
Evaluation Workbook I. Foundations of evaluation

Key Points:

Monitoring and evaluation should be based on a clear understanding of:

- The reason for the initiative (case for change)
- The key characteristics of the initiative
- How the initiative is intended to lead to change, including:
 - Theory of change: a summary narrative that explains how and why the activities of an initiative are intended to achieve initiative objectives, including assumptions and risks about causal links.
 - Logic model: a diagram that shows how an initiative is intended to solve an identified problem; it can be used to set out the expected timing for initiative implementation and realisation of outcomes and benefits, and to outline key measures or indicators that should be monitored.

Introduction

Monitoring and evaluation activities should be based on a clear understanding of the reason for the initiative, the context in which it operates, and how it is expected that the initiative will lead to change. **Where a 'business case' had been developed for the initiative, refer to the relevant information.**

Reason for the initiative

The reason for the initiative should include the reason for government intervention, the objective of the initiative and consider what would have been expected to happen if the initiative had not been implemented (the counterfactual).

Reason for government intervention

When evaluating an initiative, it is useful to understand the reason the government has acted.

This is a key step in the 'problem definition' stage of the business case, which involves conducting needs analysis and developing a 'case for change'. Where a business case has been developed, the reason for government intervention listed should also be referenced in the evaluation.

The two main reasons for government intervention (as defined in the [NSW Government Guide to Cost-Benefit Analysis](#) and the [NSW Government Business Case Guidelines](#) (step 1) are to:

- Address a market failure, which is a situation where the market does not deliver an efficient outcome (see the Guide to Cost-Benefit Analysis for a description of the categories of market failure).
- Promote equity, for example, where people experience different access to services or outcomes based on factors such as disability, income, region, ethnicity, religion, gender, or age.

Objective of the initiative

The objective of the initiative is what it is intended to achieve in response to an identified problem or opportunity. Objective definition should be clear regarding the initiative's intended outcomes or benefits.

In stating the objective of the initiative, identify alignment to relevant State Outcome(s). The alignment and contribution of the initiative to a State Outcome may vary depending on the size of the initiative. Where an initiative's outputs are significant, there may be direct and clear impacts on a State Outcome.

A smaller initiative may be one activity of several that contributes towards achieving a State Outcome. The evaluation should focus on the objectives that are relevant to the scope of the initiative. The evaluation is also an opportunity to ask how the initiative's outcomes contribute to broader State Outcomes and government objectives, and if its objectives and intended outcomes continue to align with these.

The counterfactual (the 'without initiative' scenario)

The initiative should be understood considering what would be expected to happen if the initiative had not been implemented (the counterfactual). The counterfactual describes the situation that would have been expected to occur without the intervention and is known as the 'base-case' in a business case. It is usually a 'business as usual'/'no policy change' scenario, without the intervention.

The counterfactual may also be the next most likely option to have been implemented, such as a 'minimal intervention' case. While more than one counterfactual is usually possible, a single counterfactual can be selected for the purposes of the evaluation.

Where a business case appraisal was undertaken, the 'base-case' scenario may be used to inform the counterfactual (it may need to be updated if there is new evidence).

Note: A comparison or control group used in experimental or quasi-experimental outcomes evaluations can provide an understanding of what may have happened in the absence of the initiative (see Technical Note: Outcome evaluation design).

Initiative characteristics

Identify key characteristics of the initiative and the context in which the initiative operates (including how it interacts with other initiatives).

Initiative description

Describe the initiative as implemented, including:

- initiative name
- implementation details, for example:
 - key activities and outputs
 - delivery providers
 - delivery methods
 - delivery locations
 - timeframes
 - key inputs (budget and resources)
- any changes made to the initiative
- initiative stakeholders, including information on the number and type of:
 - customers or clients of the initiative, and any criteria for their participation
 - people and communities who are impacted by the initiative.

Context in which the initiative operates

The situations or contexts in which the initiative operates should be understood. Identify and briefly summarise the key social, cultural, economic, or environmental conditions and trends that influence the need for the initiative and how it works.

Identify other relevant interventions that interact with the initiative, or that also address the identified needs. For example, local, state or national activities may affect how the initiative objectives are achieved. Key questions include:

- How does the initiative interact with other initiatives to achieve its objectives?
- What other activities does the initiative support to achieve their objectives?
- What other activities may the initiative duplicate?
- What activities may undermine the initiative achieving its objectives; does the initiative undermine the objectives of any other activities?

Initiative logic

A theory-of-change and logic model can be used to systematically set out how the initiative is expected to contribute to intended outcomes and benefits.

Theory-of-change

The theory-of-change is a summary narrative that explains how and why the activities of an initiative are expected to achieve initiative objectives, based on evidence, logic, or theory.

The theory-of-change should identify how the initiative is expected to lead to outcomes and benefits. Explain assumptions about the causal links in an initiative, including key assumptions about how outputs will lead to the expected level of outcomes and how outcomes will support the realisation of benefits.

Identify any critical success factors, risks or barriers to achieving causal links, including any risks that may be specific to particular places or groups. Identify strategies to mitigate and manage these risks and consider where these should be tested in the evaluation. (For further information on risk management, see the [NSW Treasury Risk Management Toolkit](#)).

Evidence to support the theory-of-change may include evidence from relevant case-studies, research, prior evaluations, theories of how processes work and expert opinion.

Theories-of-change will have been considered (formally or informally) when designing the initiative (and used to support the business case). The process of reviewing or developing the theory-of-change can be used to identify where there is limited evidence that the initiative's activities would lead to the intended changes. Note where there are evidence gaps that should be investigated in the evaluation.

Logic model

A logic model¹ is a summary diagram that presents how an initiative is intended to work. It complements the theory of change, by illustrating the key activities and causal links of an initiative.

The logic model can be used to set out the inputs to the initiative, the activities that the initiative undertakes, and the outputs that the initiative is intended to deliver. It can set out the sequence and links between the outcomes that the initiative is expected to achieve, and the benefits to the New South Wales community that are projected to follow from these outcomes. Logic models for New

¹ It may also be described as a Program logic or Investment logic map.

South Wales Government initiatives should also show alignment with the relevant State Outcome(s). See *Table 1* for example categories to include in a logic model.

Table 1: Example logic model categories

Categories	Description
Objective	The fundamental aim(s) of the initiative, based on the problem or opportunity identified. It often provides the basis for determining success.
Inputs	The financial, human, material, technological and information resources used to implement and deliver the initiative.
Activities	The actions and processes of an initiative that transform inputs into outputs.
Outputs	The products, services and infrastructure that result from the initiative activities.
Outcomes	The changes that are attributable to the initiative outputs. Changes may be in economic, social, environmental or cultural conditions and may occur in the short, medium or long term. They may include changes in lives, status, health, surroundings, knowledge, attitudes, values, behaviours or satisfaction levels.
Benefits	An increase in welfare associated with an initiative's outcomes (including economic, social, environmental or cultural outcomes). Benefits need to be first understood as changes in conditions, i.e. as outcomes. In Cost Benefits Analysis (CBA), benefits are a measure of the value of the outcomes of an initiative to the New South Wales community – they may be monetary or non-monetary (methods exist to monetise non-market benefits). Benefits reported in an evaluation should be evidence-based.
State Outcomes	The primary purpose for which Budget funding is being expended, which clearly explains to the public the goal that a subnational government is seeking to achieve for its people. New South Wales State Outcomes are accompanied by Outcome Indicators. See TPP18-09 Outcome Budgeting .

The level of detail and scope of a logic model should be appropriate to the size and complexity of the initiative and stage of the investment cycle. A simple logic model can identify activities, outputs and outcomes at a high level. A more detailed logic model can present an initiative's objective, inputs, activities, outputs, outcomes (short, intermediate and long term) and benefits.

The logic model can set out the expected schedule for the initiative's implementation and realisation of outcomes and benefits. It can also be used to outline key measures or indicators that should be monitored at each stage of the initiative's life (see *Workbook II. Monitoring and evaluation framework* and *Workbook III. Evaluation plan: Design the evaluation*).

For large or complex initiatives (made up of many different activities), it may be useful to develop an overarching logic model that summarises the key components of the initiative, as well as more detailed individual models for the sub-initiatives that make up the larger initiative. An overarching logic model can provide a visual summary of a complex initiative when there are many inputs and outputs to track (see *Workbook VIII. Complex initiatives*).

There are multiple ways to present a logic model. A good logic model makes it easy for the reader to understand the intended causal links of an initiative. Use consistent, direct, and active language. Where appropriate, use arrows to present direct links. For the purposes of evaluating an initiative, the logic model should clearly set out intended outcomes and benefits.

Developing a logic model has value as a process and product

Use the process of developing a logic model to build a shared understanding of the intent and expected impacts of an initiative. Figure 1 provides an example of steps to consider when developing a logic model. Involve the people responsible for design and delivery of an initiative, as well as other key stakeholders. Test whether the outputs and immediate outcomes can plausibly be linked to the intended longer-term outcomes and benefits, ideally using evidence from research literature. When finalised, the logic model will provide a clear map of the initiative that is consistent with the understanding of the current delivery team and can communicate an initiative's activities and intent to an external audience.

Every logic model is unique and can be further developed and detailed throughout the investment lifecycle.

Logic model across the investment lifecycle

The logic model should be developed and refined throughout the five stages of the investment lifecycle (see Figure 2):

1. **Problem definition:** Focus identifying intended benefits and developing options to address the identified problem or opportunity. The model should present high level information on the options' expected inputs, activities, outputs and outcomes. Refer to Figure 3.
2. **Strategic business case:** Include further details including how the activities and outputs of different options will lead to outcomes and benefits. Refer to Figure 4.
3. **Detailed business case:** Separate logic models should be presented for shortlisted options, and greater detail for each option may be needed to support cost-benefit analysis. The diagram may not need to highlight the problem/opportunity, as it is expected that this would have been outlined at prior stages. It should be developed with a view towards achieving relevant State Outcomes and supporting decision makers to select a preferred option. Refer to Figure 5.
4. **Implement and monitor:** Include a greater level of detail about the selected initiative that can guide implementation and delivery and be used to identify what will be monitored and evaluated. Refer to Figure 6.
5. **Evaluate:** Refine the logic model to reflect the initiative as implemented. Comparing the planned activities, outcomes and benefits against the actual outcomes can help evaluate the initiative's success. The logic model can also preserve institutional knowledge, promote accountability and capture lessons learnt.

Figure 7 shows an example logic model for a transport project at the implement and monitor stage. It includes Key Performance Indicators (KPIs) for tracking the performance of each of the components included in the logic model over time: inputs, activities, outputs, outcomes and benefits. For more information on performance metrics such as KPIs, indicators and measures, see *Workbook II. Monitoring and evaluation framework*.

Table 3 shows how a logic model can be used as a foundation for monitoring and evaluation planning at Detailed Business Case stage (see also *Workbook II. Monitoring and evaluation framework*). To support planning for monitoring and evaluation, the logic model can be used to:

- identify the intended timeframes for initiative implementation and for realising outcomes and benefits (and consider when these can be evaluated)
- determine the purpose of evaluation at different stages of the initiative's life, scope the key evaluation questions and choose evaluation methods
- identify the key activities, outputs, outcomes and benefits that should be monitored, and other information that should be collected, to address key evaluation questions.

Templates

Figure 1 identifies example steps to undertake in developing a logic model.

Table 2 is an example logic model template.

Figure 1: Example steps in developing a logic model

Example steps in developing a logic model

1. Outline the theory-of-change, including:

- a. the problem or opportunity that the initiative seeks to address
- b. the purpose of the initiative, including objectives, or intended outcomes and benefits
- c. key assumptions regarding how and why the activities of the initiative are expected to achieve change
- d. external factors, such as risks, that may affect causal links.

2. Identify inputs, activities and outputs: list the resources and actions required to implement the initiative, and the resulting deliverables.

3. Identify outcomes:

- a. list the outcomes that are expected to result from outputs
- b. arrange outcomes into a causal chain that sets out the links between and timing of different outcomes (for example short-, medium- and long-term outcomes).

4. Identify benefits:

- a. identify the benefits (increases in social welfare) expected to result from outcomes
- b. identify any costs/disbenefits (reductions in social welfare) that may follow from outcomes.

5. Link to State Outcomes: identify how the intended outcomes and benefits support broader State Outcomes.

6. Establish timeframes: Identify the:

- a. timeframes for implementation and delivery
- b. expected times periods in which outcomes and benefits are expected to occur (informed by available evidence).

Note:

Key stakeholders should be involved throughout these steps.

The ordering of these steps may vary depending on the stage in the investment lifecycle of the initiative.

Table 2: Example logic model template

Initiative:							
Objective(s):							
State Outcome(s):							
Theory of change:							
Objectives	Input 1	Activity 1	Output 1	Short-term outcome 1	Medium-term outcome 1	Long-term outcome 1	Benefit 1
	Input 2	Activity 1	Output 2	Short-term outcome 2	Medium-term outcome 2	Long-term outcome 2	
	Input 3	Activity 3	Output 3	Short-term outcome	Medium-term outcome 3		Benefit 2
	Input 4						Disbenefit 1

Figure 2: Logic model components at different stages of the investment lifecycle

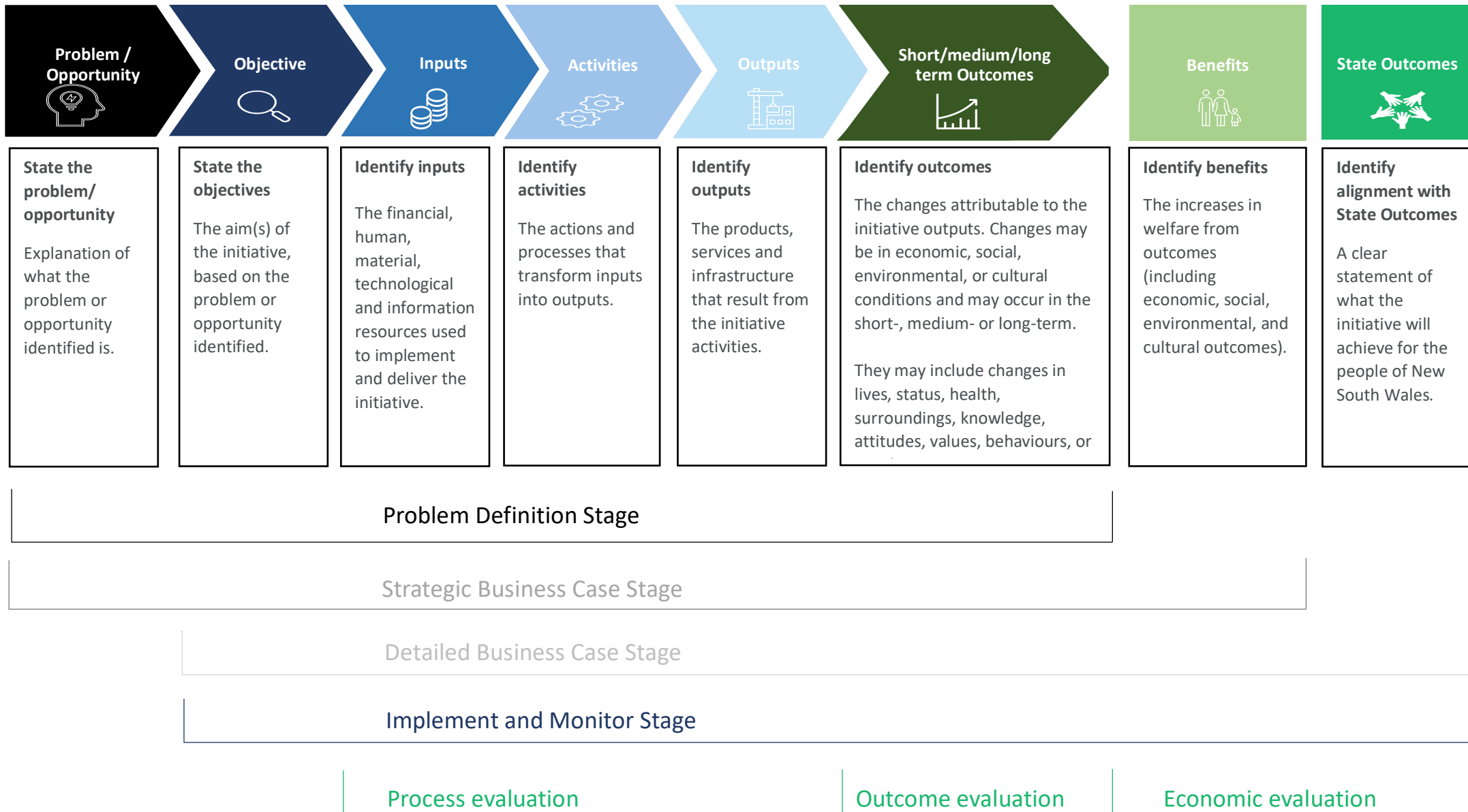


Figure 3: Logic model at the problem definition stage

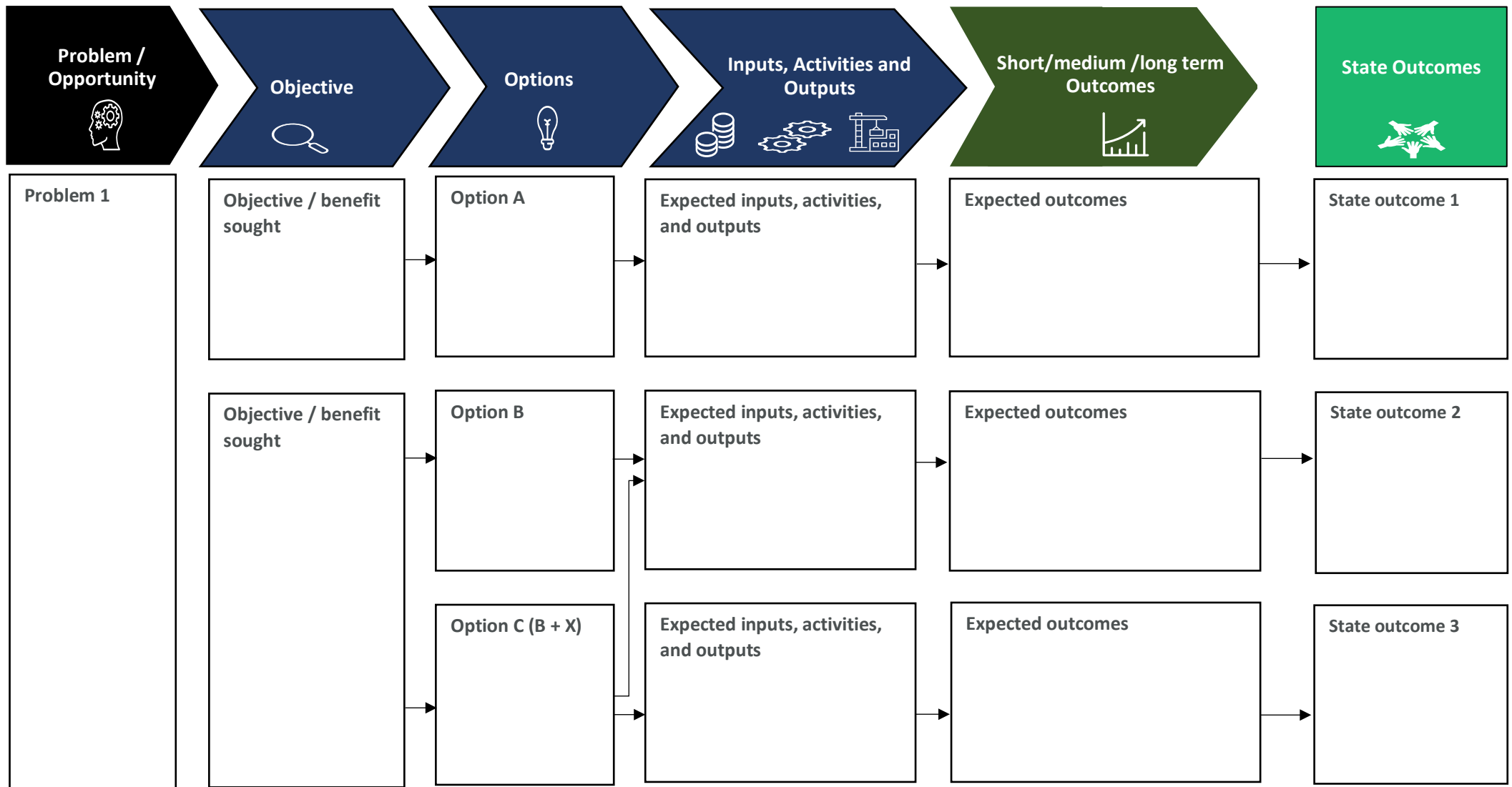


Figure 4: Logic model at the strategic business case stage

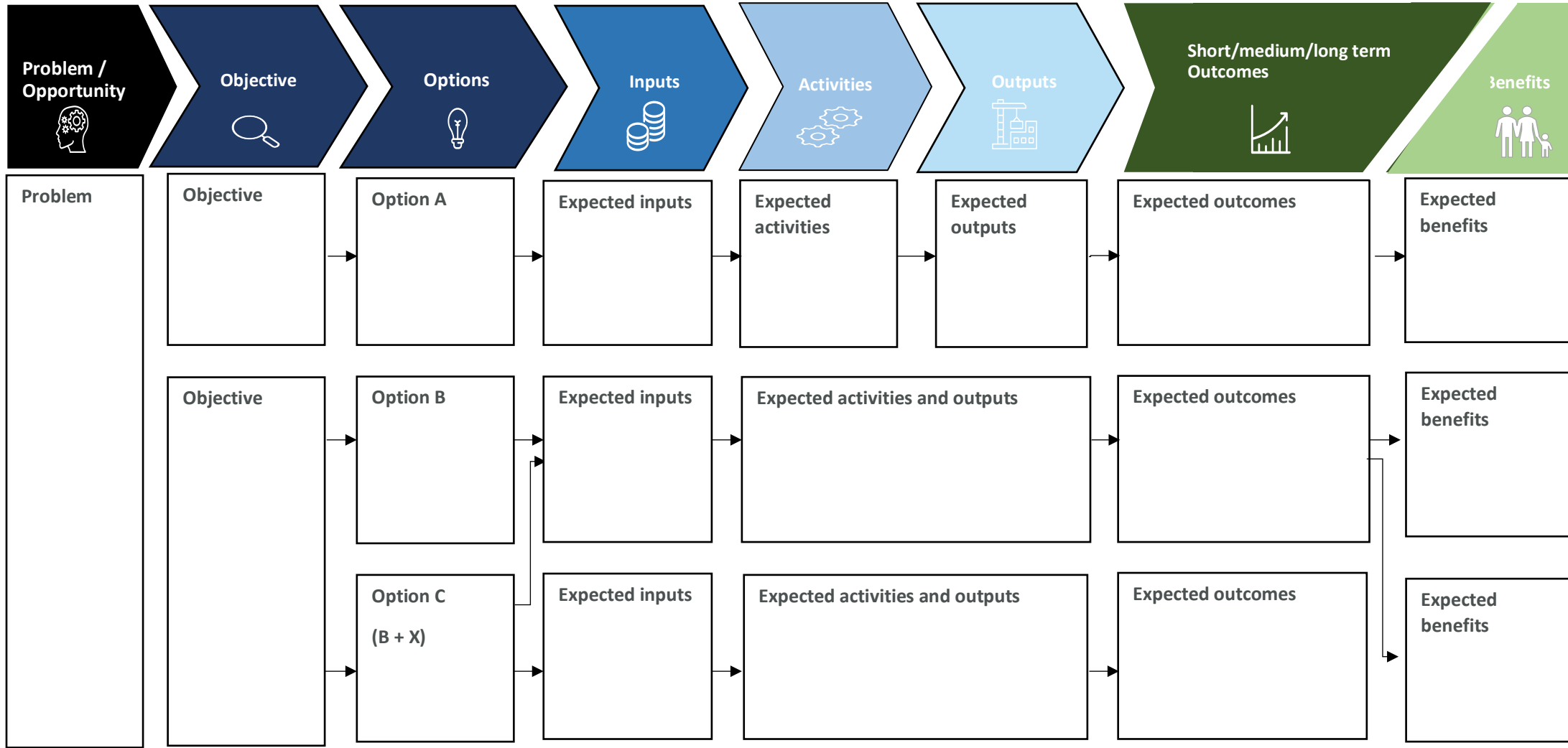


Figure 5: Logic model at the detailed business case stage

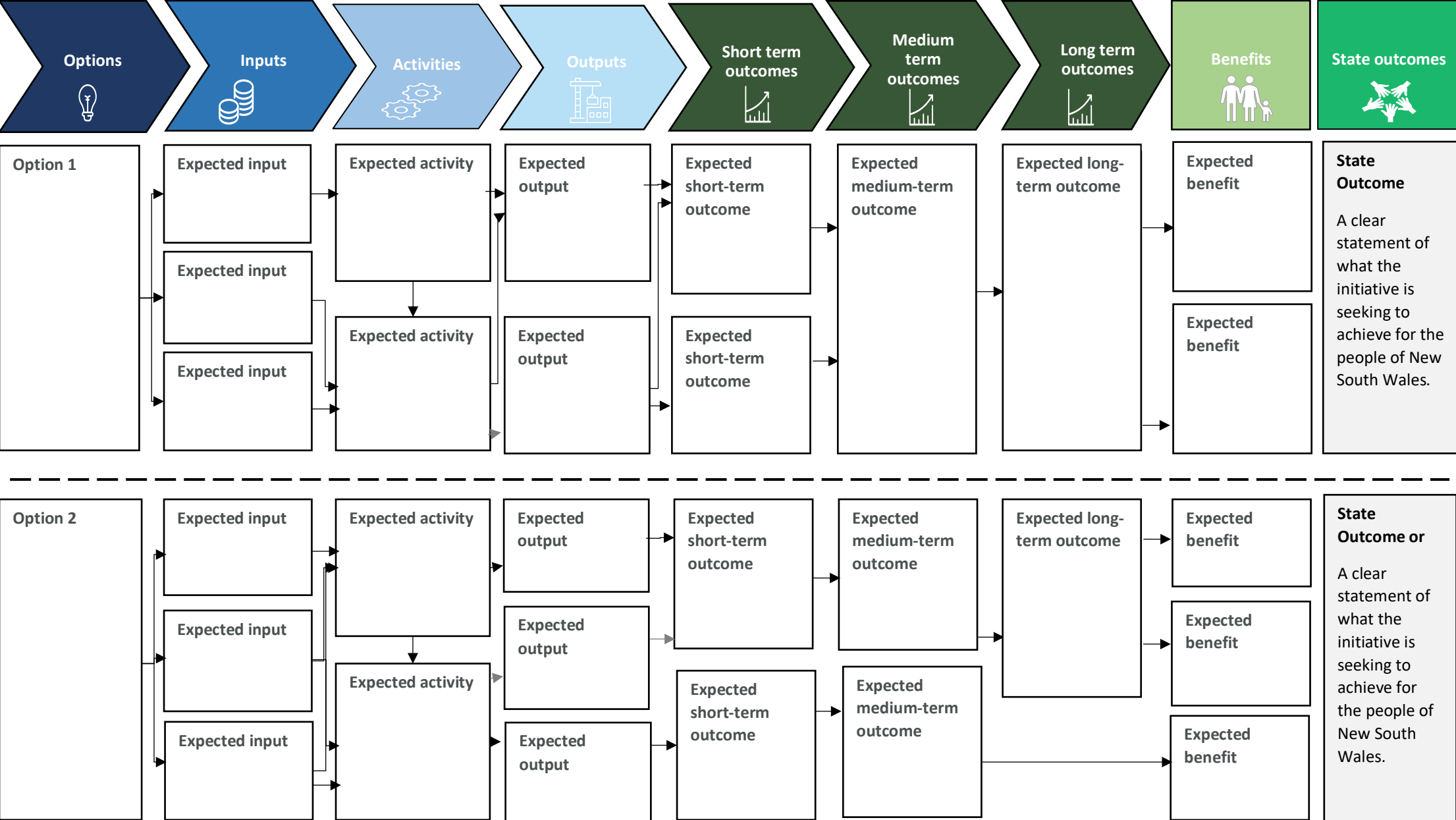


Figure 6: Logic model at the implement and monitor state, or evaluation stage

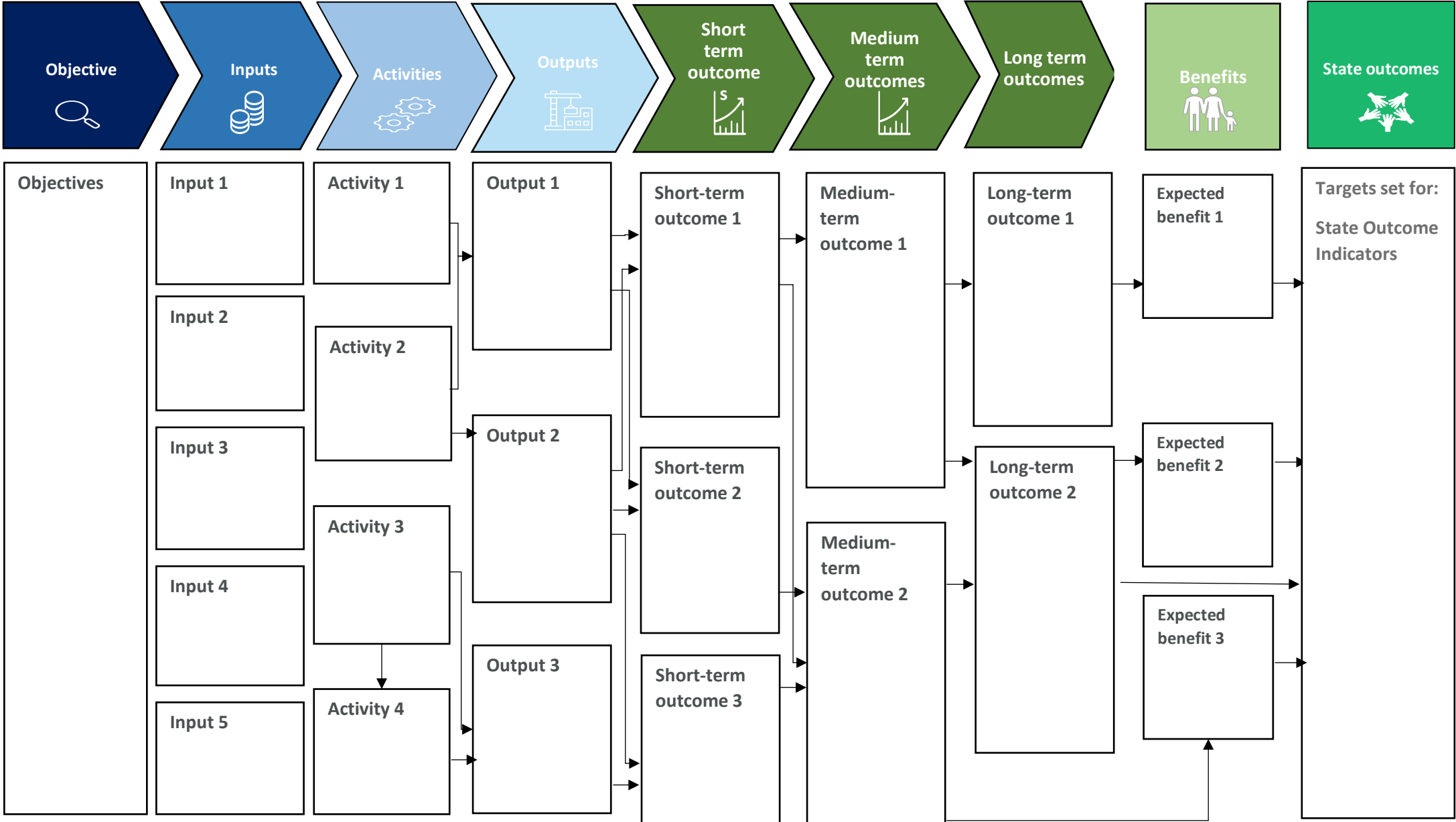


Figure 7: Hypothetical transport project logic model

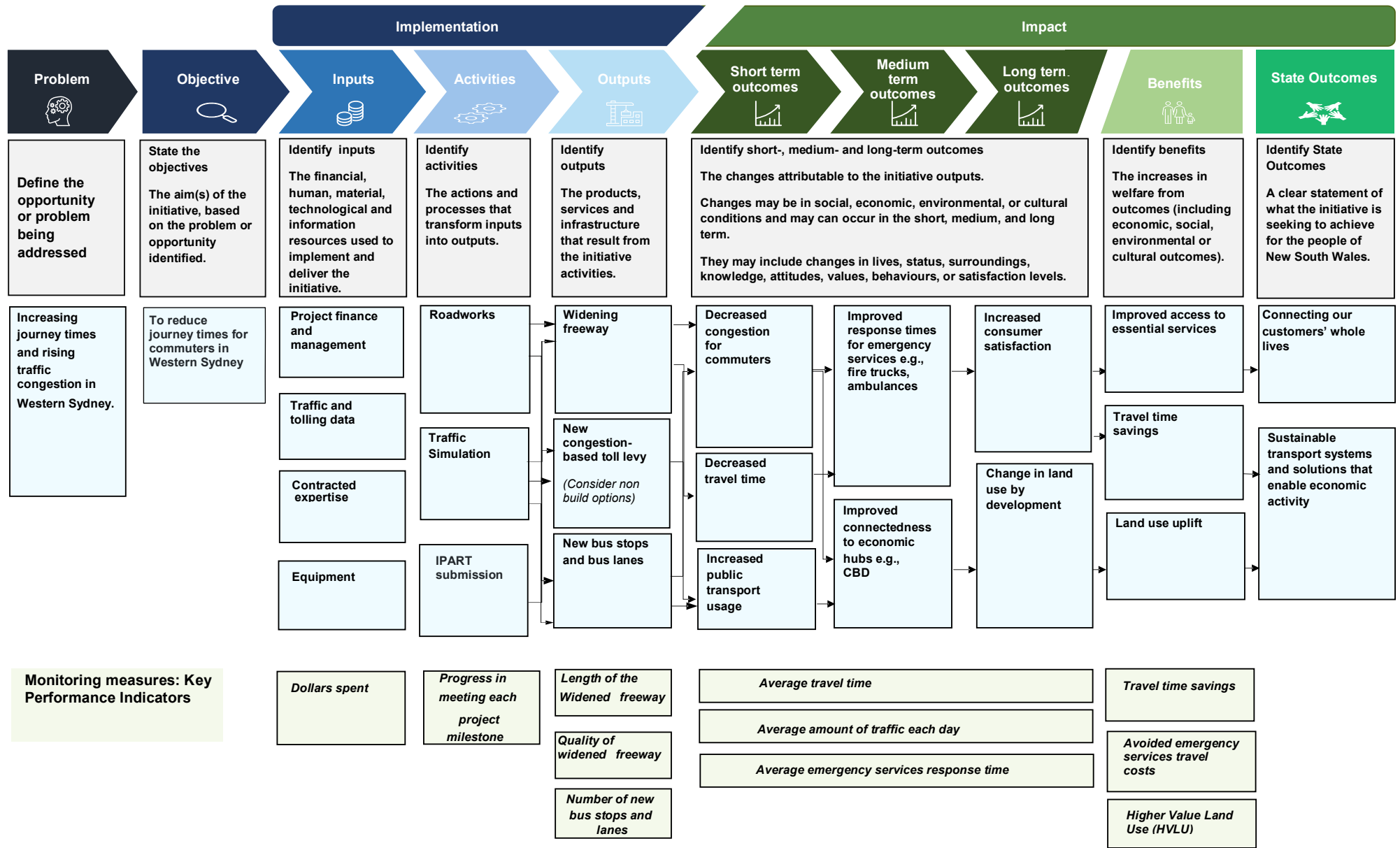


Table 3: Use of logic model to scope Monitoring and Evaluation Framework

Initiative:							
Objective(s):							
State Outcome(s):							
Logic	Inputs	Activities	Outputs	Intended Outcomes			Benefits (& Dis-benefits)
				Initial	Intermediate	Longer term	
Timeframe: expected timing of implementation and impacts	<i>For example, six months</i>	<i>For example, six months</i>	<i>For example, one year</i>	<i>For example, two years</i>	<i>For example, 2-3 years</i>	<i>For example, more than four years</i>	<i>For example, over a twenty-year period</i>
Evaluation purpose	<i>For example, to examine if the initiative is being implemented as intended, and to identify opportunities for improvement.</i>			<i>For example, to examine if the initiative is leading to the intended shorter-term changes that will support longer term objectives.</i>		<i>For example, to examine if the initiative led to intended changes.</i>	<i>For example, to examine if the investment provided a net benefit to the NSW community.</i>
Key evaluation questions: questions to address the evaluation purpose and provide information to meet the needs of decision-makers and key stakeholders.	<i>Process evaluation questions, for example:</i> <ul style="list-style-type: none"> • Has the initiative been implemented as designed? • Is the initiative reaching the target populations? • What is known regarding the quantity and quality of outputs? • Is the initiative on track to achieving intended outcomes? 			<i>Outcome evaluation questions, for example:</i> <ul style="list-style-type: none"> • What are the actual changes (outcomes) delivered by the initiative? • What is the distribution of outcomes among different groups? • Under what conditions has the initiative been most effective? 			<i>Ex-post CBA example questions:</i> <ul style="list-style-type: none"> • What are the range of benefits attributable to the initiative (including future benefits)? • What is the distribution of benefits (and costs) among different groups in New South Wales? • What is the initiative's net social benefit? • To what extent has the initiative delivered value for money?
Monitoring: performance metrics and collection of data points required to support evaluation	<i>The financial, human, material, technological and information resources used to implement and deliver the initiative.</i>	<i>Actions and processes which transform inputs into outputs.</i>	<i>Products, services, and infrastructure that result from the initiative activities.</i>	<i>Short-term changes attributable to the initiative outputs.</i>	<i>Medium-term changes attributable to the initiative outputs or short-term outcomes.</i>	<i>Long-term changes, attributable to the initiative outputs and short or medium-term outcomes.</i>	<i>The increases in welfare associated with an initiative's outcomes (including economic, social, environmental, or cultural outcomes).</i>