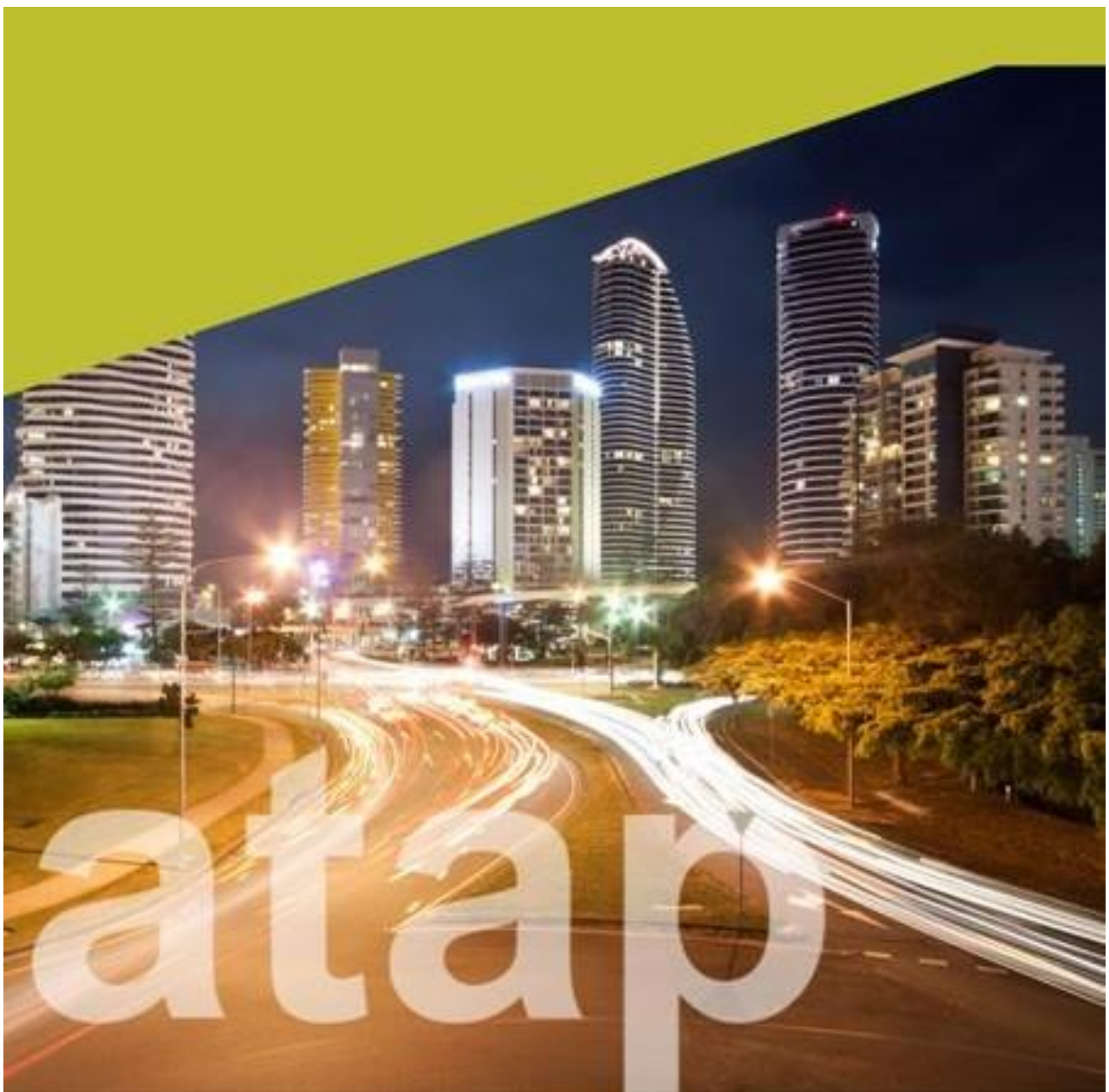


# Australian Transport Assessment and Planning Guidelines

August 2021 publications — summary report

August 2021



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# 1. Introduction

A series of ATAP Guidelines projects have recently been completed, resulting in new or updated guidance dated August 2021 being released on the ATAP website. The table below lists the publications.

This short report provides a brief description of the new pieces of guidance (chapter 2), and for those that have involved an update of existing guidance, a summary of the nature of the amendments is provided (chapter 3).

Website location	Name	Type
T3	Wider economic benefits	New
T4	Computable general equilibrium models	New
T7	Probabilistic cost-benefit analysis	New
T9	Urban freight modelling	New
M3	Freight rail guidance and parameter values	New
W3	Freight rail worked examples	New
O8	Land Use Benefits of transport initiatives	New
O9	Bus Rapid Transit and Light Rail Transit options generation and cost-benefit analysis	New
F0.1	Policy choices and system planning	Update
F1	Goals, objectives, KPIs and targets	Update
F2	Problem identification and assessment	Update
F3	Options generation and assessment	Update
T2	Cost-benefit analysis	Update
PV5	Environmental parameter values	Update
M1	Public transport (2 reports — guidance and supporting technical report))	Update

## 2. Brief summaries of new guidance

This chapter provides a brief summary statement for each piece of new guidance.

### T3 Wider economic benefits

A very brief outline of wider economic benefits had previously been published on the ATAP website. This new publication is effectively new guidance on this topic. It provides further clarification on how practitioners in Australia can consider wider economic benefits in the appraisal of transport initiatives. It discusses methodology and parameter values.

### T4 Computable general equilibrium models

A computable general equilibrium (CGE) model is an economic analysis tool with an economy-wide focus. This part of the ATAP Guidelines addresses the use of CGE models alongside standard cost–benefit analysis in the appraisal of transport initiatives. The report also briefly discusses input-output models and spatial CGE models. Part T4 previously discussed productivity metrics — that has been absorbed into T2 Cost-benefit analysis.

### T7 Risk and uncertainty assessment — Probabilistic cost-benefit analysis (appendix)

New guidance on probabilistic cost-benefit analysis has been added as an appendix in ATAP T7. It complements ATAP Part T2 Cost-Benefit Analysis. It discusses how, for input variables of a cost-benefit analyses, their associated risk can be described using a probability distribution. It then discusses how these inputs can be used in computer simulation methodologies to produce the probability distribution of key outputs of the cost-benefit analysis. It illustrates with case studies from various published reports.

### T9 Urban freight modelling

This new volume provides guidance on urban freight modelling for use in the appraisal of major transport initiatives. Urban freight is an important factor in how cities work, providing the ability for the urban economy to function, and plays a key role in the justification of many urban initiatives. T9 complements ATAP Part T1 that provides guidance on the modelling of passenger travel.

### M3 Rail Freight guidance and parameter values

This document provides specialist mode specific guidance on freight rail. It provides methodologies and parameter values for the economic appraisal of freight rail initiatives. It complements other parts of the ATAP Guidelines, applying the generic ATAP principles, framework and methodologies to freight rail. The material will assist practitioners in the assessment and planning of freight rail.

### W3 Rail freight worked examples

Two worked examples, one metro and one rural. They demonstrate the rationale and form of presentation for cost-benefit analysis applied to rail freight, using the M3 Rail freight guidance.

## O8 Land use benefits of transport initiatives

Transport infrastructure has long been recognised to have the potential to affect land use. This part of the Guidelines considers the land use benefits of transport initiatives. It reviews the different types of land use benefits that can be attributed to transport initiatives, and outlines approaches for estimating these benefits in cost–benefit analyses.

## O9 Bus Rapid Transit and Light Rail Transit options generation and cost-benefit analysis

ATAP Part M1 provides guidance for public transport in general. This report provides complementary guidance for cases where Bus Rapid Transit and Light Rail Transit, operating specifically within a dedicated right-of-way, are alternative options for addressing a given problem or opportunity. The focus is on options generation and cost-benefit analysis.

### 3. Summary of amendments to existing guidance

Some publications involved an update of existing guidance. For those, this chapter provides a summary of the nature of the amendments involved.

#### F0.1 Policy Choices and System Planning

The previous version of F0.1 was dated May 2016. The primary amendments made for the August 2021 version are:

- Chapter 1: National noted as a level of planning.
- Chapter 2: Added two further examples of high level policy choices: relative roles of capital investment vs non-investment solutions; adoption of whole-of-life management principles. Reference to consideration of both option types also mentioned elsewhere in document.
- Chapter 2: Added consideration of policy choices, or policy objectives, in the assessment strategic alignment — the first of ATAP's three stage process for assessing individual transport proposals.
- Box 1: Bridge strengthening added as example.
- Chapter 5: Added the role of 'place' in planning, with cross-reference to relevant references.
- Chapter 6: Reference added to Austroads Guide to Traffic Management.
- Cross-references to other parts of the Guidelines added.
- Section 7.5: The role economic assessments clarified as one of several drivers of budgetary decisions.

#### F1 Goals, Objectives, KPIs and Targets

The previous version of F1 was dated August 2016. The primary amendments made for the August 2021 version are:

- Introductory text in Chapter 1 revised.
- Word 'outcomes' added to Figure 1.
- Page 4. The table previously showed five steps. Step 5 (Identify integrated planning opportunities) has been deleted because that is addressed elsewhere in the Guidelines (Parts F0.1, F0.2).
- Box 1 in the August 2021 version deleted, and text transferred to the main text.
- Figure 2 'sample goals' updated.
- Section 3.3: 'synergies' added, and discussion updated.
- Section 4.2: QLD example of Data and Metrics Catalogues added.
- Section 4.2: Text on qualitative and directional indicators added.
- Figure 7: Added, showing hierarchy of planning levels.
- Figure 8: Amended by including 'target' boxes across the bottom
- Chapter 5: Text on project objectives and monitoring performance added.

#### F2 Problem Identification and Assessment

The previous version of F2 was dated August 2016. The primary amendments made for the August 2021 version are:

- At a Glance has been refreshed.

- As well as looking for problems, the guidance now highlights the importance of also identifying opportunities. This is in line with the approach in the Infrastructure Australia Assessment Framework.
- Chapters 1, 2 and 3: Refreshed.
- Section 4.3: Strengthened discussion of cause of problem.
- Section 4.5: New section enhancing the discussion of qualitative, quantitative and monetised evidence.
- Section 4.6: Time frames updated to align with Infrastructure Australia Assessment Framework. Added consideration of major unprecedented events and behaviour change in problem assessment.
- Box 2 on monetising is included from the Infrastructure Australia Assessment Framework.
- Section 4.8: Discussion on future uncertainties enhanced.
- Section 4.9: New section discusses the bases for comparison when estimating scale of a problem or opportunity.
- Box 4: Expanded the set of tools for engagement.
- Appendix A: Problem costing guide added.
- Cross-references to others part of the Guidelines enhanced and updated.

## F3 Options Generation and Assessment

The previous version of F3 was dated May 2018. The primary amendments made for the August 2021 version are:

- Step 2 of the ATAP Framework consists of problem identification and assessment. Where referred to in this document, 'problem' replaced with 'problem and opportunity' as per the Infrastructure Australia Assessment Framework
- References to 'initiatives' altered to 'options'. Footnote 1 added 'In the rest of the Guidelines, the preferred option is referred to as an initiative.'
- The term 'reform' option replaced with 'non-capital' option throughout.
- Technology solutions added as a category of options.
- New section (2.1.6) on relevant options added.
- Section 2.2.3 now refers to 'real options', with a reference to new ATAP Part T8 Real options Assessment.
- Section 2.2.7 expanded to emphasise the importance of combining top-down and bottom-up thinking and information.
- Clarification added that stage 1 of the assessment process considers 'strategic alignment', with the Strategic Merit Test being a tool for its assessment.
- Alignment with Government policy objectives added as a criterion in stage 1 of the assessment.
- Distributional impact assessment (DIA) added as an additional element of the assessment process.
- Footnote 4 details recent uptake of use of the Appraisal Summary Table.
- Chapter 2 discusses 'bringing the right team together' in options generation. New section 3.7 added to discuss the same issue for options assessment.

## T2 Cost Benefit Analysis

The previous version of T2 was dated August 2016. The primary amendments made for the August 2021 version are:

- The At a Glance section updated.

- Introduction chapter: Text added at the start mentioning link to other parts of the guidelines, and the ATAP assessment model briefly summarised .
- New Table 1 added in the Introduction section, briefly summarising the key steps and the relevant chapters.
- In the August 2021 version the word 'initiative' was widely used. In most cases, it has been replaced by the word 'option'. This recognises that a CBA may be undertaken for a number of options, with the preferred option becoming the proposed initiative.
- Chapter 2: Box 5 on GST added. Section 2.3 on perspective or standing updated.
- Chapter 4: Discussion on extrapolation of demand estimates updated.
- Chapter 6: New section 6.5 on assessment of a new mode, service or route.
- Chapter 10: Extended discussions on discount rates and BCR measures added.
- Chapter 11: Additional introductory discussion on risk, expanded discussion on sensitivity testing and probability-based assessment.
- Chapter 12: Example added of using adjusted-CBA to highlight productivity impacts.
- Cross references added to new ATAP Parts (O1, O2, O8, T7, T8).
- New appendices B and C: Discussion on measuring consumer surplus, previously in M1, brought into here with some updating.

### PV5 Environmental parameter values

Existing guidance is published as ATAP Part PV5. In 2020, it summarised results in the two most recent Austroads reports on environmental parameter values (in 2012 and 2014). This 2021 update: updates to the best available parameter values (mostly European based); reports parameter values at a more disaggregated basis (where feasible).

### M1 Public transport:

Existing guidance is published as ATAP Part M1, with a supporting Technical Report in the ATAP Technical Support Library. This update of the Technical Report: provides significantly revised approaches to assessing improvements in the quality of vehicles, stops, stations and wharfs; and some additional estimates of the value of public transport travel time savings. Part M1 has been updated to: account for the changes to the Technical Report; index dollar values to 2020 dollars.





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