

Best Practice in Road Safety Infrastructure Programs

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Abstract

Traditionally, investment in road safety infrastructure in Australia and New Zealand has taken a bottom-up approach by targeting locations with an established safety problem. While this approach has served both countries well, it does not fully embrace the Safe System philosophy on which each country's road safety strategies are based.

This paper presents the results of an Austrroads research project which identifies best practice recommendations for Road Safety Infrastructure Programs that align with the Safe System approach. When implemented, this best practice approach will effectively contribute towards a safer transport system with fewer fatalities and serious injuries.

Introduction

Investment in road safety infrastructure in Australia and New Zealand traditionally involved a bottom-up approach of targeting safety improvements at locations with an established problem. This is commonly delivered through crash reduction programs, black-spot and black route analyses and treatments. Without a Safe System focus, the ability to achieve safety benefits using this approach will become increasingly difficult in the long-term (ITF, 2008) (Figure 1).

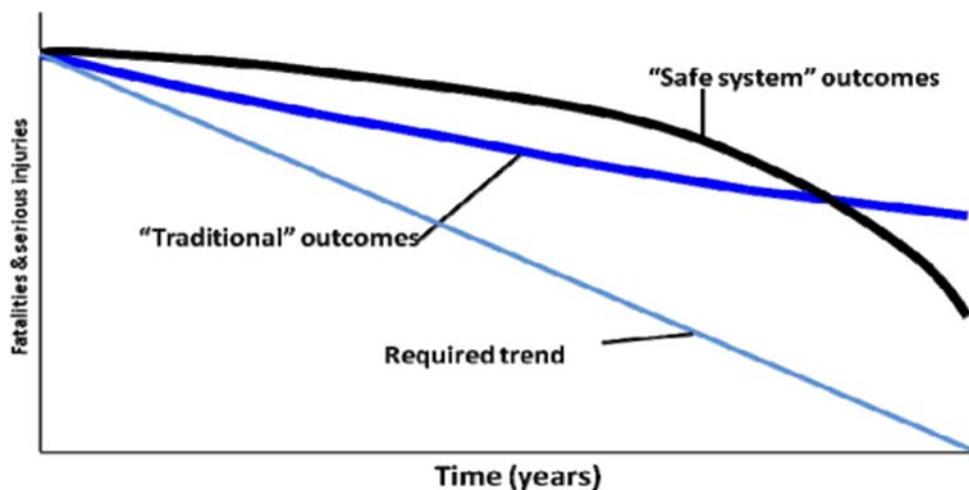


Figure 1. Interim and longer-term performance possibilities (source: ITF 2008)

To achieve enduring longer-term reductions in road trauma, there is a need for Road Safety Infrastructure Programs (RSIPs) to move towards the Safe System approach. This paper presents the results of an Austrroads research project to identify the best practice principles for achieving this within RSIPs.

Methodology

The first stage of the research involved consultation with representatives from each Australian and New Zealand state jurisdiction, as well as the Australian federal government. The purpose was to gain an appreciation of how each jurisdiction develops and delivers RSIPs, and to understand the strengths and weaknesses in their approaches.

The second stage of the research involved a literature review targeted at identifying ‘best practice’ across Australia, New Zealand and internationally.

The final stage involved developing a set of best practice principles which were then refined through two consecutive stakeholder workshops.

Best Practice Guidance

To help understand the RSIP development and delivery process, the best practice recommendations are broken into six stages (Figure 2).

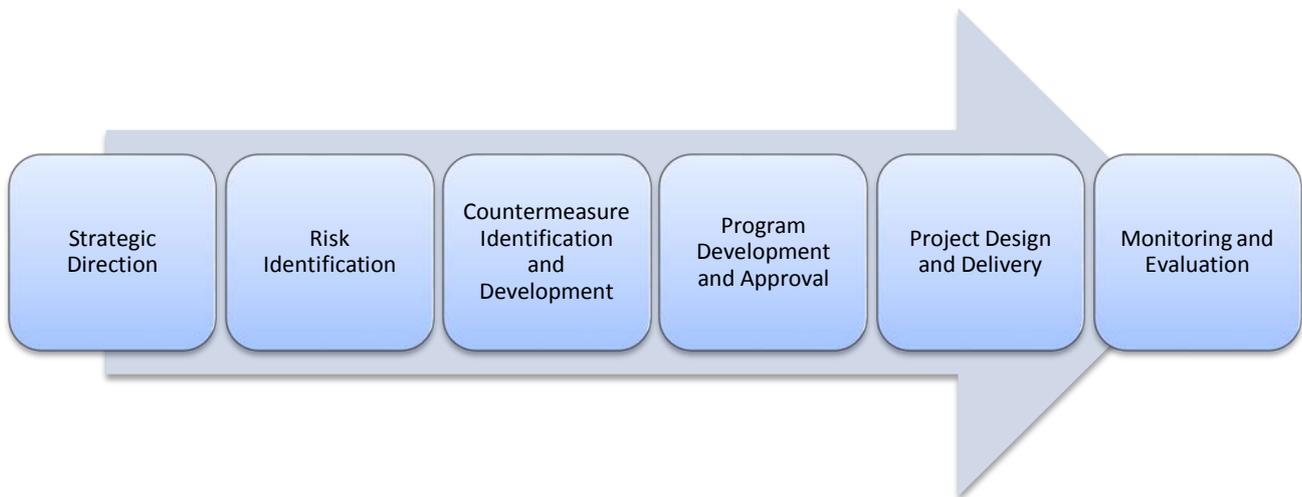


Figure 2. Stages of RSIP development

A total of 34 principles were identified. A sample of these are presented in Table 1.

Table 1. Example RSIP Best Practice Principles

RSIP Stage	Best Practice Principle (example)
Strategic Direction	The highest level strategic documents are based on Safe System principles and set ambitious targets and aspirational outcomes for road safety.
Risk Identification	Risk analysis needs to be completed at a network level, including local roads, for the purposes of prioritising investigation and investment decisions.
Countermeasure Identification and Development	Risk analysis information needs to be shared with those tasked with identifying and developing countermeasures. Direction should also be provided around where to focus efforts.
Program Development and Approval	Funding allocation within the program needs to reflect both the scale of problem and level of investment required to reduce risk. A clear rationale should be provided for the funding of sub-programs.
Project Design and Delivery	Projects should go through a road safety audit at the design stage.
Monitoring and Evaluation	Monitoring and evaluation should be a requirement of all programs, and consider process evaluation, short-term indicators, longer-term risk reduction outcomes and the performance of the wider program.

Recommendations

The following recommendations are suggested in the research:

- Jurisdictions should implement this guidance by evaluating their RSIPs against the best practice guidelines and identifying for improvement.
- A program be set up to regularly review the guidance principles and benchmark jurisdictions against them.
- Undertake further work to embed Safe System principles into strategic Austroads documents.
- Investigate how the best practice principles could be applied in other types of road infrastructure programs.

Reference

ITF. (2008). *Towards Zero: Ambitious Road Safety Targets and the Safe System Approach*, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789282101964-en>