Koi Tū
Centre for
Informed Futures

Systems thinking, foresight and wicked problems: Implications for policymaking

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Koi Tū Centre for Informed Futures is an independent, non-partisan, future-focused boundary organisation dedicated to tackling the complex, long-term challenges shaping Aotearoa New Zealand's future.

We provide high-quality, evidence-based insights to address critical national and global issues arising from rapid social, economic, technological, and environmental change.

Our name, Koi Tū, was gifted by Ngāti Whātua Ōrākei. Koi means "the sharp end of an arrow" and "to be bright and clever," while Tū means "to stand" and conveys resilience. Like our namesake, Koi Tū aims to get to the heart of the most pressing long-term issues.

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Executive summary

Policymaking involves a mix of planned activities and more immediate responses precipitated by current events. While the so-called 'policy cycle' implies a careful and logical process, it is a complex process involving agenda setting, formulation, budgetary or regulatory decisions, implementation, and sometimes evaluation. All of these aspects are influenced at different times across the process by politicians, advisors, lobbyists, experts, officials, stakeholders and the public. This can make it difficult to achieve meaningful and effective action on many issues.

The reality is that many of the most attention-gaining policy issues are both complicated and complex, and have characteristics that have led them to be labelled 'wicked problems'. In New Zealand the challenge is further compounded by the short political cycle, a reluctance for bipartisan solution-finding, a naïve sense of exceptionalism, and a cultural predisposition for short-term thinking.

Wicked problems can be defined as difficult, if not impossible, issues to resolve due to their complexity, lack of clear definition, and multiple conflicting perspectives. These problems lack solutions that are politically risk-free and easy due to their dynamic nature, their multiple causal and compounding factors, and the long timeframe required to make a compelling difference. They are typically interconnected with other issues and have the potential to impact various stakeholders in very different ways across the broader system.

Addressing wicked problems necessitates involving various actors, funding spanning multiple agencies, and governance and accountability extending across numerous portfolios. It requires significant consultation and negotiation to agree on a suitable course of action. When unresolved, wicked problems inevitably garner public and political interest and contention and end up becoming more complex.

Resolving or at least significantly ameliorating such issues takes time – time that inevitably crosses political cycles and may even cross generations. In many instances, it is this political and/or practical inability to act within a political cycle, despite well-promoted claims that rapid solutions exist, that drives frustration, cynicism and distrust from the public towards whoever is in government and indeed towards the entire political process.

In seeking solutions there is a need to develop and understand the multiplicity of factors that lead to a problem. Systems thinking is a form of analysis that is key to identifying both the causal factors and the balance of activities that might lead to effective solutions. Foresight is also needed, given that actions will take time to be implemented and to be influenced by both choices made and events yet to unfold.

Formal systems thinking helps identify the multiplicity of possible actions, the resulting trade-offs, and ways of monitoring for desired benefits. It is inevitable that the issues encompassed by wicked problems will take multiple actions over several political cycles to address. A transparent systems-based approach could also reduce the risk of partisanship overriding consensual actions that might take multiple political cycles to address. This can help enhance public confidence in the institutions of democracy.

In this discussion paper, we explore the challenges of policymaking to address wicked problems. Publics expect governments to provide solutions, but the complexity of such issues compounds over time, leading to relatively unproductive political contestation. We argue that there is a need for a substantive change in how such problems are addressed through policymaking and

implementation. While not solely focused on the social sector, we highlight the potential of the Social Investment Agency.

We put the case for the more systemic use of systems thinking and strategic foresight in policymaking and for enhancing the use of evaluation and implementation science in assessing actions taken. If New Zealand wants more effective policymaking on accumulating wicked problems, then fundamental changes within the policy and political processes are desirable.

Introduction

This discussion paper focuses on the self-evident problem that our policy and political processes are not well suited to addressing a range of major issues where problems appear to accumulate rather than resolve, despite the best intent of the government of the day and of the policy community.

In general, the policy process is often stylised as an apparently linear or iterative (i.e. circular) process involving agenda setting, problem formulation, budgetary or regulatory decisions, implementation, and sometimes evaluation. This description works for relatively straightforward matters such as deciding where to build a school or whether to provide foreign aid. Indeed, much commentary on public policy development is framed in these terms. But such policymaking assumes a clear problem statement or well-defined operational need, involving a single agency with a clear mandate and decision-making authority, identifiable cause and effect, and solutions and interventions that are politically acceptable and predictable. However, even these types of policy choices have their complexities. There are always fiscal, political, equity, stakeholder and other considerations that require coordination between multiple agencies, as well as interdependencies that must be taken into account.

In this paper, we focus on the growing recognition that more sophisticated approaches are needed to address highly frustrating and concerning problems such as persistent educational failure, growing challenges of poor mental health, urban intensification, issues at the environmental-economic interface, or long-standing poor economic performance. Many of these issues are both complicated and complex, and have characteristics that have led them to be labelled 'wicked problems'.[1]

It is essential to accept that solutions to such problems will be multivalent and take time – time that crosses political cycles – and that finding approaches to issues that accumulate, like the economics of demographic change and an ageing population, will likely require a more consensual political process.

Systems thinking and strategic foresight help define the factors involved and the possible solutions. Neither is well developed in our policy processes, although there are some 'green shoots'. Further, assessing and realising the potential of any intervention requires a more data-driven approach and greater use of implementation and evaluation sciences.

Many of these so-called wicked problems are the issues of greatest concern to citizens and cause much political contention. If New Zealand is to advance, it will be important to find ways to make more effective progress. Structural and attitudinal change is desirable.

Characteristics of wicked problems

The term 'wicked problem' was introduced in 1973 by social planners Horst Rittel and Melvin Webber in a seminal paper titled 'Dilemmas in a General Theory of Planning'.[2] They observed that traditional approaches to problem-solving and planning were inadequate for addressing the complexity and interconnectedness of specific social issues. They compiled a list of ten attributes that distinguish wicked problems from what they call 'tame problems' and argue that with all or a specific combination of these attributes, many problems in policymaking are wicked.

1 Head, B. W., & Alford, J. (2015). Wicked problems: Implications for public policy and management. *Administration & Society*, 47, 711-739. https://doi.org/10.1177/0095399713481601

2 Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4, 155–169. https://doi.org/10.1007/BF01405730

Contemporary scholars have further refined these concepts, adopting a more pragmatic framing that captures the essence of why such problems challenge modern policymaking. Wicked problems are inherently complex due to the interdependencies of causes and effects across multiple interconnected systems. They have unintended consequences arising from interventions that evolve with and may even compound the problem, which is generally framed in terms of a desired outcome. The nature of the problem itself and its causes may also be contentious, reflecting a plurality of stakeholder perspectives, ideological framings and values. The very nature of such problems means that it is highly unlikely that a single action will address the issue. Decision-making in such contexts is generally associated with greater uncertainty about the impact of proposed actions than decision-makers are willing to admit. A characteristic of most if not all wicked problems is that while they emerge over time, they become more complex if they remain unresolved.

Some problems require actions that transcend jurisdictional boundaries, further increasing the complexity. This may be at the global level: for example, addressing issues related to social media or the governance of artificial intelligence (AI). Alternatively, the problems and their solutions may lie at the local level, where local and central politics drive different priorities – for example, in decisions related to planning or transportation. The challenges of resolving difficulties and conflicts in multi-level governance are inherently a form of wicked problem.[3]

Fifty years since the phrase was first coined, understanding and navigating wicked problems remains central to achieving better policymaking, and thus essential to improving economic and social outcomes and sustaining a national consensus in building New Zealand's identity. This requires acknowledgement from both the public and politicians that there is no absolute solution to such problems, nor is there often an absolute endpoint with the problem totally disappearing. We also need to recognise that the way we have always done things, in either confronting or ignoring some issues, no longer holds; we need to shift our mindset.

Why traditional problem-solving fails

It is important to recognise that traditional approaches to policymaking are inadequate for addressing such problems because conventional approaches were designed to respond to so-called tame problems. This latter class of problem is characterised by a clear problem statement, a finite set of solutions that can be objectively evaluated, and outcomes that can be controlled.

Traditional policy formulation is often described as following a stylised linear approach where policymakers define the problem, gather data and analyse it, identify a solution, and finally, implement and evaluate the solution. This sequential method may work well for deciding on building a bridge, but fails when applied to solving the housing crisis. Treating wicked problems as tame leads to oversimplification and to narrow solutions with unintended practical and political consequences. Table 1 outlines the fundamental differences between tame and wicked problems across multiple dimensions.

3 Cairney, P., Heikklia, T., & Wood, M. (2019). *Making policy in a complex world*. Cambridge University Press.

Dimension	Tame problems	Wicked problems
Problem definition	Clear, agreed-upon, stable over time	Ambiguous, contested, evolves with stakeholder perspectives
Solution type	Technical fix, replicable across contexts	No definitive solution as each attempt reshapes the problem
Stakeholder agreement	High consensus on causes, goals and methods	Conflicting perspectives, values, interests and priorities
System boundaries	Closed system, limited external influences	Open system, dynamic interactions across domains
Policy tools	Standard procedures, regulations, cost-benefit analysis	Adaptive governance, participatory design, systems mapping
Success criteria	Measurable outcomes, clear completion point	No-stopping rule; success is provisional, never resolved
Governance approach	Top-down, expert-driven	Collaborative, iterative, transdisciplinary
Risks of misdiagnosis	Low as solutions are robust across contexts	High as oversimplification leads to policy failure and unintended consequences

Table 1: Policy considerations for tame vs wicked problems.

Wicked problems cannot be defined in the same way as tame problems because of limitations in cause-and-effect modelling and the inability to isolate variables. Wicked problems, by nature, operate as open systems, so reductionist and closed-system thinking fails. Traditional approaches generally rely on structures that silo analysis and isolate the issues to individual agencies, such as ministries of social development, education, housing or health.

Wicked problems transcend multiple agencies, scales and timelines. For example, an intervention aimed at addressing an issue in housing may have ripple effects across multiple dimensions, and the issue itself is likely to have complex causation which is lost in the response. For a long time, housing affordability has been viewed primarily through the lens of supply and demand. While a singular linear solution such as seeking to increase housing supply by a policy intervention may temporarily appear to solve the problem, it fails to address deeper systemic factors: the housing challenges we face are intricately entangled with transportation infrastructure, planning regulations, income inequality, school zoning laws, cultural attitudes and expectations, and a changing demography, as well as broader economic issues such as superannuation, investment preferences, saving policies and persistently low national productivity. The problem thus just changes or grows if addressed solely in terms of supply and demand.

As has been seen too often in many domains of public policy, cross-sectoral coordination and systems thinking are essential; otherwise, we risk policies that are reactive, fragmented and short-lived. Further complexity is added when issues involve multiple layers of governance – most often central and local government, which may have very different objectives.

Traditional policymaking often centralises decision-making to a few experts, policymakers and officials, as it assumes that experts within a ministry can provide the data and evidence to inform a policy, and that a single authority can then implement it. This top-down model is generally ineffective for wicked problems. These problems are inherently social and political with conflicting values and priorities alongside contested narratives and perspectives, thus demanding pluralistic consideration. Misdiagnoses of the causes and factors underlying wicked problems can lead to distrust, fuel resentment and undermine viable ways forward.

Inherent to addressing a wicked problem is understanding that it will take time to be addressed through multiple actions. This requires the capacity to look ahead. Doing so helps to understand not only what any intervention might do, but also how future stresses and shocks may impact on the problem and thus how it is addressed. This is the practice of anticipatory foresight. Finland is an exemplar of a country doing this via its 'anticipatory innovation governance model'.[4] This model aims to make the public administration more proactive and prepared for the future by involving tools and knowledge to anticipate and tackle 'grand challenges' before they reach a crisis point and integrating foresight into everyday government functions.

The New Zealand perspective

A characteristic of wicked problems is that while they emerge over time, they generally become more complex if they remain unresolved and continue to evolve. In this context, policymaking in New Zealand faces challenges.

First, compared to other liberal democracies, our three-year electoral cycle is unusually short, continually biasing the policy process towards a short-term focus. This compresses the time available for deliberative analysis, interagency dialogue, stakeholder engagement and consequent policy development, making the process much more problematic.

Second, we have a very 'shallow' democratic structure with limited opportunities for the type of consensus-building that might come from deeper parliamentary review and consideration. We lack a deep tradition of interrogatory select committees that act beyond simply legislative review and are typically found in larger parliaments or those with an upper house.

This lack of consensus is magnified further by the considerations of coalition politics. Even though most issues span political cycles, our tradition of partisan divides and strong party whips limits enthusiasm for finding solutions across the political divide. Mixed Member Proportional (MMP) was designed in Europe at a different time to produce consensual politics. But the concept of the 'grand coalition' that MMP was designed to favour never grew in New Zealand, which was used to a bipolar political system. It became eroded by the changing nature of societal and political rhetoric, no doubt fuelled by the emergence of social media and the rise of more extreme political rhetoric across all the liberal democracies. Thus, we have created a paradox: as it is now functioning, MMP makes consensual politics, especially across the aisle, more difficult – yet that is where progress towards addressing wicked problems generally lies. The policy process is almost inevitably distorted providing fuel for aggressive media and political contestation and in turn creating an environment where bipartisanship is harder to find.

Many of the problems that we face, including the most fundamental issues of national vision and identity, are wicked in nature. So are many of our social issues such as youth crime, educational failure, an overwhelmed healthcare system, intergenerational disadvantage and immigration policy. Other wicked problems involve complex environmental–economic interactions, where worldviews, values and ideological differences lead to disagreements about cause and effect, and tend to draw decision-makers into the trap of resorting to simplistic solutions. This is also exacerbated by lobbying from well-meaning stakeholder groups for quick-fix solutions and 'knee-jerk' policy responses, which are often implemented under urgency with minimal and superficial analysis of the underlying problem.

4 OECD. (2022). *Anticipatory innovation governance model in Finland: Towards a new way of governing*. OECD Public Governance Reviews, OECD Publishing. https://doi.org/10.1787/a31e7a9a-en

It is generally accepted that the siloed and linear nature of policymaking is a problem in most democratic governments. It proves very difficult for the multiplicity of agencies that comprise our policy community to work across boundaries and share in policymaking. This means that each agency is driven to champion a single, generally immediate action due to the range of externalities and pressures, while simultaneously engaging in an annual competition for a limited portion of the budget, typically reduced to a single minister seeking budget approval for an initiative. Governance arrangements and accountabilities also make cross-agency collaboration or central-local government alignment challenging.

New Zealand lacks robust formal foresight practices in its policy development processes that can mitigate against short-term thinking. Many other comparable economies, such as Finland, Singapore and Taiwan, are leveraging anticipatory foresight and futures thinking in all aspects of policy formulation, taking a systems-level view of desirable and undesirable future influences and devising actions that promote positive outcomes.

The Public Services Act 2020 was the last significant reform of the policy system: it emphasised the need for greater stewardship, longer-term insights and enhanced interagency collaboration. It recognised that there was a growing need for cross-agency approaches and cooperation to navigate wicked problems. The most notable change was the formal introduction of the Long-term Insights Briefings (LTIBs), which were conceived to introduce futures thinking and explore emerging issues in a more pluralistic manner. While the LTIBs were initiated as a mechanism to embed long-term thinking into the public sector, they proved to be neither long-term nor provocative. They were given low priority in ministries and generally did not look beyond the next political cycle, with significant variability in their strategic relevance, scope and cross-sectoral engagement. The growing criticism of the process means that the LTIB will likely be discontinued. However, there is a genuine need for long-term thinking in the public sector; thought needs to be given to how this can be achieved.

Another consideration is the relatively isolated nature of the policy community. Wellington's bubble is not representative of much of the rest of New Zealand. This is made more problematic by the very low churn of policymakers between government, academia, and the private and community sectors compared to many other democracies. The nature of much policy consultation is somewhat tokenistic and rushed. This is reinforced by a growing policy and political culture that hinders diverse inputs essential for addressing such problems.

We should also not overlook the impact of New Zealand's ingrained cultural myths on the policy process. The New Zealand sense of exceptionalism, along with a series of cultural myths including the so-called "number 8 wire approach," that "we punch above our weight," and our "she'll be right" attitude, has instilled a belief that we can fix things after a problem has emerged rather than giving a focus to foresight. Economic researchers have reported that New Zealanders have one of the shortest time preferences, meaning that we tend to discount the future, compared to other countries.[5] More direct evidence of this in our policy and political community is seen in how we approach risk management, sometimes with intentional neglect.[6]

Figure 1 highlights the sad reality that New Zealand's sense of exceptionalism and unwillingness to confront realities have led to an increasingly damaging self-inflicted wound. As a result, over the last 50 years and 17 political cycles, our productivity has fallen increasingly behind that of comparator countries, highlighting that no economic or social policy intervention has had a

5 Wang, M., Rieger, M. O., & Hens, T. (2016). How time preferences differ: Evidence from 53 countries. *Journal of Economic Psychology*, 52, 115-135. https://doi.org/10.1016/j.joep.2015.12.001

6 Gluckman, P., & Bardsley, A. (2021). *Uncertain but inevitable: The expert-policy-political nexus and high-impact risks*. Koi Tū: The Centre for Informed Futures. https://informedfutures.org/high-impact-risks/

notable consequence on this divergent trajectory beyond a small upward shift in the trajectory in the 1980s that reflected a shift to a more free-market based economy. But that in turn likely contributed to issues such as an increase in the number of children being born into material disadvantage, which has remained stubbornly resistant to reduction since then, irrespective of which administration is in government.[7]

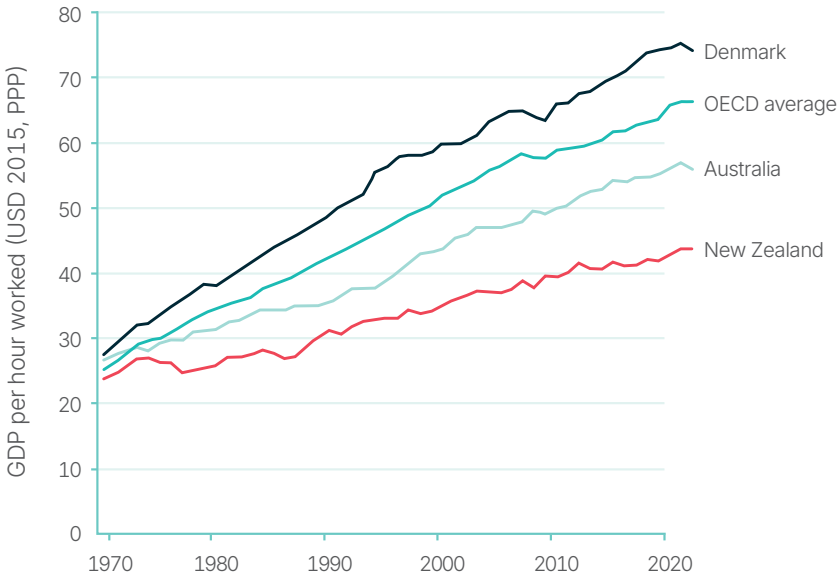

Figure 1: Real GDP per hour worked.[8]

Central to addressing a complex problem is first reaching a common agreement on the problem to be addressed (including with the relevant politicians), the factors involved in its causation and evolution to date, the shocks, stresses and other factors that may affect it in the future (i.e. foresight) and the relevant supporting data. Only then can a strategy for solutions be presented for consideration. However, the short-term nature of our decision-making means there is political pressure to act, and the system lacks well-established processes to overcome this pressure for immediacy. There may be good intent, even good ideas and effort, but no effective outcome. Immediate decisions intended to have a good political or policy outcome may even have predictable negative consequences that are not addressed in parallel. An example of these complexities is the issues around energy supply that have persisted over many years and are now being confronted as an emergency.

Problems are more likely to arise when complex issues are addressed with singular or simplistic solutions. Best practice requires that action is preceded by a systematic analysis that leads to a clear definition of the problem to be fixed, an understanding of the contributing factors that need to be addressed and the consequences of doing so.

A further consequence is that policy fatigue emerges within the public sector. There has been some loss of deep expertise in the sector, given a prevailing attitude that generic policymaking skills have been sufficient. Simultaneously there is a relative resistance to external and pluralistic input that is a characteristic of policymaking in other countries. This is exacerbated by a political ethos that resists a bipartisan process and leads to a rather encapsulated system of seeking policy inputs.

7 Morreau, J., & Low, F. (2023). *Early investment: A key to reversing intergenerational disadvantage and inequity in Aotearoa New Zealand.* Koi Tū: Centre for Informed Futures. https://doi.org/10.17608/k6.auckland.24750327.v1

8 Blick, G. & Stewart, J. (2025). *Auckland Economic Quarterly. Boosting Auckland's productivity*. Auckland Council. https://knowledgeauckland.org.nz/publications/auckland-economic-quarterly-quarter-1-and-quarter-2-2025/

Fundamentally, these wicked problems reflect a deep-seated structural inability to address long-term issues that transcend political cycles, with interdependencies across multiple portfolios, scales and timeframes for implementation. They require the development of appropriate consultative, policy and political processes that recognise the need for long-term, multi-intervention approaches. They also require commitment and leadership from decision-makers, as well as buy-in from stakeholders and the public, to achieve effective change.

Thus, while governments of all ideological framings are expected to address these problems, there is often a bias towards simplistic and immediate actions that will most likely be, at best, marginally effective. Increased scepticism of the political process and reduced trust in our political institutions, which have been evolving for multiple reasons over recent years, are reinforced.[9] Moreover, when wicked problems remain unresolved, they are more likely to fester, become more complex, consume more media space and serve as volatile fuel for political rhetoric – all of which can further undermine both finding a path forward and trust in government.

There are some signs of change. The Climate Change Commission and the Infrastructure Commission are two examples that have been largely supported across the political spectrum, bringing together different domains to enable New Zealand to address challenges that affect every aspect of society and the economy. More recently, the Treasury's 'bending the two curves' approach acknowledges the complex nature of New Zealand's fiscal policies, with one curve focused on the upstream causes of disruption and mechanisms to move from reactive policies to those that reduce systemic risks, and the second curve needing to respond to the disruption, which requires adaptive capabilities and capacity. Navigating this duality requires fiscal policies that can respond to the shocks as well as anticipate the stresses. The Treasury's LTIB, Te Ara Mokopuna,[10] takes this further by reframing fiscal policy as a tool for intergenerational resilience.

The social investment approach

Many of New Zealand's accumulated problems highlight the need for a different framing if we are to navigate them effectively. Since the 1980s, New Zealand has made a variety of attempts to address socially (and economically) significant wicked problems. New programmes have been added but few stopped. Often, the programmes in place, irrespective of their efficacy, have interest groups that will advocate for their beneficial effects, real or otherwise.

The Social Investment Agency (SIA) might evolve as an important and positive development in this regard. Between 2015 and 2018, the then-administration, with support from the Treasury, made early attempts to address a set of complex social issues. The 'social investment' approach was introduced to reform the budget bidding process by bringing social sector agencies together to present proposals that were data-informed, shared with other agencies and tested iteratively by a panel of social sector science advisors, Treasury officials and third-sector experts. Its goal was to mould budget proposals to be more cross-agency and evidence-informed.

A key part of the approach was better use of data in support of officials' or ministers' propositions. Part of the data and analytics team from the Treasury evolved into the SIA, later renamed for cosmetic reasons as the Social Wellbeing Agency. Statistics New Zealand had developed what was, at that time, a world-leading Integrated Data Infrastructure (IDI) to link together data held on New Zealanders from government agencies, Statistics New Zealand

9 Gluckman, P. (2025, April 2). As trust and old norms break down, democracy must be defended. *The Post*. https://www.thepost.co.nz/nz-news/360634776/trust-and-old-norms-break-down-democracy-must-be-defended

10 The Treasury. (2023). *Te Ara Mokopuna: Treasury's 2025 Long-term Insights Briefing*. The Treasury. https://www.treasury.govt.nz/publications/ltib/te-ara-mokopuna-2025

surveys, the census and some non-governmental organisations. The intention was to use sophisticated analyses to identify which groups of New Zealanders may be more likely to benefit from a particular intervention. However, these early steps still led to largely single-year, single-action proposals to insert into the annual budget cycle, and thus the endeavour did not meet its ultimate potential.

The idea may have been ahead of its time, as social licence for such an approach was not achieved,[11] and the social investment label became, unfortunately, politicised. Investment in this context was intended to refer to the long-term and social returns that could be achieved, irrespective of how much of that could be monetised, but this was not well communicated. The goal was meritorious – using what we know of our population to make better spending choices and achieve better outcomes – but achieving social licence to do so takes time; it requires trust, and trust necessitates a sense that the institutions of government are working well for citizens.[12] Such trust has been, and remains, in short supply across the liberal democracies.[13]

The SIA has now been reinvented and envisioned as a central agency that can develop coordinated policies on complex issues, which can then be implemented through a range of agencies. Its potential may depend on allowing it to be strategically rather than programmatically focused – the latter being the responsibility of individual ministries.

Tackling wicked problems

Core to tackling wicked problems is the acknowledgement that these can generally never be absolutely solved; rather the goal is to reduce their significance and compounding impact. The focus shifts from claiming a single and definitive solution to a continuous process of learning and adaptation.

A missing feature across much of policymaking is firstly the failure to bring the totality of evidence together to understand the multitude of factors underpinning the wicked problem and its likely evolution, and, secondly, developing a pluralistic and systems approach to tackling it. Such an approach requires departments and agencies to work more effectively together, integrating insights across all parties into a unified, consensual understanding, recognising that in complex systems, there may be high levels of uncertainty.

Government currently spends about 58% of its total expenditure on health, welfare and education.[14] Many of these costs are linked to an individual's progression across the life course (see Box 1). Economic prudence would suggest that applying a more formal multi-year, system-informed and deliberative process is desirable. This would likely lead to a greater focus on proven preventions that can be applied in early life.

> We have persistent groups in our society who struggle in education, are more likely to encounter the justice system, and incur a significant cost to the health and social welfare system, ultimately challenging our capacity to be a cohesive and productive society. These issues constantly confront politicians, irrespective of the parties in power. Typically, they

11 The Government had attempted to do so with the Data Futures Forum, but it did not have a high profile.

12 Hitlin, P., & Shutava, N. (2022). *Trust in Government: A close look at public perceptions of the federal governments and its employees. Partnership for Public Service*. https://ourpublicservice.org/publications/trust-in-government/

13 Edelman Trust Institute. (2025). 2025 *Edelman Trust Barometer: Global report. Trust and the crisis of grievance*. Edelman Trust Institute. https://www.edelman.com/trust/2025/trust-barometer

14 The Treasury. (2024). *Financial statements of the Government of New Zealand for the year ended 30 June 2024*. The Treasury. https://treasury.govt.nz/publications/year-end/financial-statements-2024

focus more on the 'band-aid' approach – be it remedial education, more police, or more prisons, while the costs to the taxpayer in terms of health, justice and social welfare grow.

Much less attention is paid to addressing the root causes of such issues, despite a large amount of evidence suggesting the importance of early prevention and intervention. The Dunedin Multidisciplinary Study showed that much of the cost of social support provided to an individual across their life course can be predicted by the age of two, suggesting the critical importance of taking a life course investment approach.[15] Such analyses have been conducted in other countries as well. Reviews of factors driving incarceration both in the United States and New Zealand point to the role of the early years,[16,17] but such messaging gets lost in the short-term nature of our policymaking. Other work from Koi Tū has identified some potential preventive interventions.[18]

In Singapore and some Nordic countries, agencies and academics collaborate closely to map out a pattern of interventions spanning the first two decades of life in an integrated manner, with clear desired outcomes of thriving and productive populations. There is a strong emphasis on analytics, an increasing effort to break down agency silos, and a recognition of the complex interface between education, health, social welfare and the realities of human life.

The knowledge exists to make significant improvements; the impediments lie in structural issues within the policy and political processes.

Box 1: Addressing a wicked problem with a life course approach.

A further consideration is that governments typically find it easier to start rather than stop a programme – it is far more palatable to the public to hear politicians speak about effective programmes than policy failures. Partisan politics compounds the political challenge of stopping ineffective programmes. Only with data and analysis can this trap be avoided.

Too often, and understandably, short-term thinking means that interventions are focused on the immediate crisis rather than the upstream issues of causation. But unless there is a reasonable understanding of causal pathways, interventions will always focus on the symptoms. This can be further exacerbated by the temporary feel-good or political gains of knee-jerk and reactive responses, which artificially appear to have 'fixed' the problem. The example of driver education in the United States is an example of this. Educational authorities invested heavily in driver education, which appeared to be the logical response to lobbying by parents of youths injured or killed in road accidents. But it was a surprise that when the programmes were withdrawn because of fiscal pressures, the rates of death and injury in the target population fell. Driver education had led to young people pressuring their parents to let them drive at an earlier age, and perhaps exaggerated their confidence as drivers, given that younger brains are more prone to risk-taking behaviours.[19]

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15 Caspi, A., Houts, R. M., Belsky, D. W., Harrington, H., Hogan, S., et al. (2016). Childhood forecasting of a small segment of the population with large economic burden. *Nature Human Behaviour*, 1, 0005. https://doi.org/10.1038/s41562-016-0005

16 Graf, G. H., Chihuri, S., Blow, M., & Li, G. (2021). Adverse childhood experiences and justice system contact: A systematic review. *Pediatrics*, 147(1), e2020021030. https://doi.org/10.1542/peds.2020-021030

17 Gluckman, P., & Lambie, I. (2018). *It's never too early, never too late: A discussion paper on preventing youth offending in New Zealand*. Office of the Prime Minister's Chief Science Advisor.

18 Stubbing, J., Gibson, K., Sonawalla, S., & Gluckman, P. (2025). *Pathways to wellbeing: A youth-led exploration of mental health in Aotearoa New Zealand*. Koi Tū Centre for Informed Futures; Hayward, M., Stubbing, J., & Gluckman, P. (2025). *Addressing youth mental distress in Aotearoa New Zealand*. Koi Tū Centre for Informed Futures.

19 Gluckman, P., Low, F., & Franko, K. (2011). *Puberty and adolescence: transitions in the life course. In Improving the transition: Reducing social and psychological morbidity during adolescence* (pp. 19-33). Office of the Prime Minister's Science Advisory Committee. https://www.dpmc.govt.nz/sites/default/files/2021-10/pmcsa-Improving-the-Transition-report.pdf

Systems thinking

Wicked problems do not have a single 'correct' framing; the framing varies depending on who is affected and their respective perspectives. Pluralistic input captures diverse perspectives, values and priorities, and helps avoid narrow solutions that may only serve to support specific communities or exclude others. Having a shared understanding of the problem is at the crux of developing acceptable solutions. Defining the question requires respecting different framings from various disciplines and diverse end-user groups including policymakers, communities and businesses.

Interdisciplinarity is also necessary because knowledge in a single discipline cannot sufficiently penetrate the layers of complexity. For example, educational issues cannot be understood without considering sociology, neuroscience, psychology, child development and educational and pedagogical sciences – and now the rapid changes in the informational and technological environments also need to be considered. Most wicked problems transcend multiple domains, including health, environment, technology, economics, culture, geopolitics and education. We need a systems approach to bring coherence to a fragmented knowledge base on any given issue.

Transdisciplinary research methodologies, which go beyond existing disciplines to value and integrate the knowledge from non-academic stakeholders, can be applied here.[20] The involvement of end-user stakeholders in understanding the problem and solutions increases the likelihood of impact. Indeed, in New Zealand, several of the National Science Challenges made progress using such approaches. The United Kingdom economist Mariana Mazzucato has recently suggested similar approaches in her arguments for mission-led policymaking.[21] For social investment, for example, reframing the problem and leveraging experience with mission-led and transdisciplinary science could help map possible solutions. The difficulty for governments is accepting that end-user and stakeholder wisdom must sit alongside and inform political judgment.

Central to addressing a complex problem is to understand the factors that impinge on it. This requires systems thinking: that is developing a map of the factors that influence the outcome of interest. In preparing such a map, an expansive and 'open' view is needed of the relevant factors. In evaluating the map, it is important to focus on what can be influenced or affected, acknowledging that there may be matters that a policy choice cannot predict or change. Systems thinking also considers how the system itself will evolve over time in response to actions taken and what shocks and stresses might influence it, either directly or indirectly – this is the skill of strategic or anticipatory foresight.

Systems thinking requires clarity about what is and is not known about the domain of focus and its dynamics (e.g., the risk factors and protective factors that influence young people's involvement in crime). This generally requires integrating academic, real-world and policy expertise. Increasingly, AI can be used to support this evidential synthesis and modelling; several countries are now investing in the necessary infrastructure to enable the rapid analysis and contextualisation of what is known. But there are dangers and risks in AI-based knowledge management unless it remains under expert supervision.

With the help of a systems map, models can be created to explore what might be done to achieve desirable outcomes. A starting point is to explore evidence from international contexts or from

20 Kaiser, M., & Gluckman, P. (2023). *Looking at the future of transdisciplinary research*. International Science Council. https://doi.org/10.24948/2023.05

21 Mazzucato, M. (2020, July 3). *Rethinking human development means rethinking what we mean by 'value'*. International Science Council. https://council.science/news/mariana-mazzucato/

previously produced evidence by New Zealand's governmental and non-governmental sectors, which appears to show an effect in certain contexts.

A systems approach can recognise indirect effects that may be important. For example, in the case of youth crime, it might identify who undertakes criminal activity, in what circumstances and under what drivers. It would need to recognise that different classes of crime may have different causes, and consider the factors that drive more crime (e.g., familial factors, economic factors, drugs, gangs, poor mental health, social media, peer pressure), as well as those that promote resilience and reduce rates in otherwise vulnerable families (e.g., community participation). It is essential to acknowledge that different individuals in various contexts encounter distinct journeys.

Modelling should not be limited to single interventions; where data exist, the interactions between multiple interventions should also be analysed. For example, do wraparound family services, combined with support for the child to join youth, sporting or kapa haka groups with quality mentorship, create positive, compounding interactions? Expert input, including that from third-sector leaders, is essential in identifying components for a policy road map based on potential interactions.

Advanced analytics, utilising data from the IDI and other sources, can significantly aid in such analyses and allow for quite sophisticated models, provided social licence for this approach is obtained. There are now numerous statistical and AI-based techniques available for approaching such analyses. However, these initiatives must be undertaken in a manner that is expert-driven, sensitive to potential biases in databases, and utilises highly anonymised data.

A key question is whether there are indicators that can be measured at an early stage that can act as proxies for the ultimate desired outcome and/or act as intermediate goals. For example, does the short-term positive response of a young person to a period of counselling for mental distress predict whether the treatment also has a long-term effect, so they are more likely to become a well-functioning individual achieving their full potential? In most cases, the conclusions reached will be that clustered interventions (that is, multiple actions rather than a singular action) are necessary or desirable. These interventions may need to be provided sequentially and/or targeted to different sectors of the population.

This creates a policy challenge, as actions need to be communicated in ways that acknowledge the assumptions and uncertainties, the targeting and cadence of interventions, their level of co-dependency and estimates of effect size (in social and/or economic terms) of individual or clustered interventions. There is also much to be achieved by providing greater transparency of the intervention logic to the wider community.

The systems approach makes it easier to identify when desirable or undesirable trade-offs or spillover effects are likely to occur. The nature of social and environmental policy challenges means that it is inevitable that trade-offs will be needed and accepted within and beyond the policy community. We have already seen the contention in the trade-off between addressing climate change and the challenges facing the farming industry and in considering our energy futures. Virtually every urban planning decision involves trade-offs, and ignoring or discounting such trade-offs invites opposition. Systems thinking allows policymakers, publics and politicians to consider how trade-offs can be minimised or otherwise addressed, which can lead to more consensual policymaking. It also provides a partial solution to the challenge of multi-level governance involving local and central government in that it provides a common ground of evidence and interpretation.

Designing and evaluating interventions

Agreeing on a policy may be the easy part; it is often the implementation details that determine success or failure. There is therefore benefit in piloting before widespread implementation.

Success factors can be quite subtle, such as recruitment and targeting strategies or the competencies and interests of those leading the programme. Programmes also need to be adaptable for maximum effectiveness, but modifications should also be amenable to evaluation. We need a policy culture that accepts change rather than one that immediately leads to political accusations of failure when change is necessary.

Data are essential to monitoring a programme for effects and for evaluation and iterative improvement. The costs of data collection, curation and analysis should therefore be a core part of the budget process. Ideally, interventions should be evaluated independently of the agency undertaking them, as the intrinsic biases and interests of the agency can otherwise interfere.

An instructive lesson can be learnt from work undertaken to address adolescent issues in 2011. At that time the then-government had agreed, based on an expert report, to fund several interventions for youth mental health. In allocating funding, it also allowed a budget for evaluation. However, the responsible agencies failed to collect adequate baseline data. They thus were unable to address the government's request to understand which of the raft of programmes worked and for whom. Without the baseline data, post-hoc analyses were unable to satisfactorily resolve the question of which of these initiatives had been effective. This led to an inefficient use of funds and hindered progress in understanding how to improve the mental wellbeing of New Zealand youth.

Outcomes should be expertly assessed for data quality and validity, considering the specific context in which they arise, as well as their effect size. That is, how effective are they, if at all? Are they providing value for money? Is the benefit only accruing to a subset of participants, meaning can it be, and should it be, better targeted? Should interventions be modified, or should they no longer be pursued?

The measures used to evaluate the effects of a package of interventions will likely be proxies derived from the systems map that are cost-effective to measure and will change as the programme evolves. For example, suppose interventions are proposed to reduce youth crime, with an ultimate desired outcome being a reduction in offending rates. Initial measures might include the child's school attendance and their engagement in organised group activities, such as team sports, alongside demographic considerations such as age, gender and socioeconomic status, to understand who might benefit most. Such an approach can also lead to a much more informed economic estimate of the costs and benefits of programmes enacted or changed.

New Zealand policymaking has generally favoured universal programmes; however, many programmes do not benefit every participating individual, instead helping only specific subgroups of individuals. Although identifying subgroups for whom programmes are effective allows better strategic targeting of interventions, it raises the challenge of identifying such groups without the risk of stereotype or stigma. Sadly, this has become commonplace and has contributed to the fears held by Māori regarding the surrender of data sovereignty.[22]

22 Greaves, L. M., Cinnamon, L. L., Emerald, M., Charlotte, M., Eileen, L., et al. (2024). Māori and the Integrated Data Infrastructure: an assessment of the data system and suggestions to realise Māori data aspirations [Te Māori me te Integrated Data Infrastructure: he aromatawai i te pūnaha raraunga me ngā marohitanga e poipoia ai ngā wawata raraunga Māori]. *Journal of the Royal Society of New Zealand*, 54, 190-206. https://doi.org/10.1080/03036758.2022.2154368

A systems approach is arguably the only way to meet citizens' expectations for adequate progress on many issues. For this to occur, a broad official and political consensus acknowledging the importance of sustained, multi-year efforts is necessary. Clear leadership must be established despite the involvement of numerous agencies working under different mandates. In this respect, the redesigned SIA offers new opportunities.

This is much more difficult in areas that are more values-laden, such as social and environmental development, compared with, for example, infrastructure development. In addition, a programme should ideally be approved in its entirety, subject to ongoing evaluation and revision; however, this does not easily align with current budget processes. It would also require a greater commitment to bipartisan support to progress practical actions on multiple issues.

Estimating the long-term benefit of a programme is difficult but possible. Perhaps the most famous example is that of the Perry preschool programme, which involved very intensive educational intervention in disadvantaged three- to five-year-old children in Michigan. The cost-benefit analysis, led by Nobel laureate James Heckman, showed a high rate of return, with a particular benefit being a reduction in crime more than two decades after the intervention.[23] This has obvious relevance, for example, to addressing the unacceptable ethnic distortions in New Zealand's prison population.[24]

Claims of high rates of social return for an intervention are often made without knowing how many participants have benefited or the relative benefits of alternative approaches. The difficulty is then further confounded by the lack of good early proxies of benefit. An illustrative example is the many programmes that claim to improve youth mental health. There have been past examples of drug and alcohol education programmes that led to worse rather than better outcomes.[25] Most youth will experience immediate benefit from counselling, and this is sufficient for advocates of particular programmes. However, a key result in choosing which programmes to support should be whether these youth are more likely to be in employment, education or training some months later – that is, whether there has been a long-term benefit or simply temporary relief.

Navigating uncertainty

Uncertainty is always with us. New Zealand has faced multiple shocks in recent years, with significant social and economic effects – most notably the Christchurch Mosque attacks, earthquakes, the Covid-19 pandemic and tropical cyclones. There will be future shocks, some of which may be natural disasters while others may be geostrategic in origin (e.g., a global recession, breakdown of the rules-based global system). Alongside that, some trends are now unavoidable and will create significant stresses – climate change and an ageing population being two of the most obvious. Any considerations of the future must also consider the possibility of a 'black swan' event, such as an outbreak of foot and mouth disease or another Covid-19-like human pandemic.

Weak signals must be considered. They provide early signs of potentially significant change, including emerging disruptions, opportunities or value shifts. They are often ambiguous, easily overlooked and hard to interpret, but they could provide valuable insights for early interventions.

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23 Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94, 114-128. https://doi.org/10.1016/j.jpubeco.2009.11.001

24 McIntosh, T., & Workman, K. (2017). Māori and prison. In A. Deckert & R. Sarre (Eds.), *The Palgrave Handbook of Australian and New Zealand Criminology, Crime and Justice* (pp. 725-735). Springer International Publishing. https://doi.org/10.1007/978-3-319-55747-2_48

25 Werch, C. E., & Owen, D. M. (2002). Iatrogenic effects of alcohol and drug prevention programs. *Journal of Studies on Alcohol*, 63, 581-590. https://doi.org/10.15288/jsa.2002.63.581

They are important for helping to reframe problems by surfacing new values or behaviours and testing assumptions. For example, the overall reduced religiosity in the community has led to a reduction in the number of young people involved in youth groups, which is now seen as a factor in reduced socialisation experiences, which likely impacts on the rate of mental health concerns.

Looking into the future is not a matter of predicting it. Instead, it involves thinking through the range of possibilities ahead and making decisions now to try to reduce the range of possible futures to a preferred or more acceptable range. This is the process of anticipatory foresight.[26] For the kinds of problems being considered here, a degree of uncertainty is inevitable, but that is not an excuse for inaction. Instead, it demands honesty from experts, advisors and politicians regarding the presence of uncertainty and that the choices being made are based on available evidence and aimed at achieving better outcomes. The public can understand uncertainty; honesty helps engender trust.

This would seem to be a better approach than claiming certainty for an intervention when it inevitably cannot have the desired effect, thus inviting scepticism and, ultimately, undermining democracy, which depends on institutional trust.[27] Recent political trends in many countries are illustrative of how trust can be diminished by a transactional focus that prioritises certainty over engaging the population in addressing the problem. The media plays an important role in communicating the complexity of these issues but has largely receded from its role as an information provider to instead focus on entertainment, prioritising trivia and the personal antagonisms too often illustrated in short-term politics.

Time and scale

At the heart of this discussion is the challenge of time. Social, environmental and economic problems can compound or emerge over generations. For example, intergenerational, early-life and contextual factors have all played a role in driving rapidly worsening youth mental health over the past two decades, so all these factors must be considered if policy choices are to address the problem properly.[28] Solutions focused on prevention rather than treatment will require multiple actions, with benefits often taking years to be fully apparent. However, this cannot be used as an excuse for not acting. We need to take a more deliberate and transparent approach and be willing to adjust it as our understanding improves. Done well, this will be substantially more cost-effective in the long term. We, along with others, have demonstrated the economic and social value of investing in a healthy start to life.[7,29,30]

Scale must also be considered. Too often, interventions are considered at a national level when they may need to be tested in a local setting first, or they may be effective in a community or region but fail to scale. Many problems are contextual and it is fundamentally important to have clarity on the context of an issue before deciding on approaches to tackling it. Demographics, culture and geography are among the factors that contribute to whether a solution is effective.

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26 Gluckman, P., Sridhar, H., Saner, M., Hinwood, A., Jabbour, J., et al. (2024). Essay 3: From horizon scanning and foresight to policy actions. In *A guide to anticipation: Working paper on tools and methods of horizon scanning and foresight* (pp. 38-40). International Science Council.

27 OECD. (2022). *Building trust and reinforcing democracy: Preparing the ground for government action*. OECD Publishing. https://doi.org/10.1787/76972a4a-en

28 Stubbing, J., Rihari, T., Bardsley, A., & Gluckman, P. (2023). *Exploring factors influencing youth mental health: What we know and don't know about the determinants of young people's mental health*. Koi Tū: The Centre for Informed Futures. https://informedfutures.org/wp-content/uploads/pdf/Koi-Tu-Report-Exploring-factors-influencing-youth-mental-health.pdf

29 Nixon, C. (2023). Valuing a healthy start to life. *Policy Quarterly*, 19(2), 3–9. https://doi.org/10.26686/pq.v9i3.4457

30 Stubbing, J., Simon-Kumar, N., & Gluckman, P. (2023). *A summary of literature reflecting the perspectives of young people in Aotearoa on systemic factors affecting their wellbeing*. Koi Tū: The Centre for Informed Futures. https://informedfutures.org/wp-content/uploads/pdf/Koi-Tu-for-Te-Hiringa-Mahara-Literature-summary.pdf

However, more importantly, place-based approaches or localised solutions may have greater buy-in from a range of diverse stakeholders who have sufficient locally-focused agency and ownership in the outcomes.

Process improvement

Our current system operates in silos and lacks the necessary incentives or mechanisms for cross-sector interventions. Furthermore, there are limited mechanisms for ministries to combine resources and funding, or to share ownership and responsibility across portfolios – although the SIA is clearly a significant step forward if it has time to mature. Even now, ministers too often compete for budget rather than work well together, which is a matter likely aggravated by the nature of coalition politics, irrespective of the mix of parties involved.

Propositions should be tested for their robustness against considerations of the problem's size, its estimated costs to society, the shape of the proposed programme, and its social/political acceptability. In doing so, the policy process would need to advise ministers on the likelihood of benefits (both direct and indirect), any predicted downsides and the assumptions made in the evaluation. This requires a different governance structure to facilitate such discussions.

More specifically, as implementation progresses, the policy and political process will need to regularly consider the order and focus of interventions, the availability of baseline data, and what proxies of early effects can be measured or are available. Major interventions will require consideration of whether key components require piloting (and how), targeting (and to whom), and how the intervention(s) are designed to enable monitoring. There needs to be a plan for ongoing surveillance of the programme, including data collection and whether an independent impact evaluation would be required.

By adopting this approach, the government of the day will be better equipped to address complex or wicked issues. By being more upfront about the actual potential of a programme, politicians are more likely to achieve social licence to abandon a programme that proves to be ineffective. Currently, the social sector likely contains programmes of uncertain effectiveness, each of which has its champions. This makes it very difficult for all but the bravest politician to stop a programme, and arguments that it does not work are generally lost in rhetoric amplified by media enthusiasm. It also highlights the importance of leadership, not just by our politicians, but across the range of stakeholders.

This process of programme design and monitoring for effect and impact has a cost. But that is small compared to the costs associated with continuing ineffective programmes or failing to address issues that, left unaddressed, will create a significant burden on society and the State.

Knowledge management

Science is key to the success of a liberal democracy as it provides a foundation for informed decision-making, fosters transparency, and helps societies navigate complex challenges.[31] Scientific expertise is crucial for trusted democratic governance, as it helps ensure that policies are grounded in evidence rather than ideology or misinformation. It plays a significant role in providing a shared reference point and collective understanding to anchor public discourse, particularly on complex issues. It also provides a mechanism for societies to navigate uncertainty and complexity.

31 Collins, H., & Evans, R. (2017). *Why democracies need science*. Polity Press.

However, trust in the institution of science is threatened. Are the challenges to trust in science simply a spillover from declining trust in institutions, or are there distinct elements?[32] For some, lack of trust in science, be it over vaccinations, climate change or genetic modification, has become a badge of political identity. It is often easier to attack the science rather than confront the discomforts of cognitive dissonance. Moreover, extreme populist movements frequently reject science as a legitimate source of truth or authority, further eroding its role in public discourse, breeding fear and fragmentation.

Rigorous evaluation is heavily dependent on data and modelling. The IDI remains core to the government's potential to make better use of data, but it needs to be governed in a way that gives all parties confidence. To significantly enhance the specificity and impact of social investment, the IDI needs to be strengthened, particularly in terms of incorporating client-level data, which is not possible without greater transparency and a social licence to operate.

AI is also transforming the analytical landscape, and as it evolves, it will become increasingly crucial to use data to more effectively allocate government funds, particularly in areas of high complexity and limited resources. AI provides a mechanism for integrating diverse data sources and synthesising knowledge across silos. Machine learning and natural language processing can extract meaning from unstructured data, detect weak signals, and identify emergent trends that human analysts might miss.

Data use requires a clear set of data collection and curation policies, especially as AI offers the potential to significantly enhance our ability to understand complex issues through data analytics. However, the needed social licence is lacking.[33] The missing element is a trusted, truly independent oversight mechanism over the government's use of data, the IDI and AI that ensures policies are appropriate. This differs from privacy concerns and is necessary for coordinating across the system and leveraging existing data to inform interventions.

With the rise in the use of AI systems within the public sector, there are opportunities for it to be constructively used. Particularly in decision-making that impacts individuals, there is an increased concern about ethics, transparency and biases in the algorithms or underlying data. New Zealand must develop both a robust mechanism for providing training data that represents our demographics and the abilities to evaluate the AI systems and give confidence to the public in how their data are used. While AI may offer opportunities to tackle wicked problems, how this is done will be key in ensuring the public maintains confidence and that institutional trust is not further eroded.

Technology can play a significant role in building institutional trust, as demonstrated by the establishment of the Public Key Infrastructure (PKI) in India. The PKI was initially designed to solve a social investment issue by providing a trusted digital tool, and has over time created the foundations of general trust by reducing soft corruption, providing inclusive solutions for diverse users at scale, and providing a platform for investors (including many international multinational companies) to invest with confidence in India's digital economy. Estonia is another example that has successfully leveraged digital identity to transform the delivery of public sector services. On the other hand, the concept of a single digital identity has become politically contentious in the UK, largely driven by fears about how the government might misuse it – this perhaps reflects the development of low institutional trust.

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32 Inchingolo, M., Mair, D., Kazakova, S., & Scharfbillig, M. (2025). *Collaborative policymaking – The science of working together in public administrations*. Publications Office of the European Union. https://dx.doi.org/10.2760/2070774

33 Edelman Trust Institute. (2024). 2024 *Edelman Trust Barometer: Global report*. Edelman Trust Institute. https://www.edelman.com/trust/2024/trust-barometer

Social cohesion and societal resilience

Wicked problems expose fault lines in our society, whether these are economic, cultural, social or intergenerational, and this makes finding solutions more difficult. Policymaking is, by its very nature, an abstract system where it is often unclear to the public whether their voices are heard and how particular decisions are made. This leads to continued suspicion about influences and interests, a lack of confidence in our decision-making institutions, and disengagement, especially with local governance, as evidenced by the low voter turnout and public engagement in consultations.

A contributing factor is the scepticism amongst voters that arises from decades of political promises from across the ideological spectrum that have claimed simple solutions to complex, deeply rooted problems. The matter is not helped when the media or politicians do not put matters in a broad context. For example, it is doubtful any politician believed that boot camps are a solution to youth crime: were they a knee-jerk reaction to public concern, or were they an attempt to rehabilitate the most disturbed of youth offenders? If the latter was intended, irrespective of how the programme might have been planned and considered, then such intent was lost in the morass of political and media rhetoric. If it was the former, it was an example of a narrow and linear approach to a wicked problem. Politics, expectations and reality clashed on the complex issue of how society handles the most persistent and serious youth offenders, and how we act to limit more young people from entering the same path. The common pathways towards youth crime have been well documented,[34] although emergent factors must also be considered, including the role of gangs and the more pervasive effects of social media.

There is an intrinsic connection between the challenge of wicked problems and the quality of societal cohesion and resilience, as many wicked problems test the very fabric of how societies cooperate, trust and adapt. Possible solutions are often contested for short-term political reasons, yet effective solutions require long-term responses rather than knee-jerk, singular responses. While the public wants action and results, there is a growing awareness that real progress on such challenges requires sustained, coordinated efforts across multiple political cycles. This can be communicated openly and such transparency would be welcomed, although our constitutional arrangements make this problematic.

Public trust erodes if our institutions respond poorly, unequally or engage on issues in a tokenistic manner. In doing so, they lose social trust as communities feel unheard or excluded. Wicked problems, by nature, generally involve identity, values and emotions, and they fuel division if left to fester. Misinformation, fear, political opportunism, media and algorithms further fragment public discourse, preventing any consensus on a way forward. Thus, a re-evaluation of our political traditions is a prerequisite for genuine progress in addressing complex problems.

The importance of democracy

We are a democracy, not a technocracy, and the contestation of ideological ideas and values is essential to a democracy's health. Decisions must be made by citizens and their representatives. Experts can advise, but they and their analyses cannot make the final decision, as evidence alone cannot replace the broader inputs required for a decision. The onus is on experts to provide evidence and estimates of effects and consequences, along with clarity on what is known and what is not known to the policy process.[35]

34 Lambie, I., & Gluckman, P. (2018). *It's never too early, never too late: A discussion paper on preventing youth offending in New Zealand*. Office of the Prime Minister's Chief Science Advisor. https://www.dpmc.govt.nz/sites/default/files/2021-10/pmcsa-Its-never-too-early-Discussion-paper-on-preventing-youth-offending-in-NZ.pdf

35 Gluckman, P. (2017). *Enhancing evidence-informed policy making*. Office of the Prime Minister's Chief Science Advisor. https://www.dpmc.govt.nz/sites/default/files/2021-10/pmcsa-17-07-07-Enhancing-evidence-informed-policy-making.pdf

There is always a range of economic, social and underlying values in any society, and democracies exist to find consensual ways of addressing the challenges despite these differences. However, wicked problems require nuanced discussion over a longer time horizon. In liberal democracies, political contestation has in the past generally been at the margins where priorities and programmes are fine-tuned. For example, while KiwiSaver may be fine-tuned in different ways by administrations of various political persuasions, the fundamental principle of compulsory superannuation based on a mix of employer and employee contributions remains. But now the realities of demographic change with an ageing population and a reducing fertility rate need to be confronted. Already, political positioning means that finding a solution seems remote; the default will be deferring the issue to the future when the solution may be even harder. Again, a non-partisan analysis linking demographics (at a granular level), health, employment and economics might help provide the basis for constructive discussion or a way forward.

The public and political appetite for quick fixes is understandable, but it undermines the long-term, adaptive strategies that wicked problems demand. Democracy, at its core, requires patience because deliberation, building consensus and managing change are slow processes. Reaching enduring and inclusive solutions also requires a bipartisan approach to transcend short-term political cycles and ideological divides. However, in today's fragmented information environment and with short attention spans, wicked problems are often met with impatience and oversimplification. Greater political polarisation will lead to greater policy swings between administrations, likely impeding progress on many issues. Without sustained focus and cross-party commitment, democratic institutions risk treating symptoms rather than addressing the root causes, leaving the deeper drivers unaddressed and more issues accumulating.

A way forward

These problems identify areas where a systems-based and more bipartisan approach is necessary, acknowledging that achieving this, particularly in areas such as social policy, is inescapably difficult given the intersection between evidence, worldviews and ideological values.

There is a growing international consensus that the linear policy cycle is not fit for purpose in tackling complex issues, and some countries, including Australia, Canada, Singapore, Finland and Denmark, are revisiting their governments' policymaking models. There is commonality in their respective approaches. Policy development is often non-linear and must allow for feedback loops and recalibration over time. Hence, there is an increasing preference for iterative policy processes that adapt as a policy is implemented. For this approach to be successful, a systems approach is needed rather than single programmes that operate under the assumption that once it is funded and established, it will be sufficient.

In these countries there is a shift toward cross-agency collaboration and broader, more diverse stakeholder engagement to ensure pluralistic input. There is a desire to increase transparency, thus legitimising the approach and reducing the political heat. There is also recognition that futures thinking and anticipatory foresight are necessary to understand better the evolving risk environment and the unintended consequences of policy interventions. Futures thinking needs to be embedded in policy formulation and ingrained in the psyche of policy practitioners and decision-makers to be effective.

Innovation is necessary in our public sector. Innovative approaches to public policy formulation and the leveraging of new methodologies or modelling to tackle wicked problems are essential.

Innovation in the machinery of government is not a new concept in New Zealand – the establishment of the IDI is one such example. Concepts such as innovation labs have been successfully used internationally as sandboxes for developing and testing policy interventions, as well as creating the necessary permission space and culture within the public sector to take calculated risks. Similarly, leveraging foresight methodologies and practices is valuable.[36]

Concluding remarks

The public expects solutions to the wicked problems that have arisen and accumulated over the years, if not generations. It is incumbent on politicians, officials and experts to work together transparently and over the long term to make a significant difference for New Zealand's future.

Public trust in the ability of governments of any makeup to find solutions to the major issues concerning our current and future state remains relatively low and is driving a scepticism about the future of democracy. Governments must work hard to regain public confidence and the engagement that is increasingly essential to successfully navigating wicked problems. If we fail to make progress on many of these issues, our core asset – social cohesion – will be compromised. Conversely, we need social cohesion and trust in our democracy to change the way we make policies and effectively address complex problems. We need the public to value the future and to commit to long-term strategies.

New Zealand can improve its path to the future if we are honest with ourselves. We already have some core elements in place: we have experience with the social investment model, which is being rejuvenated amid diminished political contention around the approach; the cumulative set of complex issues is increasingly understood as wicked problems; and governments are starting to examine the use of AI in their work. But can we achieve the needed bipartisanship, and will we have the long-term vision and patience required to make real progress?

36 UN Futures Lab/Global Hub & International Science Council. (2025). *Futures thinking and strategic foresight in action: Insights from the Global South*. UN Futures Lab/Global Hub. https://un-futureslab.org/project/futures-thinking-and-strategic-foresight-in-action-insights-from-the-global-south/

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