

Building National Infrastructure Capability: **Lessons from Scotland**

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Infrastructure
New Zealand





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Executive Summary

Budget 2017 boasts by far the largest nominal investment in New Zealand infrastructure in history. Maximising the impact of this record spend and minimising project risk will be dependent upon effective public decision-making frameworks and institutions.

Since devolution in 1999, Scotland has built its system of planning, funding and delivering infrastructure from scratch. Free from the constraints of tradition, the Scottish model provides a unique perspective of what a modern system could look like.

In March 2017, Infrastructure New Zealand in collaboration with the UK Department for International Trade led a delegation of 33 senior public and private infrastructure representatives to London, Edinburgh and Glasgow. The purpose of the delegation was to investigate Scotland's infrastructure decision-making system and bring back learnings for New Zealand.

After visiting key projects and meeting with government and private partner officials, Infrastructure New Zealand identified the following strengths in the Scottish and wider UK system of planning, delivering and funding infrastructure:

- **Independent needs analysis and monitoring** – the UK National Infrastructure Commission provides a respected independent voice on infrastructure issues which improves strategic planning, transparency and accountability.
- **Leadership, growth and engagement through national spatial planning** – Scotland's National Planning Framework provides central leadership and drives fair and sustainable economic development through the planning system.
- **Centralised independent environmental regulation** – the Scottish Environmental Protection Agency is using its strategic focus and expertise to work with partners and transform environmental management.
- **Specialised procurement** – the Infrastructure and Projects Authority and Scottish Futures Trust improve capital programme integration across government, limit procurement risk and deliver better projects for less.
- **Combined project delivery** – Scotland's unique hub model brings scale to local infrastructure delivery, attracting private capital and enabling standardisation.
- **Consolidated water services** – as the only water supply and wastewater provider in Scotland, Scottish Water has used scale, focus and good asset management to cut services costs and improve service quality.
- **Independent regulation of the water sector** – Scottish Water and the UK's private providers are effectively regulated by specialised independent authorities who closely monitor, benchmark and report on performance.
- **Local government alignment with national strategic direction** – through mechanisms like City Deal, the Growth Accelerator and Tax Increment Financing, the Scottish Government encourages councils to invest in support of national goals.

Drawing on the strengths of the Scottish and UK approach, New Zealand should:

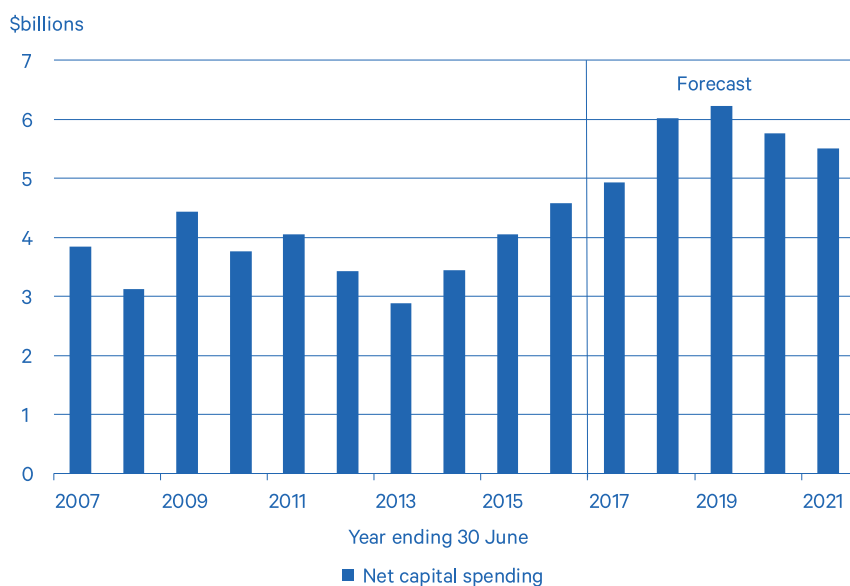
1. Establish an independent body to identify long term infrastructure needs and monitor performance against these needs. This will enhance public awareness of capital requirements, encourage a strategic approach to service delivery and mitigate underinvestment through the economic cycle.
2. Reform planning laws and local government structures and funding to provide an aligned spatial planning and infrastructure delivery system nationally, regionally and locally.
3. Establish a specialised project procurement entity to help plan, prioritise and deliver national and local capital programmes. If this entity is independent of the Government, it will depoliticise procurement decisions and be able to work more closely with councils and the private sector. By bringing together local authority capital programmes, it will be able to standardise similar projects, bundle delivery and make large savings on design and procurement.
4. Reform the water sector. Consolidate water supply and wastewater services into a smaller number of large operators. This will enhance strategic capability, improve asset management and enable monitoring and benchmarking.
5. Shift to independent regulation. An enlarged Environmental Protection Authority taking on responsibilities of regional councils would reduce conflicts of interest, support professional development and have the ability to modernise environmental management. An independent water regulator would be more effective in holding local government to account for public health and financial performance outcomes.
6. Investigate the partial or full sell down of Watercare to fund growth. Watercare does not provide a return on investment so no revenue would be sacrificed. Proceeds could be used to fund growth infrastructure with a high social and economic return. Improved efficiency from unrestricted capital management would offset price increases resulting from a margin for profit.
7. Revise council funding to align central and local government investment incentives. Broadening council taxation sources will encourage councils to better support growth. New funding tools will require strengthened governance and the promise of increased revenue will encourage councils to support change.

Introduction

The New Zealand Government is back in the infrastructure game.

After reducing the state's role in telecommunications, energy and irrigation from the 1980s and sweating increasingly stressed transport and housing assets for three decades, central government is embarking on a new cycle of investment. Budget 2017 allocates over \$7 billion in new capital investment, more than doubling 2013 expenditure.

Figure 1: Net Capital spending¹



But is the Government ready for the step up? The frameworks and agencies which rolled out the vast investment programmes of the 1960s and 1970s were scaled back or removed decades ago. Who will be delivering the next generation of projects and do they have the capability to manage this scale of investment?

¹ Treasury, Budget Economic and Fiscal Outlook, 25 May 2017.

Scotland

Scotland is one country that might be able to tell us. Paradoxically, Scotland is both one of New Zealand's colonial predecessors and one of the world's newest political entities. For 300 years, Scottish governance was conducted via London. Only with the Scotland Act 1998 and the re-establishment of the Scottish Parliament a year later has governance returned to Edinburgh. Responsibility for the great majority of local and day-to-day matters is now devolved to Edinburgh, including infrastructure delivery (Figure 1).

Table 1: Devolved infrastructure responsibilities in the UK²

Sector	Devolved Administration		
	Scotland	Northern Ireland	Wales
Road	Devolved responsibility	Devolved responsibility	Devolved responsibility
Rail	The Scottish Government is responsible for internal services. The UK Government is responsible for cross-border daytime services.	Devolved responsibility	Not devolved
Airports	Devolved responsibility. The regulation of air services is a reserved matter.	Devolved responsibility	Devolved responsibility
Ports	Devolved responsibility, with some minor exceptions	Devolved responsibility	Devolved responsibility, with some minor exceptions
Energy	Not devolved	Not devolved	Not devolved
Communications	Not devolved	Not devolved	Not devolved
Water	Devolved responsibility	Devolved responsibility	Devolved responsibility
Flood Defence	Devolved responsibility	Devolved responsibility	Devolved responsibility
Waste	Devolved responsibility	Devolved responsibility	Devolved responsibility
Housing	Devolved responsibility	Devolved responsibility	Devolved responsibility

Scottish infrastructure is now predominantly the responsibility of a Scottish Parliament which is less than two decades old. New institutions and processes for planning, funding and delivering transport, water, energy, telecommunications and social infrastructure services have been established. Skills have been sourced and developed. Priorities have been identified. The Scottish Government has created an infrastructure framework from a virtual “blank sheet”, free from many of the normal constraints of tradition, providing a unique example of what an advanced infrastructure system should look like in the 21st century.

The rapid development of infrastructure systems has encountered challenges. The Scottish Parliament Building itself was beset by delays, opposition to its location and design changes and finally cost ten times original estimates. What has Scotland learned from its mistakes and what can we do to avoid the same problems?

² National Infrastructure Delivery Plan 2016-2021, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/520086/2904569_nidp_deliveryplan.pdf.

Infrastructure New Zealand delegation to Scotland

In March 2017, Infrastructure New Zealand in conjunction with the UK Department for International Trade led a delegation of 33 senior New Zealand public and private representatives to the UK. The purpose of the delegation was to investigate Scotland's infrastructure innovations since devolution. The mission included site visits and meetings in London (which retains ultimate responsibility for Scotland), Edinburgh and Glasgow.

An abridged summary of the key topics studied and sites visited is included in Table 1.

Table 2: Overview of the Infrastructure New Zealand delegation to Scotland

London	Edinburgh	Glasgow
National Infrastructure Commission	National Planning Framework	City Deal
UK and European Infrastructure Frameworks	Infrastructure Investment Plan	Urban renewal
Infrastructure and Projects Authority	Scottish Futures Trust	Transport Scotland
Public Private Partnerships	Hub	
	Infrastructure funding	
	Scottish Environmental Protection Agency	
	Scottish Water	
Site visits		
Thames Water	Pennywell Affordable Housing	Sighthill Transformation Area
Queen Elizabeth Olympic Park	Queensferry Crossing	Queen Elizabeth University Hospital
Transport Catapult	Lasswade High School	Inovo Technology and Innovation Zone
		City of Glasgow College

This report

This Infrastructure New Zealand report draws on findings from the delegation to identify strengths and weaknesses in Scotland's decision-making system. It describes the main features of infrastructure planning, delivery and funding in Scotland and assesses these in the context of New Zealand's own framework. It highlights the best elements of the Scottish approach and proposes ways in which these can be adapted to advance New Zealand infrastructure development.

Infrastructure planning in Scotland

The UK context

Infrastructure planning in Scotland, like all governance activities, takes place within the context of the United Kingdom. The referendum on establishing Scotland as an independent state, constitutionally separate from England, Wales and Northern Ireland, was held in September 2014 and was voted down by the Scottish public. Scotland thus remains a part of the UK and is constitutionally bound by Westminster laws.

However, in terms of infrastructure, the constitutional prevalence of London is more notional than practical. The Scottish government overwhelmingly sets its own infrastructure policy. Scotland owns and determines the location and quality of its roads (including motorways), water, schools and hospitals for example. Telecommunications and energy assets are generally privatised (including electricity transmission), so controlled by neither of the UK nor Scottish governments, but regulated by independent national bodies.

In areas where Scottish infrastructure decision making remains the responsibility of London, for example on national rail and nuclear power issues, national level bodies sit at the strategic apex of infrastructure policy. The National Infrastructure Commission is body responsible for the earliest phase of planning for these services. Its role is to independently identify long term needs and challenges and monitor the UK government's response.

The National Infrastructure Commission

The NIC is an independent non-statutory body which provides the UK government with impartial, expert advice on major long-term infrastructure challenges. It was established in October 2015 and has three core responsibilities:

1. Undertake a National Infrastructure Assessment once in every Parliament, setting out the NIC's assessment of long-term infrastructure needs with recommendations to the government.
2. Produce specific studies on pressing infrastructure challenges as set by the government, taking into account the views of the NIC and stakeholders. These studies include recommendations to the government.
3. Complete an annual monitoring report, taking stock of the government's progress in areas where it has committed to taking forward recommendations of the NIC.

The NIC is independently governed, with its own Board and CEO, and reports to the Chancellor (Finance Minister). The UK government is not required to accept the NIC's recommendations, but where it chooses not to, it must provide an explanation why.

As an independent body, the NIC forms its own views on infrastructure needs, separate from the UK government (and its agents). As a strategic body, it is itself not responsible for delivering any infrastructure. It exists solely to provide an independent view of the long-term infrastructure needs. Its first national assessment is due for publication in mid-2017.

Scottish planning

In practice, the role of the NIC in Scottish affairs is limited because most infrastructure responsibilities are devolved. The principal work to date with direct impact on Scotland relates to an investigation of the need for high speed rail in northern England and Scotland. It found that there is an immediate need and the responsibility will now lie with Network Rail and the UK Department for Transport to further plan and implement a solution.

For responsibilities devolved to the Scottish government, there is as yet no independent body, like the NIC, charged with long term infrastructure needs identification. Such a body is under consideration. If established along the same lines as the UK model, it would identify Scotland's long-term infrastructure needs for internal transport, hospitals, schools and other services and enhance accountability for addressing those needs.

In its absence, the Scottish government plans infrastructure through its various directorates (the equivalent of government ministries and departments). These directorates are guided by the Scottish government's overall declared objective to make Scotland:

“a more successful country, with opportunities for all to flourish, through increasing sustainable economic growth.”

This overriding objective contains several key points. Firstly, the Scottish government considers its primary objective is a socio-economic one. This is not to say it has no aspiration around improved environmental performance, for example, just that its focus for progressing Scotland forward is economic. Secondly, its economic focus has two components. One is economic competitiveness and the other economic equality. Thirdly, and finally, economic growth is to be sustainable, which is where environmental and other limitations are incorporated into government priorities.

The focus of government attention on economic matters effectively elevates Scotland's Economic Strategy to the highest position on the strategic planning “ladder”. Consistent with the overall vision, it identifies increasing competitiveness and decreasing inequality as the dual objectives of government economic policy. The actions to achieve the dual objectives are to invest in people and infrastructure, foster innovation, promote inclusive growth and engage internationally. Projects and funding are not part of the strategy and actions are limited to the strategic level.

Implementation of the Economic Strategy tends to fall to government directorates. Each of these directorates consultatively develops publicly accessible strategies and plans outlining how they intend to implement the government's successful Scotland agenda. These documents cascade down into local plans and implementation documents.

Scotland's National Planning Framework

Scotland's lead planning document is the National Planning Framework (NPF). It is produced by the Scottish Government and is the spatial expression of Scotland's Economic Strategy.

The NPF provides the long-term vision for Scotland's development and sits above all other statutory development plans. Scotland's 32 planning authorities (councils) must ensure their plans are consistent with the framework. Infrastructure, development and any activity with a significant impact on land use, must be consistent with the NPF-guided planning system. In this way, Scotland's system is said to be "plan-led".

Borrowing from the English National Planning Framework, the Scottish NPF introduces a "presumption in favour of sustainable development". In practice, this means that, unless an activity can be shown to be inconsistent with sustainable development, it should proceed.

The current NPF is the third iteration. It consists of a four-pronged vision statement for Scotland:

- A successful, sustainable place
- A low carbon place
- A natural, resilient place
- A connected place

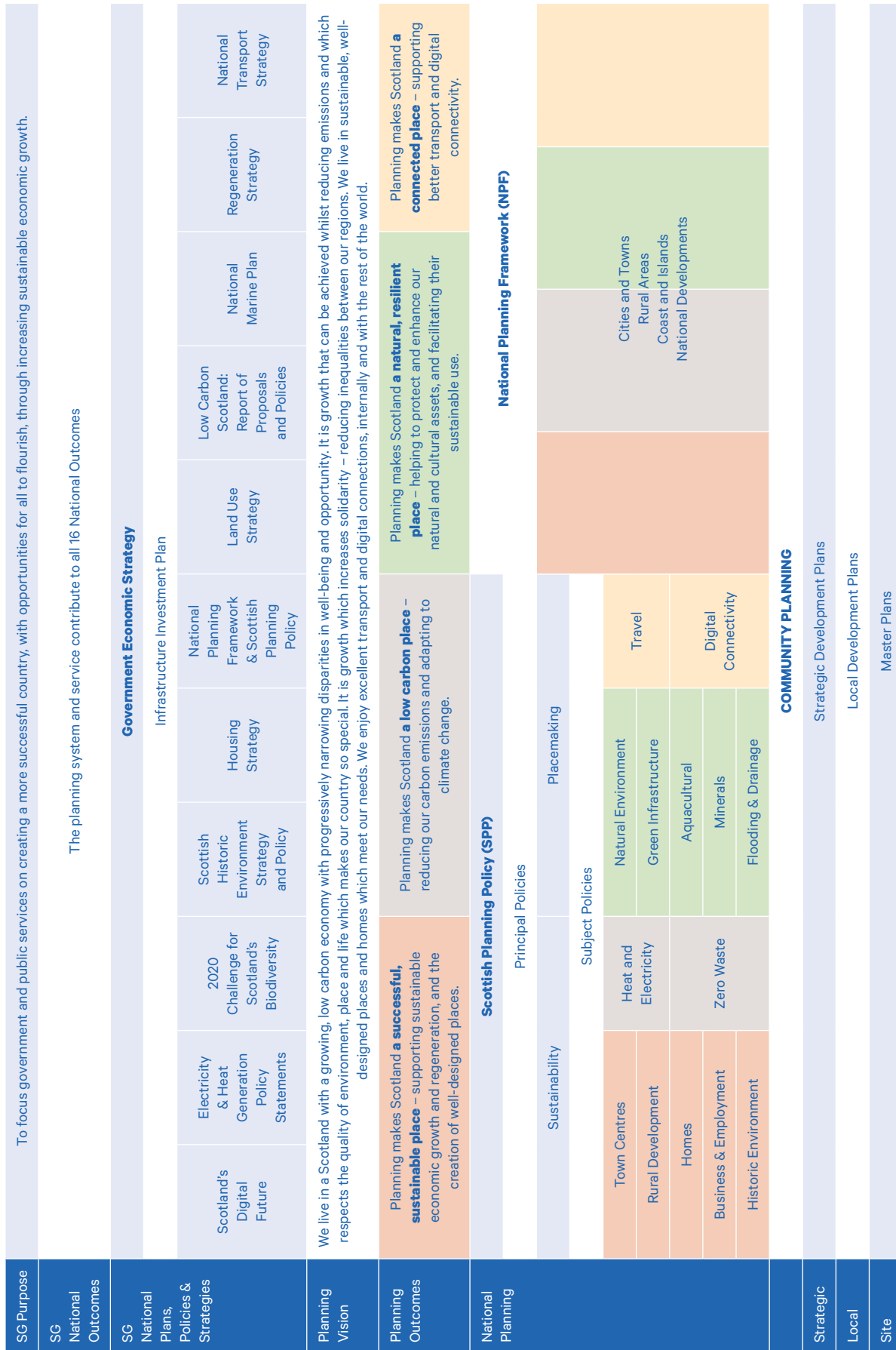
To achieve the vision, the NPF focuses on Scotland's seven largest cities and identifies 14 national development priorities, from urban regeneration to HS2 and strategic airport improvements.

A key feature of the NPF is that it sets the context for initial public consultation and engagement on national investment priorities. Public discussion of major projects is introduced at this earlier, strategic stage, helping the public to understand how and where in the overall national strategy an individual project sits. This helps to reduce the surprise element and limit opposition when implementation approaches.

The NPF is implemented by local councils. Each council must develop a local development plan to set out policies and proposals to guide development and an Action Programme to deliver the development plan. Scotland has 32 local councils and no regional layer of government, but for Scotland's four identified city regions (Glasgow Edinburgh, Dundee and Aberdeen), strategic development plans must also be agreed. They set a vision and strategy for the wider city-region (i.e. across local council boundaries) and are a component of local development plans.

From the perspective of planning infrastructure, perhaps the most important of these is the **National Planning Framework**. Sitting atop the planning system (the NPF is a document, not a hierarchy of documents), the NPF is the spatial representation of the Economic Strategy. It sets out the physical priorities for Scotland, including major infrastructure corridors and development priorities.

Figure 2: National Planning Framework system³



³ Ambition, Opportunity, Place: Scotland's third National Planning Framework.

Scottish infrastructure investment planning

The NPF does identify some projects, but it avoids committing to timeframes or identifying the costs of planning priorities. The actual intentions of the Scottish government to invest in infrastructure are set out in the **Infrastructure Investment Plan**.

Infrastructure Investment Plan (IIP)

The IIP is the investment programme for the Scottish government. It is guided by the Economic Strategy, but more accurately is the physical investment programme to promote the general objective of a more successful Scotland. It has no statutory link to the National Planning Framework.

The IIP sets out the infrastructure investment priorities of the Scottish government over the next 20 years. It includes a committed pipeline of infrastructure projects prioritised according to four guiding principles:

1. delivering sustainable economic growth through increasing competitiveness and tackling inequality;
2. managing the transition to a more resource efficient, lower carbon economy;
3. supporting delivery of efficient and high quality public services; and
4. supporting employment and opportunity across Scotland.

The IIP covers social infrastructure (health, schools, justice, housing and cultural investments), transport, energy, telecommunications and water. It identifies the objectives and vision for infrastructure and each sector, as well as how programmes will be delivered and who will be responsible. The IIP includes a projected project pipeline, consisting of project name, cost, timetable and funding route.

The IIP is more traditional and less ambitious than the NPF. Funding decisions continue to be made through the Budget process and are not formally linked to the NPF. The IIP is a signal more of intent than a statutory requirement that projects are funded and delivered in accordance with a wider plan. Nevertheless, the IIP provides a strong signal to local government and the private sector, the partners on many of the projects, about the government's investment intentions.

Environmental regulation in Scotland

The final planning activity for infrastructure – environmental regulation and the issuance of environmental consents – is in Scotland performed by a dedicated, centralised environmental protection agency – the **Scottish Environmental Protection Agency (SEPA)**. It is especially notable because it is undergoing a radical transformation in how it approaches environmental regulation.

Scottish Environmental Protection Agency (SEPA)

SEPA is Scotland's principal environmental regulator. It is a non-departmental statutory body. Its objective is to:

“protect and improve the environment in ways that, as far as possible, also help create health and well-being benefits and sustainable economic growth.”

SEPA performs two core services – regulation and flood risk management. Its regulatory functions include the issuance of consents for infrastructure delivery. It explicitly seeks to do this by working collaboratively with responsible infrastructure providers and, unusually for an environmental regulator, is specifically charged with promoting sustainable economic development.

SEPA is governed by an independent Board appointed by the Scottish government. The Board is responsible for establishing the overall strategic direction of the organisation and monitoring SEPA's performance against its objectives. Management of SEPA's operations is led by the chief executive and Agency Management Team. They are responsible for strategic planning, business management, performance management, relationships and change management.

Changes to its guiding legislation in 2014 introduced a clearer purpose which called for SEPA to protect the environment while promoting sustainable economic growth and social outcomes. This has had the result of shifting the organisation's focus away from its traditional compliance role.

SEPA is now less focused on enforcing minimum standards on individual companies or infrastructure providers than on achieving broader societal objectives. Tackling diffuse pollution, addressing climate change and reducing resource consumption are strategic priorities.

To achieve this, SEPA has to reach out to wider industry and the community. The SEPA model seeks to leverage broader global environmental interests, such as consumer demand for more sustainable goods, to encourage regulated entities to go “beyond compliance”.

SEPA's role now includes stronger elements of information publication, as well as corporate and community support for initiatives which are good for both the environment and the economy. It actively seeks opportunities to partner with organisations to reposition environmental compliance as an opportunity to grow and prosper, rather than constrain and mitigate.



Infrastructure delivery in Scotland

The UK context

The National Infrastructure Commission is yet to release its first needs assessment. Once complete, identified national investment needs will be met by the UK government and its various departments and agencies or a reason will be given why not. The National Infrastructure Delivery Plan produced by the Infrastructure and Projects Authority will set out the government's short-medium term response.

Infrastructure and Projects Authority

The Infrastructure and Projects Authority (IPA) is the UK government's independent centre of expertise for infrastructure and major projects. The IPA does not deliver projects directly, but works with government and industry to ensure projects are delivered efficiently and effectively. It focuses on skill development and improving processes for the most complex projects.

The IPA was created in 2016 with the merger of the UK government's PPP agency, the Major Projects Authority and its principal infrastructure advisory, Infrastructure UK. Its purpose is to continuously improve the way infrastructure and major projects are delivered. One way it does this by integrating capital programmes and sequencing projects across all of government. It advises government on PPPs, assists departments with procurement, accredits major project personnel and delivers the National Infrastructure Delivery Plan and National Infrastructure and Construction Pipeline.

Although the IPA is responsible for publishing the delivery plan, departments are still responsible for delivery. The IPA provides support by advising on procurement and financing, helping to integrate the all-of-government programme and monitoring service performance.

For some particularly complex major projects, including HS2, the role of the IPA is reduced further. On this project, an independent company wholly owned by the UK government, HS2 Ltd, has been established to oversee delivery. The overall influence of the IPA on Scottish infrastructure planning and delivery is thus very small. It is the Scottish variation to the IPA model which has a far larger bearing on Scottish infrastructure.

Scottish infrastructure delivery

Consistent with the wider national approach taken in London, delivery of Scotland's Infrastructure Investment Plan is the responsibility of individual government bodies. Like the UK model, the government has established an independent specialist agency, the **Scottish Futures Trust**, to support and assist government departments with procurement and other aspects of project delivery.

Scottish Futures Trust

An independent company established by the Scottish Government in 2008, the Scottish Futures Trust (SFT) has responsibility for delivering value for money across public sector infrastructure investment. Its aim is:

“to improve the efficiency and effectiveness of infrastructure investment in Scotland by working collaboratively with public bodies and industry, leading to better value for money and ultimately improved public services.”

SFT operates at arm's length from the Government and has its own Board, but works closely with the public sector. It oversees the hub, TIF and growth accelerator programmes and advises on procurement. It also oversees all of Scotland's PPP/private finance initiatives.

The SFT performs a similar function to the IPA, but has less emphasis on project procurement and delivery and a stronger focus on value for money. Each year SFT's value is assessed and a target of £100 million-£150 million of net benefit to infrastructure investment is set. It achieves this by partnering with public agencies as well as the private sector to streamline projects and procurement processes.

For example, SFT is working with councils to deliver Scotland's Schools for the Future programme. SFT has effectively become the centre for knowledge and experience in delivering schools and manages the government's controlling interest in school procurement decisions. This has enabled SFT to transfer learnings from project to project, guide successful procurement and deliver better value for money. It has also helped the government distinguish between education needs and local aspirations for bespoke services. SFT input has increased the number of schools delivered by the programme from 55 to 67, an increase of 20 per cent, with the same budget.

As the centre of project delivery expertise for all of Scotland, SFT work is not limited to the Scottish government. Through the unique **hub** programme, SFT brings public agencies together with private partners to deliver community infrastructure.

Hub

Hub is a nationwide initiative to facilitate and improve community infrastructure. Under the hub model, Scotland is separated into five geographic areas. Community service providers within these territories form a joint venture with a private delivery partner to cooperate, collaborate and invest. The approach is led and facilitated by SFT.

Hub brings community planning partners, including health boards, local authorities, police, fire and rescue services and several other public bodies together with a private sector development partner to form a hubCo. The parties work jointly to plan, sequence, finance, deliver and operate community infrastructure. Hub provides a mechanism for delivering and managing assets more effectively and continuously improving performance. Value for money is measured through detailed key performance indicators.

Hub has facilitated investment of over £2 billion of investment in local projects (operation, under construction and in development).

Hub helps deliver efficiencies by replicating planning and design components across Scotland. The presence of a single central expert agency facilitates knowledge transfer and avoids the need for various agencies to repetitively redesign identical or similar services across the country. Additional benefits are gained by aligning, integrating and bundling small projects into larger programmes. This can improve efficiency through scale and attract private investment into projects and wider services. The cooperative and collaborative aspects of hub also ensure a longer term approach to services is taken.

For projects sitting outside hub, PPPs and other SFT-responsible programmes, project delivery in Scotland is conventional. Government directorates and local councils procure their own services. The one major exception being the **Scottish Water** model.

Sector Insight: Scottish water service delivery

Scotland takes a unique approach to municipal water service delivery. Scottish Water is Scotland's single and only provider of wastewater and water supply services. It was established in 2002 with the merger of three regional water suppliers, which were themselves the result of consolidating 12 suppliers in 1996. It serves over 5 million customers with over 1.3 billion litres of water daily and manages over 1800 wastewater treatment plants.

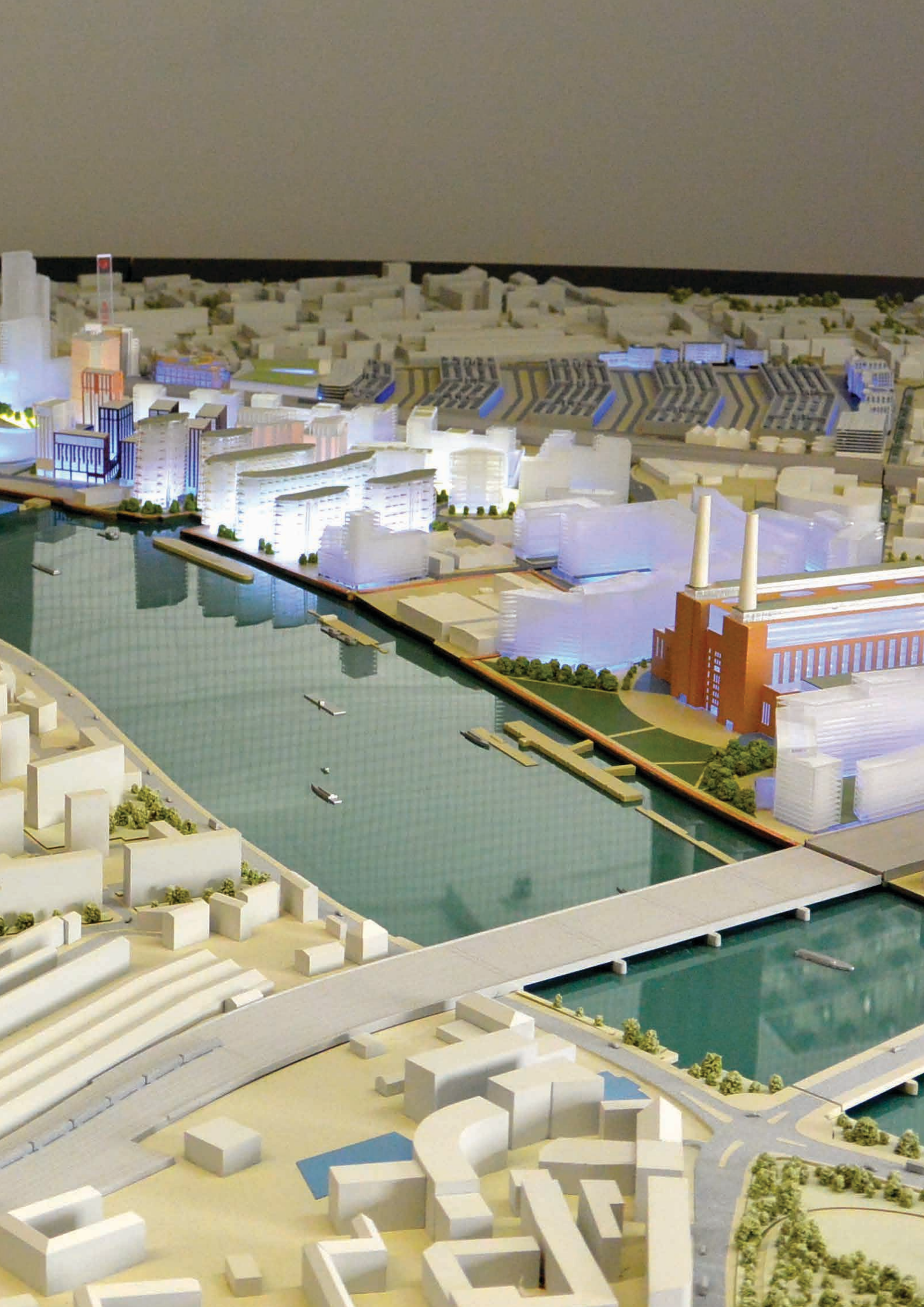
Scottish Water is required by law to deliver water services at the "lowest overall reasonable cost". Since inception, it has reduced operating costs by 40 per cent and delivered a proposed £2.3 billion investment programme for £1.8 billion. Scotland's water costs are now the second lowest of the 11 providers on the British mainland and interest in the Scottish model is so great an advisory arm has been established to advise other countries on how to deliver value in the water sector.

Figure 3: UK water service price comparison⁴

Water and Sewerage Companies	Average Household Bill for 2017/2018
South West Water	£491
Wessex Water	£470
Welsh Water	£439
United Utilities	£419
Anglian Water	£419
Southern Water	£418
England and Wales Average	£395
Northumbrian Water	£390
Thames Water	£374
Yorkshire Water	£373
Scottish Water	£357
Severn Trent Water	£341

Scottish Water is a publicly owned company, answerable to the Scottish Parliament. It is regulated by the Water Industry Commission for Scotland, which is independent of, but works with, Ofwat, the water regulator for England and Wales.

⁴ Scottish Water from data provided by www.Discoverwater.co.uk



Infrastructure funding in Scotland

The UK context

Infrastructure funding in the UK is largely conventional. The majority of resourcing either comes from the private operators of infrastructure (telecommunications, water and energy services), or from (UK and Scottish) government transfers. This includes infrastructure funding for transport (there is no dedicated or hypothecated fund), education, health, justice and social housing. Local government helps to deliver schools and housing, as well as roads and community facilities, and councils co-fund investment using their own resourcing tools (mainly property rates).

The most notable exception to a national infrastructure funding system which is otherwise similar to New Zealand is an extensive programme of government grants and incentives. Some are operated by the European Union and others by the UK. They may provide funding for environmental improvement, community enhancement or economic growth. Most are comparably small, but all are designed to reward investment aligned with national or continental strategic priorities. The most significant is the **City Deal** programme.

City Deal

The City Deal programme channels government funding to local authorities in city-regions across the UK. First launched in Manchester, the programme seeks to encourage and enable local investment in infrastructure which supports economic development (the benefits of which largely accrue to the UK government). Local authorities, working together across a city-region, receive funds for delivering agreed infrastructure programmes which grow the economy.

Eight City Deals have been signed in Scotland. The largest, the Glasgow and Clyde Valley City Deal, establishes a £1.13 billion Infrastructure Fund with £500 million from the UK government, together with £500 million from the Scottish government and £130 million from Glasgow's eight councils. Annual payments are made to the local authority partners for the phased delivery of 20 agreed infrastructure projects which are expected to increase economic growth and employment.

Scottish infrastructure funding and financing

At devolution, the Scottish government only collected 7 per cent of taxes in Scotland. The remainder went to London before being recycled back into Scotland (plus a little extra – the UK government spends slightly more in Scotland than it receives in taxation). The Scottish government today collects a little under a third of the tax generated in Scotland, meaning it still receives around 70 per cent of its revenue every year from London.⁶ This funding is not tied to any activity, but is allocated to either operational or capital expenditure. In the Spring 2017 Budget, Scotland received a block grant of £20.7 billion for operational spending and £3.3 billion for capital investment.⁷

The block grant funding model provides the Scottish government with the ability to prioritise public spending. This gives the government, as well as the opposition, the flexibility to reallocate resources to directorates and portfolios most in need. However, this same flexibility is not provided for infrastructure. Rigidity around capital and operational activities can inhibit the fluid reallocation of resources to or from infrastructure investment.

⁵ Although Scottish Water is publicly owned, it operates in a private market and its funding is covered largely by user charges.

⁶ Scottish government, http://www.parliament.scot/WebSPEIRResources/Your_Guide_Mar_2016.pdf

⁷ HM Treasury, <https://www.gov.uk/government/publications/spring-budget-2017-documents/spring-budget-2017>

This challenge is overcome in Scotland, as elsewhere, with debt finance. However, the Scottish government has comparatively little scope to borrow to fund infrastructure. Under the Scotland Act 2016, it is not allowed to issue bonds and is only permitted to borrow up to £3 billion for capital investment. It therefore makes wide use of private finance to meet short-term capital needs.

Scotland uses two types of private finance model. For projects deemed suitable for private finance under hub, a DBFM (design-build-finance-maintain) model similar to New Zealand's PPP is deployed. For health, education and transport projects commissioned by the government, Scotland uses its own unique **Non Profit Distributing model**.

NPD

The Non-Profit Distributing (NPD) model is a Scottish modification of the UK's traditional PPP approach, the private finance initiative (PFI). It is similar to both PFI and New Zealand's PPP model in that it seeks to attract private sector investment into public infrastructure and more efficiently allocate project risk. The basic structure of the model is the same, with a special purpose vehicle representing a consortium of private companies established to manage a long-term contract on behalf of a public owner.

The difference under NPD is that pure equity investment is substituted with subordinated debt. Under PFI, the value of equity can increase significantly once projects have successfully passed through the risky construction phase. Selling down this equity has delivered windfall profits on some UK projects. The NPD approach caps to a contracted level potential investment returns on projects which perform better than expected.

Thirteen NPD projects have been initiated to date. Four are under operation, six underway and three more in the pipeline. Two are in transport, five in health, four in education, one in justice and one in digital.

NPD has been successful in depoliticising privately financed infrastructure, but has encountered some problems since 2014. A feature of UK public accounting is that PPPs, whether in the form of PFI, NPD or hub contracts, tend to sit off-balance sheet. This means that neither the asset nor the debt are recorded against the council's assets and liabilities. New European accounting standards brought in that year resulted in many Scottish PPPs being reclassified as public assets. The resulting shift of projects onto the Government's balance sheet has meant only smaller and more constrained capital budgets and borrowing limits are available for investment.

PPPs procured under the hub DBFM model have got around the problem by transferring greater responsibilities to the private sector, thus keeping projects off the government's balance sheet. Under NPD's profit capping approach this has been more difficult. Partly in response, the UK expanded the amount the Scottish government was able to borrow for capital projects in 2016 to £3 billion (from £2.2 billion) and all underway projects have been able to proceed as planned. The establishment of new NPD projects has, however, been slowed.

Local infrastructure funding and financing

Funding for councils in Scotland follows a similar model to that seen at the national level. Around 60 per cent of local authority revenue is in the form of a central grant (i.e. from the Scottish government). The remainder is made up of council rates and user charges.⁸ Included in Scottish government transfers is a capital grant, which is used to top up local authority capital investment. However, the majority of local infrastructure funding ultimately comes from council budgets.

To match council revenues with lumpy capital investment needs, local authorities in Scotland are allowed to source debt. Around £9 billion (60 per cent) of local authority debt is borrowed from the Public Works Loan Board, a UK government agency set up to support local government borrowing. A further £2 billion is owed to PPP consortia and £4.5 billion more to other lenders.

Public and private debt are useful for overcoming short term financial needs resulting from major capital projects, but they do not address the quantum of funding available. Councils in Scotland continue to be constrained financially in their ability to meet infrastructure needs. This has forced central and local authorities to investigate new means to pay for critical services. A still new but developing approach to not only assist councils financially, but encourage them to act in alignment with government objectives, is **tax increment financing**.

Tax increment financing (TIF)

TIF is a local government infrastructure funding mechanism which uses future rates revenue to fund infrastructure. Local authorities borrow to invest in infrastructure expected to stimulate private investment, drive urban regeneration and increase land values. The debt is paid off with transfers from the Scottish government predicated on the additional revenue (such as business rates) generated by infrastructure investment.

TIF is overseen by the Scottish Future Trust. Six projects have been launched to date, facilitating public investment of £300 million. For every public dollar spent, private investors are expected to spend almost five dollars (£1.3 billion).

TIF seeks to tie beneficial local government investment with some of the more tangible returns on that investment, which otherwise would accrue mainly to the Scottish and UK governments. It is not the only such mechanism used in Scotland to better align investment in urban regeneration with benefits. The **Growth Accelerator** is similar to TIF, but rather than tying local authority revenue to improvements in land value, it rewards investment which supports economic outcomes.

Growth Accelerator

The Growth Accelerator is a funding mechanism to encourage and reward productive council investment. Rather than tying central revenue to land value improvement, as is the case with TIF, it links revenue to economic performance more generally.

The Growth Accelerator is programme specific and each initiative has its own targets and expected outcomes. Two projects have so far been established, the St James Quarter development in Edinburgh and the Dundee waterfront. In the more advanced St James project, the City of Edinburgh will invest £60 million in a central city redevelopment, which is expected to unlock £1 billion of private investment in a new retail, leisure and residential precinct. As the development meets certain targets relating to the property market and employment, an annual grant from the Scottish government will be released.

⁸ Audit Scotland, http://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr_161129_local_government_finance.pdf

Strengths of the UK and Scottish approach

The strengths of Scotland's system of planning, delivering and funding infrastructure are: Infrastructure planning

Independent needs analysis and monitoring

The National Infrastructure Commission provides a respected independent view of national infrastructure needs and performance. The approach carries a number of benefits.

Firstly, a well-resourced and capable body can publicly highlight long term issues which sit outside the political line of sight. Programmes which cut across local and central government responsibilities may not be picked up in the long-term plans of either. Global trends and changing technology can also be difficult for government departments to identify.

Secondly, it can depoliticise infrastructure priorities and reduce public anxiety. A respected independent voice supported with robust evidence speaking in clear language can clarify technical arguments and mitigate public misunderstanding.

Third, such a body can address cross cutting issues like infrastructure governance, funding, consenting and procurement. The traditional sectoral approach to infrastructure governance means these challenges are often left off the reform agenda until too late.

Fourth, it keeps capital investment on the political agenda. In periods of economic downturn, short term political investments tend to prevail over long term capital investments. An independent voice, separate from both industry and the government but sufficiently resourced and skilled, can reduce the likelihood that effective long-term thinking will be sacrificed for short term convenience.

New Zealand case study: the Auckland City Rail Link

The City Rail Link (CRL) in Auckland sat inconspicuously on various council strategic documents, but generally invisible to the public, for many decades. Public transport is a regional activity, but the cost vastly exceeded the capacity of local government, so the project sat neither on local nor central government plans. It only emerged as a political priority through an election, effectively surprising the public, raising questions about its efficacy and increasing opposition. Time and political pressures compromised the project's wider integration with infrastructure, urban planning and funding.

The CRL became a major political issue, epitomised by the production of vastly different economic analyses. An independent agency could have reviewed the business case and objectively investigated evidence and options.

An independent authority providing a long-term needs assessment could have better anticipated the need for the CRL. It could have held public agencies to account for either delivering on the project or meeting needs via an alternative. It could have objectively reviewed competing business cases and increased public confidence in decision making.

Leadership, growth and engagement through national spatial planning

Scotland's National Planning Framework is a spatial plan for all of Scotland. It brings development together with infrastructure and the environment. It sits atop a neat and coherent hierarchy of plans which cascade down through different levels of government.

Guiding the NPF and the entire planning system is clear government direction. Specifically, the purpose of government is to grow the economy; the government will do this fairly and equitably across society; and it will do it within the limits of the environment.

The “presumption in favour of sustainable development” recognises the positive benefits for the economy, people and the environment of plan-led development. The planning system in Scotland is a vehicle for promoting the Government's overriding objective of a more successful Scotland, not a tool for constraining it.

The NPF not only provides clear and consistent direction, it facilitates public engagement at the strategic level. Infrastructure corridors, development priorities and environmental hot-spots are put before the public and consulted upon. This reduces the element of surprise when major projects are announced and lowers public opposition.

Every plan in the hierarchy proceeds through its own consultative processes, attracting input from stakeholders and the wider public. This strengthens both community ownership of plans and the supporting evidence base. Plans are more robust and more accepted.

Spatial planning in New Zealand

The effects-based approach of the Resource Management Act 1991, has not facilitated national spatial planning. The positive benefits of planning, including the capacity for good plans to sustainably grow the economy, are weakly recognised in the RMA. Emphasis is instead placed on containing the negative impacts of infrastructure and development.

The only spatial plan required by New Zealand law is the Auckland Plan. It is mandated, however, not through conventional planning statute, but by the Local Government Act. The Auckland Plan has no statutory link to New Zealand's resource management framework. Regional strategic infrastructure and development priorities through the Auckland Plan do not have to be recognised by land use plans under the RMA.

Neither the Auckland Plan nor any other spatial plan is linked to funding legislation. Priorities have no guarantee of receiving funding from either the New Zealand Transport Agency (who funds approximately half of transport) or central government in general.

Centralised independent environmental regulation

The Scottish Environmental Protection Agency processes major environmental or “resource” consents across Scotland. This allows a nationally consistent consenting approach to be applied by an independent specialised agency not conflicted by other activities. By drawing on standard practices and approaches, litigation can be reduced and a strategic approach to improving environmental performance taken.

Separating regulation from other governance activities has allowed greater strategic focus on good regulation. The concentration of skills and expertise in a single body has enabled new, more advanced approaches. The Scots are now at the leading edge of modern environmental regulation.

New Zealand environmental regulation

In New Zealand, environmental regulation is largely the role of regional authorities. There are 16 regional authorities across New Zealand, plus, for major projects, our own Environmental Protection Authority. Separation of regulatory functions by region makes specialisation more difficult and reduces consistency across the country.

Regional authority regulatory activities are guided by the Resource Management Act 1991. They do not take strategic direction from the Government and central leadership through the RMA has historically been weak.

The principal purpose of regional authorities to manage environmental effects often puts them in conflict with local councils and central government agencies, who have wider remits. Consequently, it is not unusual to see local and regional authorities in court.

Regional councils are also infrastructure operators, meaning they must regulate their own activities. This raises questions over conflicts of interest particularly for unitary authorities responsible for prioritising infrastructure and regulating its impact.

Infrastructure delivery

Specialised procurement

Through the activities of a specialised body dedicated to achieving value for money in infrastructure delivery, Scotland is adding value of over £100 million every year. Savings made by the Scottish Futures Trust come via a combination of good procurement and centrally-guided initiatives which use expertise, experience and scale to save money.

Procurement innovations like hub and NPD are made possible centralising national expertise inside a single entity. Properly resourced to research and test best practice, SFT provides a career path for procurement professionals helping retain and enhance knowledge.

With a remit extending over all of Scotland, SFT has the capacity to work across central and local government. It is able to lend its expertise to local authorities who may only have intermittent experience procuring major projects. The overall result is a more sophisticated and advanced public approach to the purchase of complex and large projects.

New Zealand procurement expertise

New Zealand's public capital management expertise is currently spread across multiple bodies. PPP expertise is located inside the Treasury. Infrastructure strategy and pipeline responsibilities are also inside the Treasury, but under a different division. Procurement policy responsibilities are spread between Treasury and the Ministry of Business, Innovation and Employment. Actual procurement experience and specialisation is concentrated inside the New Zealand Transport Agency.

Local government is responsible for its own procurement. Although in transport it is guided by NZTA, it generally receives little support on procurement, even when procuring once-in-a-lifetime assets. Limited resourcing and smaller capital programmes create major barriers to the growth and development of procurement specialists.

The spread of skills and experience across government undermines procurement activity as a process of continual development. Learnings are less easily transferred across departments and professional capability is slower to evolve. Innovations in delivery are more difficult to investigate and test and accountability for improving processes is unclear.

Combined project delivery

Scotland's hub model provides a mechanism for central government to lend its size and experience to local authority project procurement. This has two major benefits. It resolves issues with procurement expertise inside small local authorities who irregularly procure major assets and it adds scale to asset purchases.

Hub is led by a government entity, the Scottish Futures Trust, which draws on its national experience to support councils through the procurement process. This helps ensure councils buy the right services at the best whole-of-life value. It also lowers risk to local authorities and reduces the need for in-house expertise.

The bundling of groups of services and projects together across different agencies carries multiple advantages. It creates scale, lowering the overall cost of purchasing assets and allowing public money to be spent elsewhere. It opens up new procurement options, including PPPs, which otherwise are inefficient for small capital projects. It facilitates project integration and sequencing, deferring the need for some services and leveraging benefits off others. It enables standard designs to be applied across a sector, radically lowering individual project costs.

Water service procurement in New Zealand

New Zealand has 67 local authorities with responsibilities for providing wastewater and water supply services. Outside of transport, planning and delivering a wastewater or water treatment facility is likely to be the largest purchase these authorities ever make.

Unlike in transport, there is little to no support given to local authorities making a once-in-a-lifetime water purchase. There is also limited cooperation across council boundaries. Lack of procurement experience leaves councils in a weak position to challenge advice and bespoke solutions are sought when standardised options would likely suffice.

Ratepayers are left shouldering the burden of risk. PPPs would be an option to reduce exposure to poor project delivery, but the small size of projects makes investment unattractive. Even where projects are large enough to leverage private sector capability, councils lack the skills to manage advanced procurement.

The structure of New Zealand's urban water services sector

Consolidated water service delivery

The Scottish Water model, which sees a single publicly owned company operating all of Scotland's water supply and wastewater services, has pulled the sector out of crisis. Health scares and escalating prices have been addressed by superior governance and asset management.

Scotland now enjoys a safe drinking water supply and is efficiently managing its assets for the long term. Its average monthly water charges of around NZ\$55 are low by New Zealand standards.

Separating water service delivery from wider governance functions has increased strategic and operational focus on lifting levels of service. The more corporate approach to the sector has occurred while ownership has remained with the public, allaying political concerns.

Consolidation of water services has brought economies of scale to a previously fragmented industry. A national perspective has prioritised investment in the most critical areas. Centralisation of water expertise has supported specialisation and improved skills development.

New Zealand's water sector includes one comparator to the Scottish Water model: Watercare Services Ltd. Watercare charges a direct user tariff on all homes and businesses in the Auckland region connected to water supply and wastewater services (with an exception for services in Papakura).

The Watercare model is, however, unusual in New Zealand. Wellington Water, an independent water manager jointly owned by the four Wellington city councils and the Wellington Regional Council, also has its own model. It plans and manages the Wellington system, but investment decisions remain with individual councils.

Across other areas of New Zealand, local councils manage urban water services. In most cases, water is not metered and charges are included in a property's rates bill.

Independent regulation of the water industry

A corollary of consolidated, independent water service delivery is the need for separate price monitoring and regulation. The activities of the Water Industry Commission for Scotland and Ofwat improve transparency, enable benchmarking and drive better whole of life asset management across the sector.

Transparency is provided by the publication of regular information on the cost of water provision and the quality of services. Water companies in the UK are required to provide this information and demonstrate that they are meeting national standards. Data is readily accessible and presented clearly to promote accountability.⁹

Transparency not only improves public awareness, it enables benchmarking across the sector. Customers are able to see how comparatively expensive their services are, increasing the pressure on providers to deliver efficient services. The regulator is able to monitor performance in the context of the wider industry, improving its understanding of national issues and efficacy.

⁹ See www.Discoverwater.co.uk

Whole of life asset management is improved. Each company regulated by Ofwat must develop a strategy for how it will manage the network over 25 years. The strategy must be consulted on and demonstrate feasibility. This protects consumers from sudden price increases and provides a vehicle for engaging customers about long term challenges and options (for example, grey water recycling).

Water sector regulation in New Zealand

Regulation of New Zealand's wastewater and water supply is fragmented. There are no independent regulators, as there is for electricity, for example. The Ministry of Health and regional councils monitor public health and environmental performance, respectively. There is no price regulator.

The lack of independent regulation reduces public awareness of performance breaches and permits lower levels of service. The Ministry of Health's most recent Annual Report on Drinking Water Quality, for example, found more than 10 per cent of people in larger areas (above 10,000 population) received water which was not fully compliant with national standards. For smaller suppliers, between a third and three-quarters of people received water which failed to meet national standards. The Ministry's findings are not widely reported and public knowledge of breaches is extremely low. In this context, the risk of further incidents like Havelock North remains high.¹⁰

Price regulation is not widely considered to be necessary given most local councils provide water at "no cost" (that is, there is no direct charge and rates cover service costs). There is thus no regular or consistent data published on the cost of service provision. Neither consumers nor local councils themselves know whether they are performing efficiently or not and whether efficiencies are possible.

¹⁰ Around 5500 people fell ill with a gastro illness caused by contaminated water in Havelock North in August 2016. It is believed three people died as a result of a campylobacter outbreak. The subsequent Government inquiry found that several of the parties with responsibility for the water supply regime for Havelock North (in particular the District Council, DWAs and Hawke's Bay Regional Council ("Regional Council")) failed to adhere to the high levels of care and diligence necessary to protect public health and to avoid outbreaks of serious illness.

Infrastructure funding and financing

Local government alignment with national strategic direction

Through the City Deal, the Growth Accelerator and Tax Increment Financing initiatives, the Scottish (and UK) government incentivises local government to promote the Government's "successful Scotland" agenda. Local government invests in and is rewarded by growth, central government revenues increase and opportunities are created for local communities.

Under the Scottish local government funding model, the tax benefits of growth are disproportionately captured by central government (both the UK and Scottish governments). The lack of financial upside discourages capital constrained councils with competing priorities from investing in projects which deliver net national benefits. The transfers through City Deal, the Growth Accelerator and TIF help rebalance the costs of growth with the benefits. This approach avoids the need for new top-down prescriptions, resulting in better buy-in from councils.

Local government's role in New Zealand

The purpose of local government in New Zealand is clearly set out in the Local Government Act 2002 (LGA):

- a) to enable democratic decision making
- b) to meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.

Local government has no economic development mandate in New Zealand other than to take account of economic interests while pursuing a sustainable development approach.¹¹ Surprisingly, it does sustain a number of economic development agencies and is sometimes criticised for not advancing economic development goals.

Local government is resourced by rates and user charges on activities like car parking and issuing consents. It does not receive regular transfers from central government, other than through the National Land Transport Fund, and does not directly receive any proportion of GST, income or corporate tax.

Local government therefore does not experience a significant revenue increase through periods of economic growth, but is also financially insulated through periods of slow growth. This separates local government from fluctuations in the economy, reducing the incentive to invest in growth projects which compete with core functions.

Local government is also under no requirement to support central government strategic direction. There is neither a requirement in statute nor a strategic planning framework which ties council priorities to national priorities. In the absence of financial "carrots", central government can only influence local government through changes to the LGA. The purpose of local government has accordingly been changed on multiple occasions, the latest being in 2012.

¹¹ Local Government Act 2002, Section 14 (h). The term "economic" features just six times in the Local Government Act.



Exemplar of national significance: The London Olympic Village

London's Olympic development is an exemplar of aligned and integrated planning, governance, funding and delivery.

The high cost of Olympic infrastructure, including sporting facilities, competitor accommodation and supporting infrastructure, presented a barrier to national hosting aspirations. The high cost of regeneration, including restoration of contaminated land, presented a barrier to investment in East London. By marrying the two, UK and London authorities saw an opportunity to deliver on national and regional objectives.

The UK Government and Greater London Authority jointly committed to using the Olympics as a vehicle for major urban renewal. The Olympic layout and plan was devised with longer-term regeneration as a key outcome. Robust governance and funding arrangements across both levels of government were agreed which reflected the investments and responsibilities of both parties. Subsequent funding challenges brought about by the Global Financial Crisis were able to be addressed without impacting the project schedule.

An independent special purpose delivery vehicle, the Olympic Delivery Authority, was set up to manage the joint investment. It was responsible for interfacing with private sector contractors, sequencing the programme, arranging finance and delivering the Olympics venue and infrastructure. The ODA adopted a partnership approach to project procurement and delivery. Contractors were incentivised to deliver project outcomes including:

- delivering excellent, innovative and accessible design
- ensuring London 2012 was the most sustainable Games ever
- giving people in London and the UK unprecedented access to new jobs and career opportunities
- embedding health, safety and security into every aspect of the project
- leaving a lasting physical, social and economic legacy

The Olympic Village and sporting facilities were successfully delivered and have since been repurposed to support a thriving new community. The Village has been replaced with almost 3000 new homes, almost half of which are affordable. Residential development is leveraging off access to improved transport. The wider East London area has experienced an economic uplift from increased investment and new employment.





Lessons for New Zealand

We could improve public understanding of infrastructure challenges and better support national investment by establishing an empowered national body charged with identifying infrastructure needs.

An independent national body with responsibility for developing a long-term needs assessment would help identify infrastructure pressures and requirements before it is too late to respond. Sitting outside the Government, it would have the ability to look beyond the electoral cycle.

If empowered only with advisory functions and under the direction of the Government, the body is unlikely to be considered independent or significant. If granted “greater-than-advisory” powers, for example, if the Government had to explain why it disagreed with its needs assessment, the entity would increase public interest in and exposure to infrastructure policy. Greater public awareness would help reduce the likelihood of underfunding through different parts of the economic cycle.

The plan-led approach gives greater certainty and better balances strategic priorities with local interests than an effects-based system.

Under existing environmental legislation, the Resource Management Act 1991, New Zealand takes an “effects-based” approach to managing environmental impacts. This means that the starting point for any regulated activity (for example, infrastructure and development) is that it can proceed, provided the environmental impacts can be managed. Under the plan-led approach, only activities which are consistent with relevant statutory plans can proceed.

While the New Zealand approach sounds as though it is more permissive and flexible, in practice it is not. Both approaches require consents for regulated activity and these consents are guided by statutory plans. However, under the effects-based system plans are geared towards preventing negative environmental effects. Under the Scottish approach, plans are designed to grow the economy fairly and within the limits of the environment.

Scottish plans proactively seek to achieve broad societal outcomes. New Zealand plans seek to manage environmental impacts within the context of broader societal outcomes. The Scottish approach is proactive and recognises the benefits of good government decision making. The New Zealand approach uses government authority to constrain public and private activities with environmental impacts.

Government frustration at the inflexibility of the New Zealand system and its inability to respond to government direction has resulted in progressively greater guidance being provided in the RMA. The RMA has doubled in size since 1991, from 382 to 790 pages today. This has had the result of moving the New Zealand system closer to the plan-led approach, but without the ability for the Government to lead strategically. Only through slow and cumbersome National Policy Statements for distinct activities or through changes to the Act can the Government influence resource management priorities.

The plan-led approach, with Government strategic priorities at the apex of the planning hierarchy, allows Government policy to filter through the planning system. Clarification of what is to occur as well as what must not, improves investor certainty and recognises the beneficial role that Government, as the largest investor in New Zealand, can play.

We could save money and improve infrastructure performance by establishing an independent centre of expertise for project procurement, integration and public private partnerships.

Borrowing the best elements of the Infrastructure and Projects Authority and Scottish Futures Trust, a New Zealand equivalent could focus on whole-of-government infrastructure integration and value for money. It would oversee New Zealand's PPP programme, infrastructure pipeline and become the national centre for project procurement expertise.

Combining existing skills and responsibilities from the NZ Treasury, Ministry of Business, Innovation and Employment and New Zealand's pre-eminent procurement authority, the New Zealand Transport Agency, it would consolidate existing activities. Governance would be provided via a revised National Infrastructure Advisory Board. Funding appropriations would come from existing budgets and an ongoing monitoring programme would assess value for money.

The New Zealand body could be charged with delivering net value of above \$100 million per annum. It would achieve this by:

- Integrating and sequencing whole-of-government project planning and delivery
- Bringing scale and skills to local government project delivery
- Improving project procurement across central and local government
- Attracting private investment into public services
- Providing a mechanism to constantly improve New Zealand project planning and delivery

Central government could bring together local government procurement and provide immediate and substantial benefits for water and tourism infrastructure.

A centre of procurement expertise in Wellington would provide a vehicle for central government to integrate and facilitate the delivery of local infrastructure. Rather than dozens of small procuring authorities each purchasing similar services, a centrally-led, coordinated approach could bundle projects, standardise design and bulk purchase. Time and money would be saved.

Procurement risk could be offset with improved skills inside the dedicated agency, rather than spread across multiple entities with limited experience. Scale delivery would open up more advanced procurement options, such as PPPs, which further work to offset risk to taxpayers. The Ministry of Education uses this exact model today to purchase schools.

Education and health facilities could be combined with council infrastructure, but the biggest opportunity is in the purchase of water and tourism infrastructure. Standardising wastewater treatment schemes across New Zealand could radically reduce costs to councils. Bundling these services into regional or national PPPs could bring forward services which deliver significant environmental benefits.

Tourism and water infrastructure across New Zealand is under immense pressure. A hub-type approach could use existing Government allocations to attract private capital into new services, allowing rapid delivery of much-needed services. Standardisation of tourism infrastructure such as public toilets and freedom camping facilities could reduce costs nationally and bring scale to otherwise minor projects.

Public and environmental health could both be improved across New Zealand with a Scottish Water model.

At the point of consolidation, Scotland's previous five water service operators struggled to provide clean drinking water and the environment suffered from poor wastewater treatment. Weak asset management meant future customers were facing rapid price increases to replace and maintain services. This is the situation facing a number of council areas across New Zealand today.

A single water service provider for all of New Zealand is unlikely to offer best value for money. Part of the success of the Scottish Water model is related to good national benchmarking. A single water provider for New Zealand would be challenged to benchmark performance and support continual improvement.

A more obvious alternative is to consolidate services at the subnational, for example regional, level. Councils could transfer their water assets into a jointly owned specialist water provider and deliver significant improvements in levels of service. Value would be achieved from greater focus on water service delivery, improved strategic direction, economies of scale and skills development.

A weakness in the Scottish Water model could also be addressed to add further benefit. Scottish Water assets sit on the balance sheet of the Scottish government, meaning that capital spending is subject to rigid budgetary processes. Regionalising water services in New Zealand could involve removing the assets and the debt from council balance sheets. This would in some cases allow for greater council investment at the same time as the water company could borrow independently to fund priority capital works.

Auckland's Watercare could be sold to fund Auckland growth with minimal impact on the cost of services and improved strategic capability.

Scottish Water delivers services for around 10 per cent less than the average of privately run water companies in the UK. This figure more or less represents a return on investment private companies must pay to shareholders. Excluding the profit margin, Scottish Water was as efficient as private operators.

Auckland's Watercare already provides services under a similar model to Scottish Water. Weak monitoring across other parts of New Zealand means it is difficult to benchmark Watercare's success, but it is unlikely to be operating as efficiently as Scottish Water. Watercare cannot borrow independently of the council and the council is extremely constrained financially (debt to revenue is at or near its limit), preventing Watercare from optimising its investment programme.

Watercare's inability to borrow and invest commercially is impeding growth and slowing the supply of new homes in Auckland. Selling Watercare would provide an immediate capital injection to invest in growth infrastructure, take debt but not revenue away from the council and allow a commercial approach to water service operation.

If valued on the basis of its assets, Watercare could be sold for between 1.2 and 1.5 times its \$9 billion balance sheet. A \$10-15 billion capital windfall would have a material impact on Auckland's growth response, but would also result in significant price rises to consumers.

Alternatively, Watercare could be valued (and regulated) on its earnings. A sale price of 10 to 13 times current EBITDA would value Watercare at between \$3.5 and \$5 billion. At this end of the spectrum the impact on consumer prices would be minimal, the Council would receive a significant capital injection and both Watercare and the Council could invest more freely.

Sale of Watercare would require changes to legislation and effective regulation. UK experience suggests this is best undertaken by a central independent regulator. The Ofwat model is consistent with New Zealand's Electricity Authority approach and its deployment would make possible the expansion of water price monitoring, benchmarking and regulation nationwide.

Dedicated independent regulators are more informed and take an outcomes-focused strategic view of the sector.

The Scottish Environmental Protection Agency, Water Industry Commission for Scotland and Ofwat are driving change and improving performance in their regulated sectors. Consolidated expertise and clear regulator accountability make possible new approaches focused on delivering better overall outcomes. National consistency and independence from other public institutions improves confidence in the regulator.

A transformed and empowered New Zealand Environmental Protection Authority, taking on the regulatory functions of regional councils, would deliver a nationally consistent approach to land, air and water management. Conflicts of interest would be removed and wider national objectives incorporated into regulatory activities. The collaborative, outcomes-focused environmental management approach underway in Scotland could be pursued.

A dedicated central water sector price regulator is a precondition to consolidating or privatising the urban water industry. Under existing arrangements the model would still offer benefits. In taking responsibility for drinking water monitoring from the Ministry of Health, an independent water regulator would improve accountability and public health outcomes. Publication of data on the cost of service provision would enable benchmarking and improve transparency. Objective assessment of asset management strategies and public engagement would enhance strategic capability.

Local government can be incentivised to align investment priorities with national outcomes.

There is a normal tension between the interests of local communities and the wider interests of the state. However, under both the UK and New Zealand models, this tension is exacerbated by tax structures which incentivise misalignment.

In New Zealand, local government tax revenue is largely limited to land taxes (rates). In Scotland councils receive rates plus a top-up from central government, reflecting the bigger role local government plays in education and housing. Central government in both countries manages the larger revenue streams attached to economic performance: GST and VAT, income and corporate tax (among others).

By controlling taxation linked to stronger economic performance, central governments in both the UK and New Zealand remove the principal incentive for councils to “go for growth”. The ability for councils to fix the amount of rates paid per property further insulates local government from the risks and benefits of policies which add value. In Scotland, central government has sought to overcome misaligned incentives by sharing tax upside via the City Deal, Growth Accelerator and a multitude of other programmes and grants. In New Zealand, successive governments have principally tried to align local government through directives, such as changes to the statutory purpose of local government.

Neither model is optimal. In Scotland, the availability of grant money in the context of constrained capital budgets encourages councils to prioritise projects for which they think they can get funding, rather than projects which provide the greatest net benefit. In New Zealand, central government has had mixed success trying to focus councils on an often inconsistent blend of core business and Government priorities.

An optimised system would see local government supporting central government strategic direction by choice. Broadening local government’s revenue base so that councils receive a portion of the upside from efficient investment, and are exposed to some of the downside from policy failure, would assist whole-of-government alignment.

Under New Zealand’s existing governance arrangements, it is difficult to see how funding and taxation responsibilities can be significantly enhanced. Over one-third of New Zealand local authorities possess populations below 20,000 people. The prevailing role regional councils play in regulating the environment means they are also not well placed to manage more complex taxation responsibilities. Local government funding and governance need reform if councils are to better support national strategic direction.

Conclusion

To maximise the benefit of New Zealand's record forward programme of national infrastructure investment, the best possible frameworks and institutions are required.

Borrowing and adapting best practice from global leaders is one way New Zealand can ensure its investment programme is well managed.

Scotland's recent and evolving experience in establishing a robust system of planning, funding and delivering infrastructure possesses some unique and valuable attributes. The strongest relevant elements New Zealand should adopt and modify are:

1. Establish an independent body to identify long term infrastructure needs and monitor performance against these needs. This will enhance public awareness of capital requirements, encourage a strategic approach to service delivery and mitigate underinvestment through the economic cycle.
2. Reform planning laws and local government structures and funding to provide an aligned spatial planning and infrastructure delivery system nationally, regionally and locally.
3. Establish a specialised project procurement entity to help plan, prioritise and deliver national and local capital programmes. If this entity is independent of the Government, it will depoliticise procurement decisions and be able to work more closely with councils and the private sector. By bringing together local authority capital programmes, it will be able to standardise similar projects, bundle delivery and make large savings on design and procurement.
4. Reform the water sector. Consolidate water supply and wastewater services into a smaller number of large operators. This will enhance strategic capability, improve asset management and enable monitoring and benchmarking.
5. Shift to independent regulation. An enlarged Environmental Protection Authority taking on responsibilities of regional councils would reduce conflicts of interest, support professional development and have the ability to modernise environmental management. An independent water regulator would be more effective in holding local government to account for public health and financial performance outcomes.
6. Investigate the partial or full sell down of Watercare to fund growth. Watercare does not provide a return on investment so no revenue would be sacrificed. Proceeds could be used to fund growth infrastructure with a high social and economic return. Improved efficiency from unrestricted capital management would offset price increases resulting from a margin for profit.
7. Revise council funding to align central and local government investment incentives. Broadening council taxation sources will encourage councils to better support growth. New funding tools will require strengthened governance and the promise of increased revenue will encourage councils to support change.





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