

# New Zealand's Failed Approach to Infrastructure and the Obstacles to Improvement

June, 2021

## Overview

This brief note is my response to the Infrastructure Commissions request for comments.

It is my opinion on key aspects of infrastructure - that are important for New Zealand but failing. It is critical of New Zealand's poor performance and the Commissions approach; and pessimistic about achieving significant improvement. As with productivity the infrastructure problem highlights New Zealand's inability to deal with complex policy issues, due mainly to inept, high level leadership from politicians and bureaucrats. The failed Electricity Sector reforms and woeful productivity performance highlight the high risk and adverse consequences of this incompetence! The comments reflect my relevant personal experience (briefly outlined below).

## Key Issues

Infrastructure planning, development and management is complex and challenging. In part this reflects the need to deal with uncertainty and change. Success requires teams and people with high standards of leadership and expertise/capability within "fit for purpose" complex systems. These are now almost non-existent in New Zealand.

Improving New Zealand's performance will require genuine understanding of these elements, agreement on major change and the willingness of many within these systems to lead/accept major changes.

Unfortunately the Commission does not appear to have the requisite experience and capability to lead this process; or our political, State Sector and business leadership the will and ability to make sustainable changes on the scale and of the nature that are required. These closely parallel the difficulties with productivity; and the Electricity Sector disaster is a stark warning.

## The Present Situation

The Christchurch Rebuild usefully highlights the many serious weaknesses in the current systems, processes and people (Dame Cartwright's report on the EQC is insightful) including:

- Incompetent national political leadership
- Too often incompetent local government leadership
- Weak State Sector leadership
- Weak capability in the Private Sector.

But there are many other examples of serious infrastructure failures at the national and local levels.

Ministers are amateurs without particular relevant skills and capability, too often focussed on political outcomes rather than "National Interest" outcomes; and having attained this high role are typically reluctant to lead/accept change of the required nature - change that is complex with mainly longer term benefits; and only "harder to sell politically" near term benefits.

Local government, overall, is at least as bad - with occasional exceptions.

The State Sector/Public Service now has little relevant expertise, especially in terms of higher-level planning, management and project leadership. To change this will require major policy and people changes, on a sustainable basis. Note the litany of disasters in the Christchurch rebuild!

There seems to have been a significant erosion in the Private Sector capability and leadership, particularly in terms of larger scale project activities, with a high dependence on overseas expertise for larger scale, more complex projects. But this is not leading to sustainable improvements - which need a much more holistic, carefully planned and orchestrated approach. It is all part of a "hollowing out" of New Zealand's Private Sector capability and competence.

The many serious negative aspects of the present situation highlight WHY an Infrastructure Commission was established. Unfortunately the approach of this Commission is unlikely to achieve significant improvement.

## Important Points to Consider

New Zealand's incompetent (World-lagging) productivity performance over recent decades has much in common with its infrastructure performance. Both issues are complex, require a high level of leadership from politicians and business and high levels of expert capability. In neither case is the situation improving, largely because of a lack of political competence/understanding and will and the lack of Private Sector incentive.

Infrastructure requires a long term view, based on sustainable decision criteria; and embodied in long term programmes. This is inconsistent with the pervasive political orientation.

Part of the complexity reflects the many parties and interests involved with infrastructure, including planners/analysts, designers, builders, owners, operators, users. A “fit for purpose” system requires all to fulfil their role efficiently and effectively. Much of my experience embodies this perspective.

Personal Experience (in NZ, Australia, Canada, USA, Brunei, Malaysia, Venezuela and elsewhere):

As a planner/analyst/advisor - roading/networks, bridges, forests, ports, urban development, power stations, buildings, major manufacturing plants, mines, etc.  
Roles: economist - NZ Institute of Economic Research, manager/general manager - Comalco/CRA/Rio Tinto, advisor - many government/non-government examples, Chairman (10 years) Opus International Consultants

As an owner - major mine and mineral processing facilities (aluminium, gold, coal, iron ore, the new Boyne Island smelter (AUD1.5bn), Tiwai Point (NZD600m upgrade/expansion)), manufacturing facilities, power stations, etc.  
Roles: MD/director/chairman - Comalco/CRA/Rio Tinto, Carter Holt Harvey, OceanaGold, BNZ, Ports of Auckland, Antarctica NZ, Gladstone Power Station, Comalco Power, Bream Bay Power Station Project, etc

As a builder - mines, rail lines, gas plants Gorgon (USD60bn), Burrup Peninsular, Icthus), Burge Kalifa (and other buildings) Royal Adelaide Hospital, Clem Seven tunnels & Second Gateway bridge (Brisbane), Sydney freeways, Newmarket Viaduct, Northern Gateway, etc.  
Roles: director, Leighton Contractors Pty Ltd, etc.

## Lessons Learned

Each participant in the complex systems, and the systems themselves must be “fit for purpose” and capable of dealing with its complex role. Good management is not enough - governance must also be excellent - challenging, testing, and innovating; and the expert advisors too - it cannot be assumed that they are consistently excellent and make the best decisions. Failures in these areas are widespread and often critical.

Another critical issue is the ability to deal effectively with change and uncertainty, which is typical of projects rather than an unexpected occurrence. Only the best are capable of this and, in spite of difficulties along the way, achieve excellent outcomes. Few projects are without difficulty and having an “A” team is critical!

Employing “experts” is not enough, no matter how good. They must be integrated in to your system and challenged/tested by in-house capability all the time. Inadequate “in house” capability - New Zealand’s prevailing situation, encourages disaster.

Projects are sporadic. During the gaps organisations typically cut costs and lose critical capability and experience. Consequently, the next project is a struggle as old lessons are relearned which is typically costly in terms of mistakes.

International best practice is a (the?) critical source of learning. One company had regular projects, usually with several of its best people for a year or so, visiting some of the World’s best companies, working on topics such as best practice on maintenance, how to develop and manage technical expertise within an organisation, best practice with projects, most efficient/effective organisations, etc. The learnings from this process were very powerful.

New Zealand’s small gene pool is now a major problem, in relation to all aspects of the infrastructure problem. It has few real experts and then often chooses to ignore them - **as the Commission is doing now!** The position is exacerbated by the “hollowing out” process, which has closed down a once major source of capability and knowledge transfer.