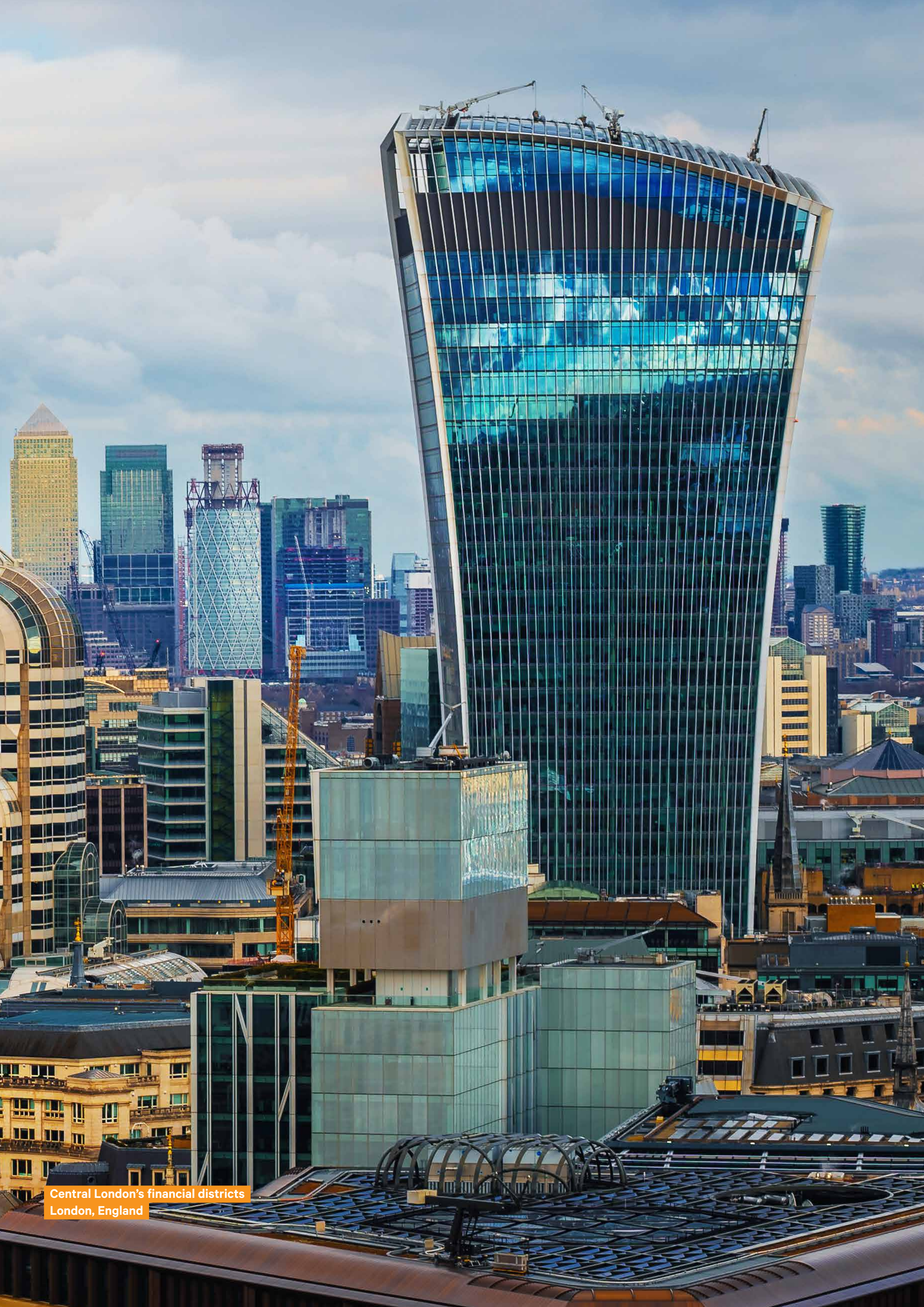
Infrastructure New Zealand
2024 International Delegations

Lessons from Europe and Learnings from the UK

Dublin, Ireland
Belfast, Northern Ireland
Copenhagen, Denmark

London, England
Manchester, England
Cardiff, Wales

Infrastructure®
New Zealand



Central London's financial districts
London, England

Introduction

2024 Delegations to Europe and the UK

Originally planned to occur in March 2020, but postponed when international borders were closed due to the COVID-19 global pandemic, Infrastructure New Zealand's 2024 international delegations were several years in the making.

Over the years, Infrastructure New Zealand has led numerous international delegations to explore how other jurisdictions unlock opportunities through enhanced funding and delivery partnerships between various levels of government and the private sector. These delegations have been highly successful in identifying exemplary practices across the infrastructure sector, facilitating the sharing of insights, and stimulating conversation and debate about potential applications in Aotearoa New Zealand.

We were delighted to reinstate our international delegation study tours and to learn from the positive infrastructure experiences of Ireland, Northern Ireland and Denmark, similar-sized countries to New Zealand, as well as how regional devolution and water services are managed in the UK.

Improving the way in which New Zealand funds, plans and delivers infrastructure was top of mind for both delegations, and the European delegation provided useful insights into the policy and political environments necessary to achieve that.

In both Ireland and Denmark, it is apparent that strong national visions have played a key role in providing for a collaborative political environment conducive to the development of nation building infrastructure. This has resulted in solid legislative and policy frameworks that support integrated infrastructure planning systems, the use of innovative funding mechanisms such as PPPs and user charging, and the integration of future climate resilience considerations into current infrastructure development.

In the transport space, all three cities visited (Dublin, Belfast and Copenhagen) exhibit the value of cohesive transport systems built upon infrastructure that provides for a variety of transport modes. Again, this has been possible due to broad political agreement and collaborative decision-making. There is much New Zealand can learn from this approach as a lack of political consensus underpinned by a lack of a shared national vision, continually undermines progress in transport and other areas of infrastructure.

The Belfast Region City Deal was also a lesson in how targeted investment and strong partnerships can transform a region's economic landscape. Funding and partners come from various sources, including councils, universities and the private sector, which helps ensure everyone has a stake in the projects and can contribute their expertise.

The focus of the UK trip was on learning the lessons from devolution deals and the regulation, funding and provision of water services across England and Wales.

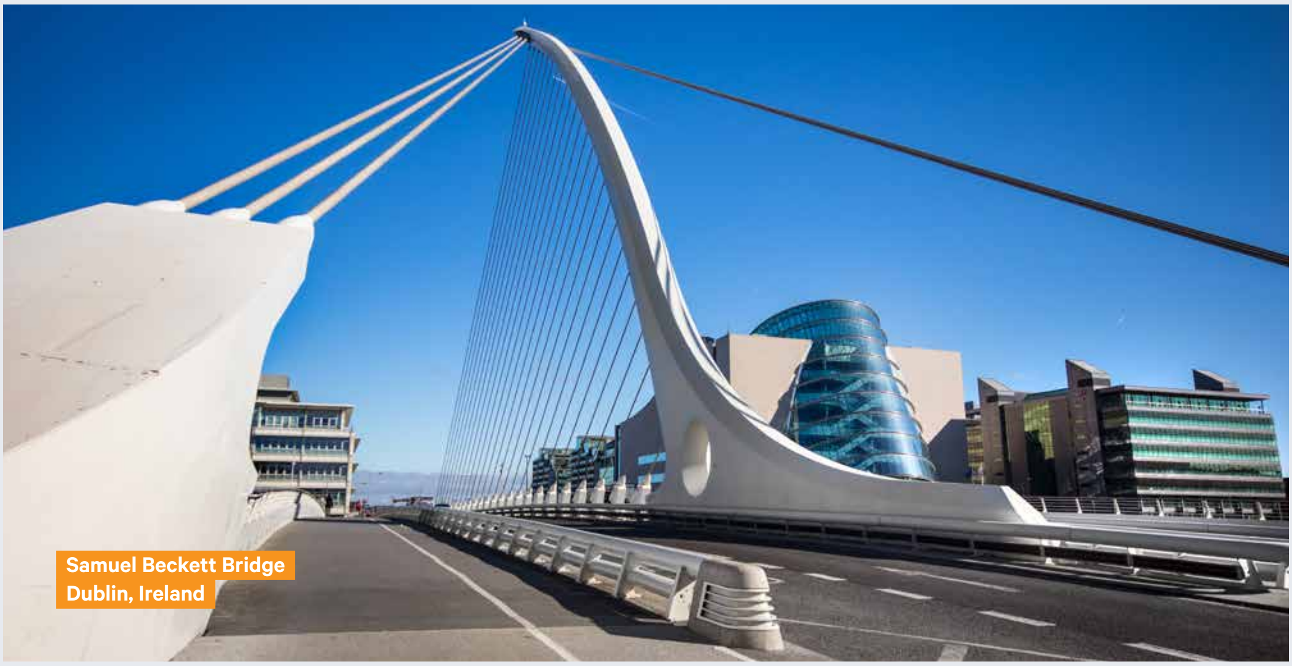
With 64% of the UK being part of a regional, town or city deal, it is recognised that devolving responsibilities and funding to local authorities has succeeded in assisting with economic success across many regions.

Devolution has been facilitated in several cases by the establishment of combined authority models. But the approach isn't a one size fits all model for all regions. Successful devolution has brought together local and central government, alongside the private sector and civil society in various forms.

The Greater Manchester City Deal, which is built on a history of collaboration across more than 10 councils, is considered the gold standard. It includes earn-back mechanisms, allowing the region to retain a portion of additional tax revenues from economic growth. This deal has led to population growth, property investment and increased international interest in the region.

When applying the UK devolution experience to New Zealand, it will be important to consider what a regional deal can do for economic growth and progress. We must also 'right-size' the model for the New Zealand context, recognising the political landscape of local government here and developing structures that work for each region. Strong political leadership and bipartisanship will be important to enable long-term investment and a flexible approach.

Significant lessons were also learned from the English and Welsh experiences with water services provision and the efforts to address legacy issues with sewer and wastewater systems and provide clean drinking water.



Particular attention was paid to Dŵr Cymru Welsh Water as a private not-for-profit company providing drinking water and wastewater services to households and businesses throughout Wales and parts of western England. It receives no government support and avoids shareholder dividends meaning it reinvests revenue back into the business as well as using long-term borrowing to fund intergenerational assets.

This approach has led to asset improvements, service enhancements, and controlled costs to the customer. Regulation is managed by an independent economic regulator specifically for water and sewerage in England and Wales (Ofwat) and funded by licence fees and government support.

Ofwat's success stems from its national perspective and specialised focus. For New Zealand, clear role definitions are required between economic and water quality regulators. An economic water regulator must be specialised and resourced correctly to carry out its role. Do we expect the regulator of supermarkets to be the same organisation that fulfils that function for our water assets and services? Benchmarking and investment in digital technologies can improve industry standards and we should be considering models like Dŵr Cymru Welsh Water if we wish to successfully reform water service provision.

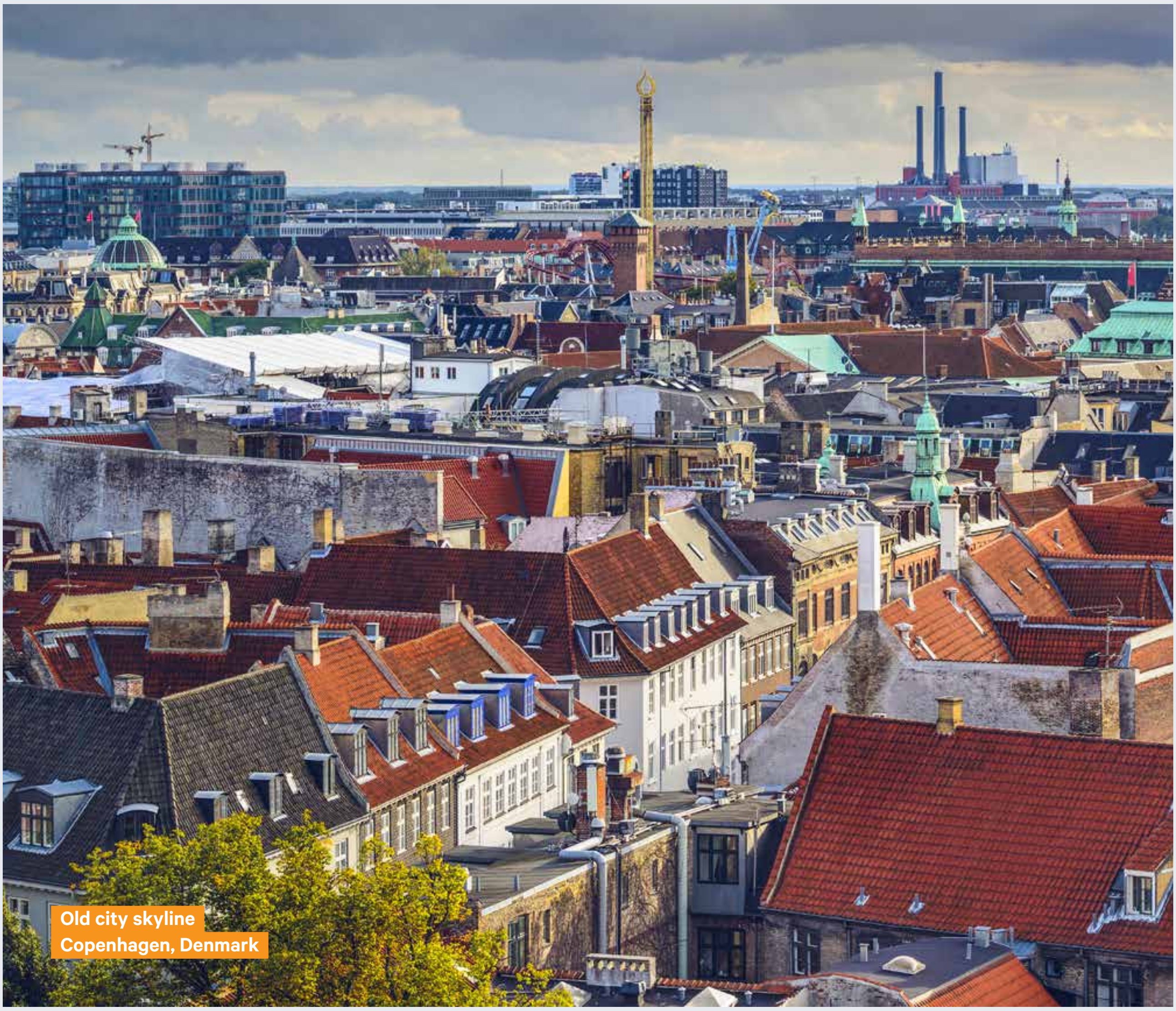
The infrastructure challenges New Zealand faces, whether they be economic, social or environmental, are not new and neither are they unique to us. The countries and cities visited on our two delegations provide innovative solutions as part of their own journeys to overcome similar challenges. They represent, in many cases, positive examples and key lessons to bring back to collectively add to thinking, policy and public debate in New Zealand; with the ultimate aim of influencing decision-makers here. It is now up to us, as an industry, to help redefine the infrastructure debate as an opportunity for New Zealand to also achieve what others already have.

Thank you to all the delegates, and their organisations, who made a significant commitment to participate in the two delegations. Thank you especially to our hosts, sponsors and speakers who took the time to provide us with such valuable insights and lessons that we can now work to apply to New Zealand's infrastructure and development challenge.

Infrastructure New Zealand Delegation to Dublin, Ireland, Belfast, Northern Ireland, Copenhagen, Denmark

Summary of Key Findings

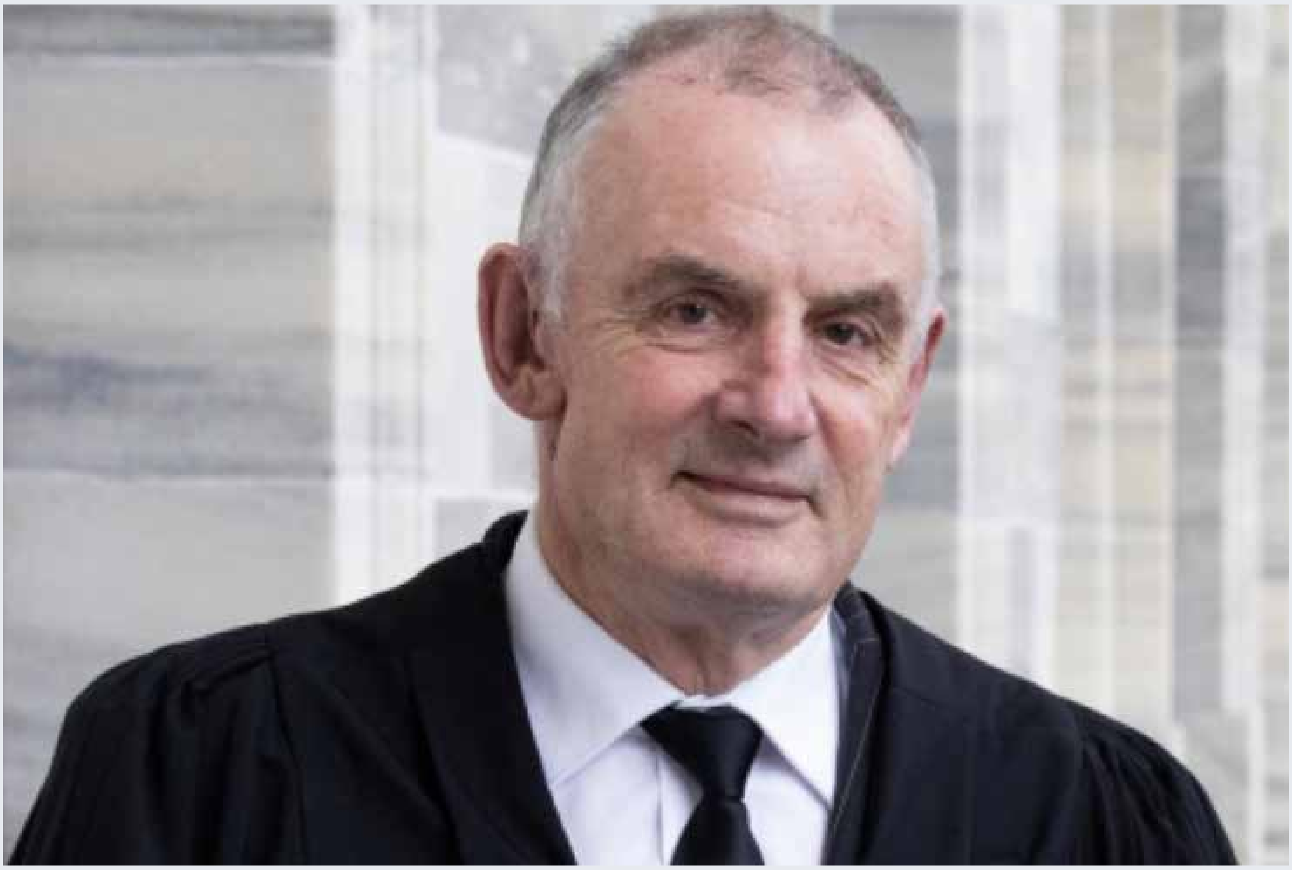
This document represents a summary of our delegation's key findings from our time in Dublin, Belfast, and Copenhagen. The full report, with detailed notes on each session, and insights from each delegate is available by scanning this QR code.



Old city skyline
Copenhagen, Denmark

Foreword

Trevor Mallard, New Zealand Ambassador to Ireland



In the last thirty years Irish real incomes have tripled and income inequality has dropped. There are lots of factors that have helped, encouragement of foreign direct investment, the highest tertiary education levels in Europe, low corporate tax rates and a community acceptance of the need for immigration for skilled workers, have all played a part.

A step change in the quality of infrastructure has also made a vital difference. The roading network is the most visible example but urban public transport including metro trains, trams and bus lanes, and high-capacity reliable electricity and broadband transmission systems are also much improved. Like New Zealand, health and housing construction remain challenges.

European Union finance in the early years of membership was important, Ireland is now a net contributor. But what has been even more important is a pipeline of projects, as part of an agreed core economic policy stretching forward several decades, across all the political parties that have led the government over the last thirty years.

The New Zealand Embassy in Dublin was pleased to welcome the delegation from Infrastructure New Zealand to Ireland, to help open a few doors and have some opened for us. I hope the lessons of the visit contribute towards an improvement in the decision making that lifts the quality of New Zealand's Infrastructure.

Delegation Purpose

The purpose of our study tour to Ireland, Northern Ireland and Denmark was to investigate first hand, understand the workings and importantly, consider how we might transfer some of what we observe for the benefit of New Zealand. Through site visits in Dublin, Belfast and Copenhagen, and presentations and discussions, we learnt how these successful, small nations are delivering national economic, social and environmental wellbeing.

Influencing the appropriate approach to the future of infrastructure planning, funding and delivery in our country is one primary aim. Of course, delegations are also great connectors of people, and an added benefit of previous delegations has been the opportunity to spend rare and valuable periods not only in in self-reflection but also on the generation of new ideas in the company of our peers. Opportunities for networking and collaboration between our private and public sector delegates, as well as with our international experts and hosts, are enormous.

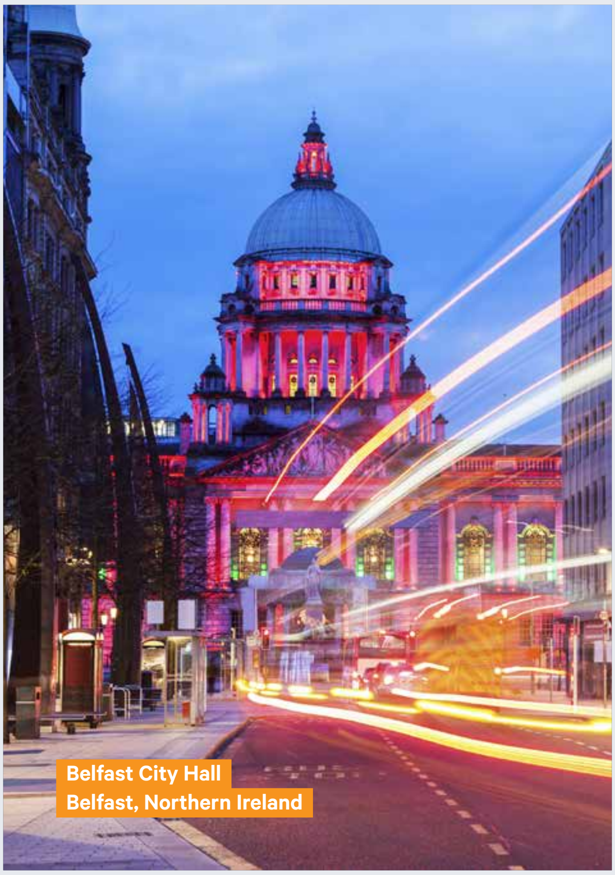
Our first destination, Dublin, has returned from major economic downturn in 2008 to be one of the strongest performing economies in the EU. Investing in the right infrastructure has been, and will continue to be, a significant factor in achieving this growth along with its culture of embracing foreign direct investment in key sectors.

Belfast, the capital of Northern Ireland, is a city of contrasts, with a vibrant cultural scene and a history marked by periods of conflict, notably the Troubles. The city has undergone significant regeneration, with investments in infrastructure and urban development enhancing its appeal as a business and cultural hub. A reasonably recent City Deal and accompanying investment has reinforced its diverse economy driven by sectors such as technology, financial services, film and screen media, and tourism.

Denmark's advanced and well-functioning infrastructure is one of the secrets of its success. The nation uses its comparatively high tax rates to invest in world-class infrastructure of all types, which plays an integral role in their well performing, low-inequality economy. The dynamic between infrastructure and the Danes' well-established social support networks was also of interest to many delegates.

A delegation like this requires a tremendous amount of work and we would like to acknowledge the contribution of a few individuals and organisations who have played an integral role in planning this delegation. We would like to acknowledge the Infrastructure New Zealand team and those at the Irish Embassy, the New Zealand Embassy in Ireland and Sweden and the Infrastructure New Zealand member organisations who have assisted with this impressive one-week itinerary.

We invite you to read our key findings here and continue to engage with the Infrastructure New Zealand team and delegates about how we take these recommendations forward in the New Zealand context as we aspire to improve infrastructure decision making, planning, funding and delivery.



Belfast City Hall
Belfast, Northern Ireland

Thank you to our 2024 Europe Delegates and Hosts

Thank you to our delegates who committed significant time and resources to accompany our team to Dublin, Belfast, and Copenhagen.

These insights and recommendations are not only a reflection of the input from the speakers and sponsors we hosted, but the delegates themselves who brought the full weight of their experience to bear in discussions about lessons learnt from each session. The group has directly contributed to this overview of the trip and will be part of the Infrastructure New Zealand delegation alumni community.

Delegates:

Richard Anderson, Head of Corporate and Structured Finance, Westpac New Zealand Limited

Quintin Blackburn, Senior Principal - Project Delivery, Beca Ltd.

Mair Brooks, Partner, Infrastructure Advisory - Major Projects and Infrastructure, KPMG NZ

Jennifer Caldwell, Partner, National Chair, Buddle Findlay

Ed Cook, Director, Rider Levett Bucknall

Simonne Eldridge, Executive Leader, Clients + Brands, Tonkin + Taylor

Mark Fraser, General Manager, Urban Development and Delivery, Kainga Ora

Mayurie Gunatilaka, NZ Country Leader, Arup

Catherine Hemi, Partner, Frequency NZ

Tuhi Isaacsen, Industry Director, Built Environment, Aurecon NZ Ltd

Nick Leggett, Chief Executive, Infrastructure New Zealand

Michael Loan, Head of Infrastructure, Russell McVeagh

Wei Lu, Head of Investment Banking & Specialised Finance, China Construction Bank, New Zealand

Susan Lucking, Head of Infrastructure, Government & Specialised Finance, BNZ

Liz Maguire, Chief Digital Officer, New Zealand Transport Agency

Michelle McCormick, Policy Director, Infrastructure New Zealand

Anthony McFadden, General Manager, NSW/ACT, QLD & New Zealand. John Holland

Paul Melville, Partner - Infrastructure Advisory, EY

Graham Mitchell, CEO, Crown Infrastructure Partners

Karl Nicholson, Head of Resources, Energy and Infrastructure, ANZ Bank NZ Limited

Issy Pasley, Events and Marketing Lead, Infrastructure New Zealand

Ian Purdy, Head of Direct Property and Infrastructure Investment, Accident Compensation Corporation

Katherine Skipper, Studio Principal, Warren and Mahoney Architects, New Zealand Limited

Jane Small, Group Manager Strategic Development Programmes and Property, Auckland Transport

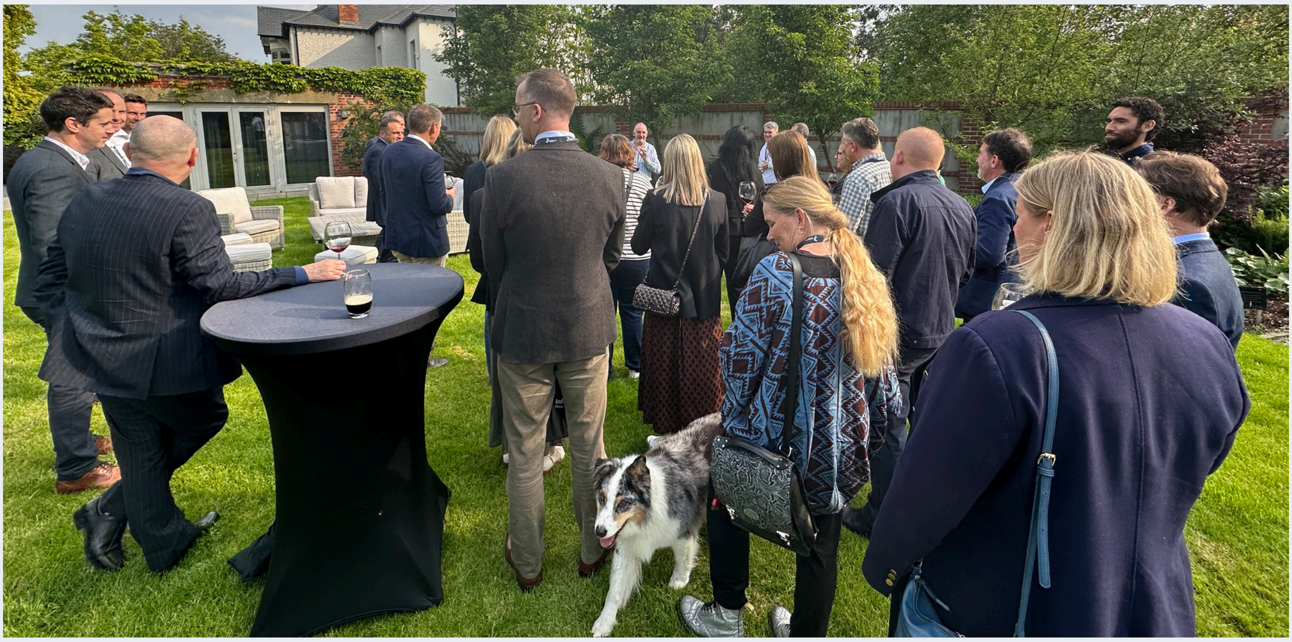
Katrina Van Houtte, Partner, Dentons

David Wood, Deputy Chief Executive, Investment & Monitoring, Ministry of Transport

Fraser Wyllie, Managing Director, NZ & Pacific, McConnell Dowell

Thank you also to our hosts:

Pre-Delegation Briefing and Networking event	**Irish Embassy**	Ambasáid na hÉireann Embassy of Ireland
Pre-Delegation Dinner	**China Construction Bank (CCB)**	CCB
Dublin Welcome and Reception Dinner	**Rt Hon Trevor Mallard and New Zealand Embassy**	NEW ZEALAND EMBASSY Te Aka Aorere
Day One - Dublin	**KPMG**	KPMG
Day Two - Dublin	**Jacobs**	Jacobs
Day Three - Belfast	**Northern Ireland Executive**	Northern Ireland Executive
Day Four - Copenhagen	**ARUP**	ARUP
Day Five - Copenhagen	**EY**	EY Building a better working world



Lessons for New Zealand from Ireland, Northern Ireland and Denmark

Key findings

Both Ireland and Denmark have had interesting journeys in their socio-economic development Post-World War II.

Both Ireland and Denmark have had interesting journeys in their socio-economic development Post-World War II. For a long time, both had lower GDP than New Zealand but now both are materially ahead. Both countries had depopulation issues, with Ireland the starkest, but also the city of Copenhagen suffered a halving of their population. Through key strategic decisions both Ireland and Denmark have recovered with their governments both having a strong macro-economic outlook. They both have made several key decisions (helped by joining the EU, but this wasn't a free gift) to transform their economies post war, which has seen strong economic growth which assets investment into infrastructure. Both have also undertaken major infrastructure projects, especially transport related, either publicly or privately funded and have delivered these at a scale much greater than New Zealand.

Ireland

Ireland's proximity to markets and membership of the European Community has been critical in its ability to attract offshore investment, multinational companies, mobile labour, and provides key policy and regulatory frameworks that impact directly on infrastructure planning and delivery, particularly in the context of climate response.

Ireland is highly integrated into the global economy. Key drivers of productivity higher than the EU average include an educated workforce (noting that free tertiary education was introduced in the late 1990s) and openness to foreign direct investment (including an open and progressive tax regime). While there has been significant investment in key infrastructure there are still constraints, especially in housing, water (particularly supply), energy (transition to net zero) and transport (including electrification of fleet).

Denmark

Danish economic growth has been fuelled by value added products and services. It is a very flat, low lying country and with the exception of the shallow North Sea with its consistent winds, Denmark is not blessed with natural resources. Denmark has had its share of hard economic times, and with considerable foreign debt, it was almost bankrupted as recently as the 1980's.

Since then, economic recovery has been led by value added services and products provided by now global leading multinational companies such as Carlsberg (Beverage), Maersk and DSV (Logistics), Novo Nordisk (Pharmaceuticals) and Vestas (Wind Energy). Like Ireland, big pharmaceuticals have been a key GDP (and GVA – gross value added) generator for this recovery. Novo Nordisk, Denmark's successful pharmaceutical company, produces 12% of Denmark's GDP (compared with tourism at 10%, for example) and the GVA produced by Maersk is even higher. Denmark is part of the EU, but has not joined the Euro, and has an open border arrangement with some EU countries providing access to human resources, which also helps to fuel its economic growth.

Political Coalition and Economic Management

Ireland

Political Coalitions and Social Partnerships:

Ireland's political coalitions created plans to manage the economy by forming partnership programs that encouraged industrial peace, fair wage growth and reduced tax burdens. These compromises ensured stability and economic growth.

Economic Stability:

Despite changes in political power, there has been consistency in enterprise policies, focusing on attracting and retaining businesses through favourable R&D and tax policies. This has led to significant foreign direct investment (FDI) and economic growth, with FDI jobs employing a substantial portion of the workforce.

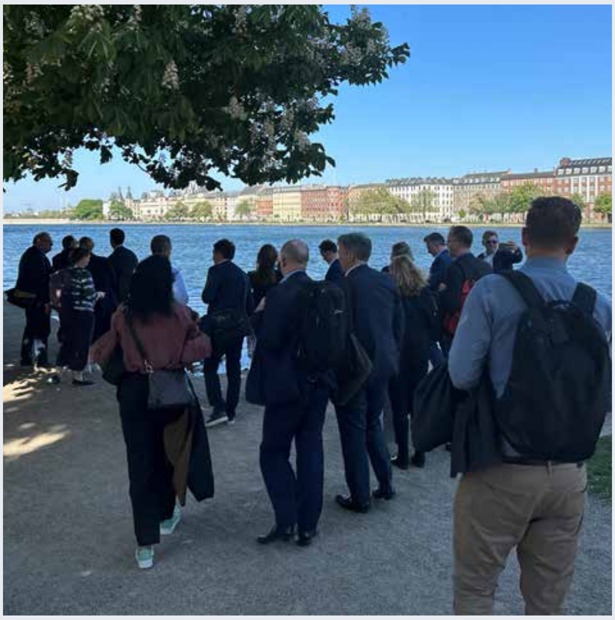
Denmark

The Danish political system supports great infrastructure planning and delivery. With its 16 representative political parties, governments do not have majority mandates, and this requires political parties to work together. This political consensus building and its four-year political term, provides a great platform for efficient infrastructure planning and delivery.

All parties agreed the Public Transport Plan, and all parties, except the Green Party, agreed to Denmark's Road Plan. As an example of how this works in practice is that all political parties' transport representatives meet weekly to discuss and agree Denmark's long term transport plans. Essentially this was explained to the delegation as an unofficial bipartisan agreement driven by collaboration. As a result, transport/infrastructure issues rarely feature in elections. Infrastructure plans are agreed in the background and long-term planning and execution is enabled and efficient.

Key insights and recommendations for New Zealand:

- **Form inclusive political coalitions** - New Zealand should form broad-based political coalitions and social partnerships to develop economic plans that promote industrial peace, fair wage growth and tax reforms.
- **Consistency in economic policies** - Maintaining consistent economic policies across political changes can attract and retain businesses, driving economic growth.
- **Seek bipartisan long term political agreement** – In order to make sustained progress on infrastructure development and address critical gaps, New Zealand should take steps to achieve long term bipartisan political agreement on significant infrastructure plans and investments such as transport.



Relationship between vision/national policy and delivery/funding plans

Ireland and Denmark have clear national visions which are encapsulated in national policy and flow through different hierarchical level plans. But most importantly there is cohesion across different sectors and investment plans to support the implementation of the plan and realise progress towards the vision.

Ireland

Project Ireland 2040 combines the twin pillars of the National Planning Framework (NPF) and the National Development Plan (NDP), which provide crucial integration between land use and infrastructure delivery.

The NPF identifies where urban growth should be located (regionally balanced, city-focused and compact) and requires regional spatial planning. The NPF triggers a domino effect, influencing regional and local plans which are developed by 31 city and county councils. These local plans must align with the NPF, ensuring cohesive and comprehensive planning. The NPF ensures that all levels of government work towards common strategic goals. This reinforcing of the vision through the planning instruments and across government sectors provides a powerful more cohesive framework.

Ireland's NDP outlines a long-term capital investment plan, providing clear funding allocations and priorities. This 10-year investment strategy currently allocates €165 billion to infrastructure projects that align with the NPF priorities including housing, transport and climate change interventions. Ambitious investment is envisaged but delivery has been challenging. The NDP was reviewed in 2021 to ensure alignment with the NPF.

Key insights and recommendations for New Zealand:

- **The importance of hierarchical planning framework including spatial plans** - There is no shortage of land use planning in New Zealand, but in the absence of either a spatial planning mechanism (such as was provided by the now-repealed Spatial Planning Act 2023) or an integrated infrastructure delivery plan (with funding allocation), progress towards achieving the NPS objectives will be slow.
- **Independent planning oversight** - New Zealand should consider if there is a need for independent planning oversight similar to the Irish Office of Planning Regulator. As the planning context becomes more complex, the need for oversight of compliance and alignment with Government policy (and in Ireland's situation, EU environmental directives) should be considered.

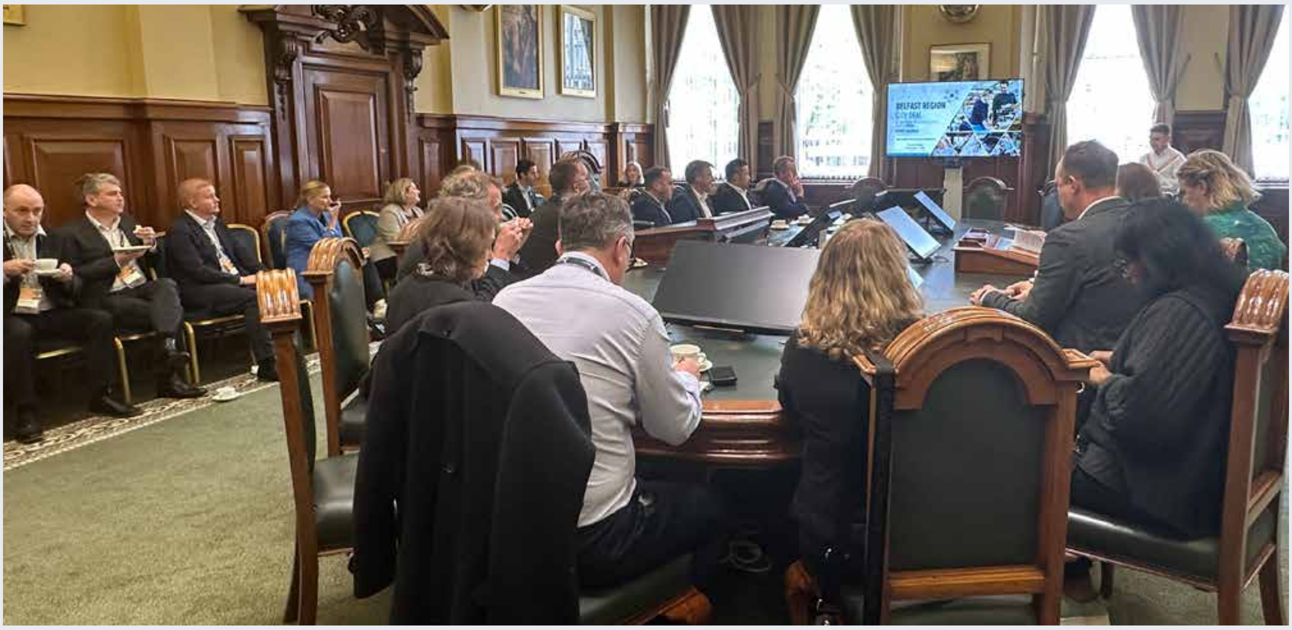
Belfast

Place based agreements, such as the Belfast Region City Deal, take time to develop but can galvanise strong partnerships and transform a region's economic landscape. The foundations of the Belfast Deal were laid by a comprehensive understanding of the region's economic strengths, weaknesses, and aspirations, and being clear about the strategic sectors that should be invested in and enhanced.

- In the Belfast example, funding comes from councils, universities, the Northern Ireland Government, the UK Government, and the private sector. Emphasising private sector involvement ensures all stakeholders have a vested interest in the projects. The focus is on collective investment rather than asset revenue. Effective governance is the deal's backbone, along with regular reporting against the agreed KPIs, but with a long-term view taken to the achievement of the outcomes. A dedicated Project Management Office that coordinates the programme of activities is also important.

Key insights and recommendations for New Zealand:

- **Successful city deals need to be targeted and specific** – You cannot do everything. The development of city delas require analysis of strengths, weaknesses, where the region wants to head, and then use this to choose specific areas for focus, then identify projects.
- **The important of having a broad range of partners** – Deals should be wider than just central and local government. Universities are key, especially if technology/innovation is a focus.
- **Need to withstand changes in the founding parties** – Ensure deals signed with central government can weather changes in the political landscape.



Denmark

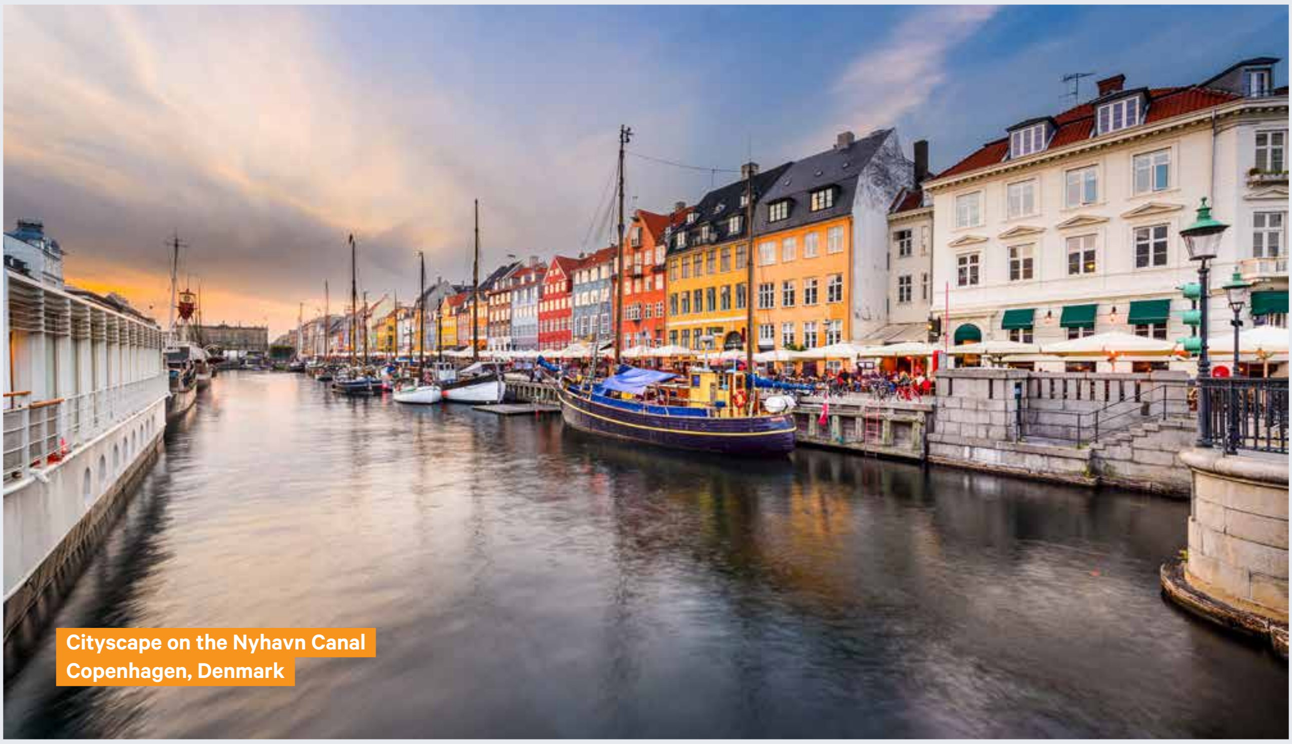
Collaboration is a key feature in Denmark's success as a country. Vision and values are translated into the planning framework and into not only their physical infrastructure but also their social infrastructure. Danes are generally proud of their social infrastructure and what their high-income taxes (circa 50%) provide them in term of their lifestyle and the quality of their built environment.

Urban life is dominated by positive thinking – "what is a good life?" In Denmark this has clearly translated into widely accepted concepts such as:

- No urban sprawl – consent is able to be obtained for compact city living which is high quality
- Great architecture and urban design
- "Facing the water" and being able to swim in clean water is important

Key insights and recommendations for New Zealand:

- **Establish a clear vision and agreement as a society as to what's important –** There is an opportunity for New Zealand to learn from this to be prosperous and retain the things that are important to us.



Cityscape on the Nyhavn Canal
Copenhagen, Denmark

Infrastructure Planning and Delivery

Denmark is looked to as an international exemplar for infrastructure planning and delivery. Both Ireland and Denmark have undertaken a programme of very large infrastructure projects and have the systems in place to achieve this. Both countries have utilised legislation to ensure that significant projects are cemented in place.

Both Copenhagen and Dublin are smaller than Auckland in population but have metro and light rail systems which are the focus of on ongoing expansion. The value of high quality inter-regional road connections is also recognised. All have been planned and delivered over a period of time which supports wider economic activity. Both jurisdictions have a mature approach to risk allocation around who is best placed to manage this, and this was evident in their procurement and delivery.

Ireland

Ireland looks to Denmark in terms of their large project governance and delivery expertise. Updated guidance for governance of major projects has been developed which now requires independent external review of projects over €200 billion at key milestones by a major project advisory cross agency group.

Implementation of NPF and NDP is monitored with publication of an Investment Projects Tracker every 6-9 months. Interestingly the construction sector group ensures regular open dialogue between Government and the delivery sector to secure skills pipeline, drive productivity improvements, improve value for money and focus on ensuring a sustainable construction industry.

Denmark

The Danish political system supports great infrastructure planning and delivery. Transport or infrastructure issues are rarely feature in elections, which means infrastructure plans are agreed and long-term planning and execution is enabled and efficient, without politically based start stop interventions.

Key insights and recommendations for New Zealand:

- **Re-establish regular construction sector dialogue with government –** Regular engagement with the construction sector on key projects has helped these run smoothly once projects are underway.
- Periodic external scrutiny of project affordability, and deferral of final decisions pending updated business cases appear to be worthy of consideration in New Zealand also.

Innovative Funding

Both Ireland and Denmark have utilised innovative funding and financing mechanisms for infrastructure and take a long-term view on these key assets.

Ireland

Public-Private Partnerships (PPPs) are used in about 30 live projects, mostly in transport, schools and water infrastructure. The PPPs align with the NDP which also further allocates €165 billion across various departments/ sectors/regions to align with NPF priorities. Private investment is currently mostly in housing and education, while transport infrastructure is now mostly state funded except for the Metro (Dublin city to airport).

Ireland has evolving access to sovereign and private funding now. Transport is the best success story with their strategic motorway network funded by EU cohesion funds and the European Investment Bank. The Irish Development Authority's (IDA's) 75-year-old long-term strategy to attract foreign direct investment, has been supported by a consistent pro-business approach across successive governments. The IDA delivers development ready land to market, focused on attracting inbound investment in centres of expertise (pharmaceuticals, medical technology, software etc).

The Irish Strategic Investment Fund (ISIF), a former sovereign wealth fund, now a development fund with priorities including food and agriculture businesses, climate-related infrastructure and housing, enables investments e.g. expanding Irish port capacity to enable delivery of offshore wind. For smaller projects, the ISIF provides a "patient source of long-term capital", crucial for some projects to be viable and not available from the private sector. The payback period can be longer provided it is still commercial. On residential developments, the ISIF can fund lead infrastructure up front then a fee is charged on the sale of each site when development is complete. The ISIF can take on higher risk than private sector would be comfortable with and is also able to remain invested for a longer period to recoup an acceptable return (e.g. a 30 year period to get the full return).

Ireland's attitude towards FDI has been characterised by a welcoming and supportive environment. The country has consistently prioritised creating a stable, business-friendly atmosphere. Key elements of this strategy include competitive corporate tax rates, investment in education, and infrastructure improvements. There is also a strong emphasis on maintaining political stability and providing a consistent policy framework that supports both indigenous and foreign enterprises.

FDI has been a cornerstone of Ireland's economic policy, significantly contributing to the country's rapid economic growth, particularly during the Celtic Tiger period (mid-1990s to mid-2000s). Multinational companies, attracted by favourable conditions, have established operations in Ireland, driving job creation and technological advancements. Today, FDI accounts for a substantial portion of Ireland's GDP and employment, with foreign-owned companies employing around 12% of the workforce.

Denmark

Denmark also uses innovative private financing especially with the Copenhagen land and metro development model. They also utilise the limited government debt guarantees to fund major bridges and tunnel connections.

Mega projects are financed by central government with its favourable financing options. The government's AAA credit rating is used to secure low-cost finance for Denmark's infrastructure, including water.

The Mega projects all have very strong drivers for revenue capture (e.g. the ability to set tolls for roads significantly less than pre-project ferry tariffs, with no or significantly longer alternative routes).

Key insights and recommendations for New Zealand:

- **Effective use of PPPs** - Implement PPPs judiciously, learning from Ireland's experiences to avoid potential pitfalls and ensure efficient project delivery. New Zealand needs to look to expand sources of funding for infrastructure.

Cityscape on the Nyhavn Canal
Copenhagen, Denmark

Water Regulation, Funding and Management in Ireland and Denmark

It was interesting to contrast the different approaches to water service provision between Ireland and Denmark. The focus has been on water investment, especially wastewater, and improving waterways due to EU requirements. Both countries had economic regulation and widespread utilisation of water meters with full regulation of the sector (same in UK).

Ireland is still undergoing a full transition to one water service provider, Uisce Eirann (Irish Water) which has control of all water and wastewater with 80% of this being central government funded. The distribution/collection networks are old and bigger than they need to be with high levels of leakage (33% of water in Dublin is lost due to leakage). Leakage as well as a lack of user charges means demand is very difficult to control. Unfortunately, the domestic user charging model collapsed in 2016 due to public pushback and lack of political commitment (though all households are metered).

Water shortages are forecasted due to climate change. Steps are being taken now to pipe freshwater from the Shannon River in the south (170 kilometres away). This project has a 10-year timeframe including a business case, spatial planning and a public hearing process.

By contrast, Denmark has maintained local control of water service providers. 65% of water works (by volume) are municipality-owned, while 35% are community-owned cooperatives. Despite some consolidation, local ownership of water assets is preferred. Water companies share efforts in certain areas while retaining local ownership and contracting delivery to the private sector. Denmark also relies entirely on groundwater and culturally, it is considered unacceptable to consume surface water.

Metering is very high and there is consumer acceptance of charging. This means that the water services companies recover all of their costs from users (based on metering) and there are no tax grants to the water sector. The user pays model and the structural separation of water companies from municipal balance sheets has been successful, although pricing will come under pressure in the future as capex requirements increase (in particular to address the increasing investment required for climate adaptation).

Key insights and recommendations for New Zealand:

- **Metering and user chargers are important but need to have consumer understanding too** – The pricing system is based on full cost recovery and user pays, subject to regulated revenue caps. Not only does this approach generate revenue but even more importantly it directly drives consumer behaviour and reinforces water conservation.
- **Consider climate change impacts on water provision now** – Forecast changes in rainfall and its location are being planned for now.

Transport Infrastructure

Both Copenhagen and Dublin have achieved a lot in transport infrastructure given they are of smaller size and population than Auckland. Copenhagen has four metro lines (is starting to build a fifth), a major regional train network and international roading links. Dublin has light rail, a tunnel under the city, excellent regional connectivity through motorways (some of which are tolled and developed using PPPs) and a new metro (which will have a PPP element).

Belfast has developed the Gilder rapid transit system along its east – west corridor and plans to add a north-south corridor.

There is real ambition in all three cities in terms of transport system provision and a good understanding of how good access supports the wider economy as well as social interactions.

All modes (walking, cycling, public transport, road and rail) are considered vital in Ireland and Denmark and have a clear place in national transport strategies and plans. In Ireland, this national direction is translated at the local level through specific city strategies which also contain clear targets. Transport plans are supported by funding from general taxation with a few additional user-pays projects.

Denmark has also delivered significant user-pays/public-private mega projects, including the Great Belt Fixed Link to Norway, the Oresund Fixed Link to Sweden and the Fehmarn Belt Fixed Link to Germany. These projects justify a user-pays approach due to their inability to be funded from the state budget, the public's familiarity with paying for travel, lack of free alternatives and the associated significant travel time reductions of using these routes. The projects are managed by state-owned companies responsible for planning, construction and financial management, with funding raised through state-guaranteed loans repaid by tolls. It's anticipated that the tolls will remain once the loans have been repaid.

The Copenhagen Metro is owned by three public entities (Danish State, City of Copenhagen and the City of Frederiksberg). It has a "5-finger" design plan with metro lines being built radiating away from the city circle along five corridors and carries 120 million passengers per annum. Autonomous electric trains depart every 1.5 minutes, 24 hours a day and have a 99%+ reliability rate. Capex costs for Metro have been funded by land sales, including the development of the initial metro line . The first development was south of Copenhagen in 2002, which cost €6 billion. The same approach will continue with the Lynnetholm development. The Risk sits with Metro, but it is funded by a government loan with operational surpluses repaying the loan over a 40 year period.

Key Metro design aspects:

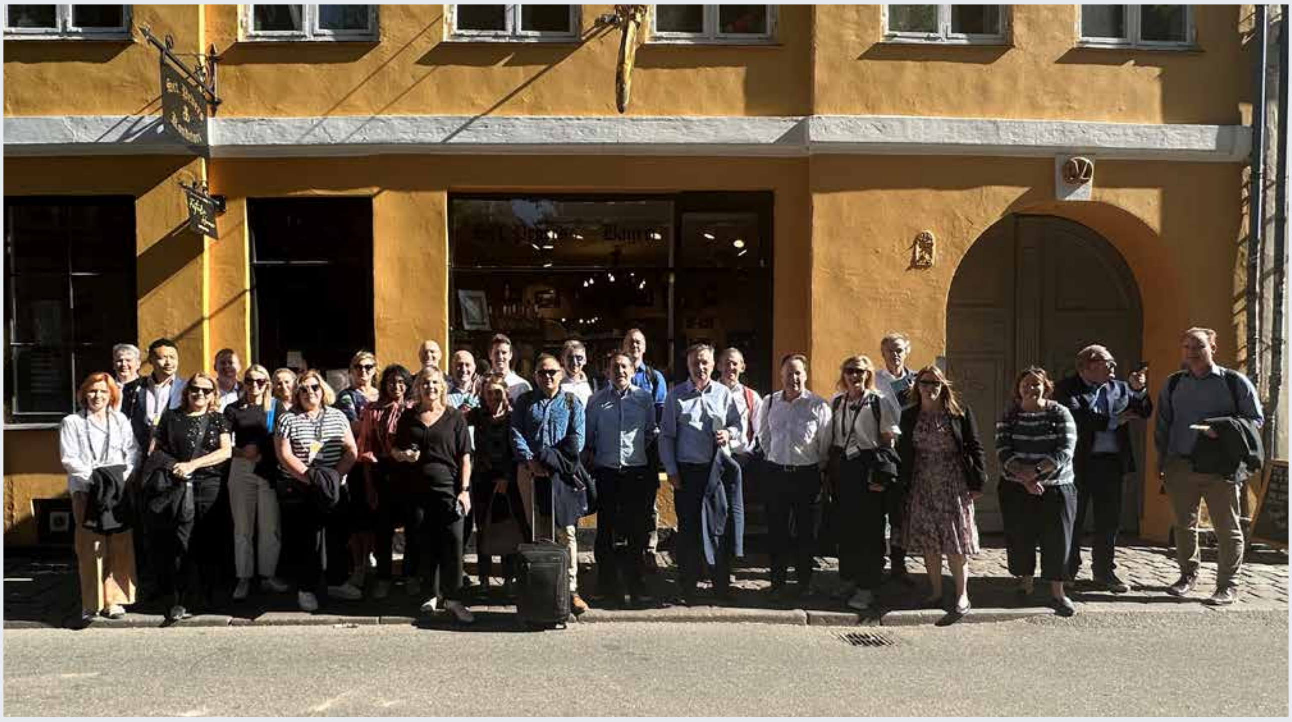
- Small trains, high frequency (three car trains, 39 metres long, 350 people per train). Potential to extend to four trains to increase capacity by 30% (stations have been sized to allow for this expansion if required).
- Station size kept as small/shallow as possible as this reduces capex and maintenance costs. Stations focused on people entering and leaving rather than 'lingering'. Electronic ticketing used with tap on, tap off function. Small stations require less space and are cheaper with standardised designs used. Shallow tunnelling is also more cost effective

Planning is underway for net Metro Line extension (M5) and the Danish government is looking to utilise more collaborative forms of contract with the main Contracting Entity.

On a smaller scale, as a component of the Belfast City Regional Deal, Belfast chose a cost-effective and flexible public transport option over more advanced modes, such as light rail. Light rail was rejected due to being estimated to cost three times the costs of a Bus Rapid Transit (BRT) system. Recognising potential negative perceptions of a BRT system, Translink developed a comprehensive strategy to address this, including branding using the Glider name, distinctive bus design and a targeted marketing strategy. The bus stop design incorporates off-board ticketing, public art and real-time journey information, differentiating it from other city bus services.

Key insights and recommendations for New Zealand:

- **Integrated planning** – Develop comprehensive transport strategies for major urban areas, similar to Ireland's approach. There is also an opportunity for New Zealand to leverage the Danish approach to longer term planning as well as utilising their funding Special Purpose Vehicle.
- **Major project funding** – Copenhagen have adopted an innovative approach to sourcing funding by selling/developing land. What innovative approaches could New Zealand consider to supplement funding for major infrastructure projects?
- **Ensure there is clear design 'intent' for any future metro, light rail or rapid transit projects in New Zealand** – Consider the need for eight-to-nine car trains that many metros adopt. Copenhagen's approach of small, high frequency trains reduces capex and opex costs, as well as carbon footprint. Station design is all about moving people in and out quickly. Keep design for station 'boxes' to the minimum and where possible as close to being within the cross-section/envelop of the tunnel itself. As above, this generates significant costs savings.
- **More collaborative form of contract** - Note Copenhagen Metro's intent to establish a more collaborative form of contract with contractors for the upcoming M5 Metro Extension project. Similar to the efforts of the New Zealand Construction Accord, Infrastructure New Zealand should continue to advocate for this to major government agencies such as NZTA, AT, Kiwirail and Watercare.



Climate Change and Resilience

Copenhagen and Dublin are both focused on climate change and building resilience within their infrastructure. Viewing these challenges as opportunities has enabled these countries to take a long-term approach but build in short-term actions to address immediate resilience issues while remaining agile to deal with the future environment and adverse impacts.

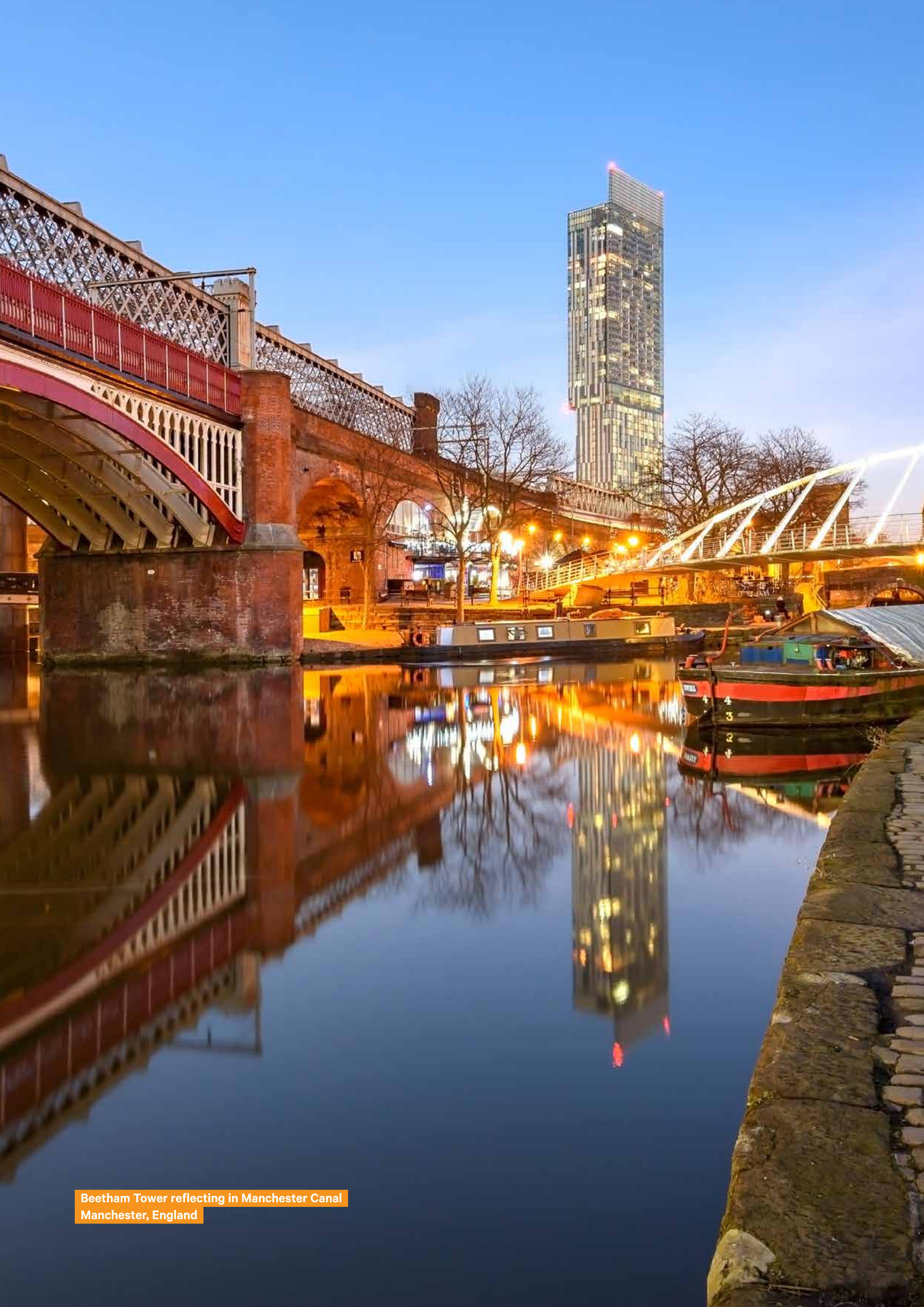
Ireland East Coast Railway Infrastructure Protection Projects (ECRIPP) is a critical initiative aimed at safeguarding the scenic railway along the coast south of Dublin. This 65 kilometre route is particularly exposed to coastal erosion and the effects of climate change. The ECRIPP project was developed to ensure the long-term sustainability of the corridor and to support a climate-resilient society. The initial phase of the project involved extensive data collection through various methods. Based on the data gathered, several potential solutions were scoped, such as rock revetments, groynes, curved walls, beach nourishment, breakwaters and seawalls.

Funded by the Department of Transport, the ECRIPP project faces unique challenges typical of coastal management projects. The planning process involves a two-stage approach. The first stage consists of creating a long list of solutions and assessing their feasibility. The second stage uses a multi-criteria analysis to evaluate these options comprehensively. A risk-based approach, incorporating a risk matrix, helps prioritise spending to maximise the project's impact.

Following a major cloudburst event in 2011, Copenhagen was prompted to develop a comprehensive water management plan, following the natural flow of water. This plan involves surface infrastructure projects with an implementation period of 20-30 years. Looking longer term and a solution to address storm surges and coastal erosion has seen the development of a 50-year solution. This initiative is Lynetteholm, a major reclamation project at the mouth of the harbour. It is also a new major urban development project that will finance new metro-lines and a new bypass. It solves three problems – financing infrastructure, protecting against flooding and reducing pressure on housing market. It is on a large scale and will provide housing in future for an estimated 35,000 new residents and should be completed in 2070.

Key insights and recommendations for New Zealand:

- **Climate change challenges offer opportunities** – A long-term vision (up to 2100) can underpin key transport corridors such as Ireland's East Coast railway by focusing on maintaining and protecting existing infrastructure, rather than looking to an entirely new and much more expensive solution. While addressing climate change resilience challenges also look to see what other issues can be addressed with one solution, over the long-term.



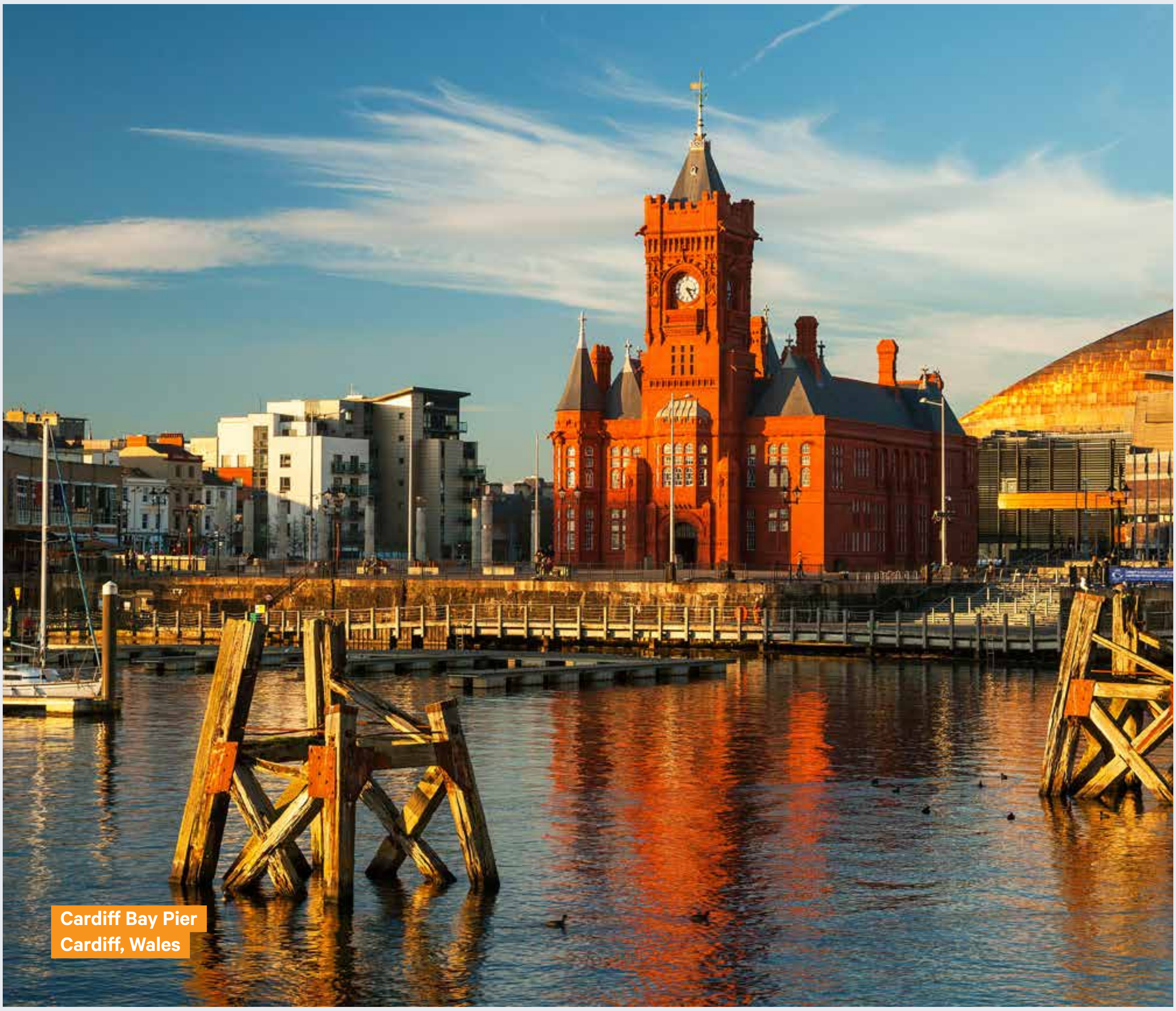
Beetham Tower reflecting in Manchester Canal
Manchester, England

Place Based Solutions: Learnings from the UK

Infrastructure New Zealand Delegation to London, Manchester, Cardiff, United Kingdom

Summary of Key Findings

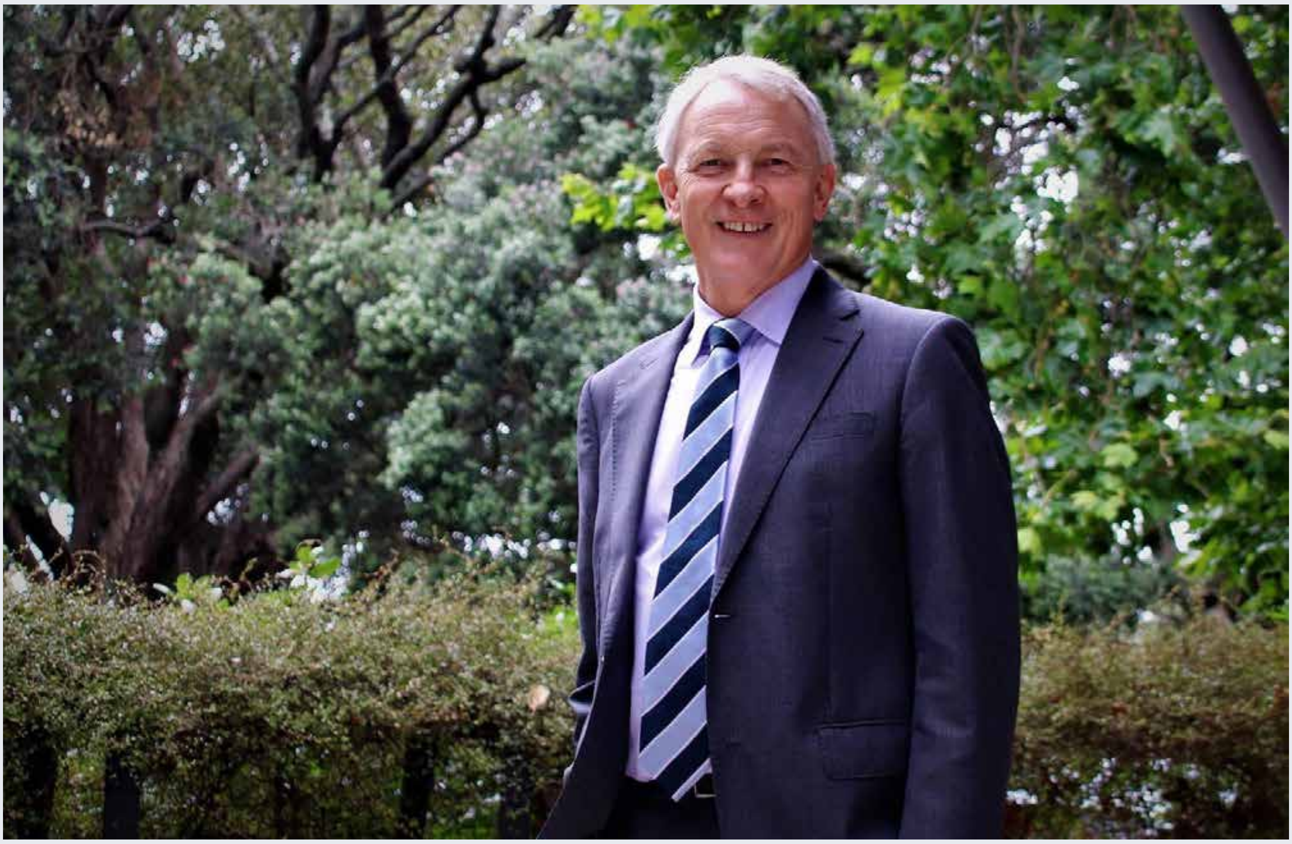
This document represents a summary of our delegation's key findings from our time in London, Manchester and Cardiff. The full report, with detailed notes on each session, and insights from each delegate is available here.



Cardiff Bay Pier
Cardiff, Wales

Foreword

Phil Goff, High Commissioner of New Zealand to the United Kingdom



It was great to connect with the Infrastructure New Zealand delegation visiting London in June of this year.

On a personal basis, it was good to renew associations with friends and colleagues I have worked with in public life in New Zealand.

The delegation represented a cross-section of people from the business world and local government with strong experience in infrastructure development, keen to learn what has worked well, and what hasn't, in building infrastructure in the United Kingdom.

The value of such delegations visiting here lies in what they can gain from the experience of a country which while much larger is similar to ours in terms of its system of government, laws and market economy.

Transport, water infrastructure, housing and stadiums, among the key areas examined by the delegation, are all issues the United Kingdom has had to confront.

The challenges New Zealand faces are mirrored by those central and local government in the United Kingdom are also having to deal with.

Solutions applied here provide the opportunity for us to avoid pitfalls others have experienced as well as to learn what has worked well.

One broader lesson is that the time it takes to plan and develop infrastructure is considerably longer than the term of elected office of local and central governments. Involvement of opposition parties by government on a bipartisan basis should be considered as a way to ensure the continuity that is needed to successfully develop long-term infrastructure.

Infrastructure development should be evidence-based and I hope that the Infrastructure New Zealand delegation has gained valuable insight from the projects that they visited in the United Kingdom which can in turn be applied to the challenges they are grappling with at home.

Delegation Purpose

London Skyline
City of London, England

Aotearoa New Zealand must chart a new course with the way we plan, fund and build our infrastructure. Success will not come from a centrally driven strategy where Wellington alone decides the infrastructure priorities of regions and cities. We must build a revised system of shared responsibility for planning, funding and delivering infrastructure.

There is growing consensus on the need to access new funding mechanisms – and to power up local and regional governments to enable them to create their own destiny by driving and building projects that better meet the economic and social needs of communities. For this to be achieved, local government must be a stable and mature funding and delivery partner for both central government and private partnerships.

We've relied too heavily on central government as the saviour to our challenges for too long – and they have proven they don't have the understanding or sophistication to truly power up in the way our cities and regions need. Aotearoa New Zealand tends to be inward in our search for models and systems that will assist in improving the faster building of better infrastructure.

Over a number of years, Infrastructure New Zealand has led a series of international delegations focused on what other nations are doing to unlock the opportunities through better funding and delivery partnerships between the different levels of government – and the private sector.

On this trip, our focus was on learning lessons on devolution deals in their many forms, and the state of water regulation, funding and service provision across England and Wales.

We also heard from leaders focused on delivering major projects, organisations committed to local regeneration at place, and took on board lessons from the evolution of the UK's Public Private Partnership model.

We invite you to read our key findings here and continue to engage with the INZ team about how we take these recommendations forward for
New Zealand.

Thank you to our 2024 UK Delegates and Hosts

Thank you to our delegates who committed significant time and resources to accompanying our team to London, Manchester and Cardiff.

These insights and recommendations for the future of New Zealand's local and central government relationship, and water service provision are not only a reflection of the input from the speakers and sponsors, but the delegates themselves who brought the full weight of their experience to bear in discussions about lessons learnt from each session. The group has directly contributed to this overview of the trip and will be part of a community of delegation alumni committed to taking these recommendations forward in the months and years to come.

Delegates:

Darrin Apanui, Rangitāne Tū Mai Rā Group CEO and Chair of the Wellington Regional Leadership Committee, Rangitāne Tū Mai Rā Group/Wellington Regional Leadership Committee

Campbell Barry, Mayor, Hutt City Council

Vanessa Blakelock, Partnership Director, Local Government Branch, Department of Internal Affairs

Anna Bridgman, Operations Lead, Water, Stantec

Fiona Carrick, Chief Executive, Te Waka – Waikato Regional Economic Development Ltd

Waid Crockett, Chief Executive, Palmerston North City Council

Matt Greer, Lead Political Adviser, British High Commission

Marty Greenfell, Chief Executive, Tauranga City Council

Angela Harford, Partner, Bell Gully

Tonia Haskell, Chief Executive, Wellington Water Limited

Rupert Hodson, Northern Regional Manager, Beca

Campbell Jensen, Head of Public Sector Advisory, RCP

Christine Jones, General Manager Strategy, Growth & Governance, Tauranga City Council

Nick Leggett, Chief Executive, Infrastructure New Zealand

Ken Macdonald, Sector Director – Water, Tonkin + Taylor

Ceinwen McNeil, Director, Central and Local Government, Aurecon

Linda Meade, Director, Kalimena

Martina Moroney, Advocacy and Strategy Lead, Infrastructure New Zealand

Issy Pasley, Events and Marketing Lead, Infrastructure New Zealand

Bevan Peachey, Partner, Russell McVeagh

Daran Ponter, Chair, Greater Wellington Regional Council

David Simpson, Executive General Manager – Regional Infrastructure, HEB Construction

Sarah Sinclair, Chair and Partner, MinterEllisonRuddWatts

Mike Theelen, Chief Executive, Queenstown Lakes District Council

Nigel Tutt, Chief Executive, Priority One Western Bay of Plenty Inc

Megan Tyler, Director Policy, Planning and Governance, Auckland Council

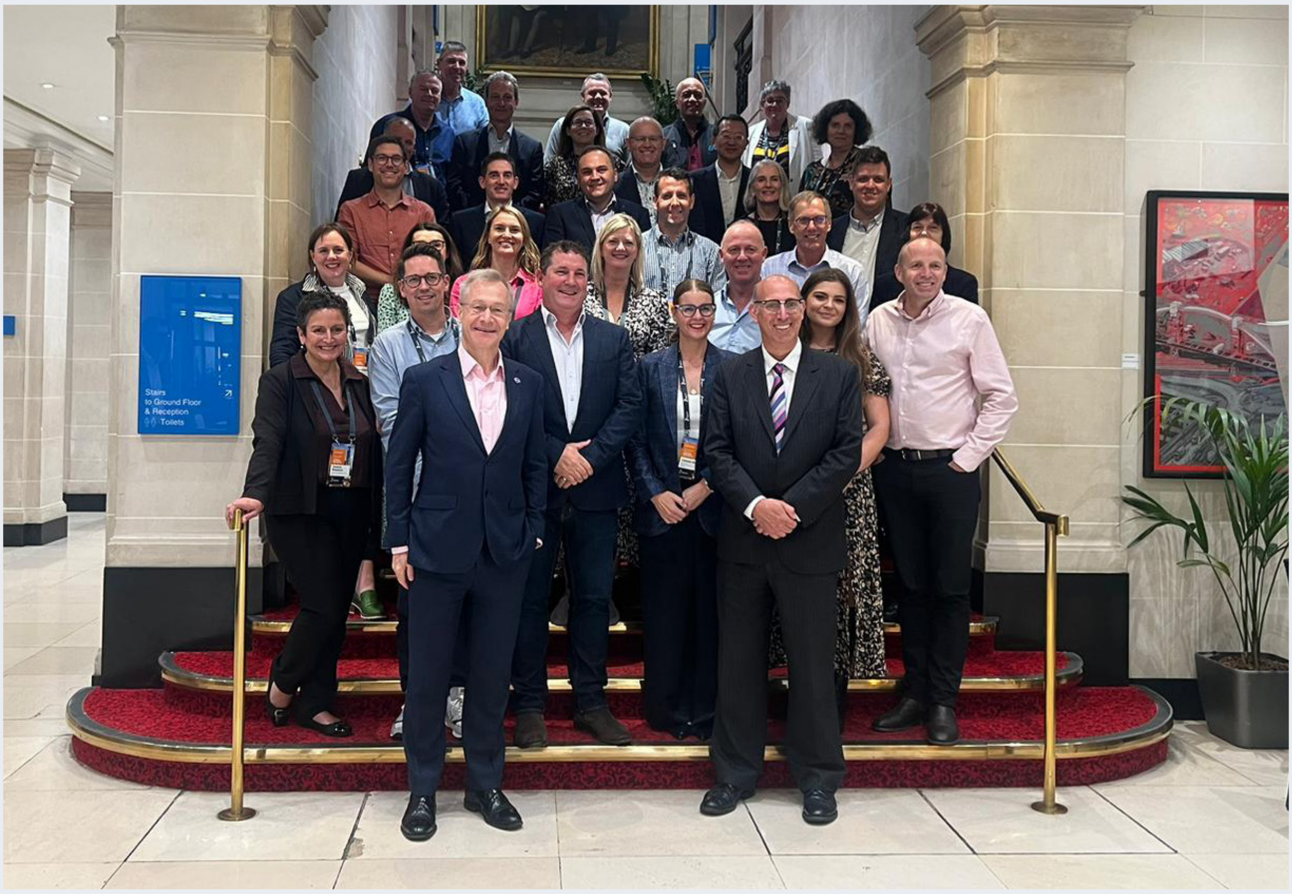
Andrew Wang, Deputy CEO, ICBC NZ

Greg Wise, Partner, Chapman Tripp

Sean Wynne, Deputy Chief Executive, Crown Infrastructure Partners Limited

Thank you also to our hosts:

Pre-Delegation Dinner	**ICBC New Zealand**	
Day One - London	**RPS Group/TetraTech**	
Day Two - London	**HEB Construction**	
Day Three - Manchester	**GHD**	
Day Four - Manchester	**Arup**	
Day Five - Cardiff	**Stantec**	



Lessons for New Zealand from the UK

Key findings

The UK's commitment to devolution, water regulation, funding and service provision and major project delivery have in common a commitment to long-term vision and have been driven by bold political leadership at multiple levels.

The UK's devolution deals offer up an example of how deep partnership, long-term investment horizons and improved capability for local government to be a real partner for central government can shift the dial on growth for regions. New Zealand must commit to rebalancing the local and central government relationship and to engaging deeply with iwi, civil society and the private sector to drive improved outcomes as it considers the future for regional deals.

England and Wales' experience with water regulation, funding and combined sewer overflows demonstrates the value of designing for the tensions inherent to regulation from the beginning. As New Zealand develops economic and environmental water quality regulation in the coming years, and as councils consider the future of their entity or shared services models, the insights we have gleaned from the discussions with water sector leaders will be invaluable. The Dŵr Cymru Welsh Water model provides a reference point for councils in New Zealand as they grapple with the next stage of water reform.

Devolution Deals in the UK

The UK has recognised that strong political leadership, long-term certainty, flexibility and devolution of activities to local government are key drivers of a region's success. Lagging productivity and regional disparities have driven a conversation about devolution which has led to 64% of the UK being part of a City, Region or Town deal.

The form and function of agencies leading devolution have changed as governments have. Regional development agencies, initially a board-led business model, were replaced by regional governments, such as the Greater London Authority and Greater Manchester Combined Authority, which brought together multiple authorities. The current structures present a menu of devolution options – City, Region and Town Deals. These are long-term agreements between councils or a combined authority and central government which devolve responsibilities to local government, are accompanied by significant funding and are able to evolve and change over time. They have been used as a vehicle for regional coordination at the council level.

Successful deals have had additionality at their heart and brought local and central government alongside the private sector and civil society. The question should be: 'What will a regional deal bring to economic growth and progress, that wouldn't otherwise happen?' This must be defined by central and local government together, not merely local government and it must be at the core of the deal.

Across the UK, combined authorities and partnership arrangements have taken control of education budgets, evergreen investment funds and transport authority powers, among others. Growth functions have been taken seriously and the alignment for administrative borders for public service at place has been a focus of many deals. Local authorities have driven deal negotiations based on the principles of local consent and flexibility, with local priorities front and centre in deal negotiation.

Thirty-year funds have also been a key feature of deals' success. Alongside incentives for growth, regions are able to borrow against the funds to make strategic investments over time. A Single Settlement basis for deals is now being trialled, moving away from individual central government agency chief executives being accountable to Parliament for individual funding allocations. Activity-based capital funds are now moving to a single fund with further devolution of priorities and flexibility to transfer between focus areas. It is being trialled first in Greater Manchester and the West Midlands. Future deals will also include greater scrutiny protocols and stricter criteria, with five-yearly gateway reviews.

Alongside the funds, new funding and financing tools for local governments have played a central role. The retention of business rates has allowed regions to benefit directly from the growth that their investments support.

Whether a City, Region or Town Deal, having a functional economic area is critical, as is understanding what powers are needed to give effect to the deal. Post-industrial place-based regeneration is a key driver of the narratives that drove the unique rationale for many of the agreements. Regions partner with the private sector and civil society actors – including universities, to invest strategically and deliver at place.

This ability to catalyse the private sector to contribute to strategic infrastructure investment decision making also came through in discussions about the delivery of the Elizabeth Line. Market support was essential, with business support from London, private funding for stations, and a business rate supplement introduced by the mayor to fund the project. Businesses across London advocated for a business levy because they saw the value of the investment.

Behind the negotiation of the deals and their successful stewardship post-settlement, a key theme that came through in our time in the UK was the need for strong political and official level leadership. Directly elected mayors in regions with combined authority and other devolved governance models are key players and have the ability to advocate for their regions at the national level. Over time, greater resourcing for administering authorities and partnerships have attracted candidates with greater capability which has improved regions' ability to partner effectively with central government.

In future, we can expect diminishing returns for additional deals – areas with smaller populations and less opportunity for additional economic gain will not generate as much benefit as previous deals. Not every region needs a deal. The unique rationale for negotiation for each region should be data led.

The Greater Manchester City Deal

The Greater Manchester City Deal is widely considered the gold standard for UK devolution deals.

Its success is built on a long history of working together across all 10 districts, and beyond. It was one of only a few city regions across England to take up the option under the Local Government Act 1985 to form the Association of Greater Manchester Authorities, with the leaders of the 10 constituent district councils meeting regularly to develop county-wide policies and services including water, transport, police, fire and civil defence. It is this history of collaboration and shared service delivery that laid the groundwork for establishment of the Greater Manchester Combined Authority (GMCA) in 2011, and the seven City Region Deals that have followed.

The Greater Manchester Deal includes an earn-back mechanism which allows the region to retain a portion of the additional tax revenues generated from economic growth and investment in the region.

The key benefits of the deal have included a resurgence in population growth, property investment and international interest. The scale of the combined authority and the strength of its mayor's reputation has attracted inward investment into the region.

The new Single Settlement funding model is an important next step for the region. It raises the status of the GMCA to that of a government department. The aim is for it to be the default mechanism for both capital and revenue, over a multi-year period. Accountability will be against a new Outcomes Framework. The next stage of the deal evolution will be game changing, including land value capture, integrated transport ticketing, data access, co-branding, a strategic view of the region's railways, harmonised enforcement powers, and the single settlement funding. It will also offer flexibility between capital expenditure and operational expenditure. Regular reviews of Local Transport Plans enable re-baselining and renegotiation of priorities and funding with central government.

Cardiff Capital Region

Our time in Cardiff presented us with another model for regional partnership in the Cardiff Capital Region (CCR).

CCR is a collective of 10 local authorities in South East Wales, a structure that came about in response to region's City Deal. Since formation, the partnership has moved from a collective of councils into a legal governance model for the region. The region doesn't have an overarching combined authority model like we saw in Manchester. The CCR approach represents more of a regional partnership between local authorities who have come together to deliver on the key priority areas included in their City Deal.

They aim to improve prosperity across the 10 local authorities, which are economically disparate and have differing intervention needs. The partnership has a real focus on equity, community wellbeing and distribution of the economic uplift created by the City Deal. The approach to economic wellbeing is more inclusive, future-focused and multi-faceted than we observed in the English models.

The City Deal provided CCR with a substantial amount of funding, of around £1.2 billion. It has used this to fund investment towards key strategic goals and in opportunities to regenerate areas with significant uplift opportunity but it has also ring fenced a significant amount for large strategic investments, with the intention that this fund is evergreen.

The partnership is focused on wellbeing outcomes and an integrated approach to achieving net-zero emissions which informs its investment strategy. During our time in the UK, a focus on climate change and emissions reduction was clearly an integrated part of decision making at the highest levels.

The remit of CCR has recently expanded to include spatial planning and transport infrastructure, which would draw parallels to the devolution seen in other regions of the UK.

Adapting Devolution Deals to the New Zealand Context

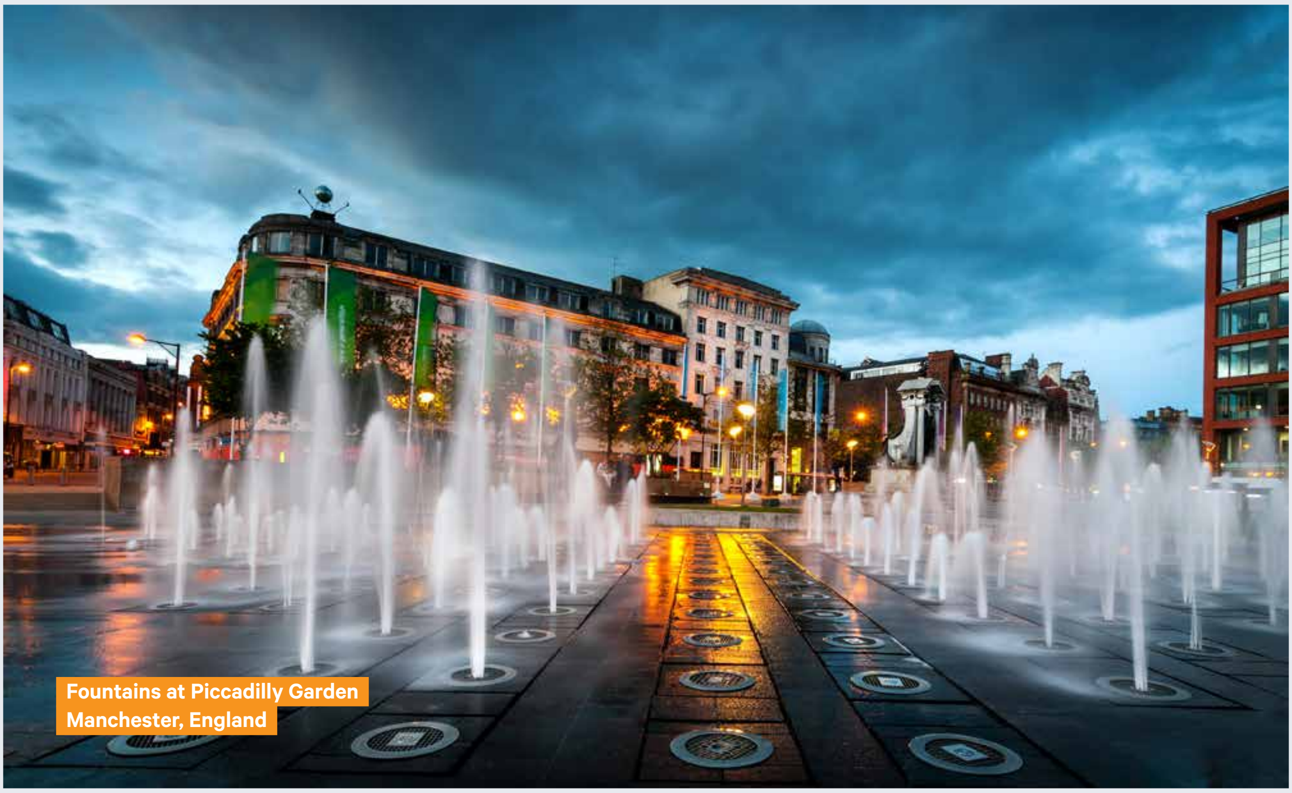
The combined authority model of the Manchester City Deal, despite its success, is unlikely to work in the New Zealand context in the same way. The UK's history of devolution and previous lack of directly elected mayors sets a different scene from where we're starting from in Aotearoa. Adapting the UK's devolution strategies to the local context will be important.

The ongoing discussions about reorganisation and shared services models, especially considering changes in water services present an opportunity to have a productive conversation about the right structure for each region. Presenting a cohesive plan to the government and being willing to look at themselves first is going to put councils in the best possible position for true devolution.

The UK has recognised the need to right-size devolution. Alongside city and regional deals, Town Deals have focused on funding for revitalisation plans for smaller areas. Towns bid for central government funding and crowd in private sector investment. A Town Deal Board includes representatives from across the public, private and voluntary sectors to develop locally led Town Investment Plans.

Value capture, congestion charging and road pricing are important tools that will play an important role alongside strategic investments in land to capitalise on infrastructure development, as part of city and regional deal development. Application of the earn-back mechanism included in the Manchester deal has faced difficulties.

Our discussion about the purpose of deals often focused on a job creation narrative, with a strong focus on asking what each region is really good at before shaping the narrative around the unique selling point for devolution to central government.


Fountains at Piccadilly Garden
Manchester, England

Key insights and recommendations for New Zealand:

- **Focus on the principle of additionality** – The focus must always be on: ‘What will a regional deal bring to economic growth and progress that wouldn’t otherwise happen?’ This must be defined by central and local government together, not merely local government and it must be at the core of the deal.
- **Deals must traverse electoral cycles and enjoy bipartisan support** – The ability of a regional deal to live and progress beyond political cycles will be the initial primary test of their success. Deals must become a new way for government to deliver growth, better public services and improved economic and social outcomes for communities in every part of the nation.
- **A 30-year fund** is an important component of many city and regional deals. If central government funding is constrained in the current fiscal environment, consolidation of existing capital funds should be considered to provide greater certainty and less contestability between regions. A Single Settlement approach, which includes flexibility over the priorities within funds, and long-term accountability and reporting horizons can be extended over time to authorities that demonstrated capability.
- **Strong political leadership** at both central and local government, alongside a long-term vision for the region are key success factors in the UK. Deals should be negotiated with local priorities front and centre. Local government needs to come to the table with a clear idea of the opportunities for growth and a clear and data-driven rationale for how they will achieve this, but central government must meet them in the middle to define a vision for the area together.
- **The private sector and civil society** including institutions like universities should be at the decision-making table. In the New Zealand context, iwi should have a substantial role to play. Long-term investment horizons and a commitment to local, place-based delivery are a shared benefit of iwi involvement and the structure of successful devolution initiatives. Place-based regeneration works best when a cross-section of major players are at the table.
- **Structure is important, but it should follow function and New Zealand needs to be flexible in its approach.** Though well popularised, the combined authority model is not a one-size-fits-all option and may not suit the New Zealand context. The Cardiff Capital Region model presents a way for councils to come together to facilitate long-term strategic investment at a regional level.
- **Not every region needs a deal.** There are diminishing returns for some later deals. Areas with smaller populations and less opportunity for additional economic gain will not generate as much benefit as previous deals. The rationale for each agreement should be data led and additionality focused.
- **Private sector support is essential** for major project delivery as well as place-based regeneration.

Water Regulation, Funding and Models for Water Services Provision in the UK

Water Companies in England

The United Kingdom's water company and regulatory settings have their genesis in Margaret Thatcher's 1989 privatisation of England's water supply. The English model developed to encompass 16 regional entities (11 drinking water and wastewater and 5 drinking water only) companies of varying size. Driven by increasingly stringent European Union regulation and historical underinvestment, privatisation was a response to a sizeable need for investment in the water and sewerage networks. Performance of the water companies has improved since the early 1990s.

The companies act largely as monopolies within their catchments, with competition limited to new appointments and variations, water supply licensing and business retail customers and new major infrastructure. They are either listed or privately owned. The water companies are on the front line of water quality issues for the UK public; while there may be numerous reasons for poor water quality, they bear the brunt of the feedback. One key issue is the legacy of Victorian era combined sewer and stormwater systems.

More widely, the UK water sector has seen mirrored issues across different regions, characterised by significant investment and heightened public interest. A massive investment programme underscores the importance placed on upgrading and maintaining water infrastructure. Despite these investments, there is a recognised lack of future skills in the sector. To address this, there is a push to engage individuals earlier in their careers, focusing on those with critical thinking abilities necessary for long-term water management projects. The focus for future investment are water supply and combined sewer overflows (CSOs) discharging contamination during storm events.

Privatisation is not the answer for New Zealand, but we have a big programme of investment in front of us and can learn significant lessons (about what to and what not to do) from the English and Welsh experiences.

Wales

Dŵr Cymru Welsh Water is a profit reinvestment focused company providing drinking water and wastewater services to around 1.4 million households and businesses throughout Wales and parts of western England bordering Wales.

It is 'a single purpose company to provide better value services to Welsh Water's customers'. Legally, it is a 'Wholly Owned Mainly in Wales' company – meaning that Welsh law applies even to its operations in England. It is financed in private capital markets, through an asset-backed financing structure, with no government support. Most of its revenues come from the wastewater/sewerage part of the business. It provides an estimated £1 billion a year contribution to the Welsh economy.

Although it is a privatised company, Dŵr Cymru has no shareholders and pays no dividends – all profits are reinvested in the assets and operations of the company. The company takes a long-term view of investment and financing on the basis that intergenerational assets should be paid for across generations, through long-term borrowing. The biggest challenge in moving from a for-profit, shareholder model to the current not-for-profit model was a regulatory one. The Welsh Government played a key role in supporting the creation of DCWW.

Through careful fiscal management and creation of a 'virtuous circle' of profit reinvestment, the company has managed to invest in assets, improve services, keep customer bill increases to around inflation, reduce its level of indebtedness, and improve its credit rating thereby reducing the cost of borrowing.

The company is among the best performing of the privatised water companies in England and Wales.

Regulation

The UK's regulatory system is a patchwork of regulatory bodies and rules. Ofwat is the independent economic regulator of the water and sewerage sectors in England and Wales. Its main statutory duties are to protect consumers, enable efficient, well-run companies to carry out and finance their functions and ensure long-term resilience. It is funded by licence fees from the water companies with additional government funding to drive transformation in company performance and address long-term infrastructure delivery.

The Department for Environment, Food, and Rural Affairs sets out the Strategic Policy Statement which the companies take into account when they develop their business plans. OfWat's work then intersects with the Environment Agency's focus on water quality, and an unavoidable tension exists between customer expectations, economic regulation and environmental imperatives. On the one hand, environmental regulators are telling water companies to invest more to reduce overflows and protect the environment, on the other hand, they are constrained by OfWat, which sets the prices they can charge customers.

Cross-boundary investment in assets that serve more than one regional company is also needed. With forward investment constrained by five-year asset management plan periods, and the sector facing public perception, workforce constraints and population growth challenges. One of the key benefits of OfWat has been its ability to take a national view instead of a regional or company-based perspective in strategic planning.

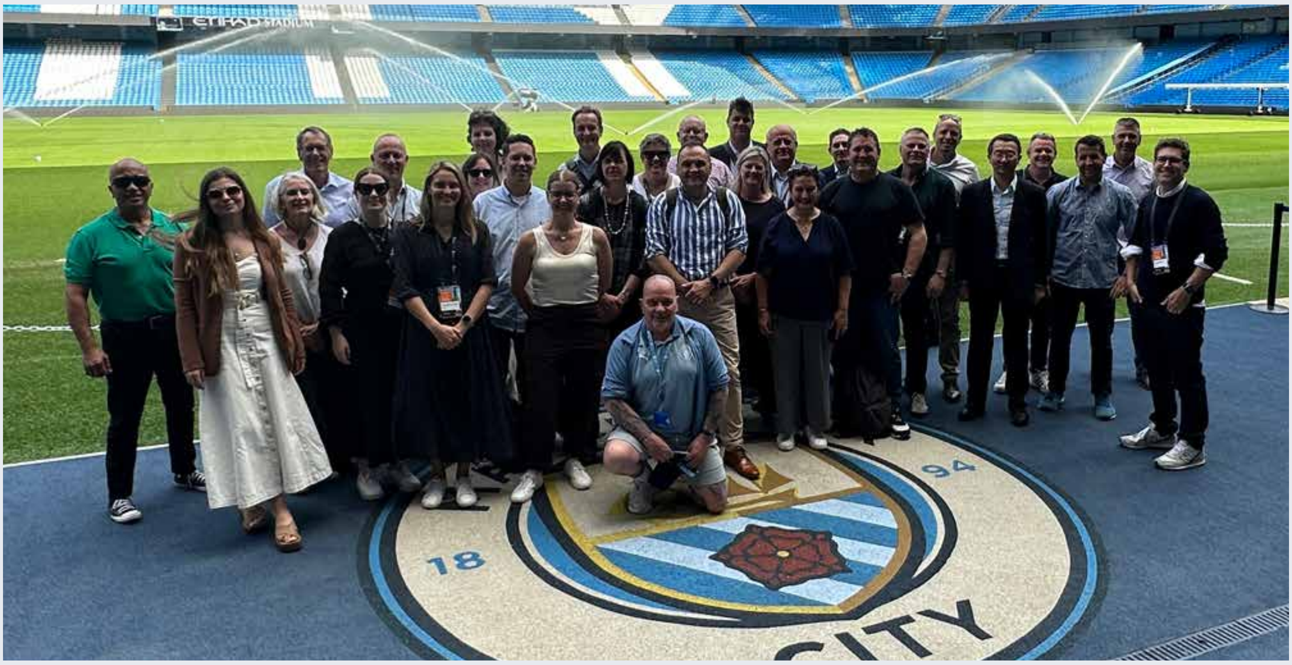
The regulator and the sector have tools to address their prominent issues. The regulator has moved away from output-oriented regulation to an outcome focus, and benchmarking companies against each other has also improved standards across the sector. Investment in digital technologies and quality data has also improved their ability to predict spills and to finding and prioritising effective solutions across the UK. English water companies have been able to better understand the size of spills and their receiving environments, and environmental degradation over time. Investment in data capability and tools has allowed many water companies to soften levels of investment required by better utilising existing assets and improving their ability to predict maintenance and spill mitigation needs. Common open data standards have enabled repeatability, and the ability to understand and compare performance and effectiveness of interventions over time. An OfWat innovation fund has supported this data standard development work.

Digital technologies are not the only innovative approach being deployed to manage stormwater and wastewater challenges in the UK. Nature-based solutions are increasingly being adopted. This not only benefits water flow management but also provides advantages to local communities by enhancing biodiversity and recreational spaces.

Key insights and recommendations for New Zealand:

As New Zealand establishes economic and drinking water regulatory bodies, there is much we can learn from the UK's experience.

- OfWat is able to take a national view, rather than a regional or company-based focus. Strategic long-term planning has been one of the key benefits of OfWat's role. It also benefits from being a specialised regulator. It is worth questioning in the New Zealand context whether a more general economic regulator is best placed to deal with the technical detail of water quality and consumer value outcomes.
- There will need to be clarity of roles between an economic regulator and Taumata Arowai for drinking water and the Ministry for the Environment and regional councils for environmental water quality. Designing the regulatory environment for conflicting outcomes at the outset will be the key to its success.
- OfWat has benefited from a move away from output to outcome-based regulation, and benchmarking companies against each other has improved standards across the industry. Outcome-based regulation must be met with adequate accountability and oversight.
- Investment in digital technologies and stewardship of open data standards has improved benchmarking, investment management and water quality assessment. Nature-based solutions have co-benefits and are increasingly being used.
- Dŵr Cymru Welsh Water provides a model for councils in New Zealand to consider as they grapple with the next phase of water reform.



Read the Europe delegation report here

Read the UK delegation report here

Infrastructure
New Zealand

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