

# RECENT TRENDS IN ROAD ADMINISTRATION GOVERNANCE AND POLICY EVALUATION IN NEW ZEALAND

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## ABSTRACT

New Zealand has a long history of business like governance arrangements for funding and administration of roads at arms length from government. More recently the forces shaping the transport system have resulted in an increasing level of direct government re-engagement in road financing planning and operations. The implications of these changes and in particular the reporting, monitoring and policy evaluation framework adopted by Transit New Zealand the national highway operator are presented in this paper. The reporting and evaluation framework has been accepted by government and forms a visible connection between Transit's contract with government and the objectives and targets for individual staff of the road administration. The paper includes examples and some comments on the future challenges.

## 1. INTRODUCTION

To provide a context for my observations about current trends in road administration policy in New Zealand and particularly my discussion of the emerging framework for policy evaluation, some background is necessary. I will cover the first fifteen years since Transit New Zealand's formation in 1989, describing the increasingly arms length relationship which developed between government and the separate funder and provider Roads Boards Transit New Zealand and Land Transport New Zealand respectively. More recent events have varied that trend with increasingly direct government re-engagement in road financing, planning and operations. The forces shaping this change in road administration in New Zealand today are unlikely to be unique so they may be of interest as they are key to the emerging policy evaluation framework which governs both direction and performance evaluation of our road administration.

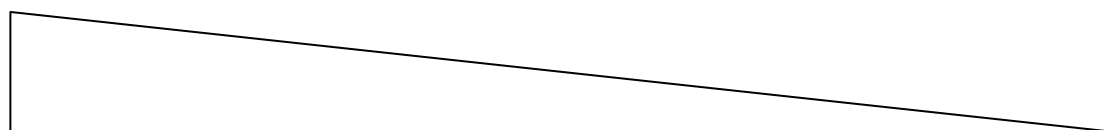
## 2. THE FIFTEEN YEARS OF INCREASING ARMS LENGTH GOVERNANCE 1989-2004

New Zealand has a proud history of innovative and robust road administration and governance since the establishment in 1954 of the former New Zealand National Roads Board. In 1989 a further evolutionary step took place with the formation of Transit New Zealand. The Transit New Zealand Board on establishment had full independent statutory responsibility for allocation of funds to provide financial assistance for local roads, and public transport and was also fully responsible for the funding, planning, construction and governance of state highways. State highways make up 12% of New Zealand's 100,000km road network but carry more than half the total tonne kilometres of traffic. State highway funding and local road funding in 1989 were almost equal and financial assistance for public transport was less than 5% of total government transport expenditure.

Revenue for Transit New Zealand was approved by annual government appropriation from a dedicated fund administered by the Treasury. Significant efficiency gains were achieved through outsourcing all maintenance and construction works. The professional management of routine maintenance and the investigation, design and supervision of construction works were also outsourced. The gains are reported elsewhere along with the evolution of roles, accountabilities, delegations, systems and processes, essential to an effective arms length road administration. [Dunlop 1996]

In 1996 two further improvements were made. The funder role was moved into a new arms length entity called Transfund New Zealand. The Transfund Board was given full control of a dedicated Land Transport Fund and Transit New Zealand became the provider of the state highway network. Government's role through the Ministry of Transport was now focussed on setting revenue levels to the land transport fund, developing transport strategy and approving financial assistance policy for local roads and public transport. Funding continued to flow to the Land Transport Fund from a fuel excise tax, a motor vehicle registration tax and a distance/weight charge on truck travel. This new arrangement seemed to be part of a natural progression toward an increasingly business like and arms length governance arrangement which was by that time gaining widespread endorsement in international literature. The transition was not inconsistent with that described by Talvitie [Talvitie 1997] and illustrated in his figure modified by Dunlop [Dunlop 1996] and reproduced here in Figure 1.

Phase	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Public Works Department	Identify Client & Deliverer	Separate Client & Deliverer  Establish Road Board	Corporate Deliverer	Corporatise Client	Privatise Client



Decreasing Government Involvement

Figure 1 – Phases in Road Agency Reform

It is now best to go to 2003 and the factors which influenced the next change.

### **3. THE MOVING FORWARD CONGESTION RELIEF PACKAGE**

In the period following the establishment of Transfund New Zealand, funding for the transport sector continued to be constrained and expectations for infrastructure improvements in metropolitan locations experiencing increasing congestion were not met. Good work was done on planning for major highway projects to provide some relief for increasing daytime congestion in metropolitan Auckland, but in 2003 very little construction work was underway. The problem was exacerbated by a rapidly rising car ownership rate, which has continued until today where it stands at 1 motorcar for every 1.6 people in our nation of 4.1 million people.

The principal objectives of Transfund and Transit New Zealand both focussed on safety and efficiency. Priorities were evaluated at a project level with social benefit to cost ratios. The resulting investment pattern favoured small safety and efficiency improvements on the rural road network and Government concluded that a strategic intervention was needed. In early 2003 a new policy directive was introduced by Government requiring a first priority to be given to relief of serious congestion through the allocation of funding to appropriate public transport and road improvement initiatives.

At this time a special subsidiary fund was also established from a five-year supplementary fuel levy. This fund was required to be distributed on a population basis to address regional transport priorities. While seemingly straightforward these two decisions taken together signalled a move away from the arms length decision making which had characterised the preceding fifteen years. They heralded a desire from government to directly influence funding decisions and priorities at a tactical level so as to improve the responsiveness of the system to changes in preferred outcomes. In particular, urban highway improvements were a desired result.

At this time Transit New Zealand's planning for major urban highway improvements was well advanced and highway construction activity began to accelerate. Governance and planning for the needs of public transport capex and opex was not as well organised. The differing administration arrangements for the respective funding categories and some tensions between regional and national priorities, created uncertainties in planning and funding. Together with a need to address a longer term agenda for sustainability this led to the passing of the Land Transport Management Act in late 2003.

### **4. LAND TRANSPORT MANAGEMENT ACT 2003 AND THE SUSTAINABILITY AGENDA**

A finely developed definition of sustainability is not important to the discussion in this paper so I will take the broad principles as agreed. In 2002 the New Zealand Government introduced its first New Zealand Transport Strategy [New Zealand Government 2002], which established four principles of equal importance to guide future decision making. These principles are:

- Sustainability
- Integration
- Safety
- Responsiveness

The Land Transport Management Act (2003) brought these principles into the objectives of Transit New Zealand and introduced provision for Ministerial approval of road tolling and concession schemes. It also allowed Transit New Zealand to secure funding contributions for highway improvements from third parties to mitigate the direct impact of developments on the highway system. The previously established dedicated fund remained in place and Government instituted a requirement for programme and project financial forecasting for a forward 10 years.

This last change with its focus on 10-year funding forecasting has had the single largest effect on shaping recent developments through today.

With the development of 10-year funding forecasts, significant funding gaps become transparent. Funding forecasts were matched to regional transport strategies, which were beginning to identify the transport system response to a requirement for social, environmental and economic sustainability and this further exacerbated the funding shortfalls. To address the funding gap in the absence of a direct road pricing mechanism, Government began to channel consolidated fund revenues from fuel taxes over and above those already flowing to the dedicated land transport fund into the fund. These redirected funds were allocated on a regional basis with a strong expectation on local government and Transit that significant public transport and highway improvements would be implemented.

This expectation of significant infrastructure improvements happening quickly has been very challenging. A combination of under estimating capital project cost and time risks and rapidly increasing input cost price pressure (escalation), led to continuing uncertainty in the timely delivery of improvements. This in turn led to ongoing pressure from communities and contractors for further injections of funding for transport infrastructure and it created the context for direct Government intervention in priority and target setting for highway projects.

## **5. THE 2006 CERTAINTY PACKAGE FOR STATE HIGHWAYS AND A REVERSAL OF THE GOVERNANCE TREND**

In 2006 in response to ongoing pressure for change, the New Zealand Government introduced a very high profile “certainty” policy where funding was guaranteed for a five year portfolio of major highway projects across the nation. The level of funding committed continued a trend of year on year increases of around 30%. The portfolio defined specific project delivery expectations and effectively established a new direct accountability between Government and Transit New Zealand. This new arrangement was largely outside the framework anticipated by the Land Transport Management Act provisions for annual allocations administered on a project-by-project basis by Land Transport New Zealand. Land Transport New Zealand was formed through the administrative amalgamation of Transfund with the former Land Transport Safety Authority.

This increasing level of direct engagement between Transit New Zealand and Government on individual project priorities and funding consequent on this portfolio funding was a reversal of the earlier trend for reducing Government involvement. The key drivers for this new trend of increasing involvement were a demand for careful balancing of investments to achieve sustainability, the need for decisions on a significant increase in funding to be elevated to a political level and unprecedented input cost price pressure. These strategic variables and the impact of accelerators and brakes around planning approvals,

procurement and property acquisition, were such that Government needed a closer assurance of direct accountability between Ministers and the Transit New Zealand Board.

In summary the big picture focus on sustainability may be able to be satisfied at arms length from government but shorter-term implementation tactics require direct intervention. The latter sets the basis for new accountabilities and ongoing policy evaluation.

## **6. ACCOUNTABILITY AND POLICY EVALUATION**

The goals of the New Zealand Transport Strategy [New Zealand Government 2002] and the new government interventions at a tactical funding level have lent themselves to a reconstruction of Transit New Zealand's accountability framework over the last three years. The diverse requirements of government for conventional objective setting, triple bottom line reporting and an interest in the balanced scorecard had by 2004 resulted in a plethora of accountability documents and measures. Our challenge was to provide a robust connection between on the one hand reporting to government on alignment with policy and progress on delivery and on the other hand, establishing a meaningful organisational performance management regime. There are undoubtedly many ways in which this could have been accomplished but Transit New Zealand is now using a One Page Strategy Map at the centre of both its governance systems and performance management practices. The single framework serves to allow government to evaluate the consequences of both its strategic policies and its tactical five-year funding interventions. It also is seamlessly connected to annual performance objectives for all staff and consequentially their personal development plans and annual remuneration adjustments.

After a three-year programme of implementation, the connectivity we have achieved between national outcomes and individual staff objectives is still fragile but it is very encouraging. Government has accepted the organisational performance reports and staff are increasingly willing volunteers and advocates for the approach.

## **7. THE ONE PAGE STRATEGY MAP FOR POLICY EVALUATION AND PERFORMANCE MANAGEMENT**

Transit New Zealand's one page strategy map lends itself to communicating expectations and measuring results as well as to capturing the traditional financial, customer, process and people dimensions of a balanced scorecard. Transit's one page map in figure 2 below has adapted the traditional balanced scorecard dimensions to road administration by translating them into a language that is meaningful for us i.e. "what is required" of us and "what do we deliver", "how do we manage" and finally our people and improvements activities. These can be seen as four horizontal perspectives across the map. The three vertical threads of directional strategy, planning and operations represent the key functions of Transit New Zealand.

Each entry on the one page map has associated objectives and measures lying behind it. Performance measures at the ownership level and some of those at the management level are reported to government, the Transit Board and the General Management Team respectively. Some 25 measures taken directly from the strategy map have since 2003 formed the core of the Transit's annual Statement of Intent. The Statement of Intent is Transit's central accountability mechanism with government and progress is reported quarterly to Ministers using the measures and targets derived directly from the strategy map.

TRANSIT NEW ZEALAND - THE ONE PAGE STRATEGY

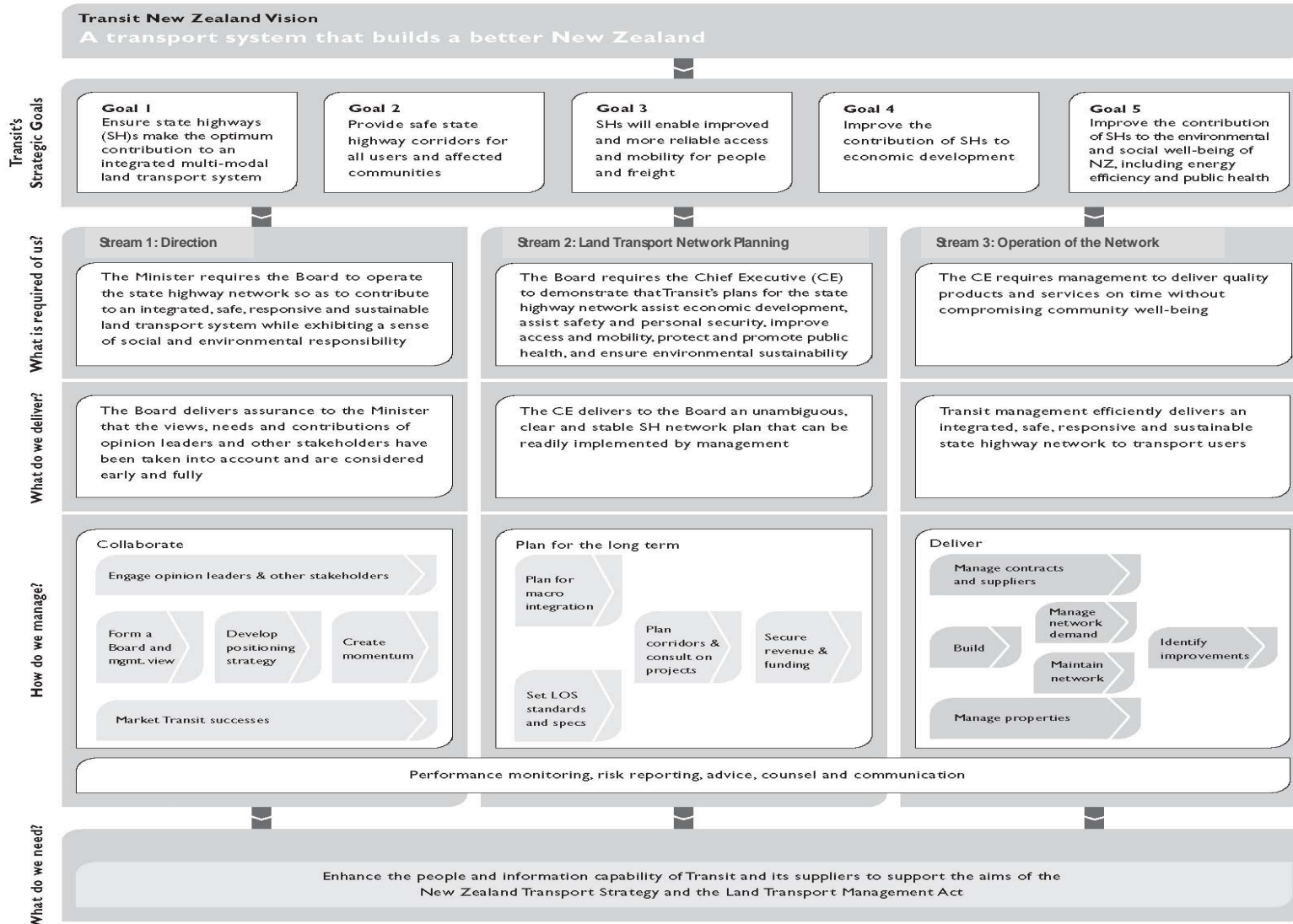


Figure 2 – Transit's One Page Strategy map

Examples of measures included in Transit’s Statement of Intent are set out below in Table 1. The examples illustrate high level lag measures typically reported to government and associated with policy outcomes and measures associated with the most recent five year portfolio highway construction funding approval respectively.

Impact	Objective
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**Stakeholder satisfaction with Transit’s responsiveness**

<p>The change in level of satisfaction with Transit’s responsiveness to external views, needs and contributions will be assessed through regular canvassing of stakeholder experience with Transit.</p>	<p>To maintain the satisfaction levels with Transit’s responsiveness to external views, needs and contributions, of stakeholders and others with whom Transit consults, to &gt;70%.</p>
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**Alignment of state highway network plan (Outcome 1)**

<p>The change in the degree of alignment between the state highway network plan and macro planning of land use, demand management, network and corridors as a result of collaboration with local authorities and other transport sector members.</p>	<p>Increasing Transit’s contribution to transport sector objectives by achieving 85% alignment between Transit’s 10-year State Highway Forecast and regional land transport strategies, regional and local growth strategies, and long term council and community plans (by 2010)</p>
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**Fatal accidents on state highways**

<p>The number of fatal accidents on state highways will reflect the safety mitigation activities undertaken by Transit, as well as the actions of other agencies and road users. By working in collaboration with other transport agencies in the wider sector, Transit will positively influence the road toll.</p>	<p>By applying the principles of the “3Es” (engineering, enforcement and education) – particularly engineering and education – to road planning and management, Transit will contribute to reducing the number of deaths by accident on state highways to &lt;200 per annum by the end of 2007/08.</p>
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## Noise levels

The change in the proportion of state highways in urban areas with a speed environment greater than 70 km/h where designed solutions, such as quiet road surfaces and noise barriers, are installed to protect adjacent noise-sensitive areas.

Increasing the proportion of noise sensitive areas, adjacent to urban state highways with a speed environment of greater than 70 km/h, which are protected by the use of designed solutions such as quiet road surfaces and noise barrier. The proportions of Auckland carriageways treated with designed solutions is in the range of 40-50 percent.

## Road user satisfaction with state highways

The change in road user satisfaction with state highways as a direct result of Transit's management of the state highway network.

Maintaining the satisfaction level of road users on state highways to >75% and having a majority of road users rate state highways better than two years ago, by the end of 2008/09, as measured in road user surveys.

## Accident Blackspots

The change in the number of accident blackspots following the application of safety mitigation measures to affected locations.

Reducing the number of accidents blackspots by the end of the reporting period, by applying appropriate safety mitigation measures. (A blackspot is determined by the number of crashes over a five-year period, and monitored at least three years after treatment to determine whether it is still a blackspot).

## Proportion of network maintained to level-of-service for road condition

Maintaining the integrity and safety of the national state highway network, to an acceptability level of >97%, by the end of the reporting period as a direct result of regular monitoring and quality control.

Maintaining the condition of the national state highway network to an acceptability level of >97% by the end of the reporting period, measured by regular SCRIM (Sideways force Coefficient Routine Investigation Machine) assessment of the network (so check skid resistance of the road surface).



## Value for Money in Project Procurement

<p>A demonstrable and systematic approach to value management through innovation in Capital Projects aimed at securing maximum whole of life cost efficiencies and benefits on an on-going basis.</p> <p><b>See footnote</b></p>	<p>Across Transit's Capital Project portfolio, the total reduction in resources consumed (planned or actual) through value management and opportunity realisation through innovation, while not diminishing project integrity through the delivery of the same level of project functionality as defined at the commencement of the SHF5.</p> <p>The objective is a <b>portfolio</b> saving of \$10M per annum.</p>
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## Proportion of capital projects completed within expected cost and time parameters (Part A)

<p><b>Timeliness</b> Achievement of the NLTS goals through the timely delivery of capital projects</p>	<p>Managing the deliverables with the five-year State Highway portfolio, so that the majority are delivered by the 2011 planning target. The target is 96% achievement.</p>
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## Proportion of capital projects completed within expected cost and time parameters (Part B)

<p><b>Budget</b> Demonstrating efficient use of Government expenditure</p>	<p>Ensuring all deliverables are achieved at a cost equal to or less than the budget set for the five year State Highway portfolio. The target is a budget to cost ratio of = or &lt; 1.0.</p>
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Table 1 – Examples of Organisational measures

At General Management Team level the core functions of Transit's strategy, planning, capital operations and maintenance operations are represented by four General Managers and a General Manager Corporate Services respectively. The General Manager Corporate Services has a key role to provide an organisational administration and performance management capability. Each General Manager has expanded their segment of the Transit New Zealand one page strategy map so that the measures they report to the General Management Team can be cascaded down to work units and in turn from there to individual staff members.

Measures and quarterly targets have been established at all levels so that a simple report can be read quickly using the green, orange and red colours of traffic signals to highlight good or risky performance. An example of this style of reporting is shown in figure 3 This style of dashboard reporting allows for qualitative month by month reviews and quarterly quantitative measure ups where the General Management Team can exercise a corporate management responsibility and prepare appropriate advice to the Transit Board.

<b>Objective</b>	<b>Measures</b>	<b>Target Q3 Jan-Mar</b>	<b>Actual Q3 Jan-Mar</b>
The Board delivers assurance to the Minister that the views, needs and contributions of opinion leaders and other stakeholders have been taken into account early and fully.	Opinion leader & other stakeholder satisfaction with Transit's responsiveness to external views, needs & contributions	Interim surveys reported to GMT	Achieved/On Track
To have a National State Highway Strategy (NSHS) that is reflected in all transport partner plans	Level of consistency of District Plans and/or regional Growth Strategies and Regional Land Transport Strategies with the NSHS strategy	All updated plans have a minimum 50% compliance	All plans with a min 50% compliance
Board approval of the value proposition in the SAR to commence design Scheme Assessment Report	% of investigation projects > \$5M that meet macro scope approval milestones	Punganui Stream Bridge replacement, Matahourua Gorge realignment and Kamo bypass stage 2 approved to stay on track	More than one macro scope not approved to pain
Effective management of the maintenance and operations plan	Implementation of annual maintenance and operations plan is on track  Annual maintenance plan expenditure against budget	Physical achievement of periodic maintenance completed  +/- 3% YTD	Variance within 7% of plan  +/- 5%

Figure 3 – Measures and quarterly targets

At the work unit level every endeavour has been made to establish lead measures for staff which can be used to encourage work unit team decisions wherever possible but also to prompt elevation of issues to the General Management Team and Board if necessary. The purpose of monthly and quarterly reporting is to maximise Transit's performance against annual lag targets. The Board's Finance and Audit Committee takes an active interest in assuring themselves about the performance of management and staff and is increasingly using the high level traffic light report to prompt and request engagement with management on key opportunities and risks.

## **8. CONCLUSIONS**

There has been a rebirth of national attention on improvement of infrastructure in New Zealand. This has generated a tangible new level of attention around the effectiveness of former policies, evaluation mechanisms and governance arrangements. A much heightened expectation of planning for sound long term environmental and economic sustainability has generated at least in part a reversal of some features of an established trend of reducing government intervention in the transport sector.

The Ministry of Transport has been challenged to reassert leadership and direction and grow its capability. Arms length Crown entities like Transit New Zealand have been given stretching new accountabilities for five-year capital works portfolios. All this comes with a need for improved high level evaluation of the effectiveness of government policies, while also introducing new direct accountabilities for the time and cost dimensions of five year project specific capital works portfolios.

While there were many ways in which these requirements could have been brought together, Transit New Zealand has found the adaptation of a One Page Strategy Map and Balanced Scorecard methodology to be fit for purpose. This single taxonomy allows annual and quarterly reporting to government to cascade from the organisational strategy map directly to General Managers and on to the individual staff of the strategy, planning, construction, maintenance and corporate support divisions.

It has taken three years from syndicating government support for the strategy map to secure its reliable rollout to individual staff. The contribution of a robust strategy map to maintaining organisational stability through turbulent times with a rapidly increasing roads programme has been well worthwhile and this approach is expected to provide a good basis for accommodating more inevitable change.

## **9. FUTURE CHALLENGES**

The future challenges, which our one page map will need to accommodate, are anticipated to include:

- The re emergence of whole of government national infrastructure planning.
- A trend toward strategic insourcing of some currently outsourced planning, engineering and management processes.
- Introduction of urban network pricing to shape travel demand and provide funding for public transport and roads where tolls are not practicable.

- A continuing challenge to refine national, regional and local accountabilities in the transport sector including the imminent re amalgamation of the funder and provider roles to a single Crown entity.
- New levels of real time interaction between roads and users with particular attention to improving safety performance.

From our experience, the policy evaluation and performance management tools now emerging in New Zealand will allow us to adapt to the future and they provide an incentive for us to continue to look for value gains. The tools we have developed should allow New Zealanders to have continued confidence in a business-like Board governance model for road administration while at the same time getting the benefit of direct tactical decisions by the elected government. Governance models to allow tactical government intervention and improved responsiveness will continue to be challenging for us.

*Disclaimer: any views expressed in this paper are those of the author and do not necessarily reflect the views of either Transit New Zealand or the New Zealand Government.*

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