

# INNOVATION, TRIALS AND PILOTS

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

4 JUNE 2020

In recognition of the unique characteristics of trials and pilot activities, guidance clarifies the pathway for investment and how applications for trials or pilots are assessed.

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# 1. BACKGROUND

The Government Policy Statement on Land Transport (GPS) 2018 states: ‘Innovation and technology can support value for money by providing alternatives or better choices in the way investments are made and used. This may occur during the design of a new investment or when considering options for better using the infrastructure or service once it is in place.’

Waka Kotahi NZ Transport Agency supports innovative ways to solve transport issues and improve value for money. This paper provides guidance regarding innovations, trials or pilots in the context of investment decision making.

The business case process encourages consideration of options and alternatives to address an identified problem or opportunity. Generally, a range of existing techniques, designs, methods or service plans can be utilised or adapted as options for further consideration. There will be occasions where an option of exploring a new innovation or undertaking a trial or pilot will assist the business case by gaining information about costs, benefits, processes, technical and other information. The trial or pilot could potentially provide value for money in itself or improve value for money by identifying new solutions for transport issues and improvements. The trial or pilot could add to the evidence base of the Transport and Government sector and support delivery of government outcomes similar to transport planning or research activities.

Waka Kotahi recognises that some trials will fail to demonstrate impact, but even an unsuccessful trial can still add to the evidence base (either what *doesn't* work, or in what directions there is potential), thereby supporting improving value for money.

# 2. SCOPE

This guidance applies to Waka Kotahi and all approved organisations seeking investment from the National Land Transport Fund (NLTF) for innovations, trials and pilot activities in advance of permanent improvements.

Innovations, trials and pilots aim to:

- fill a gap in the knowledge/evidence base – a trial is not appropriate where strong evidence already exists in support of an intervention
- constitute a temporary activity, or interim intervention, whether physical works, services (including technology) or marketing campaigns, and
- be broadly reversible (ie not a new bridge) or not cost-prohibitive to rehabilitate.

It is acknowledged that in some circumstances, such as a new asphalt treatment, it is the degree of reversibility and whether it is a treatment to a specific site being tested, as opposed to larger area, that should be considered.

Typical projects of this kind are those that test options identified as part of a broader business case to:

- inform final design and implementation
- build community support for permanent upgrades
- help de-risk delivery of large-scale projects.

Innovative, pilot or trial activities may be undertaken in a variety of contexts, including:

- in the context of a business case for a permanent solution, with the aim to obtain information that would inform the business case for a permanent solution
- as part of a low cost, low risk programme,
- on application to a contestable fund for innovative activities, or
- as a small scale solution to test and understand its costs and benefits.

### 3. FUNDING PATHWAYS

Activities with total cost of under the threshold (\$1 million for the 2018–21 period) can use the existing low cost, low risk investment pathway, noting requirements for an evaluation plan.

A trial or pilot that has a small cost may be included as part of the business case phase and part of the cost of developing the business case. If the purpose of a trial or pilot is to gather evidence or obtain data for use in option and alternative analysis for the business case, the innovation, trial or pilot may be an information component of a business case for a permanent solution. The cost must be reasonable in the context of development of the business case.

Innovation, trial and pilot activities with a total cost over the threshold for low cost, low risk would apply the principles of the Business Case Approach (BCA), having regard to the problem, the benefit of addressing that problem, the cost and benefits of the pilot or trial and the management case supporting it.

Trials are not funded beyond the end of the trial; however, if the activity is identified as a successful and preferred option, the business case development process will consider interim funding arrangements for making the activity permanent.

Innovation, trials and pilot activities will use existing Work Categories for classification, which will be amended to provide clarity and certainty that innovations, trials and pilots are permitted activities. The innovation, trial or pilot may be of a type that is not in the existing Work Category but is able to deliver the functional intent.

For Public Transport services, trial services are supported with a clearly defined period, expected to be up to a maximum of three years. These will be reviewed before the end of the trial period to test whether they become part of the continuous programme.

### 4. ASSESSMENT OF AN INNOVATION, TRIAL OR PILOT

Waka Kotahi will assess the value for money of an innovation, trial or pilot activity having regard to:

- the aim of the innovation, trial or pilot
- the proposed use of the data or information expected to be gained
- any benefits arising during the period of the innovation, trial or pilot
- reasonableness of the cost of the innovation, trial or pilot
- alignment with a strategic priority in the GPS
- quality of an evaluation plan associated with the innovation, trial or pilot and likelihood that it will be carried out successfully.

In many circumstances the calculation of a benefit cost ratio (BCR) for undertaking the option of an innovation, trial or pilot may not be possible as the scale and types of benefits will not be known in advance. However, it is necessary to provide evidence of the cost-effectiveness of any proposed innovation, trial or pilot and how the results will enable the subsequent economic evaluation within the broader business case. Where a BCR is not possible, the benefits would be described or quantified with regard to the value of the information gained from the trial and any benefits arising during the period of the innovation, trial or pilot.

The benefits of the trial or pilot may be purely data or information but may also include benefits from the Benefits Framework achieved over the course of the trial or pilot.

The benefits derived from the innovation, trial or pilot can be utilised for the case for the permanent intervention, noting that they are compared to the 'do minimum'. An innovation, trial or pilot does not become the 'do minimum' for economic evaluation.

## 5. REQUIREMENTS OF AN INNOVATION, TRIAL OR PILOT

An innovation, trial or pilot needs to be included in a Regional Land Transport Plan (RLTP) (or the Waka Kotahi Transport Agency Investment Proposal (TAIP) in the case of a nationally delivered activity) and in the National Land Transport Programme (NLTP).

A funding application for an innovation, trial or pilot that exceeds the threshold for a low cost, low risk activity should provide evidence that the preferred innovation, trial or pilot option is the best approach to gathering the data (ie cost effective, high quality and sufficient data including full lessons learnt evaluations) and there is a proposed use of that data.

An evaluation plan is required. which provides confidence that valuable information will be gained, and that costs and benefits will be measured. Core components of an evaluation plan commensurate to scale are:

- A. Information on understanding the existing situation and counterfactual to establish a baseline for evaluation of the innovation, trial or pilot.
- B. Consideration of existing available innovative concepts and solutions and cost effectiveness assessment.
- C. An intervention logic map (ILM) mapping why something is being done through to what is trialled and measured.
- D. Identifying what success looks like and what would be a fatal flaw.
- E. Planning the innovation, trial or pilot and management of the proposed activity, including:
  - innovation, trial or pilot mix selection
  - pre-feasibility and feasibility analysis
  - implementation plan
  - deliverables and milestones
  - realisation and evaluation
  - risk analysis and management.
- F. Post-implementation evaluation and lessons learnt.
- G. Reporting on benefit measures in the Benefits Framework so that outcomes of trials can be monetised, compared and aggregated supporting a deepening of the transport sector's evidence base.