

Insights for New Zealand

Infrastructure Development
in Comparative Nations



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Foreword by John Rae



John Rae
Chairman, NZCID

With New Zealand embarking on the ambitious goal of “catching Australia by 2025”, and Auckland about to reinvent itself with goal of becoming “the world’s most liveable city”, it is timely that the New Zealand Council for Infrastructure Development has been able to contribute to these exciting agendas.

This report is the result of a carefully researched and planned study trip undertaken by our chief executive Stephen Selwood and Paul Buetow - a partner at Kensington Swan and a NZCID Board Member.

We felt that one of the more constructive contributions that NZCID could make was to better understand how comparable economies (in size, population, social and environmental ethos) had managed to build impressive high quality infrastructure to support high levels of economic growth whilst enhancing their social and sustainability agendas.

In addition, we wanted to understand how these countries handled the institutional arrangements around such issues as spatial and long-term planning, public engagement, multi partisanship, strategy and funding – all of which NZCID felt were areas that NZ Inc might be able to improve in.

NZCID is realistic enough to understand that there is no silver bullet in such matters and neither is the solution in one country necessarily a panacea for New Zealand. However we believe that there are some significant and valuable lessons to be learned from these countries. At the very least we hope that the insights described by the authors provide a real opportunity for NZ Inc to raise expectations above the business as usual agenda - which will be fundamental to the potential for either of the earlier goals to be achieved.

Executive Summary

Successful economies possess highly developed, well integrated planning, funding and delivery of infrastructure that both leads and supports national growth and development. Yet comparisons of New Zealand's infrastructure performance against most OECD indices almost always place New Zealand well below nations of comparative size. Why is that? What is it that other nations are doing that we can learn from? What do we need to do in New Zealand to deliver the kind of infrastructure our country needs to lift productivity, improve social services, community amenities, and enhance environmental outcomes?

It was with these questions in mind that Stephen Selwood from the New Zealand Council for Infrastructure Development (NZCID) and Paul Buetow from Kensington Swan undertook a study tour to Canada, the United Kingdom and Scandinavia in April 2010.

The trip was designed as a follow-up and extension of an earlier investigation into infrastructure development in the United Kingdom, Ireland and Australian states undertaken in 2006. That trip identified the following critical success factors to improve the delivery of infrastructure in New Zealand:

- Leadership at the highest level.
- Long term strategic planning.
- Improved governance structures.
- A streamlined consenting process.
- Legislative change.
- Greater consideration and use of all procurement options.

Over the last four years significant progress has been made on each of these steps:

- At the highest political levels, there is now a general acknowledgement that New Zealand has under-invested in its infrastructure. Improving New Zealand's infrastructure is now a Government priority. To achieve this, the post of Minister of Infrastructure has been created and infrastructure is receiving greater prominence and attention by other key government Ministers.
- The need for long term integrated planning has been recognised by all political parties. The National Infrastructure Unit has been created and New Zealand's first National Infrastructure Plan has been prepared.
- Reform of regional governance in Auckland is being implemented.

- Resource Management Act ('RMA') reforms are being introduced to streamline the consenting process and improve the delivery of infrastructure.
- Legislative change is occurring. The Corrections Act has been amended and Local Government Act reforms introduced to allow for Public Private Partnerships (PPPs) for prisons and water projects. The RMA is being further reviewed and the Land Transport Management Act is also under review.
- Alternative procurement models are being examined. The National Infrastructure Unit within Treasury is playing a key role in PPP opportunities for selected social infrastructure. It is providing an advisory role to central government. Unfortunately, it is not yet able to provide this role to local government.

Whilst progress is being made in these areas, other changes and challenges have emerged in the four years since the last report, in particular the global financial crisis and the resulting worldwide recession. This has had a significant impact on the planning, funding and delivery of infrastructure, both in New Zealand and overseas.

It was therefore timely to follow up and extend on the trip of four years ago and to investigate current practice in governance, planning, funding and delivery of infrastructure. We wanted to learn how infrastructure is viewed in each location as a driver of economic and social development, to learn from the experience of others, to benchmark infrastructure delivery and to recommend opportunities for improvement in New Zealand.

Meetings were organised with public officials in Vancouver, London, Edinburgh, Glasgow, Copenhagen and Stockholm. Our focus was on: spatial and infrastructure planning; the funding and delivery of infrastructure, including the use of tolls and road pricing; and planning and environmental consent processes.

Key Findings

By far the most striking differences between New Zealand and each of the nations visited were:

1. The level of ambition for overall national development. This was particularly evident in Denmark, Sweden and British Columbia. Despite the economic challenges facing the United Kingdom, it was also generally true of Scotland and England.
2. The degree of central government leadership in the planning, funding and delivery of nationally significant infrastructure.
3. Far greater alignment of planning at national, regional and local levels.
4. The application of national spatial planning as a component of national economic development plans.
5. A commitment to long term funding of nationally significant transport infrastructure in Denmark and Sweden, including bi-partisan support across their Parliaments.
6. The degree to which national priorities are considered in the determination of planning approvals and consents for nationally significant projects.
7. An emphasis on sustainable infrastructure, green energy and addressing climate change.
8. The move towards road user charging and road pricing as a means to reduce travel demand, encourage a shift in transport mode share and fund new investment in infrastructure.
9. A commitment to funding and procurement being undertaken on a best value for money approach. This involves a consideration of all procurement models. No one model suits all projects.

Vancouver, Copenhagen and Stockholm set the standard in positioning their capital cities as cities of global significance. Adopting a much more consultative and participatory approach to national infrastructure planning, the Scandinavian model has achieved bi-partisan support for a long term investment programme.

In New Zealand, recent reforms represent a positive change in thinking about infrastructure planning, development and funding. As a nation, New Zealand has a number of advantages: natural beauty; abundant water resources; the quality of our institutions; our health and education standards; and our labour, financial and goods' market efficiencies. But there is much to be done to capitalise on these strengths, especially in the area of national infrastructure planning, funding and delivery.

Building on the recommendations of the 2006 study trip, this report identifies some critical lessons for New Zealand in the development of our national infrastructure.

What is clear is that we need to move beyond three year party political politics and achieve an agreed long term spatial development and infrastructure plan for the country.

We need to better align national, regional and local planning.

We need to better streamline regulation and approval processes for nationally significant infrastructure.

We need to adopt smarter 'value for money' driven procurement of infrastructure.

We need to ensure that project prioritisation and funding follows strategy. Where the economic returns justify investment, we should use debt funding as a means to lever growth and should not be constrained to traditional 'pay as you go' means of funding long term infrastructure.

We need to keep pace with global trends in sustainability and respond to climate change.

First and foremost New Zealand needs to be much more ambitious about the future development of the nation.

Introduction

The Countries and Organisations Visited

On our trip we visited Vancouver (Canada), London, Edinburgh and Glasgow (United Kingdom), Copenhagen (Denmark) and Stockholm (Sweden).¹

Comparative statistics between the various nations visited are shown in Figures 1 and 2. All of the places visited have either a comparative population to New Zealand/Auckland or share common societal values. Canada and the United Kingdom are commonwealth countries that New Zealand often looks to. Canada, Denmark and Sweden have similar environmental values. They are seen as clean and green, but are also economically successful. Vancouver has been rated the best city to live in for the last two years, and Denmark and Sweden rank amongst the highest performing countries on OECD statistics.

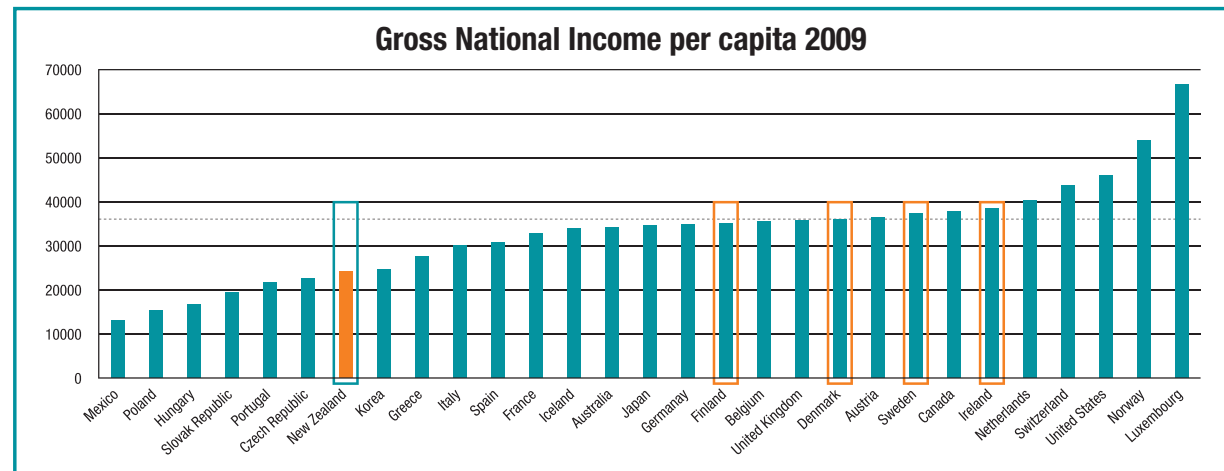
For each of these reasons, we considered useful comparisons could be made that would be of considerable value in understanding better ways to develop New Zealand's infrastructure.

¹ Regrettably, plans to travel to Ireland and Finland were upset by the eruption of Mt Eyjafjallajökull.

Figure 1: A comparison of the key statistics of each of the countries visited²

	NZ	Scotland	Ireland	Finland	Denmark	Sweden	British Columbia
Land Area (sq km)	268,680	78,352	70,289	304,473	42,394	420,295	944,735
Population (m) 2009 est	4.3	5.2	4.4	5.3	5.5	9.1	4.4
Population (m) of the largest city 2009 est	1.4	1.2	1.6	1.3	1.8	2.0	2.1
Railways (km) 2006	4,128	2,745	1,919	5,919	2,667	11,633	7,200
Roads (km) 2006	93,576	55,838	96,602	78,821	72,362	425,300	705,000
Transport Ranking (IMD)	31st	24th (UK)	35th	7th	4th	17th	15th (Canada)
Energy Ranking (IMD)	35th	24th (UK)	34th	8th	4th	25th	16th (Canada)
Broadband Ranking (Internet NZ)	22nd	20th (UK)	24th	9th	15th	1st	4th (Canada)
Public debt as % GDP (2009)	22.2%	68.1% (UK)	57.6%	44%	41.6%	35.8%	75.4% (Canada)

Figure 2: Comparative economic performance



² Sources: NZCID using data compiled from World Bank, IMF, OECD, United Nations, International Union of Railways, CIA World Fact Book / (IMD Executive Ranking of 36 nations with GDP > \$US10,000 per capita. Internet NZ Report: "Comparison of OECD Broadband Markets, Wairua Consulting 2006. National data is indicated in brackets where provincial data is not available)

Figure 3: Meetings held

Nation	City	Meetings
Canada	Vancouver	<ul style="list-style-type: none"> • Deputy Minister of Environment, British Columbia • Deputy Minister Transport, British Columbia • Metro Vancouver • Translink • City of Vancouver • Partnerships British Columbia
England	London	<ul style="list-style-type: none"> • Infrastructure UK • Department for Transport • Infrastructure Planning Commission • Partnerships UK • Partnerships for Schools • Local Partnerships
Scotland	Edinburgh / Glasgow	<ul style="list-style-type: none"> • Scottish Futures Trust • Finance Directorate Scottish Government • Transport Scotland • Dalkeith – Schools PPP Project
Denmark	Copenhagen	<ul style="list-style-type: none"> • Roading Directorate – series of briefings • Ministry of Transport – Strategic Planning • Technical University of Denmark – Transport Institute • Femern – developing the next major link to Germany • Copenhagen Municipality
Sweden	Stockholm	<ul style="list-style-type: none"> • Swedish Transport Agency • City of Stockholm Environmental Health & Administration • City of Stockholm – Executive Office • Ministry of Transport • Ministry of Enterprise Energy and Communications • NZ Embassy

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This report and the learning gained from the study trip would not have been possible without the assistance of each and all of the people that we met with and who agreed to share their experience and knowledge with the authors. We greatly appreciate the time and effort put into preparing the information that was so freely shared with us. Our thanks also go to Sandy Rosie in Scotland for the time and effort that he so generously gave to organising and hosting the Scottish leg of the trip (which was so unexpectedly cut short due to the eruption of Mt Eyjafjallajakull in Iceland). Thanks also to Jens Madsen of the Ports of Auckland and Neils Jaegersborg of the Royal Danish Consulate General in New Zealand for assistance in organising the itinerary in Denmark.

Leadership and Governance

The need for strong leadership at the highest level to drive infrastructure development was a key recommendation in the 2006 report. The 2010 trip re-emphasised how critical this is. A feature of all countries visited was the strong political support for, and direction on, infrastructure planning at both a national and local level. The 2010 research trip also highlighted:

- The need for politicians to clearly articulate their vision for their country or their region.
- The need for long term strategic planning, which clearly sets out how that vision will be achieved.
- The link between vision, planning and investment.
- The importance of across government, bi-partisan consensus decision making.
- The value of early political involvement in the consultation and decision making process.
- The importance of aligned central and local government decision making.

In Denmark, Sweden, and British Columbia politicians at both a central and local level have articulated a vision that clearly sets out their objectives.

Not limited at the outset by conceived constraints about funding, governance or planning approvals they have set an 'ambitious outcome-focused vision' for national development. In Denmark the government wants to ensure the country is connected to Sweden and mainland Europe through the establishment of fixed links (each of which are engineering masterpieces). Two major links have been constructed so far: the Great Belt Bridge linking Zealand to mainland Europe and the Oresund combined bridge tunnel link between Denmark and Sweden.

Figure 4: Connectivity to mainland Europe and Sweden is central to Denmark's economic development plan

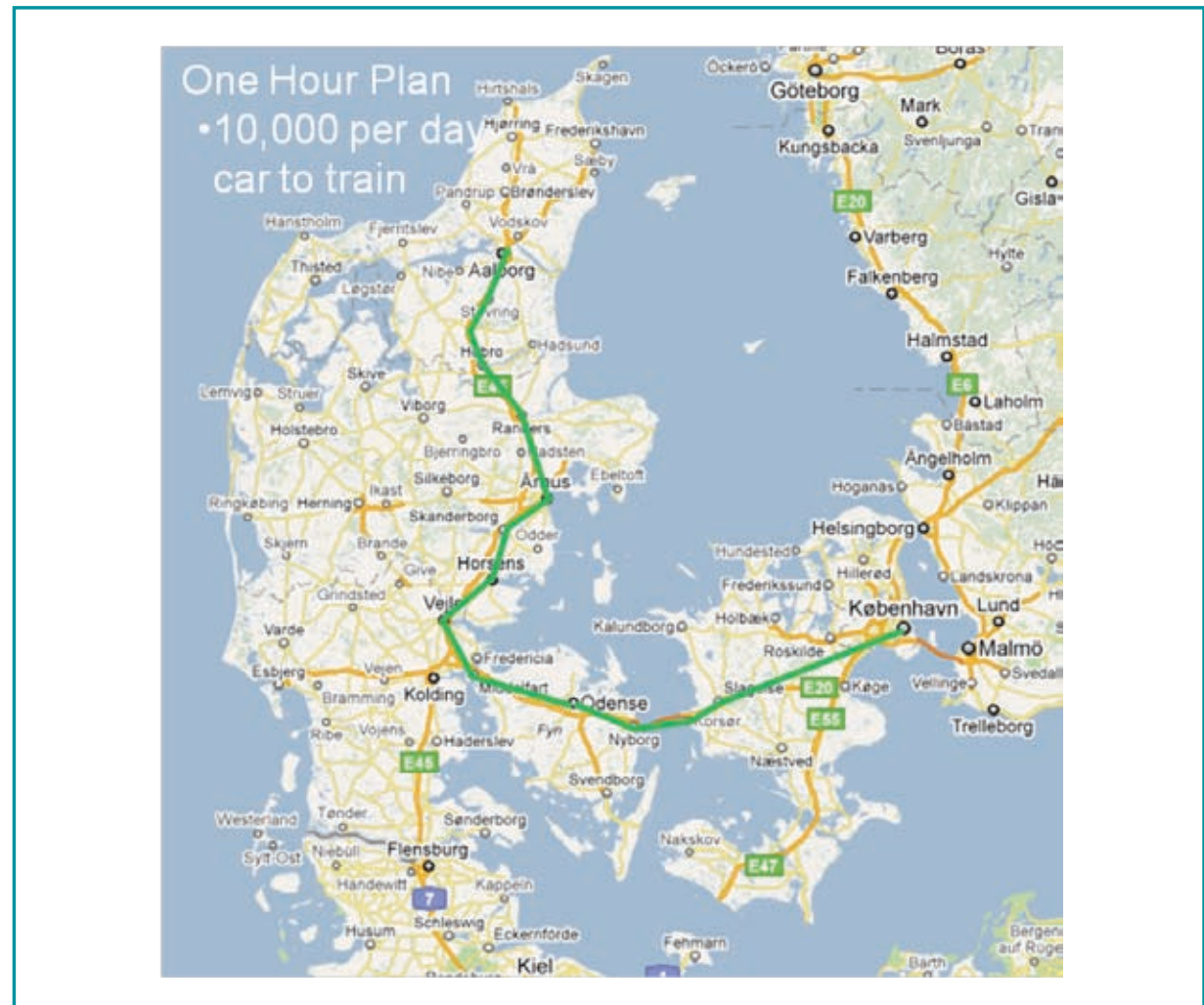


A third crossing, the Femern belt link, a bridge or a tunnel between Denmark and Germany, is planned for completion by 2018. The transport plan provides for the four major cities in Denmark to be linked through the so-called One-Hour-model, with travel time being no more than one and a half hours between each city and the possibility of the extension of the model to other cities, i.e. Esbjerg and Herning, later on.

Stockholm also wishes to position itself as a leading city of sustainable development in Europe. In 2010 it was named the first European Green Capital, following a competition involving 35 other European cities. Stockholm now has a long term goal of being fossil fuel free by 2050 and of reducing greenhouse gas emissions to 3 tonnes per resident by 2015. Stockholm's plan is to do this whilst investing in infrastructure. It has a key vision of sustainable infrastructure investment.

In Canada the focus is on Vancouver becoming North America's gateway to Asia. Government and industry work collaboratively to achieve that goal. In the transport sector, for example, an 'Executive Council' has been set up to deal with transport issues affecting the region. It is comprised of 12 members, being the heads of the rail companies, ports, truck operators, airports and government.

Figure 5: Denmark's Transport Plan includes a significant investment in rail connectivity between its main urban centres



The Executive Council is a non statutory body, whose aim is to identify key transport issues and to make consensus decisions on those issues. Whilst the members of the Council are competitors, everyone works together to ensure that Vancouver is successful and can properly compete with other North American cities.

In New Zealand, the Government has set its priority to lift New Zealand's economic performance and identified the development of infrastructure as one of its priorities in achieving this. It has also explained its goal of being competitive with Australia and identified six key drivers of growth:

- Investment in productive infrastructure.
- Removing red tape and improving regulation.
- Supporting business innovation and trade.
- Improving education and lifting skills.
- Lifting productivity and improving services in the public sector.
- Strengthening the tax system.

Auckland wants to be an internationally competitive city. It will be for the new Mayor and Council to articulate the wider vision for Auckland and how that vision will be achieved.

At a local level, local authorities struggle to identify a single vision. Often they are driven by a desire to contain increases in rates or, at the other extreme, they adopt 'soft' community outcomes that are difficult to measure. This may be because the focus in the Local Government legislation is on recognising community outcomes within the framework of the four well-beings (economic, social, environmental and cultural). Proposed amendments to Local Government legislation is intended to refocus local authorities onto to their 'core functions' but it is difficult to see how this will help achieve New Zealand's overarching economic, social and environmental objectives.

If New Zealand, its regions and its cities are to advance we need to agree an ambitious and challenging vision, how it will be achieved, and work collaboratively as a nation to deliver that outcome.

Integrated Long Term Planning for Infrastructure

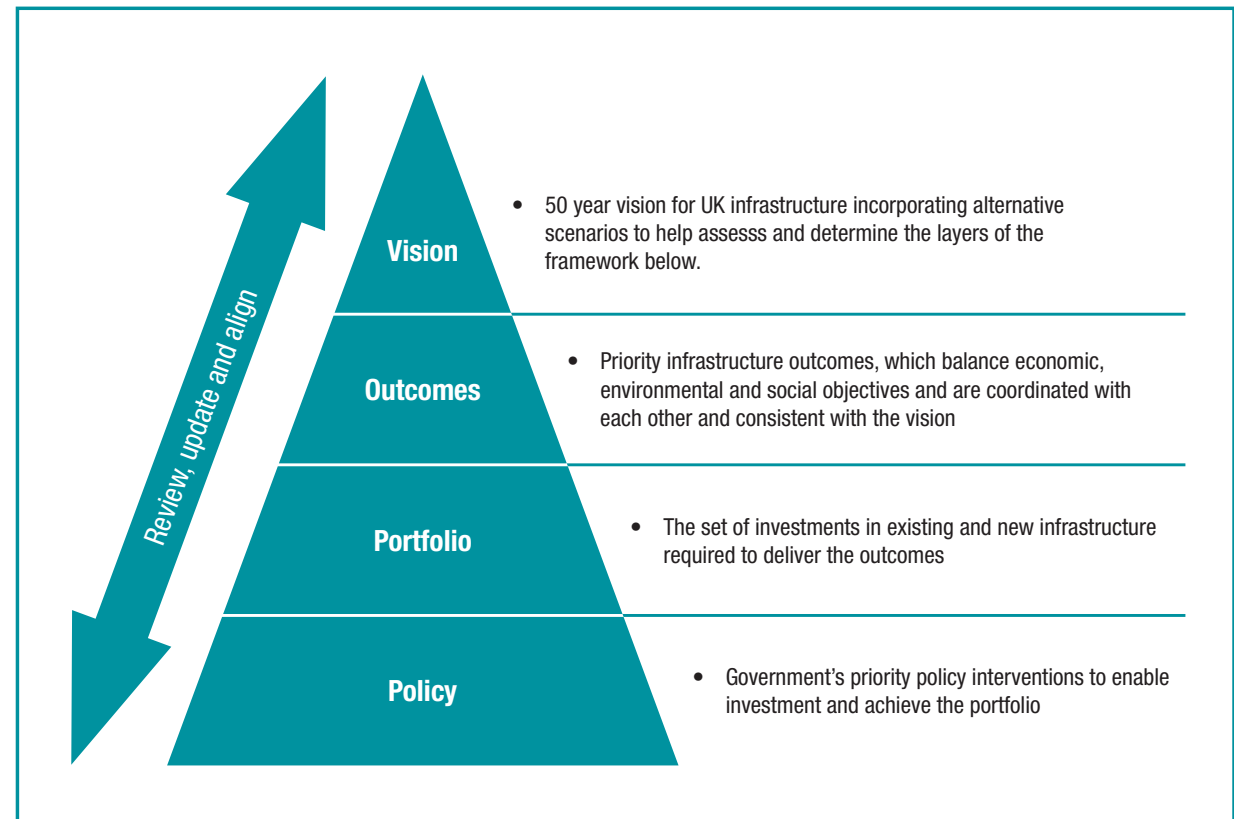
In the 2006 report we highlighted the importance of long term strategic planning and referred to the long term plans adopted in Ireland and South East Queensland. In all of the countries we visited in 2010 long term strategic planning was viewed as being very important, although the degree to which plans had been adopted varied from country to country, with infrastructure planning in places such as Sweden being primarily in transport, rather than there being a national infrastructure plan. All countries also 'took it as a given' that there is a strong link between economic growth and infrastructure development.

Infrastructure Planning in the UK

Like New Zealand's Government, the UK Government has moved to improve integration of planning for infrastructure. Infrastructure UK was set up as a department of HM Treasury in December 2009 to provide

a new 'whole of Government' focus across the full range of infrastructure sectors. During a period of substantial fiscal consolidation, Infrastructure UK's role will be to raise the bar on how investment is planned, prioritised, financed, and delivered over the long term in England. Infrastructure UK's first task is to develop a National Infrastructure Framework, alongside the process for the next Spending Review, so that effective decisions on prioritisation and timing can be made in the context of a long-term, cross-sector view of infrastructure needs.

Figure 6: The National Infrastructure Framework in the United Kingdom³



³ Strategy for national Infrastructure, HM Treasury Infrastructure UK, March 2010

The National Infrastructure Framework will be published by the end of 2010 and will contain:

- A vision of the qualities and role that the UK's infrastructure should aim to develop and sustain over the next 50 years
- The outcomes the UK will seek through both public and private sector infrastructure development and investment over the next 10 years
- A portfolio of potential public and private infrastructure investment that will deliver those outcomes
- The priority policy interventions for government that will take forward the necessary development of, and investment in, that portfolio.

The Government will consider whether, and how to give, longer-term certainty to public spending on infrastructure to support the aims of the National Infrastructure Framework.

Infrastructure UK will also work with the infrastructure industry, regulators, government departments, the Cabinet Office, and the Centre for the Protection of National Infrastructure to identify the critical interdependencies that impact on infrastructure investment needs. It will publish an action plan setting out the response to these entities by spring 2011.

Green Investment Bank

Infrastructure UK and other stakeholders have identified that there is a significant risk of a gap emerging in the provision of equity capital to large complex infrastructure projects within the next few years. To bridge this gap, the Government intends to establish a Green Investment Bank (GIB) that will operate on a commercial basis and will involve both public and private sector capital. The Government will start by investing up to £1 billion from the sale of mature infrastructure-related assets and will seek to match this with at least £1 billion of private sector investment – creating a fund of approximately £2 billion. The GIB will be mandated to invest in the low-carbon sector and will consider new energy and transport projects in particular, where the equity gap is likely to be most critical. Because of the timing of the investment decisions, it is likely that the GIB will focus initially on offshore wind electricity generation. The GIB will also consider the case for investing in other infrastructure, as appropriate, and as the need for investment arises. Infrastructure UK will be responsible for managing the establishment of the GIB and will publish a consultation paper on its establishment.

Review of Infrastructure Policies & Regulation

Infrastructure UK will also work with key stakeholders within government departments and the private sector to identify where changes in policies and regulation are required to encourage investment in infrastructure in the UK. Infrastructure UK will ensure that any proposed changes to the policy and regulatory framework will be considered in terms of their potential impact on private sector investors and the availability of financing.

In contrast to New Zealand...

While still early in its development, the key points of difference to NZ's National Infrastructure Plan (NIP) are the focus in the UK on: specifying the outcomes sought; identifying a portfolio of public and private investment that will deliver those outcomes; identifying key policy interventions that are needed; and giving longer-term certainty to public spending on infrastructure. To date the NIP has been more of a stock take on existing infrastructure investment in New Zealand rather than an assessment of future needs, the investments that will meet those needs and the prioritisation of policy initiatives.

National Planning Framework in Scotland

In Scotland, infrastructure policies and delivery are completely devolved to the Scottish Government. The National Planning Framework (NPF) is a strategy for the long-term development of Scotland's towns, cities and countryside. It guides Scotland's development to 2030, setting out strategic development priorities to support the Scottish Government's sustainable economic growth objectives. It identifies key issues and drivers of change, sets out a vision to 2030, and identifies priorities and opportunities for each part of the country in spatial perspectives for the Central Belt, the East Coast, the Highlands and Islands, Ayrshire and the South-West and the South of Scotland. It focuses strongly on priorities for the improvement of infrastructure to support long-term development.

The NPF seeks to co-ordinate policies with a spatial dimension and align strategic investment priorities. It provides the strategic spatial policy context for decisions and actions by the Government and its agencies. While it is not a spending document, it is closely linked to the Government's Infrastructure Investment Plan and will inform the investment programmes of public agencies and infrastructure providers. For transport infrastructure, it promotes the strategic outcomes set out in the National Transport Strategy and incorporates the findings of a recent Strategic Transport Projects Review. It identifies

strategic priorities for investment in energy and drainage infrastructure, and emphasises the priority the Government attaches to the development of a strategic network of waste management installations.

On the basis of an assessment against national criteria, the Scottish Government has identified fourteen projects as national developments:

1. Replacement of Forth Crossing
2. West of Scotland strategic rail enhancements
3. High-speed rail link to London
4. Strategic airport enhancements
5. Grangemouth Freight Hub
6. Additional Container Freight Capacity on the Forth
7. Port developments on Loch Ryan
8. Scapa Flow Container Transshipment Facility
9. New power station and transshipment hub at Hunterston
10. New non-nuclear base load capacity at other existing power station sites
11. Electricity grid reinforcements

12. Central Scotland Green Network

13. Metropolitan Glasgow Strategic Drainage Scheme

14. 2014 Commonwealth Games facilities.

The Planning etc. (Scotland) Act 2006 provides the statutory backing for the NPF. The Act requires the NPF to be taken into account in the preparation of strategic and local development plans. This means that the four regional Strategic Development Plan Authorities must reflect the NPF strategy and the national developments it identifies in the strategies they prepare. Local Development Plans are required to reflect the strategy and projects designated as national developments in their vision statements, policies and proposals.

The NPF is a material consideration in the determination of planning applications. The NPF can designate certain developments as national developments. The Town and Country Planning (Development Management Procedures) (Scotland) Regulations 2008 and Circular 4/2009: Development Management Procedures then set out the process for the consideration of such developments.

In contrast to New Zealand, a key feature of the Scottish approach is the strong spatial planning role being played by the Government. The Government's infrastructure investment programme is directly linked to the Government's Infrastructure Investment Plan. The Scottish Planning Act provides statutory backing to the plan, thereby facilitating its implementation.

In New Zealand, there is no national planning framework. Whilst it is possible to identify examples of interagency co-operation, the general rule is that government and local body agencies tend to work in silos. It is not uncommon for statutory authorities, including key government agencies, to contest issues through the courts. The need to achieve much better alignment between national, regional and local infrastructure development and land use planning has been recognised, particularly in Auckland with the development of the Spatial Plan. To date, however, there is no statutory link between the National Infrastructure Plan, the Auckland Spatial Plan and Resource Management Act processes.

Scottish Futures Trust⁴

The Scottish Futures Trust (SFT) is an independent company established under the auspices of the Scottish Government responsible for improving value for money in public infrastructure investment projects such as schools, transport, health and regeneration. The main functions of SFT are to improve the value for money in spending by public sector bodies and finding new ways to raise affordable finance in today's tight financial environment. SFT has a team of 26 people working to increase the efficiency and effectiveness of infrastructure investment in Scotland. The team, drawn from public and private sector backgrounds, have a range of technical, legal and financial skills, and bring commercial expertise in infrastructure financing, procurement and delivery into the public sector. SFT aims to improve the efficiency and effectiveness of public infrastructure investment by concentrating activities in five areas:

Delivery: As a participant — in some cases, overall value may be improved by SFT taking a structural role in projects or programmes, potentially as an asset owner, aggregation vehicle or financing conduit. This could involve establishing subsidiary companies, investment vehicles, or joint venture entities. Alternatively SFT can act as an agent — acting for public bodies as a procuring or finance raising agent, promoting best practice and collaboration between bodies.

Aggregation and Collaboration: SFT seeks opportunities to broker improved co-operation and collaboration between public bodies that procure or have an interest in infrastructure investment.

Funding and Financing: SFT reviews funding and financing approaches that public bodies have developed or have had brought to them. SFT is also acting to explore, develop and promote approaches which improve value for money.

Validation: The aim of validation is to improve the likelihood of a successful outcome of a project by ensuring that appropriate planning has been carried out and that risks are properly and actively managed.

Centre of Expertise: SFT is the centre of expertise in infrastructure investment in Scotland and is collaborating with others to develop new and improved ways of working.

⁴ For further information about the Scottish Futures Trust see <http://www.scottishfuturestrust.org.uk>

Spatial Planning in Denmark

Since the early 1970s Denmark has been divided into three different zones, with different rules for each zone, according to their principal use: urban area – accommodation, business and service; rural area – agriculture and wildlife; and finally an area for summer residences – recreation.

Before 2007 urban areas were planned and administered by 270 municipalities and rural areas by 14 counties. Areas for summer residences were designated by the counties and administered by the municipalities. All planning was based on national strategies and legislation. A hierarchy of regional, municipal and local plans were required to adopt and conform to regulation and principles from upper levels.

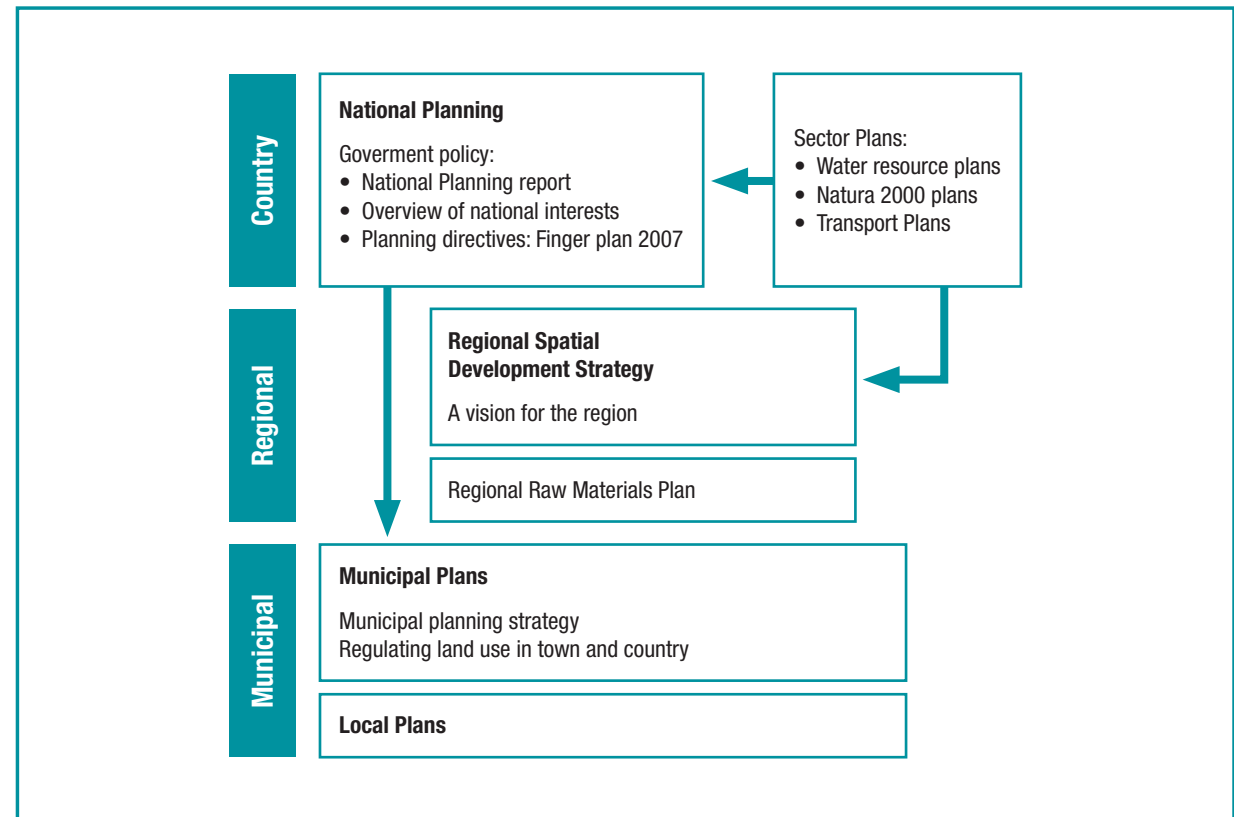
Local government reform in 2007 abolished the country structure and established 5 regions in their place. 270 municipalities were reduced to 98. Decision making was substantially decentralised within a national framework.

After 2007 the tasks previously taken care of by the county level were divided between the state and the municipalities. Authority for rural planning was transferred to the municipalities, whereas the state level took over the authority of administering certain overall objectives, like the protection of the 300m wide coastal protection zone. As such the new regional level does not

have any planning authority apart from making the spatial development strategy.

Under the new process, each new government is required to present a national planning report. The report is a political and strategic document setting out the government's vision for future development. It is debated in public and in the Danish parliament.

Figure 7: Denmark's Planning System 2007



All regional development strategies and municipal plans developed after the submission of the national report must conform to its vision and strategy, and may be legally contested for consistency with the national planning report. Appeals concerning planning and plans are heard by the Nature Protection Board of Appeal, being an independent body within the Ministry of Environment. The Board's decisions cannot be appealed to the Minister, only to the courts and only on matters of law.

Through the National Planning Report the Minister for Environment prepares the framework for regional spatial development strategies informed by national sector plans for water, environment and transport. Regions develop a regional spatial strategy setting out a vision for regional development. Municipalities do town and country planning.

The Minister for the Environment may raise an objection against a regional spatial development strategy proposal on behalf of all government ministers if the proposal contradicts national interests. This objection must be declared during the period of public comment, and the objection means that the regional authority may not adopt the proposal until the Minister agrees to the content of the proposal. Any state authority may raise an objection against a local plan proposal based on the special responsibilities carried out by this authority. The authority and the municipality must reach agreement before adoption or allow the Minister for the Environment to decide. The Minister may order a regional council or municipal council to prepare a plan with a specified content. In special cases, the Minister may assume the

authority granted to regional councils or municipalities and decide a specific planning dispute. This authority is used very rarely, because this interferes with municipal autonomy.

Like New Zealand, planning processes in Denmark are significantly decentralised. Unlike New Zealand, there is a clear requirement for subsidiarity of plans. Each level of planning is statutorily required to be consistent with the levels above.

Alignment

Aligned decision making between national and local politicians is important, but is lacking at times in New Zealand.

For example, at a national level the 2008 New Zealand Transport Strategy (NZTS) sets the Government's vision for transport to 2040 and the Government Policy Statement (GPS) details the Government's desired outcomes and funding priorities for land transport. The NZTS' vision is that people and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system. These words are also enshrined in the Land Transport Management Act, the main transport planning and funding statute. The GPS focuses on the promotion of economic growth in New Zealand. The Government aims at achieving this through the completion of seven roads of national significance – major state highways that help ensure connectivity and

reduce congestion.

This is to be compared with Auckland's land transport outcomes. In Auckland the Regional Land Transport Committee of the Auckland Regional Council has prepared Auckland's Regional Land Transport Strategy. This strategy will be adopted by the new Auckland Transport Council Controlled Organisation (CCO). It is more focused on improving public transport and changing behaviours. It focuses on different projects, with a strategic priority being to build limited additional roads. The new legislation for Auckland Transport (the Local Government (Auckland Law Reform) Act 2010 provides that the purpose of Auckland Transport is to *'contribute to an effective and efficient land transport system to support Auckland's social economic, environmental and cultural well being'*. This is a different purpose from, and is not aligned with, the New Zealand Transport Agency's purpose and obligations under the Land Transport Management Act.

Another Auckland example is the decision making process related to a stadium for the Rugby World Cup 2011, one of the Government's key infrastructure priorities. Central Government and the Auckland City Council opted for a waterfront stadium. The Auckland Regional Council opted for Eden Park. The matter was addressed at a late stage and without the opportunity for aligned, consensus decision making.

In Denmark, a top down approach is adopted. The government sets out its national planning objectives in the national spatial planning report. The municipalities must then when setting municipality plans, ensure that they comply with the description of the desirable future development as written in the regional spatial development strategies and the national planning objectives, with the minister of environment having the power of veto if they do not.

As a country we need to decide whether we wish to adopt this cascading approach. It raises issues of democracy and the centralisation of power. This needs to be balanced against clear, aligned, decision making.

Bi-Partisan Commitment to Transport Investment in Denmark and Sweden

In contrast to New Zealand, a striking feature of transport infrastructure in Denmark and Sweden is: the ambitiousness of planning and delivery; the strong focus on sustainability; the sheer scale of investment being contemplated; and the commitment to long term planning and funding of infrastructure, supported by a move to road user charging and intelligent transport networks.

The development of the Danish green transport plan provides insights as to how to develop a bi-partisan approach to long term infrastructure planning and investment in New Zealand.

In 2006 the Danish Government appointed an Infrastructure Commission to prepare recommendations on the future development of the Danish transport system. This included: the identification of strategic policy priorities investment priorities; how to organise and manage construction projects; the application of intelligent transport systems; traffic safety; physical planning; and improving environmental outcomes, including reducing noise, particles and CO² emissions.

After receiving the Commission's report, the Minister for

Transport initiated a national debating tour to discuss the recommendations. The Minister sought to listen to regional and local political wishes before introducing any new government initiatives. All Danish mayors were invited to participate in five regional debates. Additional meetings were held with the mayors of Denmark's largest cities. The Minister took time to inspect rail and road infrastructure in each region. The results of the debating tour became a critical tool in the development of the Government's transport plan and gaining a bi-partisan agreement across the Danish Parliament.

Key features of the green transport plan include:

- The aim of reducing transport associated CO² emissions,
- Green re-orientation of the existing car taxation system,
- Investments in both road and rail,
- The aim that public transport will carry the larger share of projected growth in traffic,
- The promotion of cycling, with the bicycle as a choice of transport means preferred, where it is realistically possible
- Encouragement of the development and use of new sustainable technologies including investment in intelligent transport systems,

- Greater regard for the environment in the development of infrastructure projects,
- Reducing noise and air pollution in urban areas.

The plan involved investment of 158 billion Danish kroner (roughly \$38 billion NZD – more than twice the level of capital investment included in the NZ Government Transport Policy Statement) until 2020.

Two large scale projects – actually decided before and independently of the green transport plan – the Fixed Fehmarn Belt Link (a tunnel or bridge connection from Copenhagen to German) and the Metro Circle Line (linking the three major urban cities) account for approximately 60 billion DKK of the total spend. The remaining 98 billion DKK is committed to an infrastructure fund for major investment in roads and railways across the country.

The strategy has three key parts aimed at reducing CO² emissions, whilst maintaining high levels of mobility. These include a green restructuring of the taxation of cars, including the introduction of road pricing (with the time frame/line of implementation introduction and the concrete system still to be decided), more and better public transport, new green technologies and an enhanced research effort. The commitment to the introduction of road pricing is to be achieved within the limits of a tax freeze; that is, no additional taxes will be paid but the means of payment will shift from traditional taxation - the sale of cars and fuel - to direct road user pricing.

Bridging Europe: From Vision to Reality

Recognising its strategic positioning as the stepping stone between Europe and Scandinavia, Denmark has constructed two globally significant bridges connecting mainland Europe to Sweden. It is in the process of planning a third link directly connecting Copenhagen, the nation's capital, to Germany. On June 10, 1987 the Danish Parliament approved the construction of the first bridge, the Great Belt Bridge, linking the Jutland peninsular to Zealand the island on which Copenhagen is situated. Following 11 years of intensive planning and construction the combined road and rail bridge was opened on June 14, 1998.

Figure 8: The Great Belt Bridge Denmark



Carrying 6,000 vehicles per day when it opened the bridge now carries over 30,000 vehicles per day. Standard car users pay 215 kroner (\$NZ52) to cross – roughly the same charge as the ferry alternative which takes 90 plus minutes including waiting times as opposed to 20 minutes on the bridge.

The second bridge, the Oresund link, is a combined two-track rail and four-lane road bridge-tunnel. It is the longest combined road and rail bridge in Europe and connects the two metropolitan areas of the Öresund Region: the Danish capital of Copenhagen and the Swedish city of Malmö. The tunnel component avoids obstructing

Figure 9: The Oresund Link



aircraft from nearby Copenhagen Airport and provides a clear path for shipping. Standard car tolls are 275 DKK (\$NZ66).

Both bridges were delivered by a state owned corporation, Femern, under a 30 year concession arrangement. Debt funding is fully backed by the Danish government.

Plans are currently underway to complete the third link by 2018 either by bridge or tunnel which will provide a direct link between Copenhagen and Hamburg in Germany.

It is particularly noteworthy from New Zealand's perspective that, as a result of the extensive consultation processes, political agreement was achieved across seven political parties involving more than 170 members of the 179 members of Denmark's national parliament.

A Long Term Transport Plan for Sweden

A similar process of extensive consultation and bi-partisan agreement was a feature of a recent decision of the Swedish Riksdag (the Swedish Parliament) to allocate 497 billion Swedish kroner (SEK) until 2021 into the transport system. SEK 297 billion (\$NZ56 billion) is earmarked for the development of the transport system - a substantial increase on what has previously been allocated. The bulk of the money (SEK 395bn) is funded by central government budget appropriations. These will be topped up by SEK 22 billion financed through central government loans. A further SEK 80 billion (\$NZ15 billion) will be financed across the regions derived from road charges, congestion taxes, local government and private contributions. SEK 4 billion EU funds will also be provided. As part of the package, a congestion tax will be introduced in Gothenburg. This is expected to provide SEK 14 billion over 25 years for investment in infrastructure. The final allocation of funds is set out in Figure 10.

The central theme of the transport investment package was the intermodal nature of the transport network. The transport system is viewed as a whole as a means to help meet user needs for mobility, whilst contributing to a more sustainable society, delivering improved efficiency and more infrastructure from the funds available.

Figure 10: Swedish Transport Plan 2010 - 2021 - allocation of funds

	Roads	Railways	Shipping / Aviation	Total
Operation and maintenance	136	64		200
Investments	49	65	2	116
Interest and amortisation	5	25		30
Other commitments				38
Country budgets				33
Total National Budget				417
Co-financing & rail track charges	43	37		80
Total	233	191	2	497

Level of Investment per Capita

While it is not possible to obtain statistics on the total level of investment in infrastructure per capita, if the level of investment in transport infrastructure is any indication, it would appear that the Danes and Swedes are investing more substantially in infrastructure development than New Zealand.

The 2009 New Zealand Government Policy Statement forecasts future expenditure on new infrastructure at approximately \$16 billion over the next decade, including potential future Crown funding support for Kiwirail.

Figure 11: Forecast of Government Capex Funding for Transport 2009 - 2019

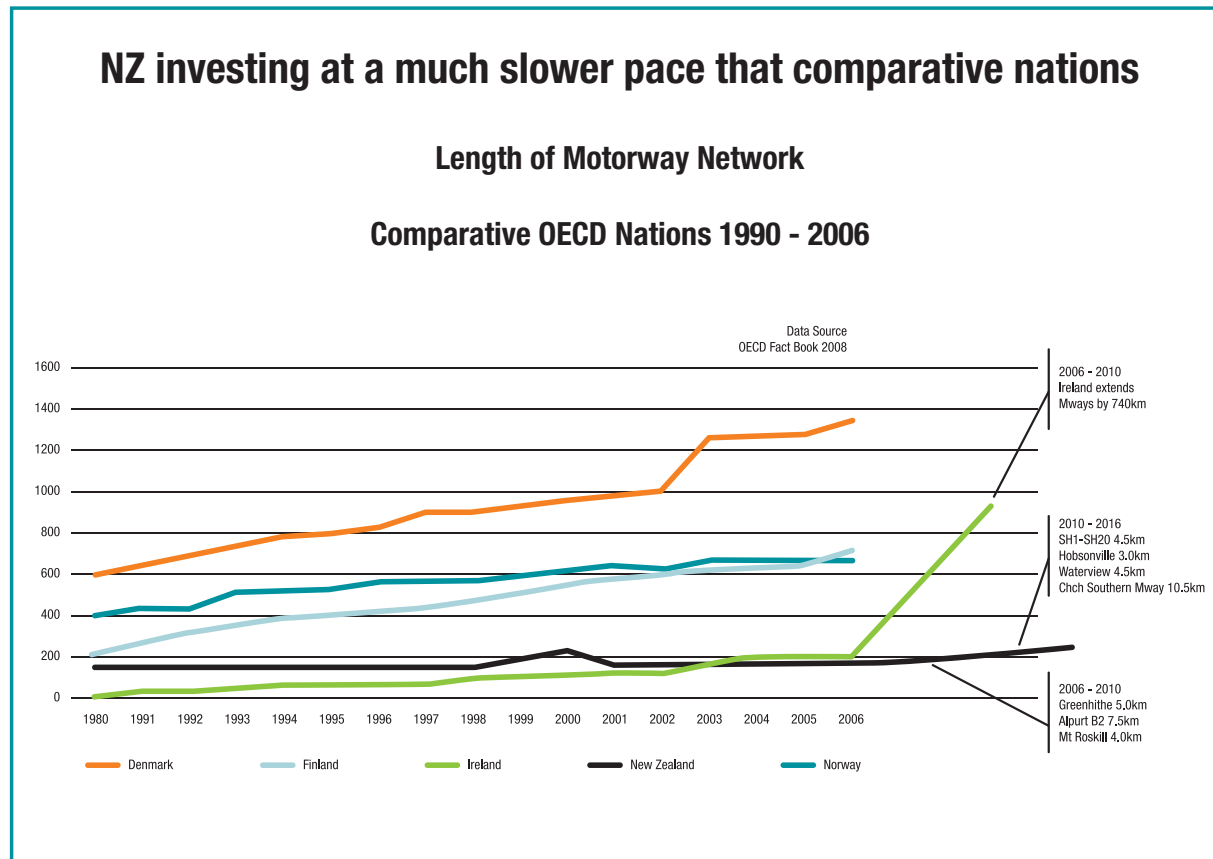
Forecast Capital Expenditure on Transport Infrastructure 2009 to 2019	\$m
New and improved infrastructure for State Highways	10,500
New & improved infrastructure for local roads (split 50/50 between central & local government)	2,250
Public transport infrastructure	1,000
Walking & cycling facilities	500
Plus additional Crown funding for rail:	
• Electrification of the Auckland network	500
• Purchase of Auckland rolling stock	500
• Kiwirail Turnaround Plan	750
Total estimate of transport capital expenditure	\$16,000

\$16 billion investment over the next decade equates to approximately \$375 per capita, per annum. Based on the ten year budget allocations described in the preceding section, the comparative spend per capita in Denmark and Sweden per annum is \$650 and \$450 per capita respectively.⁵ Such comparisons need to be used cautiously and one needs to note that other agencies, including regional and local government, will also be funding capital investment in each jurisdiction. Nevertheless the extent of past investment and the comparative quality of existing infrastructure, together with future spending forecasts in Denmark and Sweden signal a much higher commitment to capital investment in these countries when compared with New Zealand.

⁵ These numbers are indicative of the order of magnitude of central government funding for transport capital works. Comparisons are extremely difficult as each jurisdiction will have additional proportions of contributions to transport infrastructure investments by regional and local authorities.

As Figure 12 shows, because of steady investment during the 1990s and early 2000s, comparative nations have much more substantially developed motorway systems than New Zealand. There has been a significant increase in investment in New Zealand in recent years. Notwithstanding this, future projections show these countries are investing at a faster rate than New Zealand.

Figure 12: Length of motorway network comparative OECD nations



Importance of Long Term Strategy in the Allocation of Funds

The commitment to the development of long term planning and funding of infrastructure investment was demonstrated in all jurisdictions visited. In addition, in each jurisdiction long term integrated strategies strongly influenced investment decisions.

While the New Zealand Transport Strategy sets out the long term vision for transport development, the linkages between the strategy and investment plans are not at all clear. In fact the Strategy is so high level that it is possible to justify almost any investment under it. Because of this, New Zealand's regions, districts, agencies and Government can develop their own policy programmes independent of one another and in a disintegrated manner. The most striking example of this is the very apparent inconsistencies of approach between the Auckland Transport Strategy developed by the Auckland Regional Council, which fails to recognise one of the roads of national significance, the Puhoi to Wellsford motorway extension. Instead, the region promotes substantial investment in metropolitan rail services, which are not on the Government's priority list. Moreover, independent planning by Kiwirail and the New Zealand Transport Agency has had a significant influence on the timing and funding of major projects.

Separate planning and funding approval processes such as Treasury and RMA approvals have also had a profound influence on the scope, selection and timing of investments. Traditionally, through the 1990s and early 2000s the application of the benefit cost ratio (BCR) was the singularly most important project prioritisation tool. From 2003 until 2008, the Labour government focused its attention on investment in Auckland. There was a considerable shift away from the application of the benefit cost appraisal as the primary prioritisation tool. Instead, community desires to deliver more environmentally sustainable projects combined with RMA approval processes saw a marked shift towards extensive mitigation measures being taken. Thus major projects such as the Northern Gateway, Victoria Park Tunnel and Waterview projects have been approved at much lower BCRs than would ever have been possible in the 1990s, while other nationally important projects have had to have been deferred for want of funding.

In Vancouver, Scotland, Denmark and Sweden strategic policy agreed at the national level is the primary driver of project selection and timing for investment. While emphasis is placed on using benefit cost appraisal methods as a tool in the decision making process, strategy is the primary driver of project prioritisation. The BCR analysis is simply used to test and inform the financial viability of the project decision and the delivery alternatives that have been considered. The discount rates used in the analysis tend to reflect the term of the investment being made, with lower discount rates for long term investments of strategic importance. Unlike New Zealand, where the NZTA and Treasury normally

apply an 8% discount rate - with sensitivity testing at lower and higher thresholds, the discount rates used in Europe are much lower, being in the 3% to 6% range.

Emphasis on Sustainability and Climate Change

A pervasive theme in British Columbia, Scotland, Denmark and Sweden is the level of commitment to environmental sustainability and mitigation of climate change through emission reductions. Initiatives include:

- The Scottish Government placing renewable energy at the heart of its vision of increasing sustainable, economic growth. The Government aims to make Scotland the green energy capital of Europe, primarily through investment in wind energy.
- The green transport strategy adopted in Denmark (discussed above).
- The level of investment in public transport linked to intensified land use in Vancouver.
- The positioning of Stockholm as the European Green Capital 2010.

Public Transport and Intensified Land Use in Vancouver

Since the early 1970s urban planning in Vancouver has been significantly influenced by smart growth urban planning and transportation theory that concentrates growth in the centre of a city to avoid urban sprawl. It advocates compact, transit-oriented, walkable bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use

Figure 13: Skytrain - part of a substantial public transit network in Vancouver



Figure 14: High rise residential development in central Vancouver



development with a range of housing choices. Vancouver chose to spurn the development of urban motorways and focus development in the central business district (CBD) on increased urban density, supported by significant investment in commuter rail, bus and ferry services, and the expansion of walking and cycling networks. Land-use planning has supported higher densities and neighbourhoods with easy access to shopping and work. Regional policy favours and continues to support concentrated development in a network of regional city centres, connected by high quality transit so that green spaces and agricultural lands are protected.

The strategy has been successful in part. The transit-friendly metropolitan core has seen a dramatic increase in residential development as have most neighbourhoods close to SkyTrain stations. While regional city centres have been successful in attracting high-density residential and commercial development, many of the region's new jobs are now located in outlying business parks.

Commuting to regional business parks is dominated by car driver/passenger use at 91%, with only 7% on transit, and 2% walking and cycling in the 2006 census. In contrast, commuting to the Vancouver metropolitan core was 50% by car, 34% by transit and 15% by walking and cycling.

While increased transit use has slowed growth in private transport modes, business parks are growing four times faster than urban centres. If current trends continue, employment locations will become more dispersed, and the city will face major difficulties in providing

transportation options that are both cost effective and attractive.

To respond to this challenge the regional transport authority Translink has developed a 30 year transportation strategy for Metro Vancouver, called 'Transport 2040'. The goals in the strategy reflect the desired future in 2040. They place strong emphasis on the reduction of greenhouse gas emissions from transportation in support of federal, provincial and regional targets. There is a consequential emphasis on public transit, walking and cycling, and employment and residential growth being located along the Frequent Transit Network.

The Provincial Government has responded with the development of the Provincial Transit Plan. This new strategy launched in the same year as Transport 2040 seeks to double transit ridership by increasing travel choice for people around the province, with new fleets, green technology, new rapid transit lines and new services like RapidBus BC. The vision is to be a global leader in providing safe, comfortable, reliable services that will highlight green technologies and reshape communities by encouraging integration of work, home and recreational activities. The Strategy proposes a \$C14 billion joint Federal, Provincial and Regional investment plan comprising:

- \$10.3 billion investment in four new rapid transit lines in Metro Vancouver—the Evergreen Line, the UBC Line, the upgraded Expo Line and the Canada Line (for which \$2 billion was previously committed).

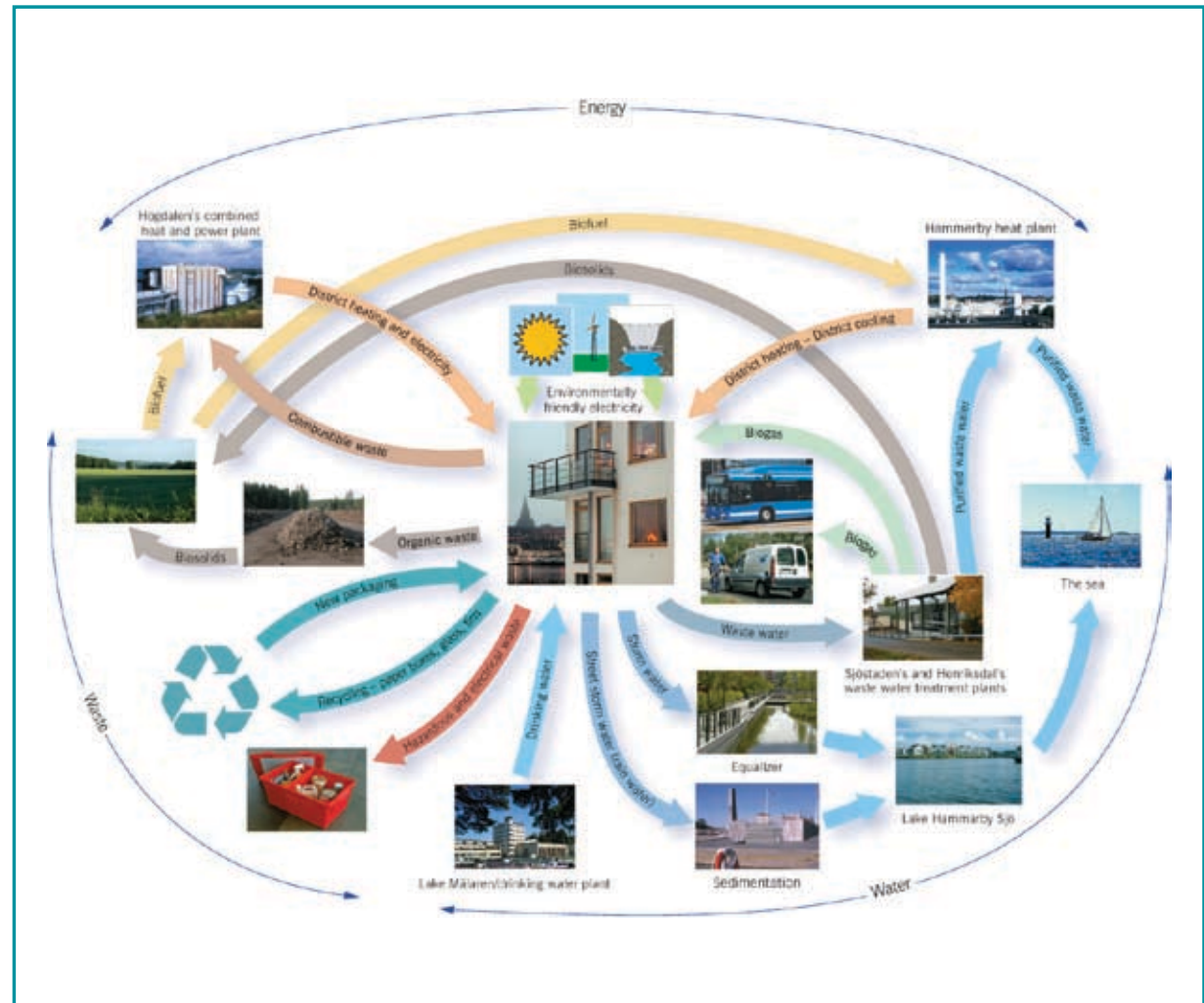
- \$1.2 billion for a new, energy efficient, high capacity RapidBus BC service along nine major routes in the high growth urban centres of Kelowna, Victoria and Metro Vancouver.
- \$1.6 billion investment in 1,500 new, clean energy buses and related maintenance infrastructure to provide communities around the province with improved bus service.
- Increased security measures to enhance transit safety and use.

Hammarby Sjostad in Stockholm – The World's Largest Sustainable City

Developed as an exemplar of sustainable living everybody who lives in the district of Hammarby Sjöstad in Stockholm is part of an eco-cycle. The so called Hammarby Model handles energy, waste, sewage and water for both housing and offices. The energy company Fortum, Stockholm Water Company and the Stockholm Waste Management Administration run the Model with the goal of minimising energy consumption and waste production, with resource savings, reuse and recycling being maximised.

One particularly interesting example of this is the automated waste disposal system which links into, and provides a fuel source for the district heating scheme. There are both mobile and stationary systems. The waste collected in the mobile automated waste disposal system ends up in underground tanks that are emptied by a refuse collection vehicle equipped with a vacuum suction system. There are separated tanks for each type of waste; combustible domestic waste and food waste. The refuse collection vehicle stops at docking points where several buildings' waste tanks are emptied simultaneously, but at a fraction of the time per collection round. In the stationary system, all refuse chutes are linked by underground pipes to a central collection station to which they are carried by vacuum suction.

Figure 15: Hammarby model



The collection station houses an advanced control system that sends the various forms of waste to the right container. The solid waste is then used as a part fuel source for the district heating scheme. In turn the district heating scheme provides heating to over three quarters of the district's residential and commercial buildings.

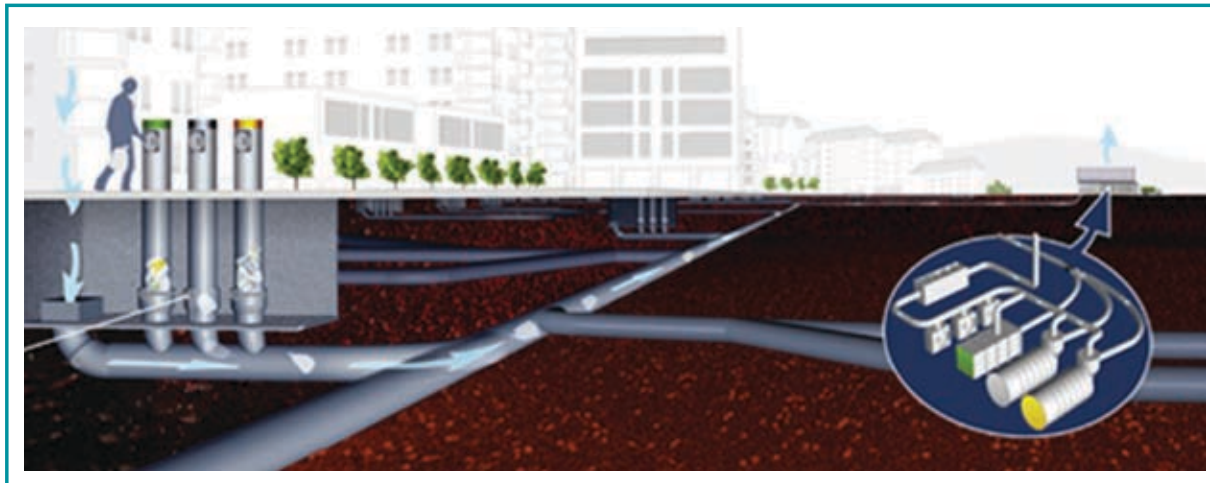
It is because of these types of initiatives and many others that Stockholm is the first city to be designated European Green Capital 2010 by the EU Commission. The prize is awarded to the city that is leading the way towards environmentally friendly urban living and that can display consistent results with regard to satisfying environmental standards, continuous commitment in terms of ambitious measures, continued environmental improvements and sustainable development. The reasons given for the award to be given to Stockholm were because it has:

- An integrated administrative system that guarantees that environmental aspects are considered in budgets, operational planning, reporting and monitoring.
- Cut carbon dioxide emissions by 25 per cent per inhabitant from 1990 levels.
- Adopted the objective of being “fossil fuel free” by 2050.

Figure 16: Solid waste recycling in Stockholm



Figure 17: Solid Waste Vacuum Suction System



Planning Approvals and Consents for Major Infrastructure

Given the difficulties, time delays and costs that are often experienced in gaining planning approval and consents for major infrastructure projects in New Zealand, we were especially interested in learning about alternative approaches to planning approvals in each of the jurisdictions visited.

Of particular interest is that in each of the jurisdictions visited major projects almost always go through a dedicated and often independent public inquiry process, and are not considered by local authorities. It is not unusual for the final decision to be taken by the relevant government minister.

Interestingly in Denmark, the whole of parliament considers and approves projects of national significance.⁶ The process requires strong public engagement up front, including public meetings and public hearing processes. The relevant government ministry prepares a “white

book” which includes a summary of all public input and comments from the relevant government department and Parliament passes an Act to approve the project and set conditions.

In all jurisdictions visited, regional and national economic, social and environmental benefits are considered in substance, together with environmental effects. Public participation is focused at the beginning of the process on the overall merits of the project, rather than being involved in the detail of environmental regulation.

The most significant recent development in England has been the establishment (and proposed disestablishment of the independent Infrastructure Planning Commission) which currently provides a ‘one stop shop’ review process for nationally significant projects. The role of the Infrastructure Planning Commission and the reforms proposed by the new Conservative Liberal Democrat Coalition Government is discussed in the following section.

Infrastructure Planning and Consents in England and Wales

The Infrastructure Planning Commission (IPC) was set up by the former Labour Government under the Planning Act 2008. It is an independent public body with the dedicated task of examining and deciding applications for nationally significant infrastructure projects. The IPC currently acts in accordance with new National Policy Statements prepared for each type of infrastructure in the five general fields of energy, transport, water, waste water and waste. The system applies across England and to some cross border oil and gas pipelines into Scotland. In Wales the IPC only deals with applications for ports and energy projects.

Applications to the IPC include nuclear and fossil fuel power stations, onshore and offshore wind farms, major improvements to the national grid, railways and roads, reservoirs, harbours, airports and sewage treatment works. Projects are dealt with by the IPC if they are of a certain size and importance, which are set out in detail within the Act. The Secretary of State may also direct a proposal within each of the five general fields listed in this paragraph to the IPC, even if it does not meet the statutory criteria, if the proposal is considered to be of national significance. The IPC does not consider applications in other areas, such as retail or housing development.

⁶ In respect to the green transport agreement, to which seven out of eight parties are signatories.

One Stop Consents Shop

The IPC process provides for a 'development consent order'. This is a new single consent intended to simplify and speed up the planning process for national infrastructure and means all stakeholders, including local authorities and the public, have one, single process, in which to engage.

A development consent order avoids the need for many of the separate consents that previously had to be obtained under separate legislation and from different government agencies, departments and local authorities. Examples include planning permission, authorisation for compulsory acquisition of land and approvals under a range of Acts including: Green Belt (London and Home Counties) Act 1938; the Pipelines Act 1962; the Gas Act 1965; the Energy Act 1976; the Ancient Monuments and Archaeological Areas Act 1979; the Electricity Act 1989; the Listed Buildings Act; the Harbours Act 1964; the Transport and Works Act 1992; the Highways Act 1980; the New Roads and the Street Works Act 1991.

Conservative Liberal Democrat Coalition Government Plans to Replace IPC

The establishment of the IPC has been highly controversial. Opponents have complained that the process overrides rights of participation by local communities. Prior to the election, the Conservative Party campaigned on its intention to abolish the IPC. Accordingly, following the election, the Queen's Speech on 25th May 2010 included the Decentralisation and Localism Bill, one of the objectives of which is to 'abolish the IPC' and replace it with an 'efficient and democratically accountable system' that provides a fast-track process for major infrastructure projects.⁷

In practice the IPC process will be largely retained. Sir Michael Pitt, Chairman of the IPC, who we met with on our trip has stated: 'the expertise, processes and special character of the IPC will be retained by creating a Major Infrastructure Unit as part of a revised Communities and Local Government (CLG) structure that includes the Planning Inspectorate'.⁸

The likely changes are:

- NPSs will have to be debated and approved by both houses of Parliament.
- All decisions will have to be ratified by the Secretary of State, rather than just those where there is no relevant NPS.
- Private or hybrid Bills are likely to be used for very major linear projects.

The changes are designed to redress the 'democratic deficit', which the coalition partners perceive as being a major problem with the IPC, as currently constituted. It is understood that the Decentralisation and Localism Bill could be published as early as autumn 2010. If this occurred it is likely to become law by summer 2011, so that the IPC could be formally abolished and a new specialist unit operating from autumn 2011. Large scale energy, transport, waste or water projects are likely to continue to be dealt with by the IPC until at least autumn 2011.

⁷ Quote from UK government coalition agreement: "The Coalition: our programme for government" p11 available at www.cabinetoffice.gov.uk/media/409088/pfg_coalition.pdf

⁸ Sir Michael Pitt, Message from the Chair, May 2010, available at http://infrastructure.independent.gov.uk/?page_id=8

Participation Processes Under the Existing IPC Process

Notwithstanding the political heat surrounding the IPC, a review of the process implemented by the IPC since its inception does actually provide for extensive opportunities for public engagement. Heavy front-loading means that applicants are required to carry out extensive consultation with local communities ahead of submitting an application. The IPC can provide advice and guidance to potential applicants on questions of process (not on the merits of the proposal itself) before they apply. All of this advice is published.

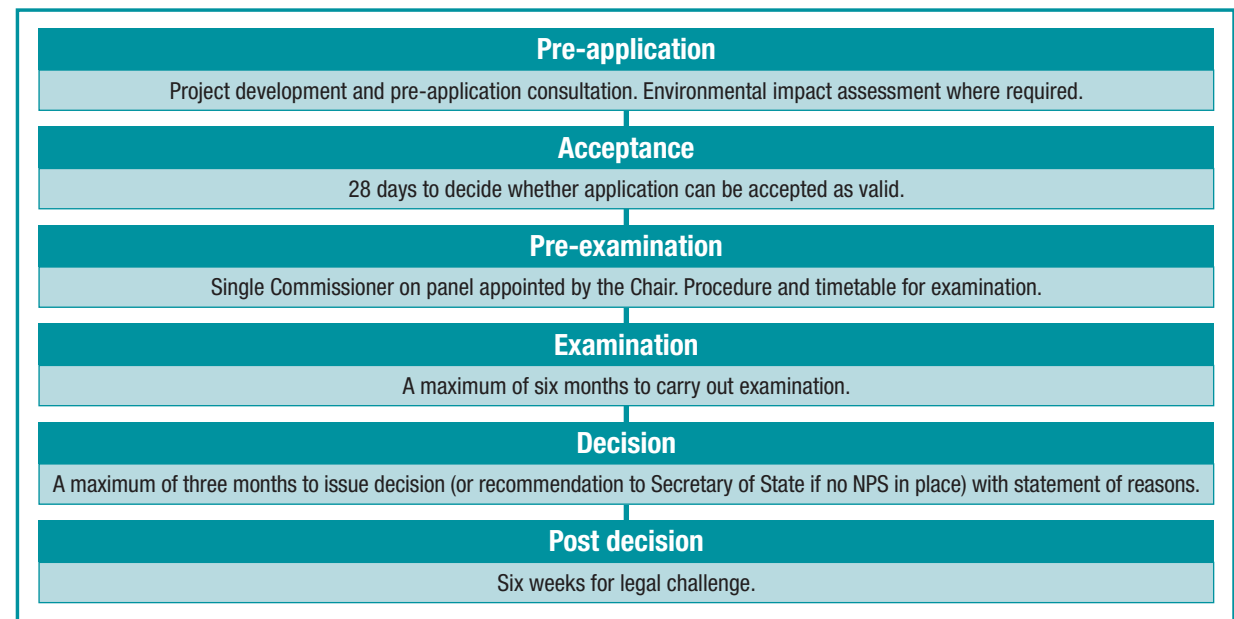
The application process for a nationally significant infrastructure project, as summarised below, involves a series of stages, including extensive pre-application consultation, and publicity and community engagement, which must be undertaken by the applicant.

After the conclusion of the examination process the IPC may refuse the proposal, or it may grant a development consent order, which may contain a list of requirements with which the development must comply.

Local Authority Participation

- In the regime administered by the IPC, all local authorities with an interest are consulted and, by law, local impacts must be balanced against national benefits. Local authorities have a role in the system at all stages; local authorities are involved in the development of National Policy Statements.
- Promoters are required to consult local authorities, as well as other bodies and the local community, before they submit an application to the IPC.
- Commissioners must take account of the views of the local authority and others on the adequacy of the promoter's publicity, and consultation in deciding whether an application can be accepted as valid.

Figure 18: IPC Process for Develop Consents



- The local authority may submit a Local Impact Report (LIR) to the IPC. The LIR describes the likely effects of the proposed development on the local authority's area. Commissioners must have regard to the LIR in deciding an application, and may reject the application, even if it is in accordance with a relevant National Policy Statement, if the adverse impacts outweigh the benefits.

Public Participation

The regime is intended to provide better opportunities for the public and local communities to get involved in decisions that affect them. There are three opportunities to get involved:

- In the debate about what national policy means for planning decisions.
- In the development of specific projects.
- In the examination of applications for development consent – both by making written representations and appearing at the IPC's hearings.

Promoters must carry out extensive public consultation before they make their application to the IPC. Engagement with the local community and a range of other bodies at the pre-application stage is a very important aspect of the new system. Further consultation takes place following the submission of the scheme to the IPC.

The system is designed to ensure that applications are prepared to a high standard – promoters must demonstrate that they have taken into account responses from consultation. Commissioners are empowered to refuse to accept any applications that are inadequate in significant areas, including public consultation and environmental impact assessment.

Once an application has been accepted as valid by the IPC, the applicant must publicise this, and the public has a further opportunity to express their views by making written representations to the IPC. The IPC must make all representations public and allow interested parties the opportunity to comment on them.

Public Hearing

Public hearings are held. At the hearings evidence is examined by the Commissioner, who chairs the meeting. The principal approach to testing the evidence is inquisitorial – the Commissioner puts questions to the applicant and others. The Commissioner must ensure that the evidence is properly considered, allowing cross-examination when appropriate, and must make sure that everyone has a fair opportunity to make their views known. Commissioners of the IPC are tasked with conducting fair and open examinations, and are chosen for their knowledge of public engagement and inclusion, as well as their technical and professional skills. They must consider the evidence and government policy, and act independently when making their decisions on

individual applications. Commissioners are accountable to the courts; they work to a strict code of ethics and are free of political interference. Applications are examined either by a panel of Commissioners or by a single Commissioner, depending on the size and nature of the project. Applications examined by a single Commissioner are decided by one of three IPC Councils.

Although the new Government in England has seen fit to provide for greater political involvement in decisions about major projects, the IPC process is illustrative of potential improvements that should be made to statutory processes in New Zealand. In particular the emphasis on extensive early public consultation and engagement, rigorous pre-application assessment, and integration of statutory processes warrants further consideration in the New Zealand context.

Funding, Procurement and Delivery

The close relationship between funding and procurement was a key issue for all of the countries visited.

In New Zealand, procurement typically commences after the necessary funding becomes available. Procurement focuses on project delivery and seldom contemplates user funding or private sector financing.

In comparison, in Scandinavia, Canada, and in the United Kingdom, funding follows strategy, and procurement methods commonly feature a user payment or private financing component. Projects are procured in a manner and at a time that is both economic and efficient, and funding is arranged so that it can meet this timetable. This ensures that the availability of immediate funding does not constrain infrastructure development.

Examples of this occurring are the bridges that have been, and are being, built in Denmark to link Denmark with Sweden and Germany, and the Swedish transport plan described in the preceding section.

Wider Range of Procurement Options

In New Zealand, the traditional (or 'staged') procurement model dominates. Under this model public authorities enter into separate agreements with consultants, contractors and financiers (if external funding is necessary). This model is referred to as the design-bid-build model in many of the nations visited and is also the main procurement model that is used in these nations. However, for larger and more complex projects much greater use is made of other models. These include design and build, and the use of collaborative working models and early contractor involvement in the UK.

The design and build, and early contractor models are also becoming more prevalent in New Zealand, particularly on major transportation projects.

Interestingly, there was little use of the alliancing model as a procurement method in the countries we visited. In New Zealand alliancing and competitive alliancing continue to be popular, and are being used to deliver some of New Zealand's major infrastructure projects, such as some of the roads of national significance.

Public Private Partnerships (PPPs) are also used in all of the countries we visited and are discussed separately below.

Funding Options

Funding can be managed in one of two ways. Either existing or new revenue streams can be identified or the available funding can be restructured, primarily through debt funding mechanisms, to avoid the need for having 100% of the project cost up front and to achieve intergeneration equity in the provision of infrastructure. Common methods of achieving both of these ends are discussed below and, with some minor modifications, are largely the same in comparative nations. However, there is also a much wider range of funding options being deployed in those jurisdictions than in New Zealand.

Existing and New Revenue Streams

Typically one or a combination of the following revenue streams is used to fund public sector infrastructure projects:

Taxation

Taxes are the main source of government and local government revenue. At a national level the major sources of tax revenue are income tax and goods and services tax. At a local level the primary source of revenue is through rates (general and targeted).

Each country visited has different tax systems and philosophies around taxation. For example, in Denmark a key driver for the government is social reform, financed through high rates of public taxation as compared with New Zealand.

Tax is also being used to drive behaviours. This is best demonstrated in the transportation area. The Danish Government is committed to the idea of sustainable transport (greater use of trains, buses and bikes) and therefore imposes the highest car taxes in the world. Denmark imposes a green car tax, a tax on car ownership and a tax on petrol.

In all of the countries visited the tax that is collected (including transportation taxes) goes into a 'General Account' which is used to cover all government expenditure. In comparison, in New Zealand road user charges and fuel excise duty is hypothecated - the revenue derived from land transport related taxes go back to land transport. This system was praised by the transport agencies visited on the study trip.

Taxation is a consistent and secure source of income, but is politically sensitive, especially in the current global economic conditions. Whilst the high tax rate in Denmark provides important funds for the Government and shapes behaviours, there is now concern by some that it is having an impact on productivity and requires review. In addition, relying on taxation creates issues of intergeneration equity. The taxation from one generation is used to construct an asset that benefits later taxpayers whose taxes have not been used to procure the asset in the first place.

Tax Incremental Financing

Tax Incremental Financing (TIF) is a public financing method used in North America, which is now being considered in the UK, especially Scotland. It is targeted specifically at redevelopment projects for particular areas.

TIF works on the premise that investment in community benefits such as roads and schools have a positive effect on property values in an area, and consequentially results in a greater tax revenue (a 'tax increment'). Authorities can then borrow against that anticipated future tax revenue. In effect, under a TIF an authority borrows against future tax revenue, allowing projects to be carried out that would otherwise be unaffordable. In particular TIF has been used in under-developed areas where development might not otherwise occur.

There have been critics of the TIF system. Opponents argue that the development in TIF areas would have occurred because of their prime location, that the rise in property values through inflation will provide funding (even without financed improvement), and that funding often goes toward private improvements from which developers profit. There is also a criticism that the revenue generated from the incremental increase in property values requires an increase in public infrastructure, which needs to be funded elsewhere. Irrespective of one's view on these criticisms, TIFs may allow for infrastructure development that may not have otherwise taken place, or may bring development forward. The economic and social benefits of this should not be ignored.

Development Contributions

Development Contributions are fees collected from developers to cover the cost of the infrastructure necessary to service new developments. In New Zealand they have been applied since July 2005 and are usually paid by developers when they apply for sub-division consents, land use consents and building consents.

The rationale for Development Contributions is that when new development occurs in a city, it has an impact on the existing infrastructure. Accordingly, developers should be required to contribute to the costs of the new infrastructure that is required. This is to ensure that existing rate payers are not burdened by the costs of increasing infrastructure resulting from new development. The fees must be paid on any development or subdivision that generates additional demand on infrastructure as calculated under a council's 'development contribution policy.'

Development Contributions have been used to fund community facilities, stormwater and transport networks. In Vancouver a similar scheme known as 'Development Cost Levies' is used. Development Cost Levies are a growth related charge collected from all new development. They are applied on a per square foot basis with payment due at building permit issuance.

While generally accepting their responsibility to contribute to necessary infrastructure upgrades, developers in New Zealand harbour concerns about whether incremental costs have been fairly allocated between them and

existing users. A recent court case involving North Shore City Council and the development industry found that the Council had unfairly lumbered wider community costs onto developers. Developers also have concerns that the upfront levies are an unaffordable impost, being levied at the building consent stage well in advance of revenues from the sale of properties.

Community Amenity Contributions

Community Contributions (CACs) are contributions that are provided by developers when they apply to have a part of the city rezoned to enable a new development. They are either cash levies taken from developers or amenities provided 'in-kind' as part of the development. CACs differ from Development Cost Levies as they apply just to rezoning and not to all developments. CACs have been used in Vancouver to allow for development, particularly in relation to the rezoning of former industrial areas.

Tolls

Tolls are tariffs that are paid only by the user of a fixed asset such as a road or bridge. Traditionally they have been politically sensitive, as the money is extracted from the user at the point of use. More recently, electronic tolling systems have depersonalised the arrangement slightly. Tolls are used more widely in other Commonwealth and OECD jurisdictions. They have been little used in New Zealand to date, but are an option that

can be considered. An example of the use of tolls in New Zealand is the toll for the Northern Gateway motorway north of Auckland. A similar toll mechanism will also apply to the Tauranga Eastern Motorway.

Shadow Tolls

Some governments use shadow tolls to pay for roads. Shadow tolls are payments made by the government to the private sector operator of a road, instead of direct tolls paid by road users, usually based on the number of vehicles using the road. Shadow tolls do not have collection and other costs associated with direct tolling. However, they also do not allow one to alter demand behaviours for the use of a road. This is because no direct payment is made. Shadow tolls differ from actual tolls in that they are a payment mechanism used by the public sector and not an additional revenue stream.

Congestion Charges and Other Pricing Mechanisms

Congestion charging is a system of charging users of a transport network in periods of peak demand, at particular times, or at particular points to manage traffic congestion. Congestion charging provides a revenue stream. However, the main reason for its use is as a demand management tool, which is used to alter behaviours rather than for revenue generation.

Congestion charging systems can be split into two main forms:

- entry into a certain area (Stockholm model); or
- the amount a road network is used (Dutch model).

The Stockholm model described below is favoured by many because of its simplicity. Simplicity is important for influencing people's decision making behaviours. It was made clear at our meetings in Stockholm that if people do not understand the system and how it works they are unlikely to like it or adopt it. The Dutch model, which now appears to be politically out of favour, is more complex.

The Dutch model requires identifying and measuring where a journey starts, when it starts, when it ends and how long it takes.

Whichever congestion charging system is used, it is important to deal with the issues of diversion (where traffic could go instead) and the availability of a viable alternative public transport system. If this does not occur behaviours may be affected in unintentional ways. In the case of Auckland, a strategic public transport plan would have to run alongside, and ahead, of such a congestion charge.

Congestion Taxation in Stockholm

A congestion tax is imposed on Swedish registered vehicles driving in and out of the Stockholm inner city zone between 6.30am and 6.30pm Monday to Friday. The charge is between 10, 15 or 20 kronor (NZ \$2 to NZ \$5) depending on the time of the day up to a maximum of 60 kronor (NZ \$12) per day. Its primary goals are to reduce congestion, increase accessibility and improve the environment in Stockholm's inner city area. Stockholm was the second city, after London, to trial congestion charging in Europe.

Figure 19: Number plate recognition cameras on a toll gantry in Stockholm⁹



⁹ Extract from presentation titled Stockholm's Transport Profile by Daniel Firth, City of Stockholm Traffic Administration

The congestion tax followed a Swedish Government inquiry into congestion charging. The use of a parking tax was also discussed, but rejected because it had no effect on the behaviour of through traffic, and because of a concern that it could drive people away from the city centre, when this was not intended. Swedish law required a congestion charge to be introduced as a state tax, which attracted both legal and political challenges. Accordingly, prior to permanent enactment a full scale trial was carried out between August 2005 and July 2006, with the congestion tax being applied between 3 January and 31 July 2006.

The objectives of the trial were:

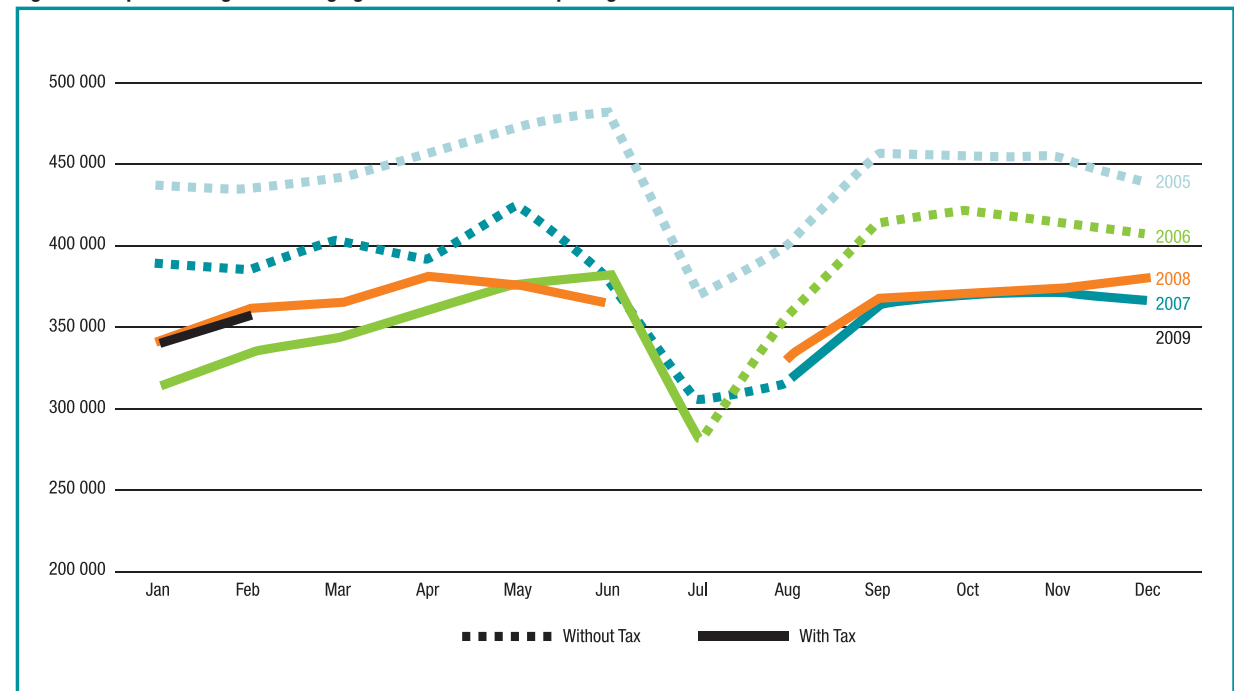
- A 10-15 per cent reduction in traffic to and from the city during rush hour.
- To increase accessibility and provide a better flow in Stockholm traffic.
- A reduction in the emissions of carbon dioxide, nitric oxides and particulate matter.
- To raise money, although, as explained, revenue generation was not a primary objective.

We were advised that other better options were available to raise revenue. Indeed, Oslo was specifically mentioned. In Oslo tolls are used to generate revenue. This is to be compared with Stockholm where congestion charging is used to alter behaviours.

Stockholm's objectives were largely achieved. Traffic to, and from, the inner city was reduced by 20-25%, which led to the environmental objective. Traffic queues reduced by 30-50% in, and around, the inner city and it was calculated that emissions decreased by 8-14% in the inner city.

After the initial trial was completed a referendum was held to assess whether the congestion tax should become permanent. Timing it in this manner provided the opportunity for the public to vote having experienced the effect that the congestion tax had had on traffic flows, and consequentially public support for the congestion tax doubled from the pre-trial period to the post-trial period. In comparison, in Manchester UK a referendum for a congestion charge, held without the benefit of a trial period in December 2008, received a large 'no' vote.

Figure 20: Impact of congestion charging in Stockholm: Vehicle passages over the tax cordon 06:00-19:00¹⁰



¹⁰ Extract from presentation titled Stockholm's Transport Profile by Daniel Firth, City of Stockholm Traffic Administration

It was emphasised during our visit that it was critical for an effective congestion tax that vehicle owners fully understood how the congestion charge worked before the system came into operation. This enabled vehicle owners to understand if, and how, the tax affected them and whether they wished to change their behaviour accordingly. Therefore, in the early stages of the project the city focused on direct communication through meetings, flyers and letters. As the launch date approached communication became more public and intensive.

The administration costs for the congestion tax system are 10-20%, and are reducing over time. We were advised that during the trial period the tax probably did not generate enough revenue to cover its costs, although it was made clear that this is no longer the case. Moreover, the operators were confident that it could be trialled in New Zealand on a cost neutral basis and that the system had improved significantly.

A study undertaken to examine who pays most for the congestion tax yielded some interesting results. Those in the inner city pay twice as much as those that live outside of the inner city; wealthy households pay three times as much as the poorer households; the employed pay three times as much as the unemployed; and men pay twice as much as women.

Revenue Restructuring Mechanisms – Debt Financing Mechanisms

Revenue restructuring mechanisms do not provide any additional revenue to an authority. However, they enable an authority to pay for an asset other than through cash reserves.

Loans/Borrowing

A loan is the most common form of revenue restructuring. Public authorities are able to borrow at better rates than the private sector, as their taxation stream operates as secure collateral. However, a loan is simply an obligation to repay a lender for a cash advance. A public authority does not get anything else from a loan agreement other than the ability to finance a project and thereby deliver it earlier than might otherwise be possible.

In New Zealand both central and local government have the capacity to borrow, but are dependent on the necessary political will to increase the authority's exposure.

In our 2006 report we explained that New Zealand has the capacity to borrow to pay for infrastructure. At that time New Zealand's public debt as a percentage of GDP was 21.3%. In 2009 New Zealand's debt against GDP was at 22.2%, but will increase with the global economic crisis. However, New Zealand's percentage compared to other OECD countries remains reasonably low (Canada is at 75.4%, the United Kingdom is at 68.1%, Ireland at 57.7%, Denmark at 41.6% and Sweden at 35.8%.¹¹ Australia remains steady at 17.6%.

Whilst the figures do not reflect economic success, they do illustrate that New Zealand has the capacity to borrow to finance infrastructure should it wish to do so.

¹¹ For EU-countries source: Eurostat

Local Government Bank

In July 2009 the Government and Local Government New Zealand established a steering group to analyse a proposal put forward by the Financial Markets Development Taskforce on whether a local government 'bond bank' could be set up. A study is being conducted by advisors, Cameron and Partners and Pacific Risk Management, on whether such a bank is feasible. The results of this study are awaited.

Infrastructure Bonds

An infrastructure bond is another type of borrowing in which the lender is the public sector. They have political advantages in that they give the public the feeling that they have 'bought into' their local asset and may generate an associated feeling of ownership and responsibility.

Infrastructure bonds were used by the Labour Government, which in 2006 decided to designate a portion of its borrowing programme specifically for infrastructure purposes. The infrastructure bonds were issued by the Debt Management Office on the same terms as other New Zealand Government bonds. In its 2006 budget the Labour Government provided for the release of up to \$1 billion for major infrastructure projects such as ALPURT B2. In 2007 the first tranche of

\$50 million of infrastructure bonds was issued. Future issuance was then to be determined by progress on various transport infrastructure projects.

Recently, the new Mayor of Auckland expressed interest in the use of infrastructure bonds from small investors for large transport projects such as a \$1.5 billion central Auckland rail tunnel.

Public Private Partnerships

Public Private Partnerships (PPPs) have been the subject of much debate in New Zealand, but are widely used overseas. PPPs are long term relationships between the public and private sector, whereby the private sector agrees to provide an asset and fund its design and construction. The private sector then operates the asset for a concession period of usually 25 – 35 years, and is repaid over that time.

The acronym PPP has been replaced in many countries, possibly due to a misunderstanding over what the term means and/or a negative perception to the term. The following table sets out the alternative terminology that is used in many countries:

Locality	Acronym	Stands for
UK	PFI	Private Finance Initiative
Australia	PFP	Privately Financed Partnerships
British Columbia	P3s	Public Private Partnerships
Ontario	AFP	Alternative Financing Procurement
Mexico	PPS	Projects for Public Services
California	PBI	Performance Based Infrastructure
New Zealand – Morrison and Co	PIP	Public Infrastructure Projects

In all of the countries visited, there was much greater use of PPPs as a procurement method for both social and economic infrastructure. The percentage of projects procured on a PPP basis varied, being higher in British Columbia and the United Kingdom than in Scandinavia. On our trip we examined the use of PPPs in a number of sectors and also looked at some of the 'second generation' PPP models now being used, particularly in the United Kingdom. These are addressed further below.

In New Zealand the National Infrastructure Unit within Treasury has examined the use of PPPs from the government's perspective and has shown a willingness to use the model. A list of 'pathfinder' projects is developing, which currently encompasses one (possibly two) prisons and a number of schools. The government has committed to procuring Wiri Prison on a PPP basis. Standard template documents based on the UK and Australian standard conditions are being prepared for market comment.

However, whereas the Labour Government's lukewarm investigation of PPP's concentrated primarily on roading infrastructure (investigations were undertaken for the use of a PPP for the Waterview Connection and it was proposed for the Penlink project within the Rodney District of Auckland), the National Government's emphasis appears to be more on social infrastructure. The PPP model has not to date been used as a procurement model by NZTA for any of the major roads of national significance or other roading projects. However, it is an option that could be used. There has been little development of PPP projects in the water area by local authorities, notwithstanding the imminent removal of the unnecessary legislative bars contained in the Local Government Act. To a degree this may reflect the lack of understanding of PPP projects at a local government level, the lack of political drive and leadership at a local level (essential for PPPs to progress) and the fact that local government, whilst responsible for water infrastructure, is not under the ambit of the National Infrastructure Unit within Treasury. For PPPs to progress at the local authority level, a champion for such projects

is required, together with support or guidance from central government on how to pursue a PPP project.

Second Generation PPP Models

In the United Kingdom new approaches to PPPs have evolved, which seek to mitigate the disadvantages of traditional PPP structures, particularly their traditional limitation to large scale projects. Given that these approaches have been tailored to secure PPP procurement of smaller assets (albeit on a bundled basis) they should be of particular interest to New Zealand, where the average project size is not as great as, for example, in Australia.

LEPs and LIFTs

LEPs and LIFTs are similar second generation PPP structures that are used to procure education and healthcare facilities respectively in the UK. LEP stands for Local Education Partnership and is used in the education sector. LIFT stands for Local Improvement Finance Trust and applies primarily to the health sector.

Both LEPs and LIFTs are joint venture companies between the public and private sectors.

LEPs are entered into between the Central Government, Local Council and the private sector. They are part of the

Building Schools for the Future (BSF) programme, which was intended to ensure that every school in the UK was either replaced or refurbished to an acceptable standard, and provided with proper ICT facilities. The programme was particularly targeted at decrepit Victorian era school infrastructure still common in many local authorities (who are responsible for schools in the UK) without the financial resources to replace them.

LIFTS are entered into between the Central Government, National Health Service Trusts and the Private Sector. The LIFT programme was intended to develop a 'sea-change' in local health and social care facilities. Whereas previously surgeries, healthcare centres and social facilities were procured on a random basis, the intention behind LIFT was to establish a mechanism whereby the local healthcare economy could work together at procuring 'joined-up' services and facilities for the benefit of the community as a whole.

In both cases:

- The public sector develops a strategic plan of the facilities it wants to procure for the local community.
- The Joint Venture Company that is set up enters into a Strategic Partnering Agreement with the public sector to deliver its strategic plan.
- The Joint Venture Company is given exclusive rights to procure the facilities required under the strategic plan for a fixed period of time (in the case of a LEP, usually about 10 years).

- The Joint Venture Company is responsible for planning, designing, constructing and maintaining new or replacement facilities.
- The Joint Venture Company establishes a supply chain of consultants and contractors to do this.

Some of the facilities procured under these arrangements may be on a PPP basis. In such cases the Joint Venture Company will establish and take an equity state in the Project Company. The Project Company in turn will enter into a contract with the public sector directly. In other cases more traditional forms of procurement may be used, such as design and build.

The public sector maintains its involvement through the Strategic Partnerships Agreement it enters into with the Joint Venture Company and through the Shareholders Agreement for the Joint Venture Company it signs down to as a shareholder. There are various control mechanisms in place to ensure value for money is achieved, including the use of regular market testing. Because the public sector is a shareholder, the profits made by the Joint Venture Company have to be clearly and transparently disclosed.

The advantages the LEP and LIFT schemes have over traditional Private Finance Initiative (PFI) structures are that they:

- Do not require major capital expenditure in a lump sum.
- Allow a programme to be developed and funded over several years.

- Allow for the bundling of projects over several years.
- Tap into private sector expertise in identifying and recommending new opportunities.

The global financial crisis has recently placed significant pressure on the ongoing financing of BSF programmes. Recently, the newly elected UK government announced that the BSF programme would be discontinued. Different reasons have been given for this. A major reason is the government having to 'slash' its current expenditure. Another reason given is the model not being run as efficiently as it could have been. Interestingly, it appears that batched school PPPs may not be favoured.

HUB

HUB is used in Scotland and adopts a similar approach to the LIFT and LEP models. Once again the public sector works in partnership with a private sector partner, both of whom have a financial incentive in the outcome of the project. However, whereas LIFTs and LEPs are focused on specific sectors (health and education), the objective of HUB is to improve the efficiency of the delivery of all community assets across an entire area. Accordingly, in addition to health and social care it can cover such things as leisure facilities, police and fire services, and housing. Therefore HUB creates a partnership between all significant procuring entities including local government, health boards and other community partners (such as the police or local volunteer groups).

HUB follows the LIFT structure closely, establishing a Joint Venture Company with a private sector partner for the purpose of delivering infrastructure services, in accordance with a strategic plan developed by the public sector partners. The ongoing provision of partnering services is linked to the achievement of improvement in the way that the facilities are delivered through improved designs, cost reductions and better and faster buildings maintenance.

Two pilot regions have been tested - the North and the South East of Scotland. The North Territory encompasses the Shetland, Orkney, Grampian, Highland and Western Isles Health Boards and the Shetland, Orkney, Highland, Eilean Siar, Argyll and Bute, Aberdeenshire and Aberdeen City Councils. The pathfinder projects include a range of joint services, including general practitioner (GP) practices, podiatry, physiotherapy, community nursing, community mental health, community dentistry, children and family services, and health and social care services.

The South East Territory encompasses Lothian and Borders Health Boards and West Lothian, Midlothian, East Lothian, Borders and Edinburgh City Councils. The pathfinder projects include a GP practice, community nursing, and community mental health, community dentistry, paediatric services, physiotherapy, speech and language therapy, a learning disability service, sports facilities, library, community information services and a community centre.

Given the very close similarities between New Zealand and Scotland in terms of population size and population spread, this approach is worthy of further investigation for use in New Zealand.

Lessons Learned in the use of PPP's

Our meetings identified the following lessons which the various organisations that have carried out and completed PPPs were able to pass on to us:

- Communication is critical. Early PPPs in particular suffered from public and stakeholder opposition because why and how they were being undertaken was not made absolutely clear, and because there was not a clear enough understanding of how PPPs worked.
- Clearly set out roles and responsibilities. A PPP is a lengthy and absorbing procurement process. Significant efficiencies are gained where the project team clearly identifies its individual roles and responsibilities.
- Clearly set out the outcomes that the public sector wishes to achieve. The process takes longer and is more costly when outcomes are not clearly defined and change during the procurement process.
- Understand the market conditions. A PPP should not be commenced unless informal market investigations and soundings have already been undertaken.

- Balance financing risk with risk and exposure. The use of PPPs has educated public bodies on identifying and putting a price to significant social risks that previously were not considered as part of their value models, especially the long term cost of asset maintenance and renewal.
- Assume credit markets will change over the life of the project. Early PPP projects did not take into account the possibility of refinancing. This has now been rectified.
- Be aware of the importance of, and understand the impact of, fixed completion dates. Finishing ahead of time can be beneficial to both the public and private sector partners. However, it can also have an adverse impact on the public sector. It is important that the public sector understands and plans for the effect early completion has on financing, planning and operational payments. In some PPP projects alternative programmes that have allowed for early completion have been rejected.

Central Government Credits

Central Government Credits are a mechanism used in the United Kingdom to distribute government funds. As such it does not easily fit under the exiting/new revenue or revenue restructuring headings. However, it is a mechanism that should be considered in New Zealand.

In the United Kingdom central government funds are delivered to local government in a way that encourages procurement by certain means. In the UK most taxes go to the General Exchequer and a portion is then distributed. Part of that distribution is in the form of PFI credits, which are government grants ring-fenced solely for the purpose of financing PPPs. Local authorities are then required to 'bid' suitable PPP projects to obtain this funding. By this means, Local authorities are incentivised to consider innovative procurement approaches and develop a fully robust business case as a first step.

Choosing the Best Delivery Method for the Project

All countries visited choose the procurement method that provides the best value for money. This should also be the practice in New Zealand. Indeed in many instances it is enshrined in law.

In New Zealand the Land Transport Management Act provides that the New Zealand Transport Agency must approve a procurement procedure that delivers best value for money. The Local Government Act requires Councils to undertake commercial transactions in accordance with sound business practices.

The issue as to what represents value for money is also well defined. Three excellent definitions of value for money are given in the New Zealand Transport Agency's Procurement Manual as:

- 'the best available outcome for the money spent in procuring the agency's needs' (Australian New Zealand Government Procurement Agency)

- 'the best possible outcome for the total cost of ownership' (Guidance provided by Office of Auditor General)
- 'the optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to meet the user's requirement' (HM Treasury, United Kingdom)

In determining which procurement method delivers value a consideration is required of the alternative procurement options that are available.

PPPs are one of these options, but should only be used if they deliver better value for money than other procurement options and will accordingly be limited in their scope.

A decision to enter into a PPP should not be based on a desire to transfer debt from the public sector balance sheet, but should be driven by a thorough value for money assessment. A PPP would generally not be used for contracts with a value of less than \$25 - 50m unless they can be bundled or they are used in a modified form. An alliance contract would not be used for a simple pavement reconstruction. Similarly a traditional contract would not be suitable for a waste-water treatment plant. At the NZCID Symposium in August 2010 the Minister of Infrastructure and Finance announced that Crown agencies procuring new infrastructure with a whole of life cost of greater than \$25 million would be required

to consider and evaluate all alternative procurement methods, including the use of PPPs.

Determining value for money requires an assessment of a variety of factors. These include the appropriate allocation of risk for the project in question, maximising whole of life costs (not just capital costs), a consideration of the four well beings (economic, social, environmental and cultural factors), a consideration of the costs of finance and the ability to access revenue to service debt.

In the end, the procurement method chosen will depend on the significance of each of these factors and will need to be considered on a project by project basis.

