrate alignment to our stakeholder endorsement theme by articulating:

- how the proposal responds to community aspirations, needs and values
- specific examples where stakeholders have influenced the development of the proposal
- how the engagement process aligns to the principles expressed in the relevant state or territory engagement framework
- the level of endorsement achieved through stakeholder engagement activities
- identified stakeholder risks for successfully realising the benefits of the proposal and how they will be mitigated.

We expect that the more complex the problems and opportunities (for example, those involving conflicting views, values and trade-offs), the more collaborative and deliberative the engagement process.

An important component of stakeholder engagement is considering the interests and voices of Aboriginal and Torres Strait Islander peoples and the impact of a proposal on their communities. Therefore, we encourage you to engage with Aboriginal and Torres Strait Islander stakeholders throughout project development.

Stakeholder endorsement also cuts across sustainability and resilience outcomes. We have provided guidance against these themes in subsequent sections.



### Box 19: Engaging with Aboriginal and Torres Strait Islander stakeholders

Where appropriate, we encourage you to develop a formal Aboriginal and Torres Strait Islander engagement strategy. This involves producing a specific plan to identify First Nations stakeholders in addition to identifying potential impacts and leveraging any relevant insights.

Specifically, when developing an engagement strategy, you should consider:

- **Cultural understanding and respect** – identify and understand cultural contexts, requirements and sensitivities.
- **Clear engagement goals** – clarity around the purpose and the relevant scale for engagement, which recognises different cultural practices.
- **Responsibility and accountability** – transparency around decision-making and engagement processes.
- **Capacity development** – commitment to skills development, while building on the strengths of the community.
- **Power and decision-making** – seek to empower community and provide opportunities for self-determination where appropriate.

- **Meaningful relationships** – appropriate time frames, which will enable the development of long-term relationships of trust, respect and ongoing communication.

The consideration of each of these factors also needs to be underpinned by effective governance practices, which will support robust engagement between both Aboriginal and Torres Strait Islander people and proponents.

For examples of some existing Aboriginal and Torres Strait Islander engagement strategies, we encourage you to review the following:

- Northern Australia Infrastructure Facility – [naif.gov.au/what-we-do/indigenous-engagement/indigenous-engagement-strategy/](http://naif.gov.au/what-we-do/indigenous-engagement/indigenous-engagement-strategy/)
- National Disability Insurance Agency – [www.ndis.gov.au/about-us/strategies/aboriginal-and-torres-strait-islander-strategy](http://www.ndis.gov.au/about-us/strategies/aboriginal-and-torres-strait-islander-strategy)
- CSIRO – [www.csiro.au/en/Indigenous-engagement/Indigenous-engagement](http://www.csiro.au/en/Indigenous-engagement/Indigenous-engagement)

## Assessing quality of life

The Assessment Framework includes specific consideration of quality-of-life impacts as a defined theme in our Societal Impact criterion.

We have identified key characteristics of quality-of-life that are relevant to infrastructure proposals, as described in **Table 6**. We note that not all of the considerations will be relevant for each proposal. Articulating quality of life in this way will help you, and us, understand a range of benefits from each proposal, both in identifying and analysing options (Stage 2) and in developing the business case (Stage 3).

While CBA guidelines provide techniques, tools and parameter values to quantify and monetise many quality-of-life impacts, we have not often seen these less traditional benefits and impacts explicitly included in the CBAs presented to us. However, we appreciate that many quality-of-life impacts, such as the quality of cultural facilities, are difficult to monetise.

We expect that where quality-of-life impacts can be monetised, they are considered and included in the CBA. Where this is not possible, qualitative information, with evidence, should be provided to supplement the CBA. These non-monetised benefits should be presented and evidenced in a systematic way, with identified benefits clearly linked to the infrastructure proposal.

To help you, our **Stage 3** volume includes specific guidance on how quality-of-life impacts can be monetised and considered in the CBA, in addition to outlining the kind of benefits where qualitative information could be provided. Additionally, advice is provided throughout the Assessment Framework relating to how quality-of-life impacts should be considered in other stages.

**Table 6: Characteristics of quality of life relevant to infrastructure proposals**

Characteristic	How infrastructure can support this characteristic
<b>Culture</b>	Supporting the continuation and sharing of beliefs, arts, culture, customs and places that define individual and community identity through vibrant and socially inclusive meeting places, such as community, entertainment, recreational, arts and cultural facilities.
<b>Living standards</b>	Meeting the basic needs of all users and improving the standard of living of the community. This may include addressing equity issues (including cost-of-living, poverty or entrenched disadvantage), improving liveability and access (whether to social and affordable housing, essential services or utilities, or employment), and accommodating all users, including people with disability.
<b>Learning and development</b>	Improving educational outcomes and fostering skills development to build social capital and productivity at all stages of life, including through access to tertiary and technical education facilities.
<b>Health and safety</b>	Improving the health of the community through access to health services, recreation choices and environmental factors (for example, connectivity for virtual health, active transport, potable water quality and air quality). Improving the safety of the community by reducing risks and improving access to justice services.
<b>Economic and social participation</b>	Providing appropriate access to desired goods and services, including where access is facilitated digitally.

## Assessing sustainability

**Sustainability is a broad topic that crosses a number of themes within our Assessment Criteria.**

It is also a defined theme within our Societal Impact criterion to recognise specific sustainability outcomes and trade-offs. You should consider sustainability throughout your options analysis and delivery and operations planning.

Our approach is guided by our Sustainability Principles (see **Box 10** in **Section 2.5**). **Table 7** demonstrates how we consider sustainability outcomes against applicable themes to inform our assessments.

**Table 7: Sustainability considerations**

Criteria	Theme	Sustainability considerations
<b>Strategic Fit</b>	<b>Case for change</b>	The proposal responds to longer-term drivers such as climate change.
	<b>Alignment</b>	The proposal directly contributes to relevant national, state and local government goals, objectives, policies and strategic plans relating to sustainability issues, such as emissions reduction and circular economy <sup>10</sup> practices.
	<b>Network and system integration</b>	The proposal improves an infrastructure network or system’s long-term sustainability, for example, in the transition to a low-carbon economy.
	<b>Solution justification</b>	The proposal is planned to be delivered at the right time to avoid or minimise any negative social, economic and/or environmental costs in the future.
	<b>Stakeholder endorsement</b>	The proposal has been developed based on transparent engagement, which is inclusive of all relevant communities and cultures.
<b>Societal Impact</b>	<b>Quality of life</b>	The proposal promotes sustainable communities by improving or maintaining quality-of-life, wellbeing, heritage and culture.
	<b>Productivity</b>	The proposal will provide value-for-money returns over the long term by increasing productivity and providing ongoing employment opportunities.
	<b>Environment</b>	Possible impacts on the environment of the proposal are understood, and there is a plan to protect natural assets as much as possible.
	<b>Sustainability</b>	The proposal has been planned and designed to optimise social, economic, environmental and governance outcomes efficiently and responsibly throughout the asset’s life.

10. ‘A circular economy aims to use resources for as long as possible, draw the maximum value from them while in use, and then recover and regenerate their components for reuse at the end stage of their service life.’ Otter, C, 2018, *The circular economy: an explainer*. Department of Parliamentary Services, Parliament of Victoria, Melbourne, p 2.

Criteria	Theme	Sustainability considerations
Deliverability	Implementation	The proposal can be delivered without compromising other sustainability considerations, or minimises any impacts as far as possible.
	Capability & capacity	The proposal has considered the short- and long-term employment needs, while also seeking to improve market capacity.

We expect that consideration of sustainability will draw on work that is already occurring in your planning, design and development processes. While you may wish to complete investigations to explore sustainability outcomes, **the Assessment Framework does not require a specific sustainability assessment.** Rating tools are useful as they can provide an independent evaluation of a proposal’s sustainability performance against a published set of standards.<sup>11</sup> However, while assessments utilising established rating tools are becoming more common for states, territories and delivery agencies, they are currently not standard practice. As such, and to remain pragmatic, the Assessment Framework does not require a specific assessment to supplement submissions, but this requirement may be introduced in future releases.

More broadly, the sustainability theme enables the identification of good practices in the design and operation of proposals, such as through the use of materials, energy or water. This approach enables you to acknowledge trade-offs, for example, where a worthwhile element in the design has increased costs and the benefits cannot be quantified, thereby negatively impacting the CBA results. The sustainability theme also considers the tension between environmental and cultural values versus economic and social drivers, which will vary depending on a proposal’s location. The frame of reference for the sustainability theme should always reflect all impacts of the proposal on the community, across the whole life of the asset.

Key activities that could help embed sustainability in your project development process include:

- Determining whether sustainability considerations are a core driver in the case for change – for example, climate change or population change.
- Identifying a comprehensive range of response options, including upgrading an existing asset, building a new asset or a policy response. Importantly, options that may not enhance sustainability should not be ruled out during the options identification process, instead that should occur through robust options analysis, including CBA.
- Adopting a broad approach to analysing options by considering externalities and whole-of-life costing in the CBA.<sup>12</sup>
- Including sustainability in the delivery strategy and operations strategy.

**Box 20** provides practical examples for considering sustainability during project development.

To assist you with considering sustainability throughout a proposal’s development, we have provided guidance around how to consider sustainability in the CBA and how it is considered qualitatively. To ensure a proposal reflects our understanding of sustainability, we note that you may also wish to consider:

- engaging with stakeholders, including Aboriginal and Torres Strait Islander communities
- using recycled materials and other sustainable options throughout design.

We have provided specific sustainability guidance within each stage volume of the Assessment Framework.

11. Examples of these include the Infrastructure Sustainability Council of Australia Sustainability Rating Tool and Green Building Council of Australia’s Green Star Rating Tool.  
 12. An externality is a positive or negative consequence that is imposed on a third party who did not agree to incur that cost or benefit, and is not reflected in the market price. Whole-of-life costing refers to the total cost over the lifetime of the asset, from purchase to disposal.



## Assessing resilience

Like sustainability, **resilience is a broad topic that crosses a number of themes within our Assessment Criteria**. It is also a defined theme within our Societal Impact criterion to recognise specific resilience outcomes and trade-offs. You should consider resilience throughout your options development and analysis.

Our approach is guided by the characteristics of resilience in infrastructure (see **Box 11** in **Section 2.5**). **Table 8** demonstrates how we consider resilience outcomes against applicable themes to inform our assessments.

**Table 8:** Resilience considerations

Criteria	Theme	Resilience considerations
<b>Strategic Fit</b>	<b>Case for change</b>	The proposal responds to a clear problem or opportunity relating to the management of shocks and stresses, including under scenarios of future uncertainty.
	<b>Alignment</b>	The proposal directly contributes to relevant national, state and local government goals, objectives, policies and strategic plans, relating to resilience shocks and stresses, such as bush fires, coastal inundation and cyber-security. This includes consideration of new or emerging policy shifts.
	<b>Network integration</b>	The proposal considers wider system resilience and redundancy, such as its role in emergency response or how it improves network redundancy.
	<b>Stakeholder endorsement</b>	A diverse set of stakeholders have been consulted to understand potential community vulnerabilities and the broad range of current and potential future challenges that these communities may face.
<b>Societal Impact</b>	<b>Quality of life</b>	The proposal considers the protection and enhancement of quality of life, wellbeing, heritage and culture both during and after shocks and stresses. Improved quality-of-life outcomes contribute to community resilience.
	<b>Productivity</b>	The proposal will improve the ability to absorb and recover from shocks and stresses to minimise disruption to productivity.
	<b>Environment</b>	The proposal demonstrates how to absorb and resist shocks and stresses to minimise impacts on the broader physical environment.
	<b>Resilience</b>	The proposal will improve the community’s ability to anticipate, resist, absorb, recover, transform and thrive in response to shocks and stresses.
<b>Deliverability</b>	<b>Implementation</b>	The proposal can be delivered without compromising the ability of communities to respond to shocks or stresses, such as disrupting a transport corridor that would be a primary route for access during extreme weather events.

We expect that resilience considerations, like sustainability, will be demonstrated **both qualitatively and quantitatively in addition to being monetised where relevant or possible**. We also expect that alongside monetised evidence, you will provide qualitative information, such as demonstrating alignment to extreme weather event mitigation strategies and adaptation strategies across various government levels.

As resilience considerations are embedded across the Assessment Criteria, evidence presented should consider how a proposal is affected by risks and opportunities brought on by climate and other shocks and stresses. A proposal should specifically consider how key features of the Assessment Criteria, such as quality of life and productivity, would continue to function under different future scenarios and how benefits would contribute to an infrastructure asset or system and broader community resilience.

The resilience theme, while not mandatory, encourages you to embed resilience considerations in proposals from the early stages of project development to implementation. Resilience considerations include:

- physical climate risks
- risks associated with the transition to a low-carbon economy
- resilience to a broad range of shocks and stresses (in addition to climate-related risks)
- broader behaviour, technology or economic changes
- infrastructure's role in building or supporting broader system and community resilience.

To achieve this, we suggest that you analyse the resilience of a proposal by undertaking a range of sensitivity testing and analysis. In addition to our existing requirements, we now also **recommend you undertake future scenario modelling** to look at a range of possible futures and seek to understand the differences between them and any impact on the proposal. We would expect that the scenarios modelled would reflect a range of possible futures and consider impacts in terms of shocks and stresses – **Table 9** provides some examples of these. These impacts should be described accordingly and evaluated, with measures to mitigate and/or adapt to shocks and stresses identified.

**Table 9: Examples of shocks and stresses**

Shocks	Stresses
Extreme weather event (e.g. heatwaves, storm surges etc.)	Ageing infrastructure
Natural catastrophe (e.g. bushfires, flooding, cyclones, extreme storms etc.)	Rising digital (cyber) dependency
Failure of critical infrastructure (power, water and digital)	Rising energy costs
Disease and health pandemic	Lack of transport accessibility and availability
Water security and crisis (e.g. drought and contamination)	Lack of social cohesion
Geological hazard (e.g. earthquakes, landslides, tsunami)	Rising inequity
Direct attack (e.g. cyber-attack, terror attack)	Rising demand on health services and infrastructure
Financial market crash	Political uncertainty or instability
Natural ecosystem collapse	Migration and immigration

The results of sensitivity testing and scenario modelling will be assessed to determine how a proposal responds under new, abnormal and disruptive circumstances. To assist you, our **Guide to risk and uncertainty analysis** provides guidance on best practice approaches.

The **Stage 3** volume of the Assessment Framework also includes additional guidance in the following areas:

- How resilience might be included in the CBA and how it is considered qualitatively.
- How to consider resilient design features in the proposal.
- How to measure the long-term benefits of resilience, considering the short-term costs.

We also acknowledge that trade-offs will be applicable when embedding resilience outcomes in infrastructure development. Specific resilience guidance is included as appropriate in each stage of the Assessment Framework.



## Box 20: Determining whether sustainability and resilience outcomes are the key drivers of your proposal or a supporting consideration

There are two distinct circumstances under which you will consider the sustainability or resilience elements of a proposal:

1. When sustainability and/or resilience is the driver for infrastructure provision.
2. When sustainability and/or resilience is a consideration for proposals that are driven by other needs.

Examples of these circumstances are provided in the tables below. Note that proposals may consider both circumstances, such as where a proposal is triggered by a sustainability issue, but wider sustainability opportunities can be considered during planning, design and delivery.

### Sustainability

Sustainability as a driver	Sustainability as a consideration
Improving the efficiency of a utility connection to a remote community to improve environmental and financial sustainability	Minimising impacts in construction (e.g. use of water and energy)
New public transport system to reduce private vehicle dependence, supported by active transport infrastructure	Improved use of sustainably sourced materials
Improving waste processing and recycling capacity	Reducing resource requirements during operation (e.g. considering passive cooling approaches)

### Resilience

Resilience as a driver	Resilience as a consideration
Providing community healthcare infrastructure and services to promote localised, community response to disease outbreaks (shocks) or to address chronic health issues	Impacts of climate change are considered in the design
Improving mobile phone coverage in bushfire-prone areas	Improving the ability of a rail network to respond to shocks
Improving the ability of coastal suburbs to absorb coastal inundation	Considering cyber-security when developing critical infrastructure

Details on how this relates to each stage of the Assessment Framework is provided in the respective volumes.

## 4.5 Assessing programs

Our [Guide to program appraisal](#) provides guidance on our approach to assessing programs.

A program is a suite of related interventions to address a common problem or realise a common opportunity that will be delivered in a coordinated manner to obtain benefits not achievable from delivering them individually. Importantly, the collection of interventions (projects) can and ideally should comprise infrastructure and non-infrastructure elements. The delivery of interventions as a program should improve outcomes compared to if they were managed and delivered separately.

Program proposals are listed on the Priority List when they involve a package of interventions that are clearly interlinked by a common nationally significant problem or opportunity. The package presents a robust and holistic approach to prioritise and deliver the interventions, and there is a material opportunity to collaborate and share lessons across states, territories or agencies. For Stage 3 proposals, the program is capable of addressing a nationally significant problem or opportunity whereby delivery as a program, rather than standalone projects, would significantly increase benefits or reduce costs (the whole is greater than the sum of the parts).

We assess program proposals differently from other proposals, as they are focused on program-level outcomes, involve a suite of inter-related interventions, and may be funded in stages or as a whole. There are two pathways we use to assess programs:

- **Pathway 1:** You have established the problem or opportunity as a program during Stage 1 (early-stage proposal) and you have developed a program of projects (Stage 2), *but funding is not sought or committed for the program as a whole*. You will submit projects within the program to us for Stage 2 and Stage 3 evaluation, with the program analysis included as context to the proposals.
- **Pathway 2:** You have established the problem or opportunity as a program during Stage 1 (early-stage proposal). *The program itself is seeking funding* and therefore you will submit the program to us for Stage 2 and Stage 3 evaluation.

Program submissions that do not meet our program assessment requirements may be added to the Priority List as a series of separate proposals.

See our [Guide to program appraisal](#) for more detail.

## 4.6 Recognising the challenges of developing regional and remote proposals

The Assessment Framework outlines a consistent approach to evaluation of proposals across all sectors and geographical regions. We acknowledge that achieving strategic and social benefits, which may be hard to measure, is a key driver for regional and remote proposals.

Introducing themes within our Assessment Criteria aims to assist regional and remote proposals by capturing benefits more holistically. Our broadened guidance on Strategic Fit, quality-of-life, sustainability and resilience should be of particular reference.

In addition, we have included enhanced guidance for economic analysis in our **Guide to economic appraisal**, which includes more detail around how you can demonstrate health and education benefits, and consider equity and distributional impacts.

Finally, adopting a program approach to package infrastructure projects may also be particularly applicable to regional and remote proposals. Programs provide an integrated approach, which can generate scale and cumulative benefits, as well as assist you to better plan for and more efficiently sequence the delivery of a range of infrastructure in community areas. Further guidance is available in our **Guide to program appraisal**.

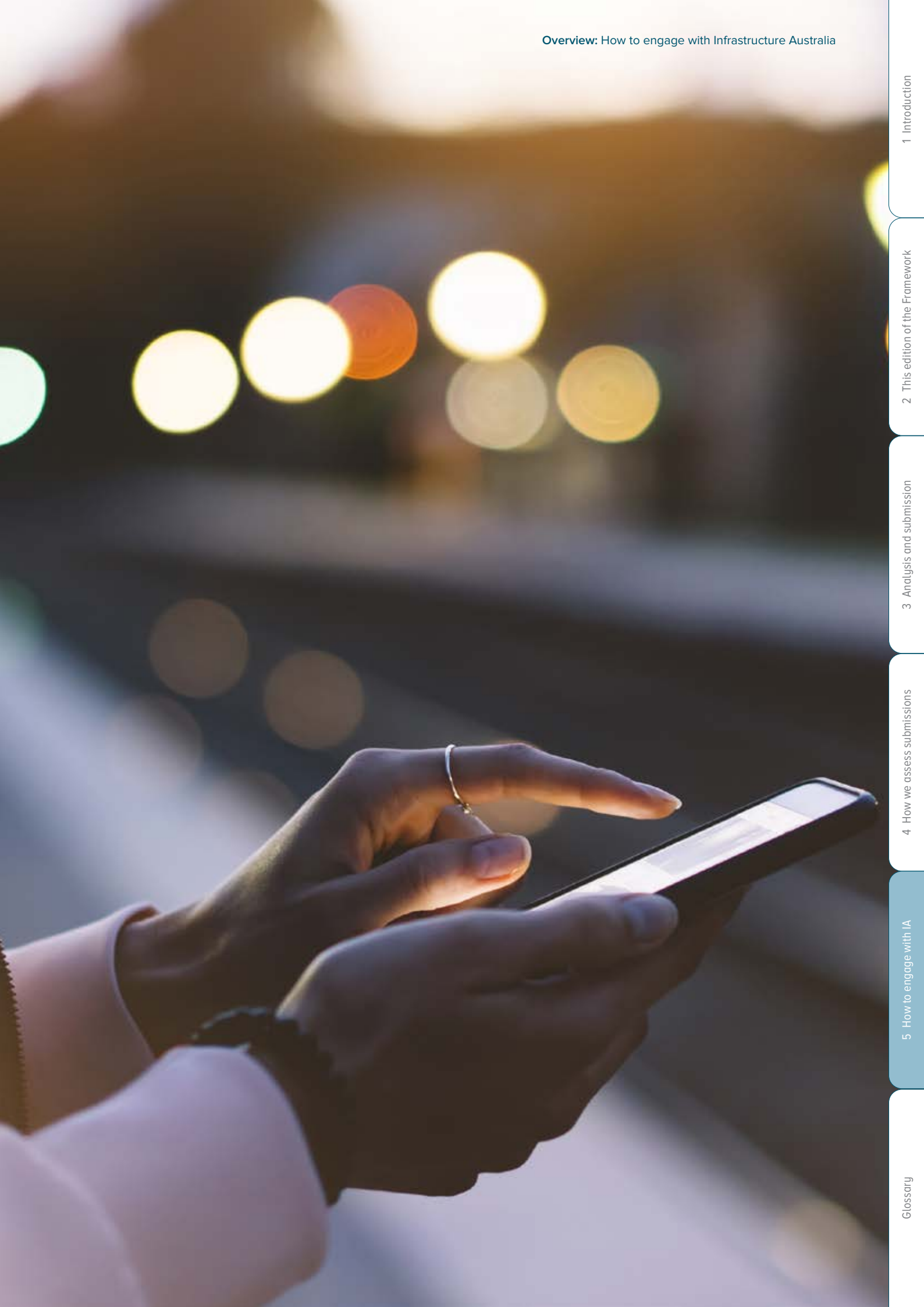
New and updated guidance for regional and remote proposals has been incorporated throughout the Assessment Framework and supporting technical guides, including worked examples to aid you in your submissions.



# 5

## How to engage with Infrastructure Australia

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## At a glance

In this section, we describe how to engage with us to support your proposal development and streamline the assessment process.

- Early engagement with us helps to identify potential issues earlier in the process, and can avoid data gaps in your business case.
- We provide a Submission Checklist for submissions at each stage to help you include all the necessary information. We clearly indicate which submission items are required, recommended or good practice.
- If your proposal is successful, we will add it to the *Infrastructure Priority List*. We publish a summary of our evaluations of all Stage 3 submissions on our website.

## 5.1 Overview of our engagement process

We encourage early and staged engagement with us. This will ideally begin at Stage 1 and continue throughout all four stages to enable a collaborative and effective review process.

We will not review earlier stages again unless there is new information that has a bearing on the outcomes of those stages. If we review a business case (Stage 3) without having previously reviewed earlier stages, we will review all prior stages at that time. **Early engagement with us helps to identify potential issues earlier in the process, and can avoid data gaps in your business case.** We can also provide advice on methodological approaches, sources of evidence, outline the level of analysis needed and reflect on lessons learnt from other proposals that have been considered.

If the submission is not from a state or territory government but requires state or territory involvement, you should make early contact with the relevant state or territory government(s) to discuss your submission to ensure that your proposal is deliverable.

For proposals to be included on the Priority List, the process is as follows:

1. You submit a proposal and other supporting information to us.
2. We assess each submission against our Assessment Criteria and themes.

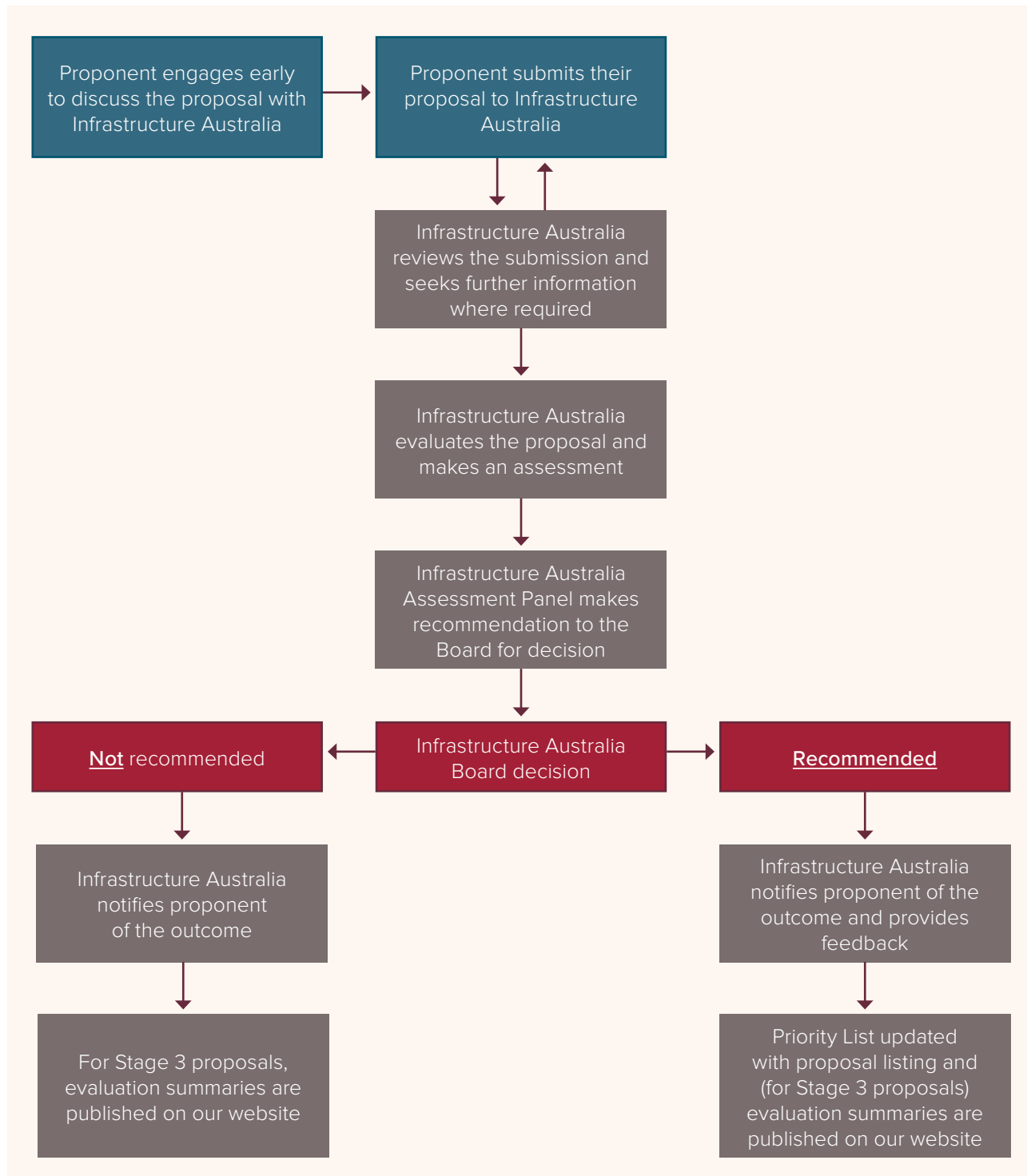
3. This assessment is reviewed by our internal Assessment Panel, which is chaired by our Chief Executive Officer.
4. Our Assessment Panel, through the Chief Executive Officer, makes a recommendation to our Board.
5. Our Board makes the final decision to include a proposal on the Priority List.

We publish a summary of business case evaluations (Stage 3) as soon as practical following a Board decision. This will include evaluations for those proposals which have not been included on the Priority List. This process is shown in **Figure 10**.

### Evaluation of funded proposals

Under our Statement of Expectations, we are required to review a business case for proposals seeking more than \$250 million in Australian Government funding. Where proposals have already received Australian Government funding, we will continue to assess them using the Assessment Framework. However, funded proposals will not be considered for inclusion on the *Infrastructure Priority List* as the Priority List is only for proposals seeking investment. Our assessment of funded proposals will focus on identifying risks for delivery and realising project benefits, and highlighting opportunities for improving overall project outcomes. A summary of each evaluation will be published on our website.

Figure 10: Engagement process for submissions to the Infrastructure Priority List





## Box 21: Engaging with you on your submissions

We welcome engagement with you on your submissions to maintain transparency of our processes and ensure that each submission is considered comprehensively and efficiently. Our engagement with you includes the following activities:

1. Upon receipt of a submission, we undertake a gap analysis to ensure that all necessary documentation has been received. We will request any missing information from you if needed, and we will advise you once the submission has been accepted for assessment. This ensures that you are aware of our activity and confirms lines of communication.
2. We will assess the submission and may identify some areas that require clarification. The aim of our clarification questions is to give you the opportunity to justify and further explain your submission. Although this adds time to our evaluation process, it is an important step so that the proposal is properly understood and our assessment is not just finalised on face value. Please note the following key points:
  - a. We will advise you on our Board reporting dates to determine the timing requirements for responses.
  - b. We recommend that your technical teams are available to assist in responding to any questions in a timely manner.
  - c. If responses are not received within six months, we will complete the evaluation using the information provided or formally suspend the evaluation if insufficient information is available.
3. We will advise you once the evaluation is complete and when it will be considered by our Board. This provides transparency of the process so that you are clear on timing and next steps.

On our website we list any Stage 3 proposals under evaluation, the date they were accepted for evaluation and their current status. This is updated as the evaluation progresses.

Following the completion of our review, evaluation outputs are shared with you to check factual accuracy and to determine any commercial sensitivities. Again, this is an important step so that you are aware of the outputs before they are publicly released. We recognise these engagements can take time and increase the duration of the evaluation processes. However, they are important activities that proponents have positively responded to.

## 5.2 Advantages of engaging with us

We encourage you to engage with us as regularly as practicable. This provides the opportunity for us to identify possible information gaps and build a collaborative relationship. Through an open dialogue, we can discuss all aspects of the proposal and assessment process, and prepare accordingly.

Key benefits of regular engagement include:

- You gain a clear understanding of our expectations and requirements from the start of the proposal development process.
- You minimise the risk of significant late revisions to submission documents, by identifying and addressing potential issues beforehand.
- You will be confident that you are compiling sufficient supporting documentation and information that is in line with our requirements.
- You can leverage our stakeholder network (government and industry) to troubleshoot potential issues with a wide range of technical experts.
- You can gain understanding of approaches from across Australia and internationally, helping you identify potential solutions to difficulties encountered during project development.
- You can leverage our experience in assessing proposals across different geographies and sectors, to fill potential knowledge gaps.
- You can address any uncertainty you have around our processes, requirements and methodologies and seek clarification.
- You will understand the process, timing and next steps in our assessment process.

## 5.3 How to submit for assessment

### Who can make a submission?

Proposal submissions can be made at any time.

We welcome submissions from any individuals or organisations who would like to nominate potential infrastructure needs for inclusion on the Priority List. This can include joint submissions.

For business case (Stage 3) submissions, **you must have the technical and legal capacity to develop a business case and implement the project**. Proposals should be endorsed by the appropriate delegated authority of the proponent. Submissions, including private sector submissions, are required to show support from the relevant state and/or territory governments.

For further information please refer to [www.infrastructureaustralia.gov.au/submit-a-proposal](http://www.infrastructureaustralia.gov.au/submit-a-proposal) or contact us via email at [proposals@infrastructureaustralia.gov.au](mailto:proposals@infrastructureaustralia.gov.au) or telephone on 02 8114 1900.

### Submission of programs

We accept proposals for standalone projects, stages of programs and overall programs.

Program proposals will be assessed against the Assessment Framework, considering the merits of the overall program. For individual project proposals within a program to be recommended for investment, we must review a business case for the project and require appropriate program-level analysis to support the review. Please refer to our detailed [Guide to program appraisal](#) for further information.



### Maintaining confidentiality

Many proposals are submitted to us on a confidential basis. Past feedback from the Australian Government, and state and territory governments, has indicated some uncertainty as to the treatment of the material provided. In addition, there have been calls for us to release more details about the proposals we have recommended.

In order to ensure maximum transparency while protecting commercial confidences, we ask you to indicate which parts of the submission have been submitted to us on a confidential basis and to provide a brief explanation of the reasons for the request for confidentiality.

Information submitted confidentially will not be released or published by us without your written consent. We will document and make available reasons for not publishing information as required.

### The level of information expected in a submission

When preparing to submit an infrastructure proposal to us, you should use our submission checklists provided at the relevant Assessment Framework stage, and include all available supporting material. We encourage you to engage with us when developing your submission, ideally after reviewing the Assessment Framework guidance and the relevant submission checklist, but prior to formally lodging your submission. We can provide advice and initial review to ensure you are meeting our requirements, which may avoid us seeking clarification or requesting additional work be completed after submission.

We classify submission items as **required**, **recommended** or **good practice**, as described in **Table 10**.

**Table 10: Classification of submission checklist requirements**

<b>Required</b>	Proponents must provide this information, including evidence justifying the analysis or outputs that have been determined.
<b>Recommended</b>	Proponents must consider recommended items and provide supporting evidence justifying if they have not been considered.
<b>Good practice</b>	Proponents should consider these discretionary items as part of good practice, but they may not apply to all proposals.

## 5.4 Outputs of our assessments

When we complete our assessment of a submission to the Priority List, we will:

- inform you of our decision on whether we found your proposal to be:
  - a. nationally significant
  - b. suitable for the Priority List
- add successful proposals to the online version of our Priority List
- publish a summary of our evaluation (Stage 3 submissions only)
- provide you with feedback on our decision.

Positively assessed proposals are summarised on the Priority List. We also publish more detailed evaluation summaries for investment-ready proposals (Stage 3).

See [www.infrastructureaustralia.gov.au/infrastructure-priority-list](http://www.infrastructureaustralia.gov.au/infrastructure-priority-list).

It is worth noting:

- where submissions are not successful, this does not mean they are not worth pursuing or revising in more detail for a future submission
- where submissions are not listed on the Priority List, this does not preclude them from seeking Australian Government funding
- we will not revisit earlier submissions again unless there is new information that has a bearing on the previously assessed stages.

## 5.5 Removing proposals from the Infrastructure Priority List

Proposals may be removed from the Priority List for a number of reasons:

1. The proposal receives a commitment of funding for delivery from the Australian Government.
2. The proposal proceeds to construction (major contracts are awarded).
3. The proposal is withdrawn because the problem or opportunity is no longer nationally significant. (Evidence of the change, such as change in forecast demand, is required to support this action).
4. The proposal is withdrawn because it no longer meets our Strategic Fit or Deliverability criteria.

# Glossary

Term	Definition
<b>Appraisal</b>	The process of determining the impacts and overall merit of a proposal, including gathering and presenting relevant information for consideration by the decision-maker.
<b>Appraisal period</b>	The number of years over which the benefits and costs of an infrastructure proposal are assessed in a <b>cost–benefit analysis</b> . A default value of 30 operational years plus construction time is generally used for infrastructure proposals. Refer to the <a href="#">Guide to economic appraisal</a> for more information.
<b>Appraisal summary table (AST)</b>	This table succinctly captures both the qualitative and quantitative elements of a proposal. It will assist decision-makers to quickly understand the broader strategic, societal and deliverability aspects of the proposal.
<b>Assessment</b>	For the purposes of the <b>Assessment Framework</b> , this refers to Infrastructure Australia's evaluation of proposals submitted to us for inclusion on the <b>Infrastructure Priority List</b> or for a funded proposal review.
<b>Assessment Criteria</b>	The three criteria Infrastructure Australia assesses proposals against: <b>Strategic Fit, Societal Impact and Deliverability</b> .
<b>Assessment Framework</b>	A publicly available document that details how Infrastructure Australia assesses infrastructure proposals. It provides structure to the identification, analysis, appraisal, and selection of proposals and advises proponents how to progress through the following four stages: <ul style="list-style-type: none"> <li>• Stage 1: Defining problems and opportunities</li> <li>• Stage 2: Identifying and analysing options</li> <li>• Stage 3: Developing a business case</li> <li>• Stage 4: Post completion review</li> </ul>
<b>Australian Infrastructure Audit</b>	Published in August 2019, the Audit was developed by Infrastructure Australia to provide a strategic assessment of Australia's infrastructure needs over the next 15 years. It examined the drivers of future infrastructure demand, particularly population and economic growth. Data from the Audit is used as an evidence base for assessment of proposals for inclusion on the <b>Infrastructure Priority List</b> .
<b>Australian Infrastructure Plan</b>	The 2021 Plan was developed by Infrastructure Australia as a positive reform roadmap for Australia. Building off the evidence base of the Audit (see <b>Australian Infrastructure Audit</b> ), the Plan sets out solutions to the infrastructure challenges and opportunities Australia faces over the next 15 years, to drive productivity growth, maintain and enhance our standard of living, and ensure our cities remain world class. The 2021 Plan supersedes the February 2016 Plan.
<b>Base case</b>	A project <b>appraisal</b> compares the costs and benefits of doing something (a 'project case') with not doing it (the 'base case'). The base case should identify the expected outcomes of a ' <b>do-minimum</b> ' situation, assuming the continued operation of the network or service under good management practices. We recommend the committed and funded expenditure approach to defining the base case, but recognise that some states and territories use the planning reference case approach.
<b>Benefit–cost ratio (BCR)</b>	This is the ratio of the present value of economic benefits to the present value of economic costs. It is an indicator of the economic merit of a proposal presented at the completion of a cost–benefit analysis. (See <b>cost–benefit analysis</b> ).

Term	Definition
<b>Business case</b>	A document that brings together the results of all the assessments of an infrastructure proposal. It is the formal means of presenting information about a proposal to aid decision-making. It includes all information needed to support a decision to proceed, or not, with the proposal and to secure necessary approvals from the relevant government agency. Unless otherwise defined, we are referring to a final or detailed business case, rather than an early (for example, strategic or preliminary) business case, which is developed in accordance with state or territory requirements. A business case is prepared as part of Stage 3 of the <b>Assessment Framework</b> .
<b>Capital cost</b>	The initial fixed costs required to create or upgrade an economic asset and bring it into operation. This includes expenses such as the procurement of land, buildings, construction, labour and equipment.
<b>Cost–benefit analysis (CBA)</b>	An economic analysis technique for assessing the economic merit of an infrastructure proposal. It involves assessing the benefits, costs, and net benefits to society the proposal would deliver. It aims to attach a monetary value to the benefits and costs wherever possible and provide a summary indication of the net benefit. (See <b>benefit–cost ratio</b> ).
<b>Cost-effectiveness analysis (CEA)</b>	Cost-effectiveness analysis is used when the benefits of project options are identical. Its aim is to identify the option that will cost the least. The technique for valuing costs is the same as for <b>cost–benefit analysis</b> .
<b>Delivered proposal (Stage 4)</b>	Once we've assessed the post completion review of a delivered project we will list it on the <b>Infrastructure Priority List</b> as a delivered proposal.
<b>Deliverability</b>	One of three overarching <b>Assessment Criteria</b> we use to assess the merit of every proposal, at every stage. This criterion asks: can the proposal be delivered successfully? We assess whether the proposal is capable of being delivered successfully, whether risks have been identified and sufficiently mitigated, and whether there is a plan in place to realise the benefits.  This criterion is divided into five themes: ease of implementation, capability and capacity, project governance, risk and lessons learnt.
<b>Demand forecasting</b>	The activity of estimating future demand (such as public transport patronage, vehicle volumes or water usage) in a particular year or over a particular period.
<b>Discount rate</b>	The interest rate at which future dollar values are adjusted to represent their present value (that is, in today's dollars). This adjustment is made to account for the fact that money today is more valuable than money in the future. <b>Cost–benefit analysis</b> should use real social discount rates.
<b>Distributional effect</b>	A change (positive or negative) in the economic welfare of a group of individuals or firms caused by a proposal.
<b>Do-minimum</b>	A base case reflecting the continued operation of the network or service under good management practices. It should assume that general operating, routine and periodic maintenance costs will continue to occur, plus a minimum level of capital expenditure to maintain services at their current level (e.g. maintaining access or reliability) without significant deterioration. This may include asset renewals and replacement of life-ending components on a like-for-like basis, as well as committed and funded projects and smaller scale changes required to sustain viable operations under the base case. (See <b>base case</b> ).
<b>Early-stage proposal (Stage 1)</b>	Stage 1 submissions that are positively assessed by us are listed on the <b>Infrastructure Priority List</b> as an early-stage proposal.
<b>Externality</b>	An effect that one party has on another that is not transmitted through market transactions. An example is noise pollution from vehicles: those operating the vehicles disturb other parties such as nearby residents, but a market transaction between these parties is absent.
<b>Impact</b>	A generic term to describe any specific effect of a proposal. Impacts can be positive (a benefit) or negative (a cost).
<b>Impact timeframe</b>	For early-stage proposals (Stage 1) and potential investment options (Stage 2), this indicates when the problem or opportunity is likely to have a nationally significant impact.

Term	Definition
<b>Indicative delivery timeframe</b>	For investment-ready proposals (Stage 3), this provides the proponent’s indication of when the proposal is likely to be delivered and operational.
<b>Infrastructure</b>	Physical assets and facilities that enable organisations to provide goods and services to the community and improves quality of life, efficiency, accessibility and liveability of our cities and regions. This includes, but is not necessarily limited to, transport, energy, telecommunications, water and social (such as health, education, social housing and community facilities) infrastructure.
<b>Infrastructure Australia Act</b>	The <i>Infrastructure Australia Act 2008</i> (Cth) is the legislative framework by which we operate and report through our responsible Minister (the Minister for Infrastructure, Transport and Regional Development).
<b>Infrastructure Priority List</b>	The Priority List is a credible pipeline of nationally significant infrastructure proposals that are seeking investment. Every proposal on the Priority List is expected to contribute to national productivity or to be otherwise socially beneficial. It is a statement of where governments, the community and the private sector can best focus their infrastructure efforts.
<b>Investment costs</b>	<p>The costs of providing the infrastructure before operations commence (e.g. costs for planning and design, site surveying, site preparation, investigation, data collection and analysis, legal costs, administrative costs, land acquisition, construction costs, consequential works, construction externalities).</p> <p>In some cases, investment costs can recur throughout the <b>appraisal period</b> (e.g. asset replacement or renewal costs). For <b>cost–benefit analysis</b>, these should all be expressed in economic cost terms (also known as resource costs).</p>
<b>Investment-ready proposal (Stage 3)</b>	Stage 3 submissions that are positively assessed by us are listed on the <i>Infrastructure Priority List</i> as investment-ready proposals.
<b>Longlist of options</b>	A comprehensive list of potential options to address the problems and realise the opportunities identified in Stage 1. The longlist includes all options that are identified for a proposal and should represent a range of reasonable alternatives, including capital and non-capital options, as well as demand-side and supply-side options.
<b>Maintenance</b>	Incremental work to repair or restore infrastructure to an earlier condition or to slow the rate of deterioration. This is distinct from construction and upgrading, which seeks to extend infrastructure beyond its original condition.
<b>Monetised</b>	Where a quantified impact has a corresponding dollar value attached to it. (See <b>impact</b> ).
<b>Multi-criteria analysis (MCA)</b>	An analysis tool that differentiates and evaluates options using a set of project-specific criteria with weights assigned to each criterion. The analysis involves scoring and weighting each option against each criterion. MCA can be used for analysing a longlist of options against how they address problems and opportunities, but should not be used by itself to develop a shortlist of options.
<b>Nationally significant problem or opportunity</b>	<p>The <i>Infrastructure Australia Act 2008</i> (Cth) defines nationally significant infrastructure as including transport, energy, communications, and water infrastructure ‘in which investment or further investment will materially improve national productivity’. We also consider social infrastructure, such as health, education, social housing and community facilities.</p> <p>As a guide, for a proposal to be considered nationally significant, it should concern a problem or opportunity that will have more than \$30 million per annum impact on the economy (nominal, undiscounted). We also take unquantified social benefit considerations into account.</p>
<b>Net present value (NPV)</b>	The monetary value of benefits minus the monetary value of costs over the appraisal period, with discount rates applied (See <b>discount rate</b> and <b>appraisal period</b> ).
<b>Network</b>	Infrastructure networks are the physical assets that enable the provision of services such as transport connectivity, power, water and internet.
<b>Non-infrastructure options/ solutions</b>	Proposals that avoid the need for significant expenditure on new or upgraded infrastructure. For example, changes to pricing or reforms to regulations.

Term	Definition
<b>Operating costs</b>	The costs of providing the infrastructure after it has commenced operation (e.g. maintenance and administration costs of a facility).
<b>Opportunity</b>	An evidence-based reason for action that results from a gap between an actual and a desired outcome. In the context of the Assessment Framework, an opportunity is informed by the <b>Australian Infrastructure Audit</b> and by our collaboration with proponents to identify jurisdictional and national opportunities.
<b>Option</b>	A possible solution to a problem, including base case options such as 'do nothing' or 'do minimum'. (See <b>base case</b> ).
<b>Options analysis</b>	The analysis of alternative options for solving an identified problem or realising an identified opportunity. (See <b>option</b> ).
<b>Pathway</b>	In the context of the Assessment Framework, this refers to the steps we move through in the assessment of an infrastructure proposal.
<b>Place</b>	A geographical area within a clearly defined boundary. A 'place' can be scaled at different levels, for example, a precinct, strategic centre or sub-region.
<b>Place-based</b>	A 'place-based' approach to infrastructure applies a wide lens to consider the total impact and needs of a particular community or place over the longer term. It adopts an integrated approach to land use and infrastructure planning. It takes a cross-sectoral view of the interrelated infrastructure and amenity needs of a place, and identifies how and when these should be delivered. (See <b>place</b> ).
<b>Post completion review</b>	A review of a completed project to determine whether the desired objectives and/or forecast benefits and costs have been realised, and to explain the reasons for any differences between the expected and actual outcomes. The aim is to draw appropriate lessons for future project identification and assessment. A post completion review is sometimes referred to as an 'ex-post evaluation'.
<b>Potential investment options (Stage 2)</b>	Stage 2 submissions that are positively assessed by us are listed on the <b>Infrastructure Priority List</b> as potential investment options.
<b>Probabilistic project cost estimates</b>	These estimates identify cost components, determine the probability distribution for each cost component and then undertake a simulation to generate a probabilistic distribution of project costs.
<b>Problem</b>	An evidence-based reason for action that results from a gap between an actual and a desired outcome. In the context of the Assessment Framework, problems are informed by the <b>Australian Infrastructure Audit</b> and by our collaboration with proponents to identify jurisdictional problems and national problems.
<b>Productivity</b>	The efficiency with which the economy as a whole convert inputs (labour, capital and raw materials) into outputs. Productivity grows when outputs grow faster than inputs, which makes the existing inputs more productively efficient.
<b>Project</b>	An infrastructure intervention. A project will move through the stages of project initiation, planning, delivery and completion. A suite of related projects to address a common problem or opportunity will create a <b>program</b> .
<b>Program</b>	A proposal involving a package of projects that are clearly interlinked by a common <b>problem</b> or <b>opportunity</b> . The package presents a robust and holistic approach to prioritise and address the projects, and there is a material opportunity to collaborate and share lessons across states, territories or agencies. The projects can be delivered in a coordinated manner to obtain benefits that may not be achieved by delivering the interventions individually. (See <b>project</b> ).
<b>Proponent</b>	An organisation or individual who prepares and submits infrastructure proposals to us for assessment. To be a proponent of a business case (a Stage 3 submission), the organisation must be capable of delivering that proposal. (See <b>business case</b> ).



Term	Definition
<b>Proposal</b>	The general term we use for successful submissions to the <i>Infrastructure Priority List</i> , across the key stages of project development, specifically – early-stage (Stage 1), potential investment options (Stage 2) and investment-ready proposals (Stage 3). Proposals that have been delivered would be assessed in Stage 4.
<b>Qualitative</b>	A description of an impact that does not rely on quantitative or monetised information.
<b>Quantitative/quantified</b>	A description of an impact that utilises, presents or references values, numbers or statistics.
<b>Rapid cost–benefit analysis (rapid CBA)</b>	A rapid CBA incorporates standard CBA principles and techniques but at a lower level of accuracy. (See <b>appraisal</b> and <b>cost–benefit analysis</b> ).
<b>Real options analysis</b>	An investment evaluation and decision-making framework used to embed flexibility into an investment strategy to better structure and manage projects impacted by uncertainty. Real options analysis can be used as a way of thinking or as a quantitative technique to place values on options and different investment strategies. In both cases, it represents a process of understanding the value of investments under different future states of the world and developing more nuanced investment strategies to reflect this.
<b>Resilience</b>	The ability of the community to anticipate, resist, absorb, recover, transform and thrive in response to shocks and stresses to realise positive social, economic and environmental outcomes.
<b>Risk</b>	Events that have probabilities of occurrence that are predictable and outcomes that can be estimated with some confidence.
<b>Scenario analysis</b>	Scenario analysis provides a framework for exploring the uncertainty about future consequences of a decision, by establishing a small set of internally consistent future scenarios and assessing options against each of them. This form of analysis is especially useful for decision-makers faced with forms of uncertainty that are uncontrollable or irreducible (e.g. future technology change or increased climate variability).
<b>Sensitivity analysis</b>	Changing a variable, or a number of variables, in a model or analysis to test how the changes affect the output or results.
<b>Shortlist of options</b>	The set of options determined as most likely to benefit the Australian community using a structured, quantitative and unbiased analysis (in Stage 2). The shortlist of options is taken to Stage 3 for detailed analysis. We recommend the shortlist includes at least two viable options.
<b>Social, economic and environmental impact</b>	The positive and negative effects of a proposal, with regards to: <ul style="list-style-type: none"> <li>• social: quality-of-life effects, such as social exclusion and access to services, employment and safety</li> <li>• economic: productivity effects, such as productive capacity, economic capability, global competitiveness</li> <li>• environmental: effects such as greenhouse gas emissions, waste treatment, noise pollution, visual intrusion, heritage impacts.</li> </ul>
<b>Socially beneficial</b>	Something is socially beneficial if you can demonstrate an evidence-based improvement that will change the quality of life of Australians. For example, through improved health outcomes, access to services/employment, and improved environmental outcomes.
<b>Societal wellbeing</b>	The welfare of Australian society as a whole. Effects on societal wellbeing, often referred to as impacts, can be positive (a benefit) or negative (a cost), and form the basis for <b>cost–benefit analysis</b> .
<b>Societal Impact</b>	One of three overarching <b>Assessment Criteria</b> we use to assess the merit of every proposal, at every stage. This criterion asks: what is the value of the proposal to society and the economy? We assess whether the social, economic and environmental value of the proposal, and its contribution to community sustainability and resilience is clearly demonstrated by evidence-based analysis.  This criterion is divided into five themes: quality of life, <b>productivity</b> , environment, <b>sustainability</b> and <b>resilience</b> (See <b>Assessment Criteria</b> ).

Term	Definition
<b>Strategic Fit</b>	<p>One of three overarching <b>Assessment Criteria</b> we use to assess the merit of every proposal, at every stage. This criterion asks: is there a clear rationale for the proposal? We assess whether there is a strong case for action, the proposal aligns to the achievement of stated goals and there is a clear fit with the community.</p> <p>This criterion is divided into five themes: case for change, alignment, network and system integration, solution justification and stakeholder endorsement.</p>
<b>Strategic review</b>	<p>Strategic review involves a high-level review of the <b>Strategic Fit</b> and feasibility of options before moving on to more structured analysis. This is intended to form an initial view of each option and can be conducted informally with less effort than is required for quantitative analysis.</p> <p>Two tools that practitioners can consider for strategic review are initial screening or strategic merit testing, which can be applied consecutively.</p>
<b>Sustainability</b>	<p>Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.</p>
<b>Themes</b>	<p>Themes are outcome areas within our Assessment Criteria. Each criterion comprises five themes. (See <b>Assessment Criteria, Strategic Fit, Societal Impact</b> and <b>Deliverability</b>).</p>
<b>Travel time savings</b>	<p>The benefit of less time spent travelling as a result of a project. The number of hours saved is typically modelled for both personal and business travel across a network, then converted to a monetary value for use in <b>cost–benefit analysis</b>.</p>
<b>Uncertainty</b>	<p>Events where probabilities of occurrence are difficult to predict and outcomes are challenging to quantify.</p>

Infrastructure Australia is an independent statutory body that is the key source of research and advice for governments, industry and the community on nationally significant infrastructure needs.

It leads reform on key issues including means of financing, delivering and operating infrastructure and how to better plan and utilise infrastructure networks.

Infrastructure Australia has responsibility to strategically audit Australia's nationally significant infrastructure, and develop 15-year rolling infrastructure plans that specify national and state level priorities.

[www.infrastructureaustralia.gov.au](http://www.infrastructureaustralia.gov.au)

