

# RIGHT-SIZED BUSINESS CASE GUIDANCE

A technical paper prepared for the Investment Decision-Making Framework Review

28 NOVEMBER 2019

Waka Kotahi NZ Transport Agency has developed guidance on preparing a right-sized business case, based on the level of risk, uncertainty and complexity involved. This will be added to point of entry guidance so that the level of effort needed to complete a business case is clear at the outset. The Transport Agency is also developing a short-form business case – known as a ‘single-stage business case lite’ – for investments between \$1m–\$5m. The updated guidance and single-stage business case lite will apply from 1 July 2020.

## WHAT IS A RIGHT-SIZED BUSINESS CASE?

A business case is right-sized if it has been developed with an appropriate level of effort based on the investment risk, complexity and uncertainty. A right-sized business case matches the assessment requirements for that business case.

## WHY IS RIGHT-SIZING A BUSINESS CASE IMPORTANT?

Right-sizing a business case is important to enable a good investment decision, to ensure that resources are not over or under expended in its development, and to have greater confidence in the time required to develop a business case through to an investment decision.

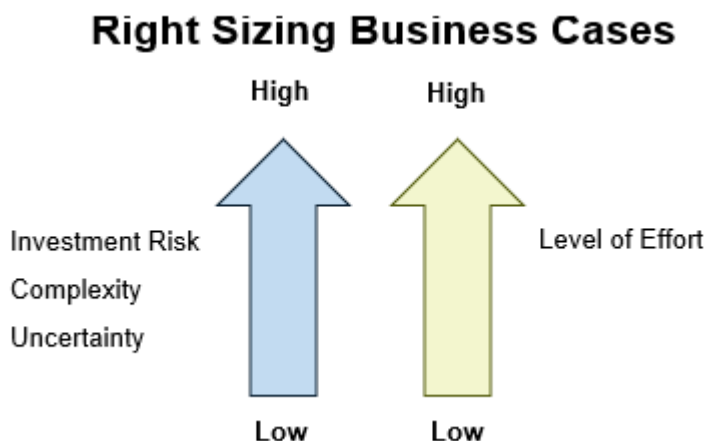
Approved Organisations, Waka Kotahi NZ Transport Agency and stakeholders have identified that the 'level of effort' required to develop a business case isn't always clear. This has led to some business cases having too much detail, requiring more time and money, covering all bases. There are also examples where some aspects of the business case are not sufficiently covered, requiring additional work at the end of the process, or an investment decision is made subject to conditions that need to be fulfilled.

Business cases currently cost between 1-30% of the total project implementation costs, or, on average, \$500K to \$2M, and can take up to 2 years to complete. Right-sizing business cases is a focus on saving time and money through omitting unnecessary business case phases and ensuring business case developers do not develop unnecessary evidence and analysis to support a business case.

Cost is not the only measure for right-sizing. Risk and complexity form a major component (alongside things like uncertainty and previous or related works) in right sizing the business cases we require to support investment requests.

At the Point of Entry (PoE) phase, the start of the business case process, there is the opportunity to agree the level of effort required for a business case. The aim is to consider factors at a high level to achieve enough clarity over the likely risks, uncertainties and complexities involved, to be able to 'right-size' effort appropriately, decide on a business case pathway, and to demonstrate to decision-makers that this is the case by outlining information in the record of the point of entry.

The diagram below illustrates how risk, complexity and uncertainty profiles influence the right sizing of business cases.



## WORKING WITH THE TRANSPORT AGENCY

It is important to note that a PoE does not require additional investigation and analysis to be undertaken. The PoE is primarily a conversation to understand why there is a perceived need for investment and to help in identifying the appropriate pathway and scope to develop the business case.

The concepts below do require judgement to be applied, therefore it is important for you to seek a discussion with the Strategic Cases Team to help in completing your PoE. The right-sized business case approach is about ensuring we have a robust understanding about why an investment is being sought.

It is key that you talk to your local Investment Advisor before you try and complete your PoE. Alternatively, you can contact the Strategic Cases Team at [StrategicCase@nzta.govt.nz](mailto:StrategicCase@nzta.govt.nz) for more information.

## PROPOSED SINGLE STAGE BUSINESS CASE LITE

A new tool to help right-size business case effort is by using a proposed Single Stage Business Case Lite template. The template can be used for projects above the low-cost low-risk threshold, to an upper limit of \$5M for project implementation costs, reflecting that investment risk is likely to be low.

The template is focused on answering what is needed from specific areas of the business case to ensure only the necessary information is included. The template's economic analysis section has also been aligned with the simplified procedures in the Monetised Benefits and Costs Manual. Use of the Single Stage Business Case Lite template will save business case developers time and money.

The template for a Single Stage Business Case Lite will be tested with users in early 2020 before it becomes available for use from 1 July 2020.

## KEY COMPONENTS OF A RIGHT-SIZED BUSINESS CASE

Investment risk, uncertainty and complexity are closely related and have many interdependencies. When attempting to understand the level of effort that will be needed to develop a business case through to implementation, it is usually helpful to focus on its unique aspects.

The following definitions set out the intended meaning of terms that apply throughout the guidance. For each definition we have provided examples of factors that should be considered see "Appendix One – Examples of investment risk, complexity, uncertainty, and previous or related works".

## Level of effort

Business cases can sometimes be overengineered leading to a significant cost burden for all involved. Based on the likely risks, uncertainties and complexities expected in the investment we need to right-size our level of effort.

The term level of effort is used to mean both:

1. The number and nature of phases that are likely to be needed to develop the business case.

For example:

- Very straight forward, and/or low-cost projects, could use their Activity Management Plan in place of a single stage business case, if the plan has an appropriate level of evidence and analysis to support the investment decision.
- Potential issues that lack clear problem definition may need to be explored through a Strategic Case to ensure there is a need for investment and the alignment of benefits, from the investment, with the Government Policy Statement on Land Transport (GPS).

2. Specific steps to ensure that the risks, uncertainties and complexities are adequately handled.

For example, an investment that has multiple stakeholders, funding partners and/ or interested parties, will likely carry much higher requirements for engagement and consultation. Decisions may come under considerable scrutiny, and potentially be contested. In such cases, resources will need to be allocated to developing the business case to a greater level of detail (e.g. investigating the work through more detail or more phases) that allows for more frequent stakeholder engagement.

## Investment risk

Investment risk can be defined as a combination of the likelihood and the severity of a potential variance from expected conditions. Investment risks do not consider project-based risks which will be managed during the development and implementation of the project. Investment risk is focused on the risks that may impact on realisation of benefits and lifetime costs.

## Uncertainty

Uncertainty is used in reference to events or changes in conditions that can impact the success of an investment. Uncertainties could be made up of:

- External factors that lie outside of the project team's ability to influence
- Events that cause a different future state to that which the business case anticipated
- Changes in investment need or the perceived significance of the problem.

An important aspect to note about investment risk and uncertainty is that they can be either positive or negative. For example, a positive risk might indicate an investment is likely to significantly over-deliver on the benefits being targeted. In such a case, a decision may be needed as to whether the response and/ or solution could be scaled back, and resources invested elsewhere.

## Complexity

Complexity is simply "how difficult is the investment decision to make?". Investment complexity can arise from multiple sources such as technical difficulty, level of public interest, conflicting stakeholder views etc. and can change throughout the business case lifecycle due to external factors or as investigation is undertaken.

Risk and uncertainty are also linked to the complexity of an investment, however, for the purposes of right-sizing effort, it is more useful to consider them separately, since they are typically dealt with differently as the business case develops.

These three factors (risk, uncertainty and complexity) are considered at the Point of Entry phase to inform decisions about the appropriate level of effort that may be needed to develop the business case through to the final investment decision.

## **Previous or related works**

Previous or related works refers to existing information from previous business case phases or related transport plans/studies that would help inform the building of the case for investment. Any previous works identified should be reviewed to ensure this information remains up-to-date and relevant to the current project's problem statements. Previous or related works could come in the form of prior business cases, analysis from consultants or strategic documents released by other government agencies, such as an Activity Management Plan.

There may be situations where work was done but needs to be updated before it can be used to support the investment.

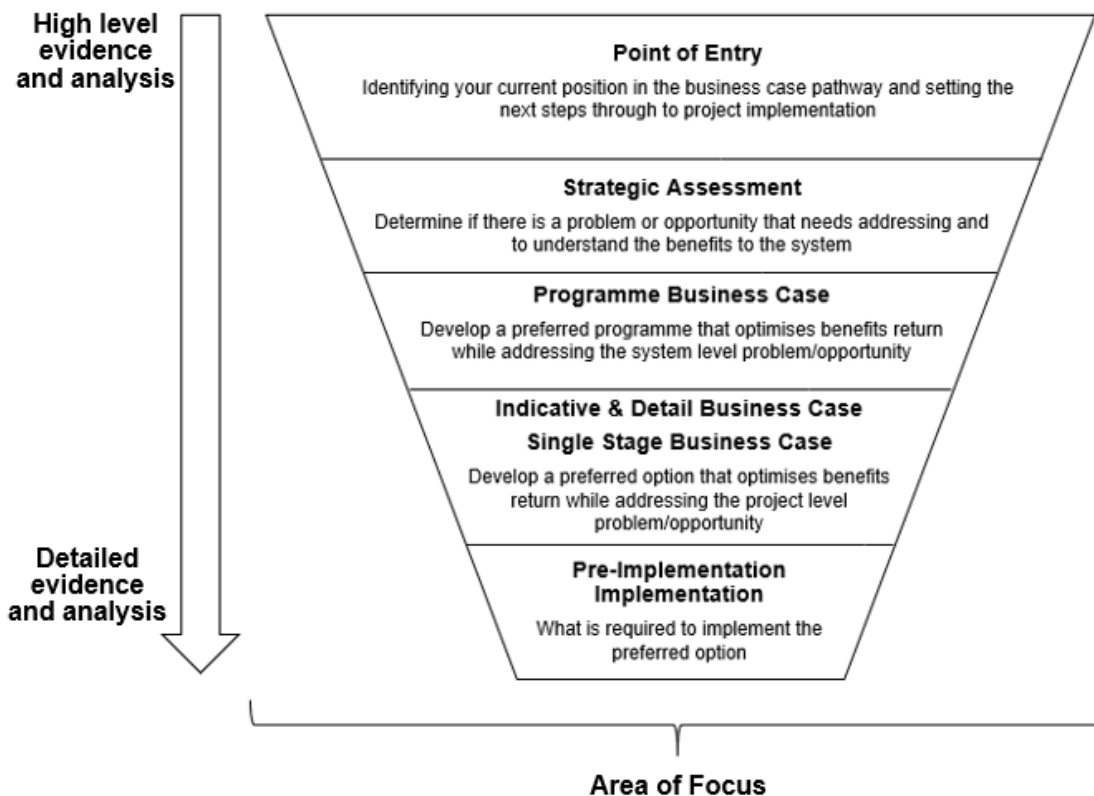
## BUSINESS CASE PHASES

Right sizing the business case, and the required level of effort, is not just considered during the point of entry, but throughout all business case phases for the project.

While the level of effort is based on investment risk, complexity, uncertainty and previous or related works, it is also important to note that information and evidence requirements change as the business case moves between phases. For example:

- **Programme Business Cases (PBC)** - Supports the decision to investigate further a programme of work that optimises benefits return. It provides an early opportunity for the organisation and key stakeholders to influence the direction of the preferred investment programme, and to avoid the agency putting too much effort into developing investment proposals and options that should not proceed.
- **Single Stage Business Cases (SSBC)** – Supports the decision to invest in a preferred option that optimises benefits return and seeks approval from decision-makers to finalise the arrangements for successful implementation of the project.

The PBC is focused on high level analysis at a systems level to determine the preferred programme of work. The SSBC, on the other hand, provides the detailed analysis for individual projects within the preferred programme or stand-alone activity, to help determine the preferred option. In the diagram below we have further explained how information and evidence requirements and the areas of focus change from the point of entry through to project implementation.



## APPENDIX ONE – EXAMPLES OF INVESTMENT RISKS, COMPLEXITY, UNCERTAINTY AND PREVIOUS OR RELATED WORKS

Note: not all information may be known, available or detailed at this phase; estimates can be used

### Investment risk

Examples of investment risks that may need to be considered through the development of the business case

Investment risk examples	Factors to be considered
Cost	What is the anticipated project whole of life cost? Is it significant to the AO or to the Transport Agency?
Scope	Is the scope of the project known and can it be clearly defined, or could it change significantly throughout business case development and project implementation resulting in significant cost scope adjustments?
Problems/benefits	Does the project rectify an issue of national significance that directly aligns to the GPS or is the project indirectly aligned to GPS and is unlikely to be prioritised for funding?
Stakeholder profile	Are there multiple national and local stakeholders, and other special interest groups? How active are these groups and what is their opinion of the project? Could they actively protest the project, slowing it down, putting the investment at risk?

### Complexity

Examples of complexities that may need to be considered through the development of the business case

Complexity examples	Factors to be considered
Problem certainty	Is the problem regularly dealt with by the Transport Agency and its partners? Are there likely only a few common solutions that will require evaluation?
Public interest	The greater the level of public interest, the higher the likely need for effective consultation and communication. It also means the logic for the investment or process undertaken may come under greater scrutiny, and in addition to being robust must be clearly articulated and understandable by non-specialists.
Programmes & packages	Programmes can be a group, or single, activity designed to provide for national or system wide activity seeking to progress an integrated response to a transport issue. Programmes are likely to span years, during which projects may be added or removed to adapt to new information and improve outcome delivery. Packages are combinations of two or more activities that, when implemented and operated together, provide synergistic benefits through their interaction. Often packages involve more than one mode, organisation and activity class. Please refer to "Programme and package design memo" for more information.

### Uncertainty

Examples of uncertainties that may be looked at or resolved through the development of the business case

Examples of uncertainties	Factors to be considered
Change of government or strategy	Will the expected benefits still be sought after and of high value to partnering organisations if strategies change in future?
Significant developments or changes within the area or community	Are there potentially going to be, or expected to be, changes in the project area geographically or otherwise? These could be land use change/s, transport change/s, another nearby project/s, policy change/s, business expansion or change, related technology changes, anticipated changes to freight movements / volumes. How could these types of things affect the path the business case will take? Would it make sense to investigate these potential changes to a higher level of detail for your project?
Growth forecasts	How far into the future is the prediction? What are the forecasts based on? How accurate / evidence-based is the modelling? These types of considerations will give a better understanding of how much further investigation may be required to support your estimated required level of service.

### Previous or related works

Examples of previous or related works that can be considered through the development of the business case

Previous or related work examples	Factors to be considered
Activity Management Plans	Depending on the content, these documents may be relevant to use as a strategic, programme or single stage business case.
Existing business cases	Similar problems could have been resolved on the network under review or in other regions. These business cases could be reviewed and may be able to form the basis of investigation of evidence or logic for future business case documents. Or historic business cases, that have been completed some time ago, that are related to the investment may be a good start to update and use as the business case.
Reports, data and other information	From research and analysis already completed, the project may already have clear scope, problem and benefits. The existing research may also show there are few options and alternatives. In these instances, it may be appropriate for the project to progress directly to a single stage business case.

## APPENDIX TWO – EXAMPLES: USING RISK, UNCERTAINTY AND COMPLEXITY AT THE POINT OF ENTRY TO RIGHT-SIZE EFFORT

### Example 1

Access to the centre of Metropolis from southern suburbs is mostly across a single bridge. As the city grows, levels of service are declining making it harder to access the jobs and services that many people depend on. A business case is proposed to understand the issues more fully, consider a range of responses that could be used, and decide on the best approach. The first step is to carry out a Point of Entry phase, which considers the risks, uncertainties and level of complexity that apply.

**Risk:** Due to very high levels of public interest, there will be a high reputational risk if the business case recommends a response that then fails to achieve the desired outcomes. It is too early to evaluate most other investment risks at this stage, however, given the level of complexity involved, it is anticipated that the overall level of risk will be high, requiring careful analysis and management.

**Uncertainty:** While Levels of Service (LoS) have already impacted on the desired outcomes for access, creating an investment need, the forecasts of future deterioration in LoS are highly variable, meaning the uncertainty regarding the optimal scale and timing of investment is high.

**Complexity:** There is very high public interest plus the possibility of securing third-party funding from one or more of the private developers. A wide range of responses will need to be considered and evaluated to ensure reasons for the proposed solution can be communicated to decision makers and the public clearly.

#### **Recommended starting point:** *Strategic case*

While much work already exists relating to the problems involved, this mostly pre-dates the adoption of investment management principles for National Land Transport Programme (NLTP) investment. Before the investment management principles were adopted, the investment argument was formed around one potential solution meaning options were not objectively assessed. There is a strong need for clear, robust investment logic to underpin the actual need for investment and enable objective decisions about the best form of response.

A strategic case would provide this clarity, through defined investment problems that are linked to the expected outcomes. The case would also ensure the project is adequately scoped through the business case pathway, reducing the possibility that key steps are missed.

#### **Anticipated development pathway:**

*Strategic Case* – to clearly establish the problems to be addressed and the benefits to be delivered.

*Programme business case* – to develop an appropriate range of responses to the problems identified in the strategic case. From what is already known, it is clear this will need to take a whole-of-network, systems approach and look well beyond the ‘conventional’ solutions that have been considered to date.

Based on the assessment of risk/ uncertainty/ complexity above, the PBC is likely to face the following challenges (and must be scoped accordingly):

- A high requirement for communications, including with the public.
- A high requirement for stakeholder engagement, including with private developers.
- A need to develop sufficiently innovative ideas for potential responses, to be evaluated alongside more conventional ones.
- A likely need for real options analysis to determine the optimal timing/ staging of any response.



*Multiple indicative/ single-stage business cases* – while actual details of subsequent phases will need to be determined in the PBC phase, there is a high likelihood that multiple interventions will be needed across multiple activity types. Anticipating this now sets expectations regarding how the business case will be developed through to implementation at an appropriate level, i.e. make it clear there's likely to be no 'magic bullet' solution here.

## Example 2

A district council's Activity Management Plan (AMP) sets out the council's proposed transport network maintenance, renewals and operations programme. Waimuka bridge is one of the structures listed in the AMP to be considered for renewal in the current 3-year long-term plan (LTP) period. A routine structural inspection has shown the structure, which is mainly timber, to have deteriorated to the point where a weight restriction has been applied. Heavier vehicles are already using a significant detour.

The Asset Engineer initiates a PoE phase to understand how a business case should be developed to address the situation. The PoE identified that the problem was essentially one of structural deterioration caused by aging, with the potential consequence of catastrophic failure in service. The PoE then considered the risks, uncertainties and complexity of the problem, as follows:

**Risks:** There is currently a significant risk of the structure failing in service, with consequent concern for safety of road users. Furthermore, the bridge crosses a live rail line, meaning the potential adverse safety consequences of a failure are very high. Consenting risk also exists as the bridge crosses a water course.

**Uncertainties:** Existing traffic volumes on the route are not particularly high, however the regional traffic model predicts that they will increase significantly within 10 years, although it is not clear why this might be so. As future traffic volumes influence the design standards of new bridges, this uncertainty will need to be resolved. For example, the transport model could be reviewed to ensure the assumptions used are reasonable.

**Complexity:** Only the local authority and the Transport Agency will be involved in decision-making. The most significant decision will be whether it will be more economical to carry out limited repairs to the bridge to gain additional life, abandon the bridge or for it to be replaced now. If a bridge replacement is the preferred option, solution choices will be relatively limited and therefore of low complexity.

**Recommended starting point:** *Single Stage Business Case.*

Initially the Asset Engineer believed that there was enough justification to proceed directly to pre-implementation. In part, this was supported by the fact that the structural investigation report had already identified a limited number of options for replacement of the bridge and included a recommendation as to which should be implemented.

However, through discussions with others including a Transport Agency Investment Advisor, it became clear that some important questions remained unanswered. Depending on the answers, it was agreed that the next appropriate step was to carry out a single-stage business case scoped to:

- Allow engagement with Kiwirail and local businesses
- Confirm that the problem was limited to age-related decline of the structure
- Clarify the future network demands for the bridge, to assist in agreeing the need for a bridge and applying the most appropriate design standards
- Undertake end of life net present value analysis to determine whether replacement or repair is the most cost-effective option
- Clarify consent process and issues for bridge repair replacement options.

**Anticipated development pathway:**

It was anticipated that, following development of the single-stage business case, the recommended solution would be able to apply for implementation funding. It was considered unlikely that there

would be a need for a pre-implementation phase since all outstanding questions would be addressed through the single-stage business case.

The Asset Engineer can use the existing work, including the AMP and the structural report, together with the record of the Point of Entry, to successfully support an NLTP funding application for a single-stage business case.