Best practice model for developing legislation

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Abbreviations and acronyms

ACC	Accident Compensation Corporation
APEC	Asia-Pacific Economic Cooperation
ARP	annual regulatory plan (Australia)
DPMC	Department of the Prime Minister and Cabinet
EST	environmentally sustainable transport
ETSC	European Transport and Safety Council
EU	European Union
LAC	Legislation Design and Advisory Committee
LSF	living standards framework
MoT	Ministry of Transport
OECD	Organisation for Economic Co-operation and Development
OIRA	Office of Information and Regulatory Affairs (US)
PCBU	person conducting a business or undertaking
PCO	Parliamentary Counsel Office (New Zealand)
PIRA	preliminary impact and risk assessment
RIA	regulatory impact analysis
RIS	regulatory impact statement
RTL	Regulatory Tool Library
SUV	special use vehicle
Transport Agency	New Zealand Transport Agency
UK	United Kingdom
UNECE	United Nations Economic Commission for Europe
US	United States of America
WHO	World Health Organisation
WoF	warrant of fitness

Contents

Executive summary

The New Zealand Transport Agency (the Transport Agency) sought a model of best practice for designing transport regulation, to guide and inform design of smarter, fit-for-purpose legislation.

The model

The model adopts a systems-based approach to design and incorporates behavioural analysis into intervention decisions. It is divided into three levels reflecting the legal contexts in which transport regulation must function. These are: 1) the 'constitutional background' all government agencies operate within; 2) the 'legal foreground' empowering and constraining the regulator's immediate authority; and 3) the 'design space', which is a four-step process for the design of the regulation.

It incorporates 'red, yellow and green light' checking mechanisms. Red highlights 'no go' areas; yellow denotes areas where precautionary measures are needed to avert regulatory failure and green is for areas where the designer is on stable ground to proceed but with an eye to the unexpected.

Details of the model

The model's 'constitutional background' and 'legal foreground' levels situate the regulation/regulatory designer in the larger legal context (system) within which the regulation must operate. Fundamental to any systems approach, this avoids subsequent actors (from legal drafters through to the courts) from 'redesigning' the regulation to make it 'fit' within the appropriate legal constraints. Such tinkering is inefficient, creating extra process and shifting what the initial designer intended.

The 'design space' provides a four-step approach to guide designers to the most fit-for-purpose regulation, to avoid automatically going down previously used routes (path dependency) and to prevent following approaches likely to lead to regulatory failure.

Step one: Defines the goal, the system and any impediments. The purpose of the enabling statute or the policy to be implemented determines the goal. To avoid path dependency the system and any impediments are defined from a broad prospective (as definitions of 'problems' push solutions in path dependent directions). This step promotes the use of systems analysis tools. It includes much earlier and broader consultation to enable fresh thinking, alternative views of the system, and differing ideas about where best to intervene. On these lines, it envisions more integration of design teams, as much as possible, into intra-agency, cross-agency, cross-department, cross-ministry 'design hubs'.

Step two: Behavioural analysis of the actors/decision makers within the system. This step looks at who can influence the impediment, whether it is an entity (corporate (large or small)) or a human, and at the drivers motivating that decision maker. This report includes appropriate behaviour analysis tools.

Step three: Considers what interventions most efficiently and effectively influence the targeted decision makers so impediments to the goal are minimised. The suite of possible interventions and the sorts of circumstances (and entities) for which those interventions are appropriate is considered. Consulting the extensive regulatory tool library, included, should be helpful here. At this step the regulator would want to be very aware of the constitutional background and legal foreground constraints, and the regulatory failure factors highlighted in the report. The red, yellow and green light checks should be very much in use by this stage.

Step four: Integration of review and adjustment mechanisms into either legislative or 'soft' interventions. This is to assure effectiveness and efficiency, acknowledge law's experimental nature and make a

prescribed space to respond to unforeseen effects or rapidly changing conditions. The design space is an iterative process. Evaluation of an existing intervention re-activates step 1.

Research methodology

The research had four distinct phases. Phase one analysed existing regulatory management and legislative design, both locally and internationally. This focused on regulatory design generally and in the transport sector in particular. It examined the historical context of New Zealand's legal system to develop the relevant legal background. Phase two applied Hansard Society's four-step good law methodology to analyse phase one's information. First, look at bad law for lessons learned. Second, study research methods for making good law. Third, develop methods to get that good law accurately reflected in the law as drafted. Fourth, consider how to monitor the law's performance on the ground and appropriate response mechanisms. Phase three focused on model design and developing a regulatory tool library. The library includes a suit of innovative possible regulatory mechanisms, successfully used in other jurisdictions and fields, as well as a collection of systems thinking tools. This phase included behaviour analysis tools assessment with appropriate ones described for use. Phase four reconsidered the system within which the model and its users would operate, for possible impacts on its use for developing efficient resilient interventions.

Summary of research results

New Zealand's regulatory management system

The research found a very (even overly) process-intensive approach with very little substantive guidance for regulators on how to choose their interventions to achieve the goals of their enabling statute.

Interestingly, while New Zealand is very process heavy at the design and enactment stages of regulation, it does little to assure legislation or regulations are automatically followed up for performance, and, if appropriate, subsequent redesign or modification. This makes little sense, as law is intrinsically an experimental endeavour, with projects to reform, and interventions dating back thousands of years to improve. The approach of regular review and redesign incorporated into the Evidence Act 2006, section 202 and the Privacy Act 1993, section 26, should become the norm, rather than the exception.

New Zealand combines a system of extensive regulation of the regulator with a tendency of Parliament to pass highly prescriptive statutes, and especially so in the transport area. This impedes regulatory resilience and efficient adaptation of rules to rapidly changing circumstances.

Hansard Society's Good Law Project results

Hansard Society's Good Law Project four-stage model for researching and improving the effectiveness and expression of legislative instruments, and guided the research underlying the development of our own regulatory design model.

Stage one of this research gleaned systematic lessons from instances of 'bad law' or regulatory failure, both in New Zealand and overseas. It revealed nine separate systematic 'failure factors':

1) Legislating on the basis of unchallenged 'common sense' assumptions, unsupported by confirming empirical evidence; 2) Legislating on the basis of vague or unpopular policy; 3) Legislating in circumstances of capture; or conversely, with inadequate consultation; 4) Inappropriate use of principles-based or outcome-based regulation (too trusting); 5) Inappropriate use of soft (voluntary) regulation; 6) Attitudes of those tasked with enforcement (no buy in, inconsistency, collusion); 7) Silo-ing of regulatory responsibility and rigidity of rules (no room for flexibility in changed circumstances or for inter-agency

collaboration); 8) Insufficient monitoring and/or poor implementation; and 9) Single sector, single issue regulatory design.

These nine failure factors are integrated into the ‘red’ or ‘yellow’ light signals of our model.

Stage two canvassed comparable OECD jurisdictions for best practice in regulatory design. Four main findings emerged.

First: centralised regulatory expertise is a valuable resource. Developing an accessible reservoir of regulatory expertise is efficient and effective. Different jurisdictions achieve this in different ways. The EU fosters regulatory collegiality across sectors. The US uses centralised post-design pre implementation review. Australia has a centralized (federal) ‘one stop’ regulatory shop other agencies use or can call on. Our model attempts to replicate that cross-agency cross-expertise within current institutional constraints.

Second: many jurisdictions foster very early, wide and inclusive (open) consultation in problem definition and solution design. Australia (federal) and the EU transparently include civil society in early planning.

Third: A legal system’s internal culture determines regulatory outcomes. 0utcomes of regulatory design processes, with nearly identical processes around the same problem in otherwise similar jurisdictions lead to markedly different outcomes. We incorporated model features to help avoid predetermined outcomes.

Fourth: systems and behavioural analysis are essential. The findings emphasised the importance of defining the relevant system and its interacting factors, to be able to situate the various decision makers in that system and to identify and assess which intervention would affect them and to what extent. As well, emerging literature on using a more modern behavioural analysis for legislative design, shows a clear differentiation between corporate and human motivating factors. In response the model recommends developing a suite of interventions in circumstances of ‘mixed entities’ (artificial and natural persons), along the lines of the current practice of differentiating between large and small businesses, except differentiating between the rules that apply to human and other legal entities.

The third stage of this phase of research examined the actual expression of the text of the regulation or legislation. Just as the quest for ‘good law’ is an ancient one, the problem of poorly drafted legislation is of long standing, with complaints dating back over hundreds of years. The current system has evolved from a heritage and tradition of complex expression, virtually inaccessible to the uninitiated, and a tradition persists that law needs to be expressed in its own specialised language, rather than in plain English. The literature was definitive on plain English, eschewing the tradition of drafting the law in ‘three languages for three statutory audiences’ (one language to speak to the lay public, one to speak to the regulating agency and one to speak to the courts) as overly complicating and not necessary. Both the refusal to adopt a unitary plain English standard for legislative drafting and unsatisfactory drafting instructions were identified as the major issues impeding clear expression of legislation.

Monitoring efficacy and effectiveness and adjusting accordingly

Overseas, many jurisdictions automatically incorporate monitoring and adjustment mechanisms to respond to changing conditions or design misfire. Others do so on an ad hoc basis, with most post-regulation research done by tertiary type institutions. New Zealand falls in the latter ‘set and forget’ category, which our model attempts to correct.

Abstract

The history of attempted improvements to legislative design and the design systems of a number of OECD members, including New Zealand's, inform the best practice model. Regulatory and legislative failures are analysed to discover common denominators, with solutions suggested. Likewise, common denominators in successful international and other national transport safety programmes are included. The model integrates systems and behavioural analysis into regulatory design, regulation monitoring and adjustment mechanisms. The design process is situated within the broader legal system and incorporates drafting. A red, yellow and green light system avoids failure factors. A regulatory tool library includes a suite of regulatory interventions with advice on their use, including differentiating between the behavioural drivers of humans and artificial entities. It recommends the EU's and Australia's centralisation of expertise and cross fertilisation of regulatory experience together with early inclusion of civil society and other stakeholders for buy-in and optimal use of systems analysis in developing innovative, effective and resilient regulation. Finally, New Zealand's regulatory management system overregulates regulators, impeding flexible regulation for changing conditions and value per tax dollar.

1 Background to the research

The New Zealand Transport Agency (the Transport Agency) sought a best practice model for designing transport regulation. In order to come up with a useful model to guide the design of effective fit-for-purpose legislation, we decided first to look at the many previous attempts throughout the history of formal legal systems to do just that. We canvassed the past and the present, here and abroad, for both positive and negative lessons learned. These findings and New Zealand's particular legal context are included and set the baseline for the resulting model.

As both law and transport are systems-based endeavours, we explored the latest research and understandings around the operation of systems generally, legal systems, regulatory systems and transport regulatory systems. We gathered a stable of factors involved in both successful and unsuccessful purposive interventions into systems and into transport regulatory systems in particular. In conjunction with this, we surveyed the latest behavioural analysis research, differentiating the drivers of and between human and corporate entities, as transport regulation is aimed at influencing the behaviour of both. We also surveyed differing methods of regulatory design, seeking empirical evidence that showed the most on-the-ground effectiveness and buy in (by regulators, implementers, enforcers and the target population).

The research highlighted the importance of automatic mechanisms for the review of effectiveness and adjustment of any systems interventions to make sure the intervention was having the intended impact. This guided our further research into how other jurisdictions did this in their regulatory context. We found it was essential to include follow-up and regulatory readjustment in response to compliance issues. We also discovered the apparent 'path dependency' as to regulatory outcomes which led us to further research methods to avoid that.

These findings guided the development of the model sought by the Transport Agency.

The first part of the research, mentioned above, re successes, failures and path dependency, informed the second part, which was the development of a 'regulatory tool library'. The resulting library is more than a library per se, but a library of options and how to guide, drawing on successful innovations in comparable jurisdictions. It also includes guidance drawn from the history of attempted reforms and from systems/behavioural analysis, discussed above, on which situations the tools in the library might be appropriate for. It includes a suite of perhaps unfamiliar regulatory interventions with an eye to avoiding the automatic defaulting to the familiar without knowledge or consideration of successful alternatives that may be more appropriate to the situation, and which may make either cost savings or compliance/ enforcement gains, or both.

In the same vein, we looked at the history of drafting reforms, successful and unsuccessful. Prior legal drafting reforms, of which there have been many, were driven by bitter experience. Their aim was to help assure the regulation was written to do what the designer intended, that it met natural justice and other legal requirements, and fell within the agency's legal authority. This reduced avoidable failures, inefficiencies and later 'redrafting' by courts or other review agencies, as well as problems with Parliament's Regulatory Review Committee. Suggestions on best practice for this are included, as the best-designed regulation will not work unless accurately drafted. This also goes back to integrating essential follow-up, monitoring and adjustment mechanisms to assure regulation is indeed working as intended, and if not, suggesting possible mechanisms to remedy this.

In essence, this research report sets out the factors that will best assure a regulation will work as desired, from an authorising statute to on-the-ground implementation, oversight and adjustment, and a process to integrate these into regulatory design.

PART A: RESEARCHING BETTER LEGISLATIVE DESIGN

2 Introduction to Part A

Part A of the project to develop a best practice model reviews the literature and current practices in New Zealand and internationally to evaluate best practice for translating policy into results. This part starts by setting the context for the government's efforts to improve regulatory function, which is also the context for the model and the regulator. It proceeds to consider the existing system of legislative design in New Zealand to identify missing or problematic elements and then examines the lessons for such a model that can be drawn from other systems and past regulatory efforts, both generally and in the transport safety sector specifically.

2.1 Setting the historic and legal context

Chapter 3 sets the context by considering a bit of history to draw lessons from previous endeavours to improve legal function and responsiveness. We are not starting from a novel position with no lessons available from prior attempts to improve the design and function of legal regulation. The history of legal reform is the context within which the model and the regulator must function. It will both illuminate some of the systemic challenges to be met and will be useful for guiding regulatory decisions away from unreflective path dependency. Chapter 3 briefly compares the background of the civil (section 3.1) and common law (section 3.2) contexts, a useful and even necessary background for making decisions about whether to adopt a regulatory solution from another legal tradition. It concludes with an examination of the legal context and thought that gave rise to our current attempts to improve regulatory design and function (section 3.3), so we can better decide how to achieve that improvement.

2.2 New Zealand's current regulatory context

Chapter 4 considers the specifics of New Zealand's 'regulatory management system' within which the model must function, focusing in particular on the institutions relevant to the transport sector. The purpose of the review was to become familiar with current practice, in order to construct a model that would both function and fit. Chapter 4 looks at the core policy elements guiding New Zealand's regulatory system (section 4.1) before reviewing the current processes for developing regulations generally (section 4.2) and for the transport sector specifically (4.3). It concludes by identifying some substantive gaps in those rules and processes (4.4).

2.3 Looking and learning from making bad and good law

Chapter 5 considers what can be learned from recent experiences of legislative and regulatory function, from both New Zealand and other jurisdictions. It first canvasses examples of regulatory failures, especially as to the underlying design issues which contributed to or caused the failures (section 5.1). Then other systems are examined (section 5.2), including the regulatory decision and design processes of other systems and the 'systems' of analysis being proposed for the model, systems and behavioural analysis as applied to the law. Section 5.3 looks at the perennial thorny issues and experiences around successful drafting of resilient legislation, as the best-designed regulation is entirely reliant on accurate translation into law to deliver its hoped-for function. Chapter 5 concludes with a comparative examination

of the processes of ex post legislative review and responsiveness (or not) to the information gathered (section 5.4). Each subsection provides useful information for designing a best practice model.

2.4 Looking and learning from international transport safety regulation programmes

Chapter 6 of this literature review looks at the transportation public safety learning available from initiatives taken at the international level (section 6.1) and from the design, implementation and results of national initiatives of other selected jurisdictions (section 6.2), both of which also provide useful information for better legislative design.

2.5 Summarising the research

Chapter 7 summarises the major findings and insights from the research that are used to set up the model for best practice legislative design.

3 Historical context: this is not a new problem

While this may be historical background over a longer time frame and in more depth than is usually given in such projects, it provides useful illumination. This project is a continuation of a long human endeavour to improve the law and to get it right. Hammurabi's code, over 3,800 years ago, was aimed at rationalising and improving the law to make it simple, just, durable and fairly applied (Slanski 2012). The Greeks and Romans both enacted reforms to simplify and improve the practical effectiveness of their law, to better promote justice and commercial prosperity (Rosen 2007; Hesk 2000). These reforms were driven by concerns not so different from those of today and gave us a foundational legacy on which generations have continued to build and to improve.

Situating the project in history can help guide and temper the judgement of those who would regulate. While there are many recent practical lessons both from what went right and from what went wrong that can guide our attempt to build a better breadbox (chapter 4), many of those failures occurred where regulators or legislators had the benefit of the best contemporary thinking, processes and regulatory understandings. Examining these will point to areas where more recent theory and models for regulatory decision making are, perhaps, not quite right and to where improvements can be made. But without today's decision makers being situated in the context of the deeper 'drivers' and historic rationales for current efforts to improve regulatory efficiency and to design law and regulation in a considered evidence-based fashion, other important factors impacting on what went wrong and what might be best practice design for legislation may be overlooked.

Two of the historical major legal rationalisation movements continue to underpin the evolving Western understanding of the best approaches to developing legislation. One is the civil code movement, inspired by both the Roman Justinian code and the Enlightenment. The second is Bentham's positivism movement, which came to the fore in the British system. Both were inspired by the desire to reform the law, through better legislative outcomes, with part of 'better' being conceived of as fair and part of 'better' being conceived of as rationally designed to promote desirable policy goals. Briefly examining these two attempts at developing better law and practice is useful for the would-be regulator as they directly inform today's legal systems, the context within which today's regulator must operate and from which many reform initiatives are emerging.

3.1 Civil law heritage of seeking rational 'best practice' legislation through code and institutional reform

3.1.1 Roman pursuit of better law

The continental civil code system came first (but not by much). It was inspired by a belief that the system of codified law of the Roman Empire, as developed through legislative and administrative practice, was a workable example of an accessible, rationally based, efficient and effective system of law and governance which permitted the Roman Empire to maintain order, to resolve disputes predictably and fairly, and to support conditions conducive to the Empire's commercial success (Kelly 1992). That Roman code itself had been 'rationalised' and 'reformed' for better practice several times, lastly by the Emperor Justinian. His motivations were partially to revitalise the economic prosperity and stability of the Roman

system through better designed, impartial, publicly accessible and fairly applied legal rules[1] (Rosen 2007). The better designed part is the continuing theme here, as the idea that to function effectively the law needed to be impartial, publicly accessible and fairly applied was already a well-established concept. The fall of that empire set back the project of systematic and rational law reform to promote more efficient, effective and just governance in Europe for over a millennium.

3.1.2 Failure and starting over: the continental pursuit of better law

In the thousand plus years of relative legal disarray which passed after Justinian's attempt to improve the quality of legislation, a welter of European jurisdictions arose governed in part by remnants of Roman law, and in part by ad hoc accretion of canon law combined with a variety of idiosyncratic local customary rules (Barzun 2000). The resulting, often conflicting, hodgepodge of rules resulted in many obvious injustices across all sectors of society (Kelly 1994). This can be compared with the welter of cross-cutting statutes, case law, by-laws and regulations that both appeared in and were inherited by the 20th century administrative state.

The Enlightenment movement of the late 1600s through the early 1800s saw the need to deal with legal inefficiency and incoherence. It put forward the idea that bringing rationality and science to legal systems and the problems of the human condition could and would promote human flourishing. The subsequent movement to improve governance, commerce and production through recreating an efficient, integrated code-based legal system, with rational and compatible rules, aimed to create a legal system that promoted human prosperity. These same issues concern today's regulatory reformers.

3.1.3 Rational systems and rational codes as the answer

The civil codes replaced the inherited system of accreted rules, institutions and structures, and its 'ancient anomalies' and jumble of privileges and inconsistencies. The new systems were to consist of rationally designed rules created and implemented by rationally designed and responsive institutions (Kelly 1992). This rational problem-solving approach with its constraints on what can be done in the name of reason is similar to what is imposed on today's regulator. One of the first 'rational' codes enacted formally retained a natural law (natural justice) based caveat to prevent the new code from being used in an abusive fashion (Kelly 1992), with restraints not dissimilar to New Zealand's legal safeguards against the misuse of regulatory discretion (Joseph 1997)[2].

The well-known Napoleonic Code's route of reform was through speedy design and enactment, echoing the aspiration of efficient law making responsive to new conditions. The speed of the process, however, produced a mixed result, retaining much of the non-uniformity of received rules and their application. Part of that retention was to maintain the legitimacy of the system, which speed and lack of consultation imperilled (Kelly 1992). These factors can still have a negative impact on regulatory design, in the same ways and with the same results. In contrast, Austria's code was designed and adopted through a methodical process of design and ongoing consultation. It adopted a fully reformed and rationalised code as a result of a careful 50-plus year process of proposal, checking and feedback with willingness to

[1] Justinian's legal reforms were successful and did revitalise the Empire. Invasions combined with a devastating Empire wide outbreak of the Black Plague proved too much for the Empire, not a failure of his legal reforms (Rosen 2007).

[2] These constraints include rules against regulations a) being repugnant to either the statute under which they were made or repugnant to the most basic common law rights and liberties; b) so uncertain in wording people are not able to know what the law is; or c) unreasonableness to such an extent or so absurd that Parliament could never have contemplated them. Any model would need to have these sorts of boundaries of permissibility built in.

reconsider in the face of feedback (Kelly 1992). That process is also illustrative for today's regulators, as is discussed in the ex-post evaluation section 5.4. The significant thing is not so much the length of the process, but the measured considerateness of that process with inbuilt consultation and feedback, combined with a culture of flexible willingness to reconsider in light of additional information. It was an early attempt to develop rules and systems from an empirical basis, with the feedback as a form of evidence affecting the outcome.

3.1.4 Legal codes as experimental law making, adjustment foreseen and required

For today's regulator, the Enlightenment's rational approach to design reflects the idea that law making is intrinsically an empirical experiment. It is a best guess made on carefully gathered information and feedback, but with no guarantee of getting it right the first time. This is echoed today by Mumford (2011a), advocating that law and regulation are (and always have been) inherently experimental practices. The argument is that effectiveness and legitimacy would be enhanced if legislation were transparently and unashamedly embraced as contingent best practice based on current information and understandings, with feedback testing loops routinely designed into the regulatory toolbox without apology and with the expectation they would serve a necessary purpose of recommendations for refinement (which has become standard in the UK, and an integrated requirement in regulatory impact statements (RIS) (BIS 2015). The Ministry of Transport, in line with the regulatory impact analysis (RIA) requirements (see section 5.2.3), does incorporate an ex-post monitoring requirement but of very limited duration and more of a reporting nature (MoT 2012b, p14).

A viable process for regulatory resilience would require more time and a detailed plan for monitoring and responding to information along the lines of the Austrian approach. The standard transition period device could be re-designed or simply followed by a period of 'flexible transition', which would be more efficient than sunset clauses followed by redesign. This would be a period when the regulation is presumptively in force as written, but with a fixed time for feedback and expected refinement responding to its effects on the ground before it becomes finally in force. It would be more of a 'working evaluation' than a 'reporting evaluation', as projected and actual effects in real world conditions are known to differ. Reporting evaluations alert agencies to this but working evaluations could enable built-in timely response mechanisms. These would allow efficient adjustment in alignment with NZ Treasury principles of growth supporting, flexible yet durable, and accountable/transparent regulation (NZ Treasury 2017a). Such a device would provide one avenue of short-term resilience without requiring a restart of the regulatory process, but care would need to be taken with the certainty issue, which could perhaps be met by provisions as to the limits of transitional adjustment.

The process of reasoning, proposal and integration of feedback used to develop the Austrian code, as guided and constrained by the fundamental normative principles of justice, is familiar to the regulators of today. What is not as familiar is the expectation that the rule as first designed will likely not be right, as the jurisdictions of the Organisation for Economic Co-operation and Development (OECD) have embraced the notion that improved initial processes, correctly followed, will likely ensure an initial correct outcome (Malyshev 2006). As discussed in section 5.4, ex-post monitoring is developing, but to be immediately useful, it needs to be integrated into an authorised period of regulatory adjustment. This may be difficult to develop due to risk aversion flowing from the consequences of acknowledging the imperfection of rulemaking.

The legacy of the Enlightenment inspired the code system of law. Rationally designed governing institutions are the legal systems of 'civil law' countries, where the law is more a practical puzzle to be worked out, as opposed to the common law (and tikanga) heritage of law being conceptualised as a

received 'right way' from ancient history. This difference in the heritage of the deeper paradigms, of both Māori and common law, must be taken into account when European regulatory approaches and innovations are considered. While the innovations of civil law countries to improve the design and effectiveness of their legislation provides material that can be adapted to the common law context, care must be taken when considering projects and methods that have arisen and are being implemented in a significantly different legal environment. This calls for an informed regulatory judgement to be exercised to determine whether, and if so, how, those initiatives might be suited for a successful 'legal transplant' (Wise 1990). Such a judgement cannot be made without some background understanding of the different legal history and culture from which these initiatives have emerged.

3.2 Common law heritage of seeking 'best practice' legislation through parliamentary supremacy and practical wisdom.

3.2.1 Britain's pursuit of better law

In Britain, the Enlightenment drive to improve and rationalise the inherited amalgamation of common and statute law was championed by Jeremy Bentham, who criticised British law for its contradictions, anachronisms and lack of either a coherent strategy or a considered system to achieve policy goals (Bentham 1776; 1781, republished 1988). He also disagreed that case law and principles handed down through generations could constrain the legal options available to the reformers of his day. Bentham did not contest that legal options ought to be constrained, but argued they ought to be constrained by reason, not by tradition. His push for rationalisation or codification of the laws, guided by the principle of utility, was intended to guide law makers to factually (rather than religiously or ideologically) based solutions to social problems, and if nothing else, to make them come to some agreed definition of the problem even if they disagreed about a solution. Bentham also thought the Enlightenment aspirations to reform and rationalise the law through better design and process could be achieved by the competition between politicians for votes, which would lead to the election of those whose ideas and policies were most beneficial to the community.

3.2.2 Britain's failure to embrace a rationally constructed legal system

While Bentham's thought and advocacy did bolster the development of the Westminster system of democratic constitutionalism led by a sovereign Parliament and helped assure that Parliamentary legislation became the highest form of law, the common law jurisdictions did not reform their institutions or laws on the basis of a rationalising code-like project. Rather the inherited accumulation of institutions, forms and rules persisted. Statutory law continued to be passed, not under an articulated organising principle, but on an as-you-go basis. The common law (case law) and the prerogative power persisted as independent sources of legal authority and action. The common law persisted as an independent source of law itself. There was no move to a wholly integrated system of codified law, nor to a deliberately designed legal system of governance.

3.2.3 The situation of the New Zealand regulator: designing rationally for function in a non-rational system.

Thus, unlike the civil law regulator, the common law regulator is still situated within a centuries old accumulated framework of complexity, both for law and the governing institutions through which and by which the regulation operates. For example, New Zealand law incorporates large parts of the British common law (dating from time immemorial), a number of English constitutional statutes dating from 1275 through to 1700 and 1910, British Maritime Acts from the 1800s, British testamentary law from the 1800s

and some British Orders in Council (Imperial Laws Application Act, 1988). As well, it has created its own unique gradual amalgamation of rules, principles and institutions through a process of legal evolution, including those derived from the Treaty of Waitangi, with the new being added to the old. From this process complexity and contradiction can result (Palmer 2014). Likewise, New Zealand's governing institutions have been inherited from the British tradition and added to (or subtracted from) by circumstance rather than any particular design.

None of this is a bad thing, but it is in contrast with the unified systems of the civil law countries. This context increases the challenge of regulatory design, for while the regulator may be immediately situated in a rational problem-solving paradigm, the regulations created are not. They must still function within the broader 'non-rational' legal and structural environment of the common law tradition, a legal environment created by a series of accumulated responses to historical events rather than one intentionally designed to promote effective and efficient legal function. Common law regulatory design needs to be acutely alert to a broad category of potentially conflicting legal rules and institutions.

Having looked at the process through which our current legal context came to be, we now turn to the movement to improve it, through legal and regulatory reform. It is within this latest undertaking to reform and improve legal function that this project is immediately situated.

3.3 The movement towards responsive law and regulation

3.3.1 Trying to make the law respond rationally to community need

The thesis of responsive law developed in the 1970s. It sets out three stages of development (or three approaches) to governance through law, through which law and legal systems have evolved (Nonet and Selznick 2001). The first phase is repressive law, where the law is intended to control the community through using coercion to bend the will and conduct of the governed to that of the governors (analogous to special interest capture of the regulatory process). The second phase is that of 'autonomous law', where the law is viewed as properly independent of and applicable to the governors as well as the governed. A controlling set of rules applies to the governors and the law is intended to be for the benefit of the whole community (analogous to command and control regulation). The third stage ideally is a movement towards 'responsive law'. Responsive law maintains both its independent integrity as 'autonomous', while responding to social and political pressures as sources of corrective information. Responsive law is more principle, purpose and standards based, which leaves more room for adaptive discretion. Responsive law relies on a purposive approach, with the objectivity of its purpose, combined with accepted principles and standards, functioning to legitimate and control any 'adaptive' rulemaking which is made in response to changing conditions (Nonet and Selznick 2001).

3.3.2 The law's purpose and agreed principles should guide decisions about applications of legal rules

The responsive norm was reflected by early and mid-20th century legal arguments to courts that:

- the purpose of the law ought to prevail over the letter of the law
- principles, policies and standards ought to guide decisions on the application of legal or regulatory rules (Nonet and Selznick 2001).

Both go to the existing law's ability to deal efficiently, fairly and legitimately with a rapidly changing world. These are the same concerns of best practice regulation in the 21st century.

Although the responsive law thesis arose through consideration of judicial interpretation of primary legislation, the evolution towards and desirability of responsive law transcends legislative categories. Administrative or regulatory practice has gone through a similar evolution from repressive to responsive law. Delegated authority has evolved from that extended by 'Henry VIII' statutes, which delegated wholly unrestrained administrative discretion to the King (repressive law). After the enactment of the English 1688 Bill of Rights, legislative delegation of authority was a much reduced thing with Parliament jealous to guard its authority. It was only with the rise of the politically accountable Cabinet executive of the 1800s that Parliament again considered delegating legislative authority to the executive to be 'safe' (Joseph 1997). The practice of delegation accelerated in the 20th century with the increasing complexity of modern society. Delegations to experts were deemed necessary and that delegated authority was controlled through the imposition of the sorts of legal constraints on power necessary to maintain the 'autonomy' of the law from those imposing it. The emphasis on the following of the formal rules and procedures of the 20th century regulatory state was to prevent abuse of power (autonomous law), not to facilitate good design (McCubbins 1985). The rapid expansion of the 20th century administrative state, populated by an array of expert regulatory institutions, led to concern that regulators and regulations had become sources of economic rigidity, impediments rather than aids to social flourishing. The ideas of 'responsive law', together with Stigler's (1971) work on regulatory capture and its blocking of legal responsiveness, provide the conceptual foundations for today's regulatory reform.

3.3.3 Principle and purpose provide flexibility and suffice to maintain legal certainty

It is worth noting that the 20th century legal scholars who maintained early in the responsive phase that principle and purpose were legitimate and effective tools to maintain legal certainty and provided a constrained flexibility in rule application, relied on courts to assure this was so. They wanted courts to use that constrained flexibility to avoid legal dysfunction or absurdity arising from changing conditions (Nonet and Selznick 2001) and to monitor any improper use of the implicit authority extended by principle-based statutory law. In a regulatory context, court-based monitoring cannot assure more efficient and effective regulatory design. It can only assure a rule is within the statutory grant of authority (or that it followed correct processes or is not unreasonable according to the tests (see appendix B) set out in *Associated Provincial Picture Houses Ltd. v Wednesbury Corporation* [1948] 1 KB 223). This sort of judicial oversight does provide a basement for principle-based delegated regulation, but the aspiration of responsive law and regulation is to reside in the upper levels of effectiveness and efficiency. More is required. Having set out the context for the regulatory reform movement, we now turn to how New Zealand strives to provide that 'more', so that regulation reaches these upper levels of effectiveness and efficiency.

4 New Zealand context: the New Zealand regulatory management system

New Zealand thinkers about government, policy, laws and institutions worked within a framework of thought influenced by Stigler (1971) and Nonet and Selznick (2001), and their history was heavily influenced by British thinking about government. The aspirations for better regulatory quality that emerged from New Zealand's economic challenges of the 1970s and 1980s were not wholly ungrounded, the administrative state had become extensive and New Zealand had to respond to new economic challenges. On the contrary, they can be seen as part of an OECD-wide evolution emerging from the mid-1970s on, even though they now have a distinctive character of their own. Driven by the desire to improve regulatory quality, New Zealand has provided its decision makers with a set of principles, policies and processes around regulatory design. This set is now labelled the 'regulatory management system'. Jonathan Ayto from NZ Treasury described regulatory management (Gill 2011) as:

> *[…] a set of rules and constraints (formal and informal) that structure the process of proposing, developing, implementing, administering, enforcing and evaluating the performance of legislation (primary, secondary and tertiary).*

In line with its common law tradition, New Zealand has developed and implemented several separate concepts that are summarised under the rubric of the 'regulatory management system'. Apart from its intention to improve the quality of regulation, it appears to lack one organising or guiding concept. How the different processes are intended to work together is uncertain and it appears to be up to each individual regulator to fill those gaps. That is something a substantive best practice model would help do. Also because it is the current framework for regulatory decision making, any best practice model for the development of legislation would have to consider the processes established by it and preferably be interlinked with it. The following summary of the current New Zealand regulatory management system is therefore an attempt to filter the different aspects that are relevant to the specific task of developing legislation. At the starting point are the core elements of the New Zealand regulatory management system. Second, the existing legislative and regulatory procedures that are relevant to the context of developing legislation are examined. Third, transport specific statements and procedures such as the Ministry of Transport's *Transport regulatory policy statement* (MoT 2012a) and *Regulatory development and rule production handbook* (MoT 2012b) are assessed.

4.1 Core elements of the regulatory management system

4.1.1 Regulatory policy: better regulation, less regulation

In 2009 the Government introduced the better regulation, less regulation initiative (NZ Treasury 2009) and announced that it would:

- introduce new regulation only when the Government is satisfied the regulation is required, reasonable and robust
- review existing regulation in order to identify and remove requirements that are unnecessary, ineffective or excessively expensive.

Changes to the approach towards regulation include that the Government expects a culture from government agencies that:

- recognises the importance of productivity in enhancing New Zealand's economic performance

- respects the value of individual autonomy and responsibility
- does not see regulation as the first resort for problem solving
- provides fearless advice on whether a regulatory proposal is consistent with this policy statement and meets appropriate standards of impact analysis and consultation
- continually looks for opportunities to make existing regulation more effective, easier to access and understand, and easier and less costly to comply with.

4.1.2 Regulatory review programme and regulatory stewardship

In 2009, the Government also established the Regulatory Review Programme (CAB Min (09) 6/55A) to reform regulatory processes and remove superfluous and inefficient regulation (CAB Min (13) 6/2A).

In 2013, Cabinet endorsed NZ Treasury's regulatory performance strategy to measure the performance of existing regulation against best practice, and assess and improve agency capability to design and implement regulation. In 2013 Cabinet also decided to focus on stronger RIA expectations (CAB Min 13 6/2B). It introduced regulatory stewardship expectations which require departments to monitor and thoroughly assess at appropriate intervals, the performance and condition of their regulatory regimes to ensure they are, and will remain, fit for purpose (see NZ Treasury (2017a). In addition, regulatory departments are required to publish information on their regulatory management strategy, the state of their regulatory stock and their regulatory priorities for the year ahead (Office of the Minister for Regulatory Reform 2015) (as differentiated from the annual portfolio regulatory plan to be submitted to NZ Treasury) (NZ Treasury 2013b). The concept of regulatory stewardship is defined in section 32 State Sector Act 1988 as the 'active planning and management of medium- and long-term interests, along with associated advice' and can be described as the key principle of the New Zealand regulatory management system.

4.1.3 Best practice regulation model

The current approaches to regulation as described above are supported by the best practice regulation model. This model was developed by NZ Treasury to provide a 'common language' across regulatory regimes (NZ Treasury 2015b). Under this model several regulatory regimes in New Zealand are evaluated against the following set of best practice regulation principles:

- growth supporting
- proportional
- flexible
- durable
- certain and predictable
- transparent and accountable
- capable regulators.

The NZ Treasury model does not claim to provide an in-depth consideration of regulatory regimes. Instead it seeks to provide summary information, a high-level overview of the quality of regulatory regimes in New Zealand and to draw attention to areas that may need to be addressed in future policy making or may require further analysis (NZ Treasury 2017a).

4.2 Existing legislative and regulatory procedures and their relevance for the development of legislation

4.2.1 *Cabinet manual* and *Legislation Design and Advisory Committee guidelines*

The *Cabinet manual* prepared by the Cabinet Office (DPMC 2008) establishes certain rules and procedures for the development of delegated legislation. The relevant rules and procedures for developing regulation are contained in chapter 7. The *Cabinet manual* lists the steps that are required to develop regulation. These include:

- identifying the need for regulations (through departmental monitoring and consideration of the relevant statute)
- developing the policy behind the regulations (if necessary)
- consultation with relevant departments, government caucus(es), other parties represented in the House and independent members of Parliament, affected groups if required by legislation or if otherwise appropriate
- submitting the policy (if any) to a Cabinet committee and Cabinet for approval (if the regulations are entirely routine and do not require new policy decisions, the Minister may authorise drafting without reference to Cabinet)
- drafting by parliamentary counsel
- submitting the proposed regulations to the Cabinet Legislation Committee and Cabinet for authorisation to submit to the Executive Council
- notification in the New Zealand Gazette
- a 28-day period before the regulations come into force
- publication in the Legislative Instruments series.

The *Cabinet manual* is complemented by the *Legislation Design and Advisory Committee guidelines* (LAC 2014). These LAC guidelines are intended to represent 'best practice' in relation to the development of legislation (see section 5.3). The Committee acknowledges that many of the guidelines can be departed from in certain circumstances, and strict compliance may not always be possible, but advises that officials should, however, be prepared to demonstrate they have fully considered the issues and are able to provide good justification for any departure. Certain aspects of the LAC guidelines overlap with other procedures such as the RIS or MoT (2012b), which are discussed in more detail below. Other aspects appear to be more suited to primary legislation than to secondary or tertiary legislation as some of the legislative tools would be beyond the powers of general delegated legislation. The LAC guidelines contain valuable information and guidance on the general legal framework within which any legislation is required to operate and therefore is a useful tool for checking whether the Treaty of Waitangi, New Zealand Bill of Rights Act 1990 and international treaties, for example, have been considered appropriately. Any model would need to incorporate reference to these checks as well.

4.2.2 Disclosure statement

Another recent development is the requirement for all Government bills to include a disclosure statement. While disallowable instruments are not yet fully subject to the disclosure requirements it is intended to include them in the future (NZ Treasury 2013a). These statements promote the transparency principle

which the OECD encourages all members to embrace, and that transparency also enhances the legitimacy of the resulting legislation as well as encouraging those developing the legislation to do so very carefully. A systems-based model for analysis will help to both demonstrate and achieve that.

A disclosure statement is generally grouped into four parts (DPMC 2013)

1 *General policy statement:* Government bills are required to include a statement about the objectives the legislation seeks to achieve, and how it goes about trying to meet these objectives. The purpose of the general policy statement is to disclose key information that will assist readers of the bill to understand its purpose. The disclosure guidelines acknowledge that Standing Order 254 of the House of Representatives already requires a bill to contain an explanatory note. The disclosure statement, however, seeks to achieve greater consistency in the quality of the information provided. In addition to the objectives of the legislation, the policy statement should also describe the methods by which the bill seeks to achieve those policies including a brief discussion of why these methods were necessary or preferred over others. The technical guide published by NZ Treasury (2013a) lists possible alternatives that should have been considered and which are letting private arrangements evolve, using existing legal provisions, increasing enforcement, information or education campaigns, using economic instruments such as taxes, subsidies, tradable instruments, voluntary standards or codes of practice, self-regulation or co-regulation.

2 *Background material and policy information:* Government bills are further required to include important background material and policy analyses that have influenced the legislation. The background material should include not only published reviews and evaluation but also relevant international agreements and treaties. In addition, the material should also contain information on the RIA carried out, including for example where the analysis and policies of the bill vary from the ones addressed in the RIA.

3 *Testing of legislative content:* Additionally, bills need to contain information about the quality assurance work undertaken to test the content of the legislation which includes for example, consistency with international obligations, the Treaty of Waitangi and the New Zealand Bill of Rights Act 1990, what type of internal and external consultation has taken place and whether or not the legislative proposal has been tested in order to ensure that unintended consequences have been identified and can be avoided.

4 *Significant legislative features:* Finally, information and explanations about significant or unusual provisions that the legislation may contain, for example compulsory acquisition of private property, charges in the nature of a tax, or a retrospective effect, strict liability or reversal of burden of proof, civil or criminal immunity and significant decision-making powers must be included in the bill.

4.2.3 Regulatory impact analysis

As mentioned above, in 2013 Cabinet decided to focus on stronger RIA expectations. The RIA applies to any policy initiative or review that considers options that would involve creating, amending or repealing legislation and is expected to result in a paper being submitted to Cabinet for approval. The analysis concludes with a RIS which provides a high-level summary of the problem being addressed, the options and their associated costs and benefits, the consultation undertaken, and the proposed arrangements for implementation and review. The preparation of the RIS is separate from the disclosure statement described above.

The purpose of the RIA (NZ Treasury 2017b) is to:

> *improve the quality of policy by ensuring that policy proposals are subject to careful and robust analysis. Impact analysis is intended to provide assurance about whether problems might be adequately addressed through private or non-regulatory arrangements – and to ensure that particular policy solutions have been demonstrated to enhance the public interest.*

The RIA is intended to ensure that all options for a specific problem have been considered and the benefits of the preferred option not only exceed the costs but will deliver the highest level of net benefit. Additionally, the RIA is intended to encourage the public to provide information to enhance the quality of regulatory decisions to further ensure the options have been properly assessed (see section 5.1.1 on mistaken assumptions) but there is no uniform process for including the public. Detailed expectations for the identification of regulatory options are set out in NZ Treasury (2017b). Completing a preliminary impact and risk assessment (PIRA) is the first step in the RIA process. NZ Treasury requires agencies to identify, with little substantive guidance, whether or not there are feasible non-regulatory options to consider. An agency must also consider whether any of the policy options may be constrained by existing government commitments, ministerial directions or previous Cabinet decisions. It also requires the agencies to identify the groups that may be noticeably affected by the policy options being considered (NZ Treasury 2017b) but sets out no process for assuring these are correctly identified. This is a major gap that needs to be addressed.

For the main part of the RIA, NZ Treasury sets out the following key elements of the analysis but gives little guidance as to how to ascertain the bounds of the relevant system.

- **Description of the status quo,** which should include considerations of the relevant prevailing market conditions and social arrangements with a focus on how the status quo is likely to change over time without further intervention.
- **Definition of the problem and an assessment of its magnitude,** which should include an explanation of the gap between the current situation and the outcome the agency is aiming for.
- **Definition of the objectives,** which should summarise the policy intentions and also inform how any potential regulatory solution will be evaluated for effectiveness. For this section, NZ Treasury highlights that it is important to state the objectives of current policy arrangements and whether these objectives have changed as a result of identifying the problem. NZ Treasury acknowledges there may be conflicting objectives and requires that it should be made clear how trade-offs between competing objectives are going to be made.
- **Identification of the full range of feasible options,** which should include regulatory as well as non-regulatory options. NZ Treasury (2017b) refers to the available options being non-regulatory, co-regulation, self-regulation and direct regulation and provides some examples for these options but no substantive guidance on how different regulatory tools and methods function in different contexts.
- **Analysis of the options,** which needs to show how each option would alter the status quo, which option is likely to be most effective and which option has the highest net-benefit. For the analysis, agencies are required to identify the full range of impacts, analyse the incidence of the impacts, the magnitude of the impacts and whether these impacts are costs or benefits. Additionally, the agencies are required to carry out a risk assessment.
- **Consultation** with affected parties, which should include consultation on the problem definition, the range of feasible options and the impact of the options. Agencies are also required to consult with other government departments and agencies, and NZ Treasury (2017b) provides guidance on which

agencies to consult. In addition, NZ Treasury (2017b) contains a separate section on how to structure the consultation process.

- **Conclusion and recommendations** are required to explain clearly the decisions required, the available choices and what stage of the policy process the RIA reflects.
- **Consideration on implementation,** which requires the agencies to consider how the preferred option would be implemented if agreed. NZ Treasury (2017b) points out that the choices around implementation and enforcement can have a major influence on the compliance rates and whether the expected costs and benefits will materialise. It sets out the importance of the implementation phase, which can be divided into two phases: the initial phase of introducing the law and the phase of administering and reviewing the law. At the initial phase, behaviour has to change in line with the expectations of the new law. The behaviours that must change are often path dependent, can be deeply embedded, and the effort it takes to change them is often under-estimated. The agencies should therefore allow sufficient time for implementation including the adoption of appropriate strategies for the change process and undertaking sufficient ongoing monitoring and evaluation.
- **Monitoring, evaluation and review,** which require the agencies to establish a monitoring plan that addresses when and whether the regulatory changes have performed well and how the agency assesses whether the preferred option continues to have greater net-benefit than the alternatives (but not to build in an adjustment mechanism or phase).

The model emerging from this project could inform either a PIRA or a RIA process, providing a substantive framework for analysing decisions taken on not only whether and how (or how not) to intervene, but also where (through the same behavioural and systems analysis). This model could also be informed using empirical and behavioural research about how regulatory tools and methods actually work in different contexts, such as that carried out by investigators like Freiberg (2010) or Baldwin (2011). One important issue would be to consider the regulatory options available through a method that minimises the chances a choice is made through path dependency rather than through independent assessment.

4.2.4 Living standards framework

An introduction to using the living standards framework (NZ Treasury 2015d) is a guide for thinking about good economic, environmental and social policy in an integrated way. The framework aims to assist in developing policies and advocates that an understanding of people's preferences and their willingness to trade-off one aspect of social well-being over another is essential to good public policy. NZ Treasury (2017b) specifically refers to the framework as a useful tool for defining the objectives prior to identifying the available options. The framework could be an example of how to think about trade-offs and how to incorporate social aims into regulatory objectives). NZ Treasury has also published several background documents on how to use the framework and how it has been used in different ways and contexts (NZ Treasury 2017a). While NZ Treasury acknowledges that it may not always be useful for smaller policy decisions with a limited range of identified impacts (NZ Treasury 2015c, p7) it may well fit into a systems approach to developing legislation, if the situation is one where such trade-offs could appropriately be considered.

All the tools described above are valuable tools and contain valuable information for decision makers. The requirement to contain a general policy statement is especially relevant for a model on developing legislation as it requires the regulator to include its considerations on how and why to regulate, and if that decision is made, helps lay the groundwork for the critical drafting instructions and purpose clauses discussed in section 5.3, on which even the best-designed legislative interventions depend for effective implementation. The RIA helps to identify regulatory options and the living standard framework assists in

considering and balancing relevant and potentially conflicting interests. As is the case with the other process focused tools regulators are currently equipped with, they only provide an effective tool once they are backed with specific information on how different regulatory tools work in different contexts. Additionally, the processes can only pave the way for effective regulation where the empowering legislation provides the regulator with the required degree of flexibility. The prescriptive legislation of the Land Transport Act 1998 (Mehrtens 2014) may therefore hinder the development of effective and resilient legislation.

4.3 Regulatory procedures for the transport sector

In 2012, the Ministry of Transport issued the *Regulatory policy statement – expectations for regulatory development and practice* (the *Policy statement*) (MoT 2012a). The *Policy statement* sets out what is expected from the transport regulator for best practice regulatory development and implementation including policy objectives and the principles guiding the development of regulations and best regulatory practice.

The *Policy statement* complements the legislative mandate to provide for an integrated, safe, responsive and sustainable transport system by setting out the objectives that must be given effect to in regulatory decision making including the development of legislation. The principles developed in NZ Treasury's (2015b) best practice regulation model (see section 4.1) have been tailored for the transport sector and are intended to guide the design of transport regulation and the conduct of regulatory practice.

In addition, the *Policy statement* provides the regulator with an overview of the different legislative instruments and strategies available and lists the circumstances in which principle-based, performance-based, process-based and prescriptive-based legislation are suitable. It must therefore be the starting point for developing legislation in the transport regulation context. The guidance it provides with respect to the available tools, however, is not sufficient to enable policy makers to find or to consider the right tools for a specific policy issue.

As part of the Regulatory Reform Programme, the Ministry of Transport also provided agencies with the *Regulatory development and rule production handbook* (MoT 2012b). It was designed to assist the transport sector perform its regulatory functions more effectively and efficiently. MoT (2012b) outlines a process and parameters for determining whether legislative intervention is the most appropriate regulatory tool to address an issue. Where a rule is determined to be the most appropriate legislative intervention, MoT (2012b) sets out the expected rulemaking process across all transport modes.

The process is set out in six phases, namely 1) initiation, 2) policy investigation, 3) rule development and consultation, 4) rule finalisation and signature, 5) post-project review, and 6) evaluation. The first two phases focus on assessing the factual and regulatory situation in order to determine whether and what type of intervention is required whereas the third and fourth phases focus on the process for the rule production. Phases five and six deal with post project and mid-term rule evaluation.

The most relevant places for any model for developing legislation to fit in are phase 1 re determining if intervention is required; phase 2, the policy investigation phase where different options, including a rule, are evaluated to ascertain the most appropriate option; and phase 3, the rule development and (legal) consultation phase (actual engagement with stakeholders must take place earlier). Additionally, the model would incorporate the design of phases 5 and 6. Evaluation would also need to be considered as a systematic approach to regime monitoring and review is central to effective and fit-for-purpose regulation (Ayto 2014, p25; Gill and Frankel 2014, p60).

Phase 1, the initiation phase, has the purpose of establishing whether there is a justified case for regulatory intervention. The determination is to be based on a RIA which should include an assessment of the issue, identification of potential interventions and their impacts including costs where known.

Phase 2, the policy investigation phase (MoT 2012b, para 2.2), requires that the project team:

- confirms or revises the problem
- clarifies the policy intent and objectives
- identifies any significant international obligations relevant to the problem
- considers legislative and non-legislative means of intervention
- develops policy options
- analyses equity and distributional impact of the proposed options
- considers implementation issues and costs
- includes Treaty of Waitangi, human rights and disability issues.

Phase 2 also includes engaging stakeholders, which is an integral part of developing legislation, but does not clearly set out the process by which these are to be identified, leaving a potential gap as to who is a stakeholder (see section 5.2). Additionally, phase 2 sets out a policy investigation checklist which is intended to ensure any recommendation made to the Minister is the option or combination of options that delivers the highest net benefits of the practical options available. It requires the project team to check their preferred option against the following aspects:

- The problem or benefit is clear and significant.
- The regulatory principles such as flexibility, durability and certainty are met.
- Implementation matters are adequately considered and where a draft rule is the preferred option it complies with the legislative provisions and scope, and supporting regulations required to support implementation of the rule are identified.

At the conclusion of the policy investigation phase, the project team is required to deliver a RIS, which must include identification of the full range of regulatory options available as set out in the RIA process as described above (section 4.2.3).

Additionally, MoT (2012b, para 5.36) provides a checklist of things that should have been considered prior to making any recommendation to the Ministry. These include, for example, the following principles:

- regulatory intervention by way of the rule remains the best option for addressing the issue(s) concerned
- the rule reflects the policy intent
- the rule's provisions are clear, unambiguous and consistent with other legislation
- the rule has taken account of requirements relating to the Treaty of Waitangi and human rights and disability issues
- the rule's provisions are logically ordered, structured and easy to read and understand.

The checklist is aimed at ensuring relevant policies are reflected in the legislation and that relevant options have been identified and assessed, and technical requirements of legal drafting such as clarity and consistency of legislation are met.

In addition, MoT (2012b, annex 2) provides the agencies with guidance as to when legislative intervention is considered appropriate. It contains an overview of the different forms of rules and regulations and in which situation these forms are most suitable. It specifies issues to take into account and which designs

are available in general, so is a useful tool to assist with the required processes for efficient and successful rulemaking. Backed with a model for making the substance of those assessments, re regulatory tools, mechanism and strategies, it can help assess the legislative design options and ensure the rules are well drafted.

4.4 Shortcomings in New Zealand's regulatory management system: substantive gaps impede the creation of responsive regulation

4.4.1 Extensive procedural requirements can impede public sector efficiency

The survey above of what is, in terms of New Zealand's processes for developing and implementing legislation, especially legislative instruments but statutory legislation as well, reveals a seemingly intentional focus on formalism (Bailey and Kavanagh 2014) rather than the incremental pragmatism often reflected in New Zealand's culture. In the quest to improve the quality of regulations and to reduce compliance costs for those whose activities are regulated, a number of procedural requirements have been created to guide regulatory agencies through the process of making and implementing a regulatory decision. These quality assurance procedures necessarily slow processes and add regulatory transaction cost (Martin and Shortle 2010), but without including substantial improvement in the substantive guidance for making the regulatory decision itself, the efficiency or the effectiveness of those well-processed regulations may not be actually improved. It is important that procedures intended to assure 'best value' for the taxpayer regulatory dollar, actually deliver 'best value'. The increased costs incurred through extra processes must be offset by a reduction in other costs through improved efficiency in regulations achieving their purpose. If the quality assurance processes, such as RIS and other internal reporting and procedural requirements, increase the costs of producing regulations without a demonstrable external economic efficiency gain, best value for taxpayer money is not achieved. Studies of RIS across jurisdictions show the same RIS guidelines and language can, even when properly executed, result in very different outcomes, depending on institutional and cultural factors (Radaelli 2005). Those results bring into question whether the RIS model suffices to guide substantive regulatory decisions.

4.4.2 Both (very) slow lane and (very) fast lane law making leads to poor results

The formal procedures are relied upon to assure quality design is achieved and good information is gathered and analysed, yet New Zealand also seems to have a bit of a radical bifurcation in options, either the path of very little procedural requirements and safeguards through the invocation of urgency or the path of the complex internal and cross-agency procedures (DPMC 2008, 7.86) of ordinary legislative or ordinary regulatory procedures. Palmer (2014) points out the complex paths for much of the ordinary legislation versus the quick paths sometimes taken for 'big' legislation and elaborates the downsides of each approach. He also notes New Zealand's tendency to turn first to statutory law to solve problems,[3] combined with problems of poor legislative resilience, often results in a process of accumulated amendments which render the original statute cumbersome and interfere with its efficient operation. These factors do not facilitate the design of effective regulation. They may be intrinsic to a legal system with a common law heritage; however, they may also reflect an issue of simple path dependency which any 'better process' or practice model ought to address.

[3] New Zealand's 'regulatory management system' is trying to reduce this tendency.

4.4.3 Public value for money requires regulators be enabled to work efficiently

Stigler (1971) argued against over-regulating the regulators in the attempt to avoid mistakes, noting that undesirable inefficiency may result from regulatory quality assurance requirements aimed too much at reporting and not enough at the sorts of interventions that improve regulatory design outcomes. While wary of regulatory capture issues, Stigler advocated for a more 'European' style of consultative process (as discussed later), where less secrecy (see NZ Treasury 2013b) and more transparency in decision making (contrasted with more layers of procedure) improve consensus commitment to decisions. This is essential, as regulatory decisions must support or create 'public value', be consistent overall with what the public values and have adequate sources of legitimacy to promote that value, or the regulation will be ineffective (Moore and Khagram 2004; Bromwell 2012; Bozeman and Johnson 2015. Inclusion helps ensure consistency with the overall public values requirements, which in turn promotes more efficient regulatory implementation and management. It also promotes stability and efficiency, as it avoids the see saw of effort to undo the last decision and the inefficiency of protecting a decision from being undone by the un-included, when further developments may show that being undone would have been the best result (Stiglitz 1998).

4.4.4 New Zealand's regulatory system is rich in procedural requirement but poor in substantive design guidance

There are a number of potential gaps in New Zealand's regulatory management system, which has been canvassed in some detail above. These are whether the current model for decision making is procedurally rich but substantively less so, whether the mechanisms for regulatory adjustment are accurate and resource efficient and whether the level of inclusion is sufficient to assure that consistency with 'public-values' is necessary for effectiveness.

Having considered New Zealand's regulatory management system and identified some potential gaps in assuring best-practice regulatory decision making, we now consider how these might be addressed. To look for guidance, chapter 5 considers the regulatory experiences of others (and sometimes of our own), to see what can be learned from their (or our) mistakes, from different systems of design, about the perplexing problem of accurately translating the design into law, and from various systems of monitoring and feedback.

5 Learning from the experiences of others

Bailey and Kavanaugh's (2014) review of New Zealand's regulatory system identifies a number of specific problems that have contributed to New Zealand's own regulatory failures. Those are a lack of inbuilt regulatory resilience, the design process and its quality checks being under-resourced, legislative complexity, not taking a systematic approach to evaluating and managing the 'stock of regulation' and those regulatory regimes in place, gaps in regulatory skills, and not integrating those with regulatory skills into higher levels of management and governance.

This project is not aimed at institutional redesign, but at attempting to address two of the identified problem areas of resilience and creating a model to guide a systems-based approach for best practice for regulatory design which would help fill the gaps identified above. It must work within the existing context, so must keep issues arising from that context in mind in order to factor in compensatory approaches to minimise these. Therefore, in our survey of regulatory failures, we have tangentially noted institutional contributing factors, but have focused mainly on those factors directly related to the cognitive failures in the regulatory process. From our review of studies of legislative failures, a number of contributing factors have emerged that any model for making early design decisions would need to take into account. Where appropriate, we suggest potential techniques to minimise the likelihood of these factors tainting regulatory design.

5.1 Useful learning from regulatory failures

5.1.1 Legislating on the basis of unchallenged 'common sense' assumptions, unsupported by confirming empirical evidence:

The World Bank has set out a general system to avoid excessive regulatory costs or regulations that do not promote the desired policies. The World Bank system was developed partially through study of the failure of Korean commercial transport regulation. This failure was attributed to implementing regulations to promote policies for which there was no supporting evidence. Korea's overall goal was to increase commercial transport efficiency and to reduce the costs of the commercial transport of goods. It was assumed bigger trucking firms would be more cost efficient than smaller players, resulting in regulatory preferences for larger enterprises. This misdefined the problem (Bacchi 2009) and resulted in incentives for increases in size rather than in cost efficiency, and barriers to entry for competing smaller more efficient players (World Bank 2002). The pitfall of 'common sense' regulatory failure can be exacerbated by interest group capture of the regulatory process, where through self-funded studies the interest group has every interest in buttressing the seeming validity of commonsense intuitions (Dal Bo 2006). Even a well-resourced regulatory institution, which could have pursued independent empirical research querying accepted 'common sense', will not avoid this sort of capture, unless apparently 'wasteful' research is pursued. That is a problem here, as regulators are acutely sensitive to wasteful use of taxpayer money, hence the temptation to go with accepted wisdom especially, when buttressed by the interested industry (Dal Bo 2006). No regulator and no government wants to be in the position of wasting public resources. New Zealand's long-established governing culture of pragmatism (Palmer 2007) could make it difficult for the regulator to pursue research which may very well validate the 'common sense', but which could be invaluable to effectively and efficiently achieving policy goals if it did not.

5.1.1.1 'Bundling research' to avoid legislation based on mistaken common sense

One possible solution that might apply to this conundrum which is mentioned in the literature is 'bundling'. Harvard has pursued empirical research into how to assure that the most beneficial policies and

legislation are put in place, through the device of 'policy bundling' or 'legislative bundling, where the costs and benefits of policy or legislative proposals in related areas are aggregated or bundled together such that a more rational decisions can be made and garner public support, rather than poor decisions resulting from isolated issue analysis. This is the beginning of a systems approach to legislating (Milkman et al 2009). This same bundling approach could apply to regulatory research to test 'common sense' governing propositions, so that the costs of many confirming outcomes are weighed against the benefits of one counter-intuitive outcome. Had the received economic wisdom of the time re efficiencies resulting from economies of scale been challenged and tested in the Korean trucking industry case of regulatory failure, the economic benefit from the enhanced efficiency of that country's transport network would have far outweighed the costs of dozens of other bundled studies which turned out to confirm the validity of received wisdom.[4]

5.1.1.2 Technocrats are not immune to mistaken assumptions: benefits of expertise vs risk of overly narrow focus

Two other solutions to regulating on the basis of generally accepted 'common-sense' both have their risks. One risks a technical single-issue focus that misses many of the relevant and diverse 'decision points' and 'decision makers' which affect whether regulatory design is well targeted (Bartle et al 2012). One is to use the independent agency of technical experts, which is the preferred approach in the US. These agencies tend to have a stable of technocrats rather than generalists who may be, through technical training and specialisation, more likely to question the prevailing wisdom. The risk here is that the technocrats lose touch with the real-world factors (Verkuil 1982) that make the flawed commonsense approach none the less the better approach. The US system of independent technical agencies making regulatory policy, which is then presented for comment by interested parties, cuts out their input at the get-go. This almost assures that the resulting regulation, however tweaked through commentary, will be channelled along basically in the same form through the workings of path dependency (Prado and Treblicock 2009) and that it will lack legitimacy in the eyes of the disappointed. The US reluctance to integrate sector players very early in the design phase is based on perceptions that doing so enhances the risk of regulatory capture (Radaelli 2005; Verkuil 1982). This has been seen as a problem in the regulation of land transport, with industry incentives and revolving doors for those with expertise (Dal Bo 2006).

5.1.1.3 Wide consultation to gain different perspectives on common sense

While MoT (2012b) advises that stakeholders are to be engaged in the RIS process, formal consultation with public notice takes place only once the Minister is proposing the rule. MoT (2012b) shows the PIRA processes with an arrow indicating engagement with stakeholders, but both the PIRA and the RIS processes leave determining the identity and the interest of stakeholder to the regulator. This could be seen as sensible information gathering or it could be seen as facilitating capture either wittingly or unwittingly. One solution could be the Australian model of an open registry (discussed in section 5.2.1) where self-identified stakeholders are notified early of potential regulation in a given area, either geographic or substantive. This would enhance the principle of transparency and might be useful for avoiding path dependency in the regulatory approach taken.

In contrast, as discussed below there is an apparent practice in the EU (section 5.2.1) to use highly and widely participatory processes in the very earliest stages of policy development, which could lessen the odds of acting on mistaken received wisdom.

[4] The issue of unbundled regulation also relates to the issue of regulatory failures from the institutional silo-ing discussed in section 5.1.7. Rule-siloing or intervention-silo-ing can have the same detrimental effects as institutional silo-ing. This is an area which could be constructively explored for the development of the model.

5.1.2 Vague or unpopular policy

Regulatory failure is sometimes precipitated by legislatively imposed policy, which is vague (see leaky building crisis discussion in section 5.1.4) or mistaken (Korean trucking example just above). Some argue that while the regulatory agency is particularly well placed with information and experience to develop policy, legislatures or higher cabinet level departments may not have the same pragmatic grounding in dealing with real-world day-to-day working with the rules on the ground (Jones 1991).

5.1.2.1 Shifting the political cost away from the elected representatives

Political cost shifting away from the legislature to the regulators for policies with obvious costs and diffuse benefits can trigger regulatory failure, through a lack of perceived legitimacy of the regulatory decisions (Fiorina 1982; Moore and Khagram 2004) and this can be further complicated by the choice of oversight mechanism, with close oversight for policies for which the legislature wishes credit and less so for less popular ones (McCubbins 1985).

5.1.2.2 Using social marketing or regulatory bundling as remedies

These are perhaps unavoidable issues, but ones which a regulatory design model needs to take into account. Such might be done by incorporating the well-developed social marketing toolkit into the design process as suggested by Becker et al (2010) or explicit regulatory bundling, in the design process, as mentioned above (Milkman et al 2009) to make explicit overall benefits accrued to the public through 'unpopular' regulation.

5.1.3 Capture vs inadequate consultation

Capture has been defined as 'the result or process by which regulation, in law or application, is consistently or repeatedly directed away from the public interest and toward the interests of the regulated industry, by the intent and action of the industry itself' or as 'control of agency policy decision making by a subpopulation of individuals or organisations external to the agency' or as 'the adoption by the regulator for self-regarding (private) reasons of a policy which would not be ratified by an informed polity free of organisation[al] costs' (Livermore and Revesz 2013, fn 17). Capture has at least three differential paths by which it can occur, and any model would need to compensate for these.

5.1.3.1 Industry capture of regulator

A first path is the capture of the regulator by the industry or entities regulated. This was the sort of capture Stigler (1971) was most concerned with, arguing the industry used regulators and regulation to avoid or to stifle competition. Early airline regulation is an example of the sort of 'keep-out' regulation, which kept domestic and international services limited, prices and profits high and competition low, to the detriment of the public (Schless 1994). More recently, the British contribution to the global financial crisis has been attributed in part to regulators tasked with oversight of principle based regulation becoming so close to and admiring of the cleverness and acumen of the financial services whose self-designed plans to avoid risk they were to monitor, that effective monitoring did not happen nor was healthy scepticism applied to bank risk assessment (Black 2012b). This sort of capture can happen in both command and control regulatory situations (airlines) or in principle-based regulation (financial crisis in Britain). The British situation (discussed more below) reflected a sort of hybrid path of capture, where industry was all too glad to capitalise on the regulators' own positive biases about the industry's character, especially in the context of modern practices of rewarding apparent compliance with a lighter touch and an extension of more trust. The need to design a framework of rules within which principled regulation operates has been noted (Black 2012a). This is an essential point for regulatory design decisions, as trust is intrinsically non rational (Seligman 1997; Rose 1995), so if principle-based (high trust) regulation is to be used, that

principle-based regulation must be designed in a way that the extension of regulatory trust is provided with a semi-rational basis, and in a way that gives confidence capture will be avoided. The important roles of trust and confidence in regulatory design will be discussed more thoroughly in the next section.

5.1.3.2 Internal capture of regulator: biased employees

A second path to capture is where the regulatory institution itself is staffed with people drawn to the issue, such as environmentalists working in an agency tasked with environmental protection, or labour supporters will be drawn to work for agencies tasked with protecting workers' rights or their health and safety, thus leading to over-zealous regulation through a form of internal capture (Livermore and Revesz 2013), or the classic special interest capture through contributions to those politicians who create the regulatory enabling legislation. Those captured politicians create the agency tasked with regulating in that area, as well as establishing the extent of their regulatory authority, in a way that regulatory inaction results. Vested interests will then block any regulatory reforms which might have a larger but diffuse public benefit (Malyshev 2006). Conversely, people of opposing views may be attracted to issue-specific agencies to work against what they see as regulation contrary to their political preferences. This idea of over-regulating agency zealots in need of oversight has been instrumental in some moves for regulatory reform (Livermore and Revesz 2013).

5.1.3.3 Political capture of the regulator: politically controlled agencies

A third avenue of capture is that of the government of the day, through its design of quality review and monitoring mechanisms, if these are politically controlled. Livermore and Revesz (2013) is writing in the context of the US federal government's Office of Information and Regulatory Affairs, a centralised executive agency tasked with review of each RIS for each regulation made by a federal agency. This agency is not independent as it was created by executive order and the President appoints its head (this is sometimes overlooked in the literature, where articles classify it as an independent agency. Presidents argue it is independent, but it and its chief exist at the President's sufferance). This control opens a path for high-level executive interference with decisions the legislature has tasked to expert agencies. The second and third paths of capture could be countered by incorporating into any best practice early and wide consultation of the sort advocated by the EU (explained in section 5.2), as both a power-diffusing mechanism, a transparency mechanism (which is one of NZ Treasury's best practice principles) and a mechanism for collecting evidence (discussed in section 3.1.1) is essential.

5.1.3.4 Capture means inadequate consultation

Capture is either based on or leads to inadequate consultation, so if there is the one, there is the other. The wider the net of consultation, the more accurate picture a systems-based design process will develop, with less risk of a captured process. Standardised methods for assuring this exist and will be discussed in section 3.2.1 below. While NZ Treasury (2017b, section 7 and part 3) sets out that agencies must consult on problem definition and regulatory design, with very general advice as to some features of effective consultation, there is no institutional mechanism set up to achieve this. Agencies are left to devise their own. NZ Treasury (2017b) also advises against over-consultation (part 3.2).

5.1.4 Inappropriate use of principle-based or outcome-based regulation

Principle-based regulation can lead to failure if what the principle is to apply is unclear. For example, New Zealand's leaky building crisis has been partially blamed on the principle of 'minimising compliance costs', a fundamental regulatory design and reform principle widely accepted as desirable (Black 2014; Mumford 2011a; Layton 2011; Zuccollo et al 2013).

5.1.4.1 Certainty and clarity of purpose and subject matter essential

Uncertainty over which principle to apply, whether if should focus on minimising administrative paperwork or on the actual design and construction, or both, was cited in the Hunn report as a contributing factor to the construction of so many leaky buildings (Black 2014). If a principle is to be used to reduce compliance costs and to be 'growth supporting', the ambit of its application must be clearly set out so reductions in costs do not extend to reductions in the achievement of the underlying purpose of the regulation, eg to ensure buildings are of sufficiently sound construction so buyers and public health are protected from undue financial or health risks. Black (2014) highlights that principle-based regulation is dependent on management respecting the technical advice of their experts on what is necessary to meet the desired outcome. The Deep Water Horizon disaster and the Pike River mining disaster are examples of a disconnect, either through devaluing technical advice (Deep Water Horizon) or through financial pressures resulting in it being put on the back burner (Pike River). Recent financial crises caused by episodic rogue traders and by financial firms failing to be adequately constrained by monetary self-interest to avoid risky practices, are regulatory failures occurring under regulatory regimes designed according to modern understandings of best practice (principle-based, risk-based meta-regulation with enrolment oversight, each discussed in the following text) (Black 2012b).

5.1.4.2 Misdirection as to target and failure to recognise strategic compliance behaviour

Spectacular regulatory failure has been attributed to a combination of factors including but not limited to: the complexity of the sector; focusing regulatory resources on those risks arising from financial retail but not financial wholesale operations; strategic corporate behaviour to enhance the appearance (but not the fact) of compliance for reputational gain with the regulators in order to win a regulatory dividend of trust; meta-regulation (when the regulated entity devises its own plan to comply with applicable regulatory principles), and with the financial firms devising their own regulatory compliance plans for approval. This set up the classic principal agent problem (where the agent pursues their own, not the principal agenda) so that the banks did not prioritise investing much resource into the effective implementation of their self-designed compliance plans. The failure was exacerbated by also using meta-regulation for capital adequacy, where banks estimated their own risks and the regulator relied on the 'received wisdom' that banks would do so accurately because it was in the financial self-interest of those institutions to accurately assess their risk (see section 5.1.1 above on the inadequacy of regulating on the basis of received wisdom).

5.1.4.3 No actual independent compliance oversight

Another basis of failure was that the regulators relied on banks' representations of their systems rather than verifying those systems (Black 2012a) (this goes to failure of monitoring in section 5.1.8). The lessons learned are that principles-based regulation is not synonymous with trust-based regulation, but requires a framework of rules and effective monitoring. Comparing Black's pre global financial crisis analysis of the British Financial Services Authority (Black et al 2007) use of principled based regulation and her post crisis analysis is instructive in itself (2012a and b), as the 2007 article reflects a trust in the form of regulation itself without any of the 'confidence-based' controls that would make that trust at least semi-rational. The post global financial crisis article recognises that regulatory trust can only be justified if there is an adequate scaffolding of actual rule-based control to support that trust.

As in the soft regulation discussed below, the use of 'enrolment' with the regulator outsourcing of risk assessment, here to auditors and credit rating agencies, created principal agent dynamics, where those assessing the risks had financial incentives that ran counter to the interests of the regulator. The auditor is hired and paid by the entity regulated, giving rise to a conflict of interest. A credit rating agency is paid not by the regulator to rate an asset to be sold, but by the issuer. Therefore, while 'enrolled' by the

regulator to assess the financial risk incurred by investing in a company or stock issue, the credit rating agency is financially aligned with the company that pays them and will be the company's preferred rating agency if it gives the company a good credit rating. This same 'enrolment' generated conflict of interest arises in the New Zealand transport sector's safety regulation scheme with warrant of fitness (WoF) inspections for cars. A WoF assessor carries out the inspection for the purpose of public safety and at the same time depends on the regular return of motorists to have their cars inspected to maintain their inspection service. If the inspector is 'too hard', motorists have the option of going somewhere else. The current issues with WoF assessors' failures to perform as desired illustrates the risks to the public and to the agency itself of using 'enrolment' for 'out-sourcing' risk assessment.

5.1.5 Inappropriate use of soft regulation

Soft regulation consists of standards and guidelines hoped, through reputational advantage and issues of liability, to motivate the desired behaviour. Soft regulation depends on management for its effective implementation, ie it relies on the effectiveness of management's assessment of risk and development of the most convenient and innovative way to avoid that risk. This in turn depends on a compliant management culture, on adequate understanding and assessment of risk, and on the technological ability to respond (Reichow and Dorbeck-Jung 2013).

5.1.5.1 Insufficient reputational pressure and weak safety culture

Compliance with soft regulation can be low either from insufficient reputational pressure compared with the financial advantage of noncompliance or from the failure to adequately understand the risk (even if not wilful). Soft regulation depends on a strong industry culture of safety and risk avoidance, rather than a culture of derring-do, and on the appropriate corporate structures. Without a structure where 1) compliance personnel (internal inspectors) have clout, with supported authority to invoke consequences for noncompliance; 2) clear lines of meaningful accountability for compliance performance placed on line managers; 3) compliance performance is monitored and poor performance is communicated as unsatisfactory; 4) processes are set so that problems are communicated to those who can resolve them and 5) compliance training and supervision that is mandatory and meaningful, soft regulation will be ineffective. In studies, pharmaceutical companies have performed poorly, outsourcing risk assessment to contractors with financial incentives to please, and blurring lines of accountability, enabling known poor or risky product to be presented to the public or unsafe work or environmental practices to continue (Braithwaite and Fisse 1987). Industries under financial pressure, or industries with little reputational capital or need for reputational capital are poor candidates for soft regulation. Using trade associations as intermediate enforcers of soft regulation has been ineffective, as either captured, unwilling to alienate colleagues, or complicit (Braithwaite and Fisse 1987).

5.1.5.2 Risks uncertain and start-up institutions

In emerging areas, where risks are uncertain, with little institutional structure, high transaction costs and low reputational investment, soft regulation, despite its appeal for flexibility and allowing efficient innovation (which would seem to be a perfect fit) has been criticised as failing to protect worker and public safety (re nanotechnology regulation in the EU) (Reichow and Dorbeck-Jung 2013). The growth promoting principle (NZ Treasury 2015b) that would seem to indicate soft regulation as suited to allow ample room for innovation to industries in emerging technologies[5] could be in tension with the objective of the agency to provide an 'effective, efficient, and safe land transport system in the public interest' (Land Transport Management Act 2003).

[5] In land transport, autonomous commercial or private vehicles will be an area where this tension could emerge.

Coglianese and Mendelson (2010) provide a useful discussion of whether and when to regulate, through either 'meta-regulation (discussed above) or self-regulation, or neither. They examine two case studies of each to extract guidance on making choices that are most useful for a model to guide substantive design decisions. They note the external pressures that may interfere with both, but also find they would be most appropriate when regulators know there is a problem that must be addressed but have inadequate information about it and lack possible solutions for making evidence-based choices. This is a view somewhat contrary to that of Reichow and Dorbeck-Jung (2013) discussed at the beginning of this subsection.

5.1.6 Attitudes of those tasked with enforcement

Legislative failure may occur from even well-designed evidence-based regulations if the enforcement attitude of the regulators is overly negative and punitive (Six 2012). Ayres and Braithwaite (1992) have argued that better regulatory outcomes would be brought about by reducing the level of antagonism in the relationship between the regulator and those regulated, by responding to behaviour changes and maintaining a respectful relationship. There are two approaches discussed in the literature: tit for tat and restorative justice

5.1.6.1 Punishment for transgression: angry minds, behaviours changed

Tit for tat responds in kind to 'regulatee' behaviour, while some (Black et al 2007; Black 2014) argue that having a less punitive approach, less acute long- (or even short-) term memory and being more forgiving of past transgressions, ie a more restorative and forgiving approach, is more productive.

5.1.6.2 'Restorative' approach: guilty minds, unchanged behaviours

However, one of the few empirical studies comparing the two approaches found that while a restorative approach did indeed improve 'regulatee' attitudes, it did not change behaviours. In contrast, the tit for tat approach did not improve attitudes, but it had some of the hypothesised success at changing behaviours. Under the restorative justice regulatory approach, those with noncompliant behaviours did not improve their behaviour, but they were more remorseful (Nielsen and Parker 2009). Thus, while the attitudes of regulators may be a factor in regulatory failure, the most important and substantive focus of enforcement and monitoring should be on the detail of compliance and on the systems to ensure compliance (Black 2014). Even if tit-for-tat enforcement is more effective at changing behaviours, it cannot prevent failures if the behaviours being changed are not the ones most important to regulatory success. Braithwaite (2016) has surveyed empirical evidence around the effectiveness of restorative justice methods in the criminal context and found similar but slightly more encouraging results. He provides guidelines for the regulator/enforcer who is taking the restorative justice approach, to enhance its effectiveness (Braithwaite 2016, p11).

5.1.6.3 Inconsistent, random or lax enforcement by regulator

In an empirical study of 2,535 regulatory breaches in four regulatory areas under four different enforcement fields, Nielsen (2006) found that if the field being regulated was complex, almost all being regulated (large and small) were in breach of at least some regulatory rules with only 3% having no breaches in the seven-year period studied. The study found that the regulatory field and institution in charge of enforcing the regulations were determining factors in the regulator's attitude towards the breaches. In two fields, more previous breaches resulted in more lenient responses and in two, harsher responses. Public safety issues did not determine the different responses, rather the institutional culture of the regulator. Further, companies with better attitudes toward the regulations in question received harsher penalties than those with 'bad' attitudes. In one field, having a better regulatory compliance record resulted in harsher penalties.

If the strategy of adjusting regulator attitudes to a certain form of responsiveness to improve compliance is not empirically supported as effective when applied, and empirical evidence shows a level of randomness and perverse incentives arising from specialty and institutionally influenced regulator attitudes, then a model for developing regulation may need to consider these as alternative or additional relevant factors. This ties in with the requirements for effective monitoring (see section 5.1.8 below) which may depend on attitude, but not as to whether that attitude is either punitive or forgiving towards the regulated party, but whether it is an attitude of applying the regulation equitably and as designed.

5.1.7 Silo-ing and rigidity: impeding or preventing interagency cooperation and coordination

Some studies of regulatory failures points to silo-ing (Alexander 2001) (Black 2014) and rigidity (Alexander 2001) of response mechanisms as the culprits leading to the failure. Particularly, these can be due to the failure to factor in some flexibility to enable constructive and timely responses to unforeseen and perhaps unforeseeable events, which, in a context of rigidity and silo-ing exacerbate failures. This was seen in the relatively catastrophic failure of regulatory reform of the California energy market. The unforeseen rapid economic growth in Silicon Valley, combined with natural events, ie drought, increased demand when hydro supply was reduced. Simultaneously there were (strategic) dramatic price rises in alternative supply to utilities, exacerbated known issues of limited capacity, higher pollution costs, and inflexible restrictions on both wholesale purchasing and consumer pricing. Together these events led to rolling blackouts. The silo-ing of utility regulation from generator regulation, and of state level regulation from federal level regulation led to gouging opportunities. Segregated California State regulators could not respond to these efficiently or in a coordinated manner. Silo-ing also enhances uncertainty in regulation through lack of a shared narrative across regulatory agencies (Nicklin 2015). As certainty and predictability are twinned as one the best practice principles set out in MoT (2012a), an ideal model for legislative design will minimise these effects to the extent possible within the existing institutional structure.

Rule or policy silo-ing can have similar detrimental effects to decision making. One solution discussed in section 5.1.1 is the device of ‘bundling’ related policy or legislative proposals so better public and institutional assessments of costs and benefits are enabled (Milkman et al 2009). This procedure could inform the sort of public decision making about policy ‘trade-offs’ advocated by NZ Treasury (2015c).

5.1.8 Insufficient monitoring and/or poor implementation

The best designed regulatory interventions, even those of the self-regulatory nature, need to be implemented in order to work. If nothing else these situations of regulatory failure due to non-implementation affirm that regulation is necessary in a complex society. Implementation means either education or enforcement, or both. The Pike River disaster in New Zealand (Black 2014) and the Enschede fireworks disaster in the Netherlands (OECD 2009) have been attributed in part to a failure of adequate inspection, due either to inadequate resourcing or to poor prioritisation of inspections based on inadequate risk analysis. Black (2014) notes that in the Pike River disaster there had been institutional restructuring resulting in losses of inspector knowledge and experience which also impacted on the quality of monitoring provided. Insufficient resourcing and training of monitors undermines professionalism (Nielsen 2006) and leaves regulation to be self-enforcing, but as in soft regulation, if there are insufficient reputational or cultural ‘drivers’ to override counter pressures, compliance will not happen. Risk assessment ought to determine the prioritisation of monitoring, just as it determines whether or not to make a regulatory intervention in the first place, but Nielsen’s (2006) empirical study found there was often a significant disconnect between the standards and formal sanctions set out by the regulatory

authority and those actually used by the inspectors in the field. A best practice regulatory design model would integrate design of the monitoring required for the regulation to function as intended.

5.1.9 Single sector, single issue regulatory design (in the transport sector)

An OECD report on effective transport regulation illustrates the unintended consequences and unforeseen externalities of single-issue regulation (Harrington 2008). It illustrates the risks of failing to use a systems-analysis approach informed by behavioural analysis. The study considers the statutory imposition of vehicle fuel economy standards in the US to minimise dependence on imported oil (as an economic and national security measure). The Department of Transport was designated as the responsible agency. The standards were imposed in a graduated fashion, but manufacturers had to meet them. The technology to improve fuel economy increased the costs of vehicles, with the increase in cost related to the increase in fuel efficiency. In order not to adversely affect the commercial and agricultural sectors through substantially increased vehicle costs, the statute made provision for lower standards of fuel efficiency or lower purchaser 'tax' penalties for fuel inefficiency for commercial and agricultural vehicles. Commercial and agricultural vehicles were classified as such by weight (8,500 lbs) and by seating design (light truck seating) (not by actual use). Heavy 'cars' which used more fuel were subject to a 'gas-guzzler' tax on purchase, but not 'light trucks'. Light trucks were also exempted from the aggregate fuel economy standards that each manufacturer's fleet of 'cars' had to meet or face financial penalties. Exempted 'light trucks' (SUVs, minivans) were heavily marketed and their popularity increased (behavioural analysis might have foreseen this possibility). More of these heavier 'fleet exempted' light truck vehicles and smaller lighter 'compliant' cars entered the national fleet. The market share of 'light trucks' went from just less than 10% in the 1970s to sometimes just under and sometimes just over 50% in the 2000s. More heavy vehicles meant more fuel consumption.

5.1.9.1 Lack of systems or behavioural analysis and unintended consequences

Fatality rates increased for the decreasingly sized 'cars', with less crush space on collisions and with increased odds of colliding with the rapidly growing number of heavier 'light trucks'. Studies confirmed that reducing 'car' and 'truck' weight by 100lbs (45.5 kilos) increased fatality rates by a similar rate for both vehicles in same vehicle crashes, but increased 'car' fatalities by 2.3% in collisions with 'light trucks'. The same reduction in the weight of light trucks *decreased* 'light truck' fatalities in a collision with a 'car', but such a weight decrease could also put the truck out of the 'fleet-exempted' fuel economy standard weight range. Another effect of the fuel economy standards (behavioural analysis might have foreseen this) was that people drove more as their petrol dollar went further, also with a resultant negative impact on safety results from increased kilometres driven. The fuel economy standards brought about an average weight reduction of 18% or 500 lbs (227 kilos) in 'compliant' 'cars' and are estimated to have increased the occupants' fatality risks by 14 to 27%. The arguable impact of the fuel economy standards on the mix of the national fleet and the measurable impact on increased fatality risks to those in 'compliant' 'cars' was not the intended effects of the imposition of mandatory fuel economy standards.

5.1.9.2 Rigidity and legislatively embedded capture

This information did not result in regulatory redesign. One could speculate as to why. The 'light truck' exemption was fixed by statute, which constrained the regulating agency's ability to adjust to unforeseen or unintended consequences. It could be because of 'special interest' capture of the legislative process, or it could be that the process was once captured and that capture was embedded into statute, with the transaction costs that must be overcome to change the statute high enough that the capture has become entombed or permanently fossilised within the statute. This example shows the dangers of single-issue regulation (avoiding dependence on imported oil) without a systems analysis/behavioural analysis framework. It reflects the ill effects of special interest legislative exceptions and failure to consider the

externalities of economic preferences. It also illustrates the problems with overly proscriptive enabling legislation impeding regulatory responsiveness.

5.1.10 An alert system to avoid unconsidered use of regulatory failure factors

This subsection has canvassed a sampling of regulatory failures for what they can teach us about regulatory design and creating a model to avoid making those sorts of mistakes. It illustrates the dangers of unexamined 'common sense' based decisions, vagueness and failing to achieve 'buy-in', capture and inadequate consultation, the dangers of ill-considered uses of principle-based regulation and self-regulation, the negative consequences that can flow from silo-ing and rigidity, the consequences of poor monitoring practice, and the perverse consequences that can arise from single issue regulation outside a systems and behavioural based framework. Discerning the shared common denominators in these failures is useful only if it can be pressed into service for better regulatory design. To do that the model proposed will incorporate a red light, yellow light and green light checking system tied to these factors and to other known pitfalls, so that any designer would either stop (red light) and pursue another path or would pause (yellow light) to consider the factor in play and integrate compensating devices to minimise the risk of failure.

Having learned from failure, the focus now turns to consider some existing models and (usually) successful design processes used in other jurisdiction, to see what they can teach about design best practice.

5.2 Existing models for moving policy into effective instruments

This section considers general models for moving policies into effective instruments (section 5.2.1), as well as behavioural (section 5.2.2) and systems (section 5.2.3) models.

5.2.1 General models

This subsection on general models looks first at existing institutional processes for design. It looks at Australia and the US from federal perspectives and at some examples from the EU. It then considers ideas from behavioural and systems models for design.

5.2.1.1 Australia's (federal) regulatory management system

In Australia, the interaction between regulatory authority and rules cross-state and between the federal-state levels can be troublesome and inefficient (Banks 2006). This includes the issue often faced in New Zealand of cross-cutting statutes (Rimmer 2006) which may work at cross purposes where they intersect.[6] Nonetheless, at the federal level Australia has been considered a model by the OECD (Bounds 2010). This is because it has achieved both a centralised regulatory office (the Office of Best Practice Regulation) and a very public and broadly consultative forward planning system for development of regulations. These are the aspects of the Australian system that we will examine.

Using centralised regulatory expertise to reduce redundancy, enhance capability and provide concrete 'how to advice', avoiding mistakes from inexperience.

Australia also has Federal 'Community Cabinet' meetings across the country to get input on the problems different levels of legislation might resolve. The centralised Office of Best Practice Regulation is a one

[6] For example, the Transport Agency's work in land transport is guided by at least five primary statutes (Land Transport Management Act 2003, Land Transport Act 1998, Road User Charges Act 2012, Government Roading Powers Act 1989, Railways Act 2005) with possible intersections with the Local Government Act 2002 and the Resource Management Act 1991, as examples.

stop shop for agencies on regulatory design, theory, consultation, burdens, impacts, choices and processes. This avoids duplication and 'over/under' processes, providing concrete guidance on 'how to decide' the path to take, as well as promoting the sixth principle of best practice regulation set out by NZ Treasury (2015b) of ensuring capable regulators.

Early, open and broad consultation from the planning stages on to enhance effectiveness, innovation and legitimacy

Australia's system of forward planning is designed to enable the broadest participation at the initial phases of its regulatory thinking. It is somewhat similar to New Zealand's annual regulatory portfolio plans, but, unlike in New Zealand (NZ Treasury 2013b) these plans are publicly and freely available (Australian Government 2015). This enables the various interest groups of civil society, those who are not on the regulating agency's radar as interested parties as well as those who are, to provide input. The broader input at the initial phases enables more perspectives on how the problem should be defined (Stigler 1971) as well as a wider pool of experience and context into what sort of regulatory approach (including educative or incentives) would best fit the issue. It also allows more cross-fertilisation and comment, avoiding the worst of the 'silo-ing' pathologies referred to in section 5.1.7. Broadened civil society input is also argued to be essential to the success and sustainability of models for more efficient and effective regulation, both in terms of buy-in to the specific decision outcomes of any rationalised regulatory process and in terms of its overall legitimacy (Jones 2001). The annual regulatory plan (ARP) for each agency is made public through their websites and any groups/individuals can register for consultation, the dates and locations for which are provided in the ARP. Interested groups or businesses can also register their policy interests with a centralised consultation website run by the Office for Best Practice Regulation, which will then inform these groups when a regulation or policy in their registered interest area is under consideration, and where/when opportunities for consultation exist. The Australian system seems to be bringing out not only a set of professional generalist class of regulators as recommended by some and a path New Zealand seems to be interested in following (Manch et al 2015) but also the way to avoid agency-by-agency duplication of expertise through a centralised system, analogous in a way to the centralised expertise NZ Treasury provides.

Australia and the EU pursue the development of regulatory profession and cross fertilisation of ideas/experiences: learning from each other's successes and failures

This provides a source of those trained in the nuances of regulation itself for the technical expertise of differing agencies. It also supplies the sort of regulatory expertise/experience cross-fertilisation the EU is trying to achieve by bringing regulators from across Europe together under Chatham House rules to discuss experiences, lessons learned and to refine their craft in an environment where defensive strategies will not get in the way of frankly exposing mistakes and seeking alternatives for improvement (Black and Lodge 2015). The same could be achieved by creating a cross-agency shared regulatory hub within which those designing the regulations according to the *Transport regulatory policy statement* (MoT 2012a) could work in an environment of shared expertise beyond that created by a single team/single issue provision system. This could reproduce the benefits from readily available collective wisdom that comes from experiences of both successes and failures across agencies, without institutional redesign. The regulatory 'judgement' of those tasked with any particular design would be supplemented by that collective real-world experience, for which there is very little substitute.

Such a collection of expertise might increase the risk of failure to think outside the box, raising the chances that design and decisions are a result of path dependency rather than exercises of considered judgement. However, a physical collecting of regulatory designers working in different areas might also make more likely creative cross-fertilisation of ideas and the development of innovative solutions through

interdisciplinary (or cross-agency) work, such as bringing together interdisciplinary scientists at Crown research centres. Although institutional design undoubtedly impacts on the quality and efficiency of decision making (Schulz and König 2000), if institutional redesign is beyond the scope of the project, nonetheless it may be mimicked to test if that sort of centralisation of regulatory specialists would promote better designed regulatory interventions.

5.2.1.2 United States' (federal) regulatory management system

Social problem solver regulators proliferate, causing social problems themselves

In the US, the federal government has centralised expertise, but with a different role. The approach to regulatory reform in the US grew in response to the rise of the post great depression administrative state, when federal agencies were created to address persistent social and economic dislocation. Economic regulation was expanded as necessary for economic recovery and management, and distributive reasons. Later this expanded to the creation of agencies to address environmental concerns, including water, air, soil etc, with no real consideration of the cumulative burden each regulator was imposing on economic and social actors. Once this reached a certain level, the response was to move to ensure better efficiency and better fit of regulation (Verkuil 1982), including whether regulation was the best response to a given problem.

Centralised executive oversight: controlling the impact of regulators and regulation through oversight of regulatory impact assessments

US regulatory agencies tend to be independent agencies staffed mainly with technical experts and professional economists (Radaelli 2005). The RIA is more a technical agency 'how to best achieve' a task document, rather than an informer and refiner of the development of the decision 'what and whether to do' itself. An executive agency tasked with oversight of the US regulatory process (apart from later post-regulatory judicial challenges and review), the Office of Information and Regulatory Affairs (OIRA), which has variously legally based authority to assess proposed regulations, but is itself a professional sub-agency of the executive's Office of Management and Budget (OMB). Since 1981 by executive order, all proposed regulations must be submitted to the OIRA for review (Renda 2006). The review is to check 'over-zealous' regulation and is mainly based on the cost-benefit analysis agencies must produce (Livermore and Revesz 2013). Although created by the executive as a sort of 'regulatory gate-keeper' to negate overzealousness caused by certain special interest capture, OIRA itself has been criticised as at risk of capture through lack of adherence to the principle of transparency in decision making and a participation process that is industry weighted. However, the very nature of being a generalist agency through which all regulation must flow reduces capture risks, as capture of a generalised agency is more costly with less benefit to special interests than that of their 'primary agency' (Livermore and Revesz 2013). There is concern though that this same executively controlled centralised oversight enables the executive to interfere with the regulatory implementation of legislative directives without following the constitutionally prescribed processes to amend legislation. Depending on the inclination of the President, the OIRA can have an adversarial obstructive or a more collaborative role in approving agency RIAs (Renda 2006). This is perhaps a more acute problem in a non-Westminster system such as the US, but even in a Westminster system it could enable executive shortcuts around Parliament's sovereign authority and the robust political transparency and accountability of the formal legislative process. Ex post review in the US is discussed in section 5.4)

Post-design phase stakeholder participation and comment available as a formal process

US regulatory decisions have a participatory phase, but unlike the Australian practice, it is as a comments phase well into the design process. This is due to the prevalence of the capture concern in the US, where if the targets of regulation have much early influence in negotiating the design of the regulation, the

decision is de-legitimised as captured. Efficiency and independent expertise are the primary 'drivers' of regulation, rather than consultation and cooperation.

5.2.1.3 EU and EU member state regulatory management systems

Pre-planning, wide, consultative participation with stakeholders and civil society avoids miscasting the problem and enhances legitimacy

This is in contrast to the European Commission's perspective that high participation and wide consultation through institutional advisory boards, civil society organisation, citizens and regulated stakeholders are necessary to correctly identify the problem and best solutions, and to avoid the sort of unchallenged 'common sense' mistakes addressed in the Korean trucking example (section 5.1.1). Civil society is considered a partner in policy making rather than a recipient of policy. Wide participation can also contribute to assure that the definition of the problem is evidence based, which is a fundamental requirement. Participation also helps define exactly what the problem is that the evidence is showing (Fernandez 2001). To realise the participatory philosophy, the attitude is that consultation documents should be publicly available in the policy-making process (as well as documents of any actual consultations), which includes a wide diversity of interests to avoid 'blind spots'. Therefore, there is a perceived need for structured channels for 'civil society' feedback, criticism and protest, where civil society includes unions, employer federations and other organisations representing social and economic players, NGOS (public interest oriented), CBOs (community-based organisations with member oriented activities), religious communities and so forth (Fernandez 2001). The inclusive processes of EU regulatory impact assessment and rule design could be seen as inviting capture, but what one paradigm may view as facilitating capture, another may view as facilitating cooperation and buy-in. Some have advocated it as a superior path, that of 'enlightened regulatory capture' (Thaw 2014).

Local culture, civil and institutional, rather than process, determines substantive regulatory outcomes

Interestingly, but perhaps not surprisingly, institutional design and the culture of appropriate decision making itself can result in different regulatory decisions for the same problem using the same basic criteria. The importance of historical, institutional and political contexts to any regulatory decision-making model is illustrated by Radaelli's (2005) empirical examination of the diffusion of US style regulatory impact assessments throughout the EU (OECD 2005). The Radaelli study reveals contrasting results flowing from those impact assessments even when the different jurisdictions (US and various EU) are using essentially the same guidelines for assessment. This failure of decision convergence is attributed to differing institutional, political and social cultures. Differences arise as to where in the process the impact assessment occurs, how widely various interested parties and civil society are incorporated into the process, and whether there is a culture of substantive engagement with the assessment or is it a tick the box approach. Also important are the deeper policy purposes the assessments are seen to serve, such as diffusing public power and enhancing competitiveness (Netherlands), or as a tool to develop and define policy itself (Denmark) (rather than a technical analysis of options for implementing a policy) with 'multi-actor' participation across agencies and interest groups that improves the business environment without unacceptable distributional impacts.[7] Other jurisdictions use the regulatory impact assessment as

[7] This concern with the distributional impact of legislative interventions could be interpreted as being included in NZ Treasury's (2015d) living standards framework. NZ Treasury advocates this framework as a tool for discerning what sort of trade-offs the public is willing to accept for what sort of gains, with an eye to preserving intergenerational justice and resource capital as well as acceptable living standards for the people of the present. John Rawls promoted the concept of intergenerational justice as an important distributive concern in his seminal work *A theory of justice* (Rawls 1971).

a justificatory tool to legitimise policy choices already made through other executive processes rather than as a tool to aid policy choices (France) (Radaelli 2005).

Simplification and reduction of regulation without sacrificing regulatory efficacy

Similar to New Zealand, simplification and reduction of existing regulations have been a goal in a number of EU jurisdictions (UK, Netherlands) (Malyshev 2006). The concern, especially post global financial crisis, would seem to be assurance that the leaner simpler regulatory processes are adequate to perform the underlying public good function which they are intended to serve. This would seem to make ex post monitoring systems, discussed in section 5.4, as essential if not more essential quality control devices than ex ante processes.

Having considered a number of different processes around the design of regulation and differing cultures of regulation, we now turn to the emerging models to better predict the impact regulations will have on the behaviour of those in the systems being regulated. Such consideration might have alerted regulators and legislatures in a number of our 'failure' examples (section 5.1) to the unintended consequences their legislation might have and alerted them to possible alternative approaches which would be more successful at reaching their policy goal without so many externalities.

5.2.2 Behavioural models

Ironically, the law has lagged behind in integrating the actual drivers of human behaviour into its design. Much law is still based on assumptions of at least the ability to act rationally, which involves obeying rules either to avoid penalties or to win rewards. These ideas are integral to the legal system's religious and enlightenment heritage, and are being challenged by empirical evidence to the contrary on both counts

5.2.2.1 Culture counts and must be taken into account

The previous discussion shows that any attempt to adapt the developing revised understandings of human behavioural 'drivers' and/or systems analysis into models for developing or designing legislation would need to be acutely aware of the institutional, economic and social culture within which a model is intended to operate. Additionally, it would need to factor in that not all regulated actors in a particular area are subject to the same behavioural 'drivers' (Stone 1975).[8].

5.2.2.2 Assuming rationality is not rational

As well, the evolving understanding of the motivations and influences on human behaviour, beyond penalty and gain needs to be better integrated in the regulatory decision making (Jolls et al 1998). This is happening in the OECD, but primarily in the US and the UK (Lunn 2014). The UK government has formed a centralised 'Behavioural Insights Team' to act as advisors for UK policy makers. It uses an empirical approach (Mumford 2011b) to overtly embrace the law's experimental nature and runs local policy trials to see if its interventions actually work. In that vein, Jolls et al (1998) set a table of cognitive predilections and errors that legislative design ought to account for when creating interventions involving human judgement or human decision making.

The Jolls et al (1998) cognitive factors that impact on how people's behaviour deviates from idealised rationality are discussed in section 5.2.2.3:

5.2.2.3 Bounded rationality and decision making

[8] Our model integrates these factors into the constitutional background and into the design 'working space'.

People's rationality is bounded, as it takes too much time and energy to be fully rational, plus much of our thought process is subconscious and thus unavailable to us. This bounded rationality leads to judgement errors, which derive from cognitive predilections:

- Self-serving bias: we are biased in self-serving ways (I never speed, I never tail-gate).
- Availability bias: we tend to overestimate (or underestimate) how often something occurs depending on how much we have heard about it lately. If common things are not in the news, we underestimate their occurrence, if uncommon things are in the news, we overestimate their occurrence (availability heuristic).
- Hindsight bias: we are biased in judging conduct based on hindsight. If we know a bad result or a good result has occurred, our risk analysis of the conduct in question is skewed away from objectivity.
- Omission bias: we tend to view harmful failures to act as less problematic than harmful actions (not indicating a turn is not as bad as crossing the centre line, even if both result in a crash with another party.
- Over-optimism: we tend to underestimate the likelihood that known risks will occur to us personally, overestimate our skill levels, or underestimate the likelihood we will suffer consequences or a penalty for mistakes.
- Inability to predict experience utility: we fail to appreciate how bad the consequences of known risks are, or we fail to appreciate risks at all (discounting the disutility from a head injury due to no helmet, not appreciating the danger of drowsy driving).

The judgement errors affect our decision making, as do:

- Loss aversion: we are reluctant to loss something we already have, even though we would not have sought to gain it otherwise.
- Our proper due: if we have a right, or have gone to some trouble to gain or reserve a right or privilege, we are more likely to insist on its exercise in situations where it would be rational to refrain from that exercise (I have attained a driver licence, and so I will drive in bad conditions, I have the right of way, so I will not yield).

Our decision making is also affected by bounded will power and by bounded self interest.

5.2.2.4 Bounded will power, bounded self interest and decision making

Both bounded will power and bounded self interest can skew our decision making away from the rational. When decisions have consequences over time, we overestimate the immediate benefits and underestimate the long-term costs of behaviour (I will skip my WoF to avoid having to buy new tyres and use the money for something fun, versus the penalty for my bald tyres and un-WoF-ed car causing a crash). Bounded self interest reflects those decisions we make in order to punish a slight or unfair behaviour, even though they cost us more than the perceived wrong (road rage).

5.2.2.5 Using bounded rationality to influence behaviour

Jolls et al (1998) recommend regulators make use of this bounded rationality to change behaviour by:

- Exploit loss aversion: frame consequences in terms of losses instead of gains, for example: 'Speeding will cost your life', rather than 'Slower speeds save your life'.
- Make it personal: making interventions personal and vivid makes that information available (availability bias) and makes it important (salient).

- Defeat over-optimism and self-serving biases: most people assume they are safe drivers, make it about watching out for all the mistakes of other people. One campaign used 'Drive defensively: Look out for the other guy'.

5.2.2.6 Corporations and humans have different behavioural drivers

One problem to be navigated, which seems to have been overlooked, is that regulators are regulating at least two sorts of entities which are driven by very different motivators of behaviour. The corporate actor and the human actor are quite different entities, yet generally regulatory models treat them as if they were in fact, rather than just legally, essentially equivalent actors. Likewise, the human acting within a corporate context will have different 'drivers' than that same person 'driving' home (Black et al 2007; Baumeister 1997). Improved understanding of 'drivers' of human behaviour must be treated with care in the regulatory context, when attempting to apply these insights to at least three sets of legal actors: a) corporate behaviour qua corporates (rational choice actor), b) human behaviour within a corporate context (institutionalised actor) (Baumeister 1997) and c) people in their social and cultural context outside any institutional context. Although corporations act through humans, being in a corporate structure adds another level of complexity of the 'drivers' of human behaviour to factor into regulatory design, and which may require or justify differential interventions (Stone 1975). Some jurisdictions (the US for example) already incorporate partially differentiated rule sets for differently 'sized' but legally equivalent businesses (Verkuil 1982). In this example, regulations are 'ratcheted down' but not inapplicable to smaller entities. This is to avoid undue burden while also avoiding the undermining of the relevant public policy which occurs under simple size 'cut-off' points. While the motivation in this example of differentiated rules is one of lightening the compliance burden for those with fewer resources, it shows the workability of applying differentially designed rules to legally equivalent but behaviourally disparate entities within a single regulatory programme.

Corporations are made up of humans, corporate culture provides another layer of behavioural drivers

In addition to taking care to differentiate between the behaviour 'drivers' of the qualitatively very different types of entities, whose behaviour a regulatory intervention is attempting to influence, the process for developing legislation must differentiate between the differing sorts of legal (among other) tools that are at hand. The literature advocating for legal and governing interventions to have a more nuanced approach to behaviour 'drivers', and thus have better odds of designing something that will actually lead to changed behaviours sometimes neglects to differentiate between artificial and biological entities, and when it does note the institutional pressures that impinge on human compliance within an institutional setting, it neglects to account for the behaviour of the institution qua institution. It seems to either jettison the person as rational economic actor or to retain them as such, rather than recognising that the law must be addressed to both (Korobkin 2000). Corporate institutions (although peopled by humans within these) are spared the irrational 'drivers' of personal emotion and a functioning subconscious and could be expected to be more the rational choice actor generally presumed by statutory and common law (O'Malley 2004).

Regulatory agencies and regulators have the similar cognitive biases and influences on decision making as other institutional entities and human beings

This is just to reinforce the importance of counteracting all the factors leading to ineffective regulation or less than optimal decision making. Early and broad consultation can help counteract the regulators' own cognitive biases, bringing in contrary viewpoints. Likewise, looking to independent and outside research can help the sorts of cognitive biases that lead to 'common sense' or 'silo-ed' perspective regulatory failures. It is important that the regulator keep not only their own system (constitutional background and legal foreground) in mind, but also their own cognitive biases or blind spots.

5.2.2.7 Behavioural interventions, autonomy and culture

Human beings could be expected to be more subject to the sorts of irrational 'drivers' of human behaviour that HLA Hart[9] urged the law needed to acknowledge (Dworkin and Gross 1991). Much of the regulatory incorporation of more nuanced behavioural economics to date has been what would traditionally have been classed as 'soft paternalism' to protect people from acting in a detrimental fashion on incomplete or incompletely understood information (example: EU ban of pre-ticked boxes for online purchasers as overly influencing consumers' subconscious tendency to go with the default option; the US requiring published fuel economy standards to incorporate the differential in cost because the average consumer does not understand the nonlinearity of the savings involved) (Lunn 2014). This could be an issue for New Zealand, if more behavioural economics are integrated into regulatory design, because as noted, cultural factors influence the use of regulatory tools and the regulator would need to cast the approach in such a way that would not trigger 'nanny state' push back.

Nudges

This concern is not unique to New Zealand. One proposed regulatory option is 'the nudge', that is a regulatory intervention that guides but does not dictate the behaviour of the regulated entity (Lunn 2014). Nudging is one of the alternatives to legal regulatory interventions, but should be used with care as it may not be compatible with other interventions within a scheme as the logic behind the different modes may clash (Baldwin 2014). There are degrees of nudges available to regulators to influence decisions. Some of the sorts of nudges considered as appropriate regulatory alternatives to legal interventions are of the very sort regulators focused on cognitive deficits have forbidden to the commercial sector (setting a default decision position, example above, to the desired decision) or have discouraged (using gender or social stereotypes to nudge people to a certain conduct) (Baldwin 2014). Another sort of nudge is set out by Ayres et al (2009). It is based on an empirical study which found that people were much more significantly influenced to improve their behaviour (here conserving water) through the simple device of informing them of their neighbourhood's good behaviour, than by the device of either requesting or demanding reductions in water usage. The peer nudge tapped into a human need to belong and conform to the standards of their community of identity.

Regulating with attention to (sub) cultural norms

Dent (2012) applies a behavioural analysis to individual driver road safety decision making, categorising the types/nature of the decisions made and the types/nature of the decision makers. These include drivers, pedestrians, road designers and regulators. Each will have its own set of behavioural norms and reasons for deviating from them. Dent includes the complex possible 'drivers' of these decisions as well as their risk assessment behaviour. Separating out the impact of law, non-legal motivating norms and learned motivating practices on the varied ensemble of decision makers enables an analysis of what sorts of interventions would most effectively impact on autonomous safety decisions, which may have nothing to do with formal law or regulatory change. This helps design a framework for discerning when, whether and how a regulator might intervene to best influence these decisions in a positive way. Behavioural analysis can help with better design, but needs to be considered in the context of the system of interactions within which that behaviour is situated for the analysis to be accurate. We now turn to considering this sort of systems analysis.

[9] Based at Oxford, HLA Hart was one of the most influential legal positivists of the 20th century. His most well-known work, *The concept of law* (1961, 3rd ed 2012) has been hailed as 'the most important work of legal philosophy in the twentieth century' and is a must read for any lawyer. He was also an empiricist.

5.2.3 Systems models

Systems analysis as a formalised approach to solving problems and understanding, improving (or designing) the function of complex organisations or organisational problems dates from the early 1940s, with von Bertalanffy's articulation of 'general systems theory' (Laszlo and Krippner 1998). It reflects the insight that the world is an interacting system, and that problems addressed in isolation of their role or position in the larger system within which they are embedded are not likely to solved in a sustainable fashion (von Bertalanffy 1968). Laszlo and Krippner (1998) provide a useful survey of the development of systems theory, with criteria for defining and setting the bounds of the system to be analysed, the variety of systems approaches which have been developed for different contexts, and a brief overview of the methodology of each, as well as an overview of systems design. Systems analysis or systems approaches can be of purely technical systems, or they can incorporate an interrelation of biological beings and their behaviours with the physical environment, including their technological environment (Checkland and Scholes 1990; Skyttner 2001).

5.2.3.1 Systems models in legal thinking

In the legal area, systems approaches have been attempted in three ways: 1) as a way to improve the efficiency of the flow and management of legal information (Reimers and Hamilton 1971); 2) as a way to improve the efficiency and management of legal institutions, the processes of creating the law or regulations (Manch 2014); and 3) as a way to improve the understanding of the problems the governing and legal system is expected to manage and to facilitate the design of the most effective, sustainable and resilient interventions (legal or non) to resolve those problems (Maechling 1976). This would be the sort of design of interest here, and Laszlo and Krippner (1998) also discuss system design aimed at bringing about social change or changes in behaviour.

A systems analysis of a sector to be regulated is not very different from the sort of analysis behind organising a production of a movie or the management of a complex organisation; it simply means considering problems in the context of an larger functioning inter-related context with a multiplicity of elements, all of which must work together in order for a correct production to occur (von Bertalanffy 1968), whether it is the production of a show or a shoe, building the great pyramids, sending a human to the moon, or the production of a resiliently regulated transport sector. New Zealand's *Safer Journeys* (MoT 2010) initiative represents a systems approach to the problem of transport safety within the context of a system of broader policy concerns. The European based Vision Zero project represents a singular focus on safety but does consider the multiple factors that contribute to it. While Vision Zero is not consistent with New Zealand's culture of pragmatism and progress, some of the strategies and challenges that were encountered in enacting the Vision Zero programme in some specific EU jurisdictions can be illustrative for the purposes of creating a model for exercising regulatory judgement and regulatory resilience. These are further discussed in section 6.2); here the relevance is that systems approaches are already being taken to social problems, but on an ad hoc basis, rather than as the default position. However, parts of systems analysis have already become embedded in regulatory design, such as the RIS with its cost-benefit analysis component, which can be quite comprehensive in the factors it includes. One Canadian review of transport sector cost-benefit analyses performed across multiple international jurisdictions noted the Transport Agency as a standout in producing sophisticated cost-benefit analyses, which incorporate and monetise many systems analysis type factors (Victoria Transport Policy Institute 2015).

When dealing with systems in which both the problem and the resolution of the problem depend either wholly or in part on human conduct, identifying the relevant decision makers and the 'drivers' of those decisions is fundamental to a systems analysis of regulatory issues (Becker et al 2010). Blending

behavioural analysis with systems analysis, one early study attempted to develop a model for using systems analysis to diagnose and improve the functioning of traffic law to promote the flow of commerce in a safe way by identifying where there was dysfunction or distortion within the road transport system, the traffic law system, other control and safety systems, and the intersection of these systems, where the problems could arise from dysfunction due to poor design, poor risk analysis and/or distorted perceptions (Jones and Joscelyn 1976). At the time systems analysis and behaviour analysis were young fields, so the model is very basic, vague and constricted, not an uncommon criticism of early attempts outside the purely technological or production arenas.

5.2.3.2 Enthusiastic embrace of systems thinking: fear of social engineering

Jones and Joscelyn (1976) note that '[i]n 1965, [United States] Senate Bill 2662 was introduced "to mobilize and utilize the scientific and engineering manpower of the Nation, to employ systems analysis and systems engineering to help fully employ the Nation's manpower resources to solve national problems."' Several other similar bills were subsequently introduced in both the Senate and the House, culminating (in 1967) in Senate hearings before the Special Subcommittee on the Utilization of Scientific Manpower on two bills to study, mobilise, and utilise the systems approach in solving 'national problems'. Interestingly, none of these bills was ever passed. (Jones and Joscelyn 1976). One wonders if it was from lack of resources, lack of ability to gather sufficient information to make it more than a guessing game (but even laying out the interacting factors of a system and employing some form of Bayesian analysis would seem to lead to a more accurate understanding of the problem and the implications of possible interventions than looking at an issue out of its systems context), a recognition of the limits of systems analysis or a hostility to such analysis being akin to 'social engineering'. While all legal interventions are a form of social engineering, in that anti-communist era, funding by the US government to develop a 'system' to determine the deployment of the population to solve national problems might not have been ideologically feasible.

This does raise an issue though, at least for the labelling of systems analysis models in the context of regulation. When considering human behaviour, a model would need to have methods and an outcome focus which are clearly grounded in the objectives set out either in section 94 of the Land Transport Management Act 2003 'to contribute to an effective, efficient, and safe land transport system in the public interest' or in section 169(a) of the Land Transport Act 1998 'to contribute to an integrated, safe, responsive and sustainable transport system,' with change of human behaviour as a means to that goal rather than any sort of independent end in itself. The model needs to always be embedded in the 'big systems' of 'efficient, effective and safe' or 'integrated, safe, responsive and sustainable' transport. This is to avoid an isolated issue outcome focus which could be cast in the negative light of any sort of Orwellian social engineering that interferes with people's ability to make their own decisions based on their own knowledge and experience, as that sort of autonomy is considered to be fundamental to a liberal democracy (O'Malley 2004). For example, regulatory behavioural nudges, just discussed in the subsection above, have been criticised as covert social engineering when employed by regulators and dodgy commercial practices when employed in the commercial sector (Baldwin 2014).

5.2.3.3 Systems analysis and avoiding path dependency

Systems analysis models were and still are hoped to minimise that path dependency, which, rather than rational analysis of the problem, determines what solution is chosen for a problem. Path dependency is more likely to be a problem in a common law than in a civil law context. Having continued on its evolutionary path, rather than having had the relatively clean fresh start through the Enlightenment-inspired civil law codification reforms, the existent pathways in the common law are much more deeply worn. New Zealand has some advantage in its comparative legal youth and culture of pragmatism, nonetheless there are two deep heritages that restrict the thinkable. These are Māori tikanga and the common law heritage from 'time immemorial' that arrived and took root with the British colonisation.

However, both are also grounded in a history of adaptive pragmatism. Maechling (1976) suggests that systems-analysis-informed legal design ought to include consideration of solutions of the problem under alternative economic and social value paradigms, as well as alternate possible regulatory or legal interventions. This would minimise the odds that a decision is taken because it follows an accepted normative path rather than it being the most efficient and advantageous solution to the problem. In using this approach, care would need to be taken that the alternative value paradigms considered are consistent with the fundamental 'public values' of New Zealand (Bozeman and Johnson 2015) to avoid triggering regulatory ineffectiveness. However, a variety of economic and social paradigms can be consistent with the fundamental store of public values of a jurisdiction.

According to Roe (1996), path dependence and accidents of timing (original conditions prevailing when an issue arose) have determined many of the approaches a legal system takes to solving a problem, ordering affairs, or managing institutions or infrastructure. Likewise accidents of timing can result in the extinction of an approach to a problem as inefficient or ineffective, and the survival of the approach that was effective. But as conditions change, path dependency rather than current effectiveness may be what is sustaining the survivor rather than any intrinsic efficiency. Because of our tendency to follow the established path as well as an (uncritical) understanding of economic evolution as necessarily systematically eliminating inefficiency, we fail to recognize that the more efficient approach in changed conditions is one now discarded. A useful model for regulatory design would incorporate consideration of whether changed conditions merit reconsidering once discarded approaches to solving a problem. This sort of substantive judgement can be usefully informed by considering what sorts of alternative approaches are functioning well in other jurisdictions under what conditions. This is a common practice, but one which would be more effective if the sort of normative suspension of disbelief advocated by Maechling (1976) were incorporated into that comparative analysis. Roe advocates a similar suspension of normative parochialism when seeking to ascertain whether our solutions exist because they are efficient or because of the unexamined following of paths created by accidents of history.

5.3 Expression of legislation and drafting

5.3.1 General issues

As noted in chapter 1, the endeavour to improve the effectiveness of the law enacted is far from a new one, nor the idea that effective investigation of a problem is needed in order to create good law. As Thomas Parkinson (1913) stated:

> *The scientific preparation of a statute involves:*
>
> *I. Knowledge of conditions proposed to be regulated, and determination of the exact evils requiring regulation.*
>
> *2. Determination of the nature of the regulation required and the precise principles or rules which will effect such regulation.*
>
> *3. Phraseology of the new principles or rules and of necessary administrative provisions in apt and precise language which will fit them into existing principles of constitutional and statute law and make them reasonably clear to the executive and judicial officers who are to enforce them.*

5.3.1.1 An old problem

All the efforts put in steps one and two will be for naught, if the decision has been to make some sort of legal intervention and the drafting of such fails to achieve step three. Concern with the effective

expression of the law maker, so that the law is accessible and interpreted by the public, the law enforcers, and the judiciary to mean what the law maker intended to say is an age-old problem. Hammurabi wrestled with it, the Talmud is full of commentaries on what even the Ten Commandments actually mean and Edward IV requested that statutes be made plain and short (Fox and Corris 2010) to be better understood. One hundred and three years ago Parkinson thought the problem arose from the amateurism of the lawmakers, in the sense they were not trained lawyers. He thought professional drafters, such as those situated in Great Britain's Office of Parliamentary Counsel might solve the problems of poorly drafted statutes, but the advent of 'professional drafters' in agencies, like New Zealand's Parliamentary Counsel Office, has not solved the problem, although it did coincide with a documented almost immediate general lengthening of statutes (Parkinson 1913).

5.3.1.2 An essential and perennial problem resistant to solution

Nonetheless, a best practice model for developing legislation needs to consider how to best assure the legislation as drafted reflects the regulatory intervention There is already quite a bit of official guidance on legislative drafting. The LAC guidelines (2014) provide an excellent and detailed guide to designing and drafting constitutionally and technically correct statutes which will be interpreted by the courts (LAC 2014, ch 12) to say and mean what the drafters intended them to say and mean. There are internal agency guidelines and Cabinet has its own thorough guidelines on legislative design and on clear drafting (DPMC 2008). A comparative treatment of legislative drafting issues (Stefanou and Xanthaki 2008) argues that the rules for good legislative drafting are the same regardless of whether the legislation is to be interpreted and applied in a common law or civil law system. This work also provides extensive (scholarly) coverage of drafting issues. The plain English movement has been to the fore in law schools and legal drafting for at least 30 years, yet the problem of what are considered lengthy, convoluted, overly wordy, hard to understand, ie poorly drafted, statutes persists. Because drafting issues are so thoroughly canvassed both within and without New Zealand, the problem must be something systemic.

5.3.1.3 Language of law as Frankenstein: an awkward amalgamation of dead parts that still lives

To be fair to drafters, the 'language of law' they inherited has a history which almost guarantees a high degree of incomprehensibility to the uninitiated (and even to the initiated). Tiersma (1999; 2006) explains that the language of law used in English speaking common law jurisdictions comes from the early heritage of old English and Anglo Saxon traditions, including that of stringing words together to make new words, combined with a long history of law being expressed in Latin, first due to conquest, then due to Latin being the language of the literate and the institutions of authority. Court records were kept in Latin into the 1700s. The 1066 Norman Conquest added Norman French to the mix, with statutory law being written in French until 1480. French was also used to argue cases, and, despite a 1361 statute (written in French) attempting to require that cases be argued in English, 'law French' (with Latin) continued to be used in court and court records into the 1700s. This deep heritage of the language of law truly being a 'different tongue' than ordinary spoken English has contributed to the challenge of drafting statutes in clear and concise plain English.

5.3.2 Independent sources of drafting woes

5.3.2.1 Parliament delegating the 'too hard' basket to regulators

Some of the tensions leading to drafting problems are apparent; the desire for certainty leads to prescriptive legislation which impedes both legislative and regulatory resilience, while an overly generalised or principle-based statute can be seen as Parliament not fulfilling their democratic duties. While the technical complexity of an area is often given as a reason for Parliamentary delegation of rulemaking authority or to avoid enacting detailed rules skewed by special interest capture of the House;

enhanced legislative staff could cover these issues, when combined with the same transparency rules agencies follow to avoid capture. Over delegation of regulatory authority has been criticised as a way for the political branches to hide the costs of their policies (Fiorina 1982). Legislatures tend to delegate to regulators when policies impose clearly identifiable costs on clearly identifiable constituents for a broadly diffused net social gain. Fiorina found that legislatures did not delegate, but passed very technical, precise and prescriptive bills when the gains were obvious and the costs less so; but were more likely to invoke the rationale of technical expertise as a justification for delegation when costs were obvious and gains less so. This inserts 'political daylight' between the legislator and the agency seen to be responsible for imposing the cost. The delegation of authority takes with it the delegation of drafting responsibilities, where the regulatory drafter is situated in that political daylight space, often providing clarity in the context of a very generalised objective clause, which echoes one of the regulatory failure factors in section 5.1 above, agencies (or drafters) being tasked with implementing vague or unpopular laws or policies.

5.3.2.2 Adequate drafting instructions are institutionally expensive

The Hansard Society's good law project suggests the problem arises from the instructions given to the drafters or from legislation being rushed (Fox and Corris 2010) (giving as examples the British Office of Parliamentary Counsel's 2006 drafting of a bill which gave 'Henry VIII' powers to ministers well beyond what had been envisioned by the original policy proposal, which that office explained as resulting from it being a 'rush job'; and a 2008 statute where a drafting instruction to ban 'pit-bull terriers' had been given, although there is no agreed criteria as to what a pit-bull terrier is). When the instructing party was informed that the drafters could not define pit-bull terrier the response was 'well you could if it was hanging from your elbow'. This led the drafters to provide the statutory definition of a pit-bull terrier as a 'pit-bull terrier'). Fox also considers that modern drafters may be trying to speak to too many audiences, with bills being drafted for the purposes of application and enforcement and for the purpose of being passable, hence enough vagueness to enable different legislators to interpret them as acceptable, and still intelligible to the relevant public which is supposed to be governed by them.

This is a fundamental issue, as the best design in the world will do no good if the regulation which is drafted does not 'build' the regulation according to the design criteria. New Zealand already has professional drafters following an iterative process between agency and drafter (PCO 2015; 2016) but the drafters are dependent on clear and adequate instruction (as illustrated by the 'pit-bull terrier example). There are guidelines on drawing up drafting instructions (PCO 2016), but Xanthaki (2014) also identifies drafting instructions as a common Waterloo for legislative efficacy and effectiveness. Her recommended solution is that drafters be provided with an elaborate legislative plan, to bring the drafters up to speed as to the bigger picture of what is intended, and why and how the decision was made. She also recommends drafters have a check list which includes a review of the entire legislative design process, options considered, cost estimates and implications for distributive fairness and public perception.

Our model approaches the drafting instructions problem differently. Instead of creating yet another administrative burden on the legislative design team (to draw up a separate legislative plan to inform the drafting instructions and drafter), our model proposes to integrate drafting into the design process rather than it being delegated as an add-on. Integration accomplishes a similar deep informational purpose but without adding another layer of bureaucratic compliance. It collapses the distance between the designers and the drafters, hence increasing efficiency of process (avoiding the current system of an extended feedback loop, outlined by the PCO, of receive instructions, question, draft – return for comment, receive comments, ask questions, draft some more – return for comment and so forth).

Integrating the drafting into the design also replicates the integration and development of the professional regulatory expertise of the Australian federal system, which the OECD has found to be an instance of efficient 'best practice'.

5.3.2.3 Too much legislation and inadequate drafting resources

It may be, as noted by Palmer (2014), that the sheer volume of legislative and regulatory enactments simply overwhelms the resources of the drafters with the fundamental issue being one of resourcing. The PCO's (2014) briefing to the Attorney General noted they were currently working on 56 draft bills and 83 draft legislative instruments under a timetable set by Cabinet, as well as aiding Pacific Island nations with legislative drafting. Or the problem may be that the guidelines are not being followed or are too vague.

5.3.2.4 Conflicting with international or constitutional obligations

Another issue that must be considered is drafting that creates conflicts with other obligations, constitutional or legal. The LAC (2014) guidelines bring these to the drafter's attention. Globalisation imports challenges for the drafter as well, which are reflected in LAC (2014, ch 8). The drafter must correctly situate the legislation in the nexus of New Zealand's international obligations, trade agreements and treaties (Vogel 2008). In the road safety arena, negative intersections with trade agreements would be the most likely problem, but as technology changes licensing and other issues could arise. This concern is integrated into our legislative design model's constitutional background and legal foreground, further discussed below.

5.3.3 Principles for drafting

5.3.3.1 Efficacy and effectiveness: plain English

Xanthaki (2014) sets out an approach to drafting legislation for regulation using an efficacy and effectiveness approach which may prove useful to New Zealand. Xanthaki situates the principles for drafting rules or regulations within a four-level hierarchy of purpose.

First, the ultimate goal of the drafter is the same as that of the legislative designer, efficacy. That is to draft legislation that achieves its bigger goal or policy purpose.

Second, the drafter's goal is effectiveness: to draft a regulation that is enforceable, complied with and has the intended impact on behaviours. If legislation fails to meet these first two goals, the problem may be attributable to poor drafting or, it may be due to an error in the policy or the legislative design.

Xanthaki's third level of concern for the drafter goes to efficiency in expression – was the legislation written in a way that was linguistically efficient. The language should be clear, precise and with no avoidable ambiguity (recognising that every word in a language has a degree of ambiguity and so avoiding unnecessary elaboration).

Finally, at the fourth level the focus is on simple plain gender neutral language. Ideally, if the drafter starts from level four and follows through to level one, the ultimate goal of efficacy will be achieved.

Like Tiersma, Xanthaki firmly embraces plain English and concise drafting. In pursuit of both efficiency and simplicity, she rejects any notion that the same statute must speak in different languages for its different audiences. Rather, the language to be used is the one that will speak clearly to the least sophisticated of the likely primary audience. Even if the likely audience is primarily legally, this provides no justification for reverting back to complex legalese, but may justify retention of longstanding and accessible standard 'terms of art' such as 'intent' and even some standard Latin phrases, widely shared and widely understood by lay and lawyer alike. These too may be replaced by more simple words, so long as there is a definition provided to alert the legally trained that the new word is just a simplification and does not import a new meaning. The plain English movement argues for short simple sentences.

Words should be used economically, sentence structure should be tight, active and direct, with all extraneous information omitted. All flavours of jargon, legal, commercial or financial is to be avoided. Technical jargon is to be avoided as well. Courts' own canons of interpretation as well as statutory interpretation Acts and statutory purpose clauses more than suffice to provide guidance as to the meaning of simple words. There is no need to clutter up a statute with extra words in the pursuit of certainty, as the more words there are the more ambiguity is introduced, and the less likely the 'user' is to understand the law. Finally, language should be gender neutral unless the statute or regulation is aimed uniquely at a particular gender (Xanthaki 2014).

5.3.3.2 Clarity through sound structure

Finally, efficient expression of legislation calls for good accessible structure. Similar to Parkinson's 1913 attempt to set out a system to simplify and improve statutory expression, Lord Thring's 1902 *Practical legislation, the composition of and language of Acts of Parliament and business documents* set out a system for better expression of legislation. It has five principles and Xanthaki reproduces them and argues they cannot be faulted.

First principle:

1. State the law (give the prime message priority)
2. State the authority to administer the law
3. State the manner in which the law is to be administered.

Second principle:

1. State the simpler rule or proposition first
2. State the more complex proposition second, building complexity in an ascending order.

Third principle:

1. State the main provisions of the Act first, which give its purpose and material object, in their logical narrative order (give the prime message priority).
2. State the subordinate provisions that give effect to the main provisions later in the Act.

Fourth principle:

1. Segregate into a later section the extraneous provisions, temporary measures, savings, repeals, entry into force, which are secondary to the thrust and message of the Act but nonetheless important to know.

Fifth principle:

1. Procedure and detail should not be in the Act, absent special circumstances, but should be in a separate schedule (adds legitimacy due to Parliamentary scrutiny) or delegated to secondary legislation through an empowering clause (enhances flexibility).

5.3.4 Drafting and legislative resilience

Lord Thring's fifth principle relates to the problem of resilience, enabling the law to be clear and certain, yet able to adapt to changing conditions while staying true to its purpose and constraints. While drafting is fundamental to regulatory design as what is enacted is what the law is, drafting some flexibility into the development and application of a statute can enhance both primary and secondary legislation's ability to be resilient in the face of changed circumstances.

Resilience can to a certain extent be supported by the courts' abilities to 'fix' blatant drafting errors using the purposive approach of legal interpretation of the New Zealand Interpretation Act 1999 (Burrows 2002). This points to the need for agencies to be particularly attentive to purpose clauses, as pointed out in the LAC (2014) guidelines. These also point out, in chapter 12, the need to draft for statutory resilience (but give little direction on how to do this).

5.3.4.1 Using principles in pursuit of resilience

One proposal is that to achieve flexible resilience without sacrificing certainty, the drafter should tailor the statutory approach to the complexity of the field being regulated (Braithwaite 2002). Taking an empirical (what works) rather than a normative (what way is consistent with the prevailing ideology) approach, Braithwaite proposes that binding rules backed by non-binding principles are suited for simple areas but complex areas need non-binding rules backed by binding principles to adequately respond to change but still maintain certainty. Foreshadowing the following discussion, Braithwaite finds the odds of a flexible consistency are increased if there is a shared 'regulatory conversation' across agencies in contact with the problem.

5.3.4.2 Building provisions for resilience into enabling statute

The pursuit of resilience and the ability for administrative law to respond efficiently to changing conditions is a topic of great interest in the environmental field. There is some scholarship addressing the issue. It tends to go beyond the sort of flexibility and responsiveness enabled by principles and standards in an enabling statute. It attempts to apply 'resilience science' or resilience criteria about what is necessary for a system to be adaptive to changing conditions to legal regulation (Garmestani and Benson 2013), with consideration of information flows being built in both vertically and horizontally and with a balance between flexibility and enforcement of standards (Green et al 2013). The EU has attempted to implement frameworks of resilient regulation in the area of water that apply a systems approach to the problem and draw on 'adaptive management' ideas. Public participation in compliance is integrated into the scheme, with authority to respond to changed conditions in defined areas (Green et al 2013). Monitoring and feedback result in change to implementation, with flexibility permitted in how goals are attained. Garmestani and Benson (2013) propose that resilient regulation requires taking the same systems approach applied to the problem to be regulated and applying it to the responding law or regulatory scheme. The designed solution to a problem will result in an integrated legal response, which might cut across agencies and levels of governing authority, again, with vertical and horizontal information flow. Actually achieving regulatory resilience may require more statutory mandated or enabled coordination and cooperation across silo-ed agencies.

5.4 Ex-post scrutiny for effectiveness and responsiveness

5.4.1 Monitoring compliance costs vs evaluating effectiveness and efficacy

The OECD and the European Union have done comparative studies of the different designs and practices for ex post scrutiny of regulatory effectiveness and imposition of unintended consequences. The OECD (2003) results showed at that time in most countries, ex post evaluation was done on an ad hoc basis, reviewing the effectiveness of a particular programme or a particular mechanism. Also most ex post evaluations were of a limited duration, rather than ongoing monitoring of the effectiveness of the regulation. Norway was an exception, with an institutional Register of Reporting Obligations on Enterprises to monitor administrative costs in the private sector, but not to evaluate or monitor the effectiveness of the regulation. New Zealand was one of nine countries to systematically evaluate regulatory tools or institutions, but other systematic-evaluator countries focused on regulatory burden or design (Italy for example) rather than on the effectiveness of the regulation to achieve its goal. Ad hoc evaluations tended to be oriented to whether a

regulatory programme was producing the hoped-for outcome. Other ex post evaluation systems were aimed at evaluating the effectiveness of the RIS in making accurate predictions, which is helpful, but does not necessarily translate into evaluating regulatory success.

5.4.2 Monitoring compliance of regulated parties

Canada and Norway have used monitoring of compliance as an evaluation tool, while New Zealand has been criticised as deficient in this area, at least in the environmental area (Brown 2013) and in the mining sector (Black 2014). The Netherlands has integrated a table of 11 factors it considers will be determinative to whether compliance with a regulation is likely. These factors are considered ex ante and integrated into their RIA process under 'practicability and enforcement assessment' (OECD 2009), but nonetheless ex post compliance assessment appears to be on an ad hoc basis. The relative dearth of institutionalised ex post review may be explained by countries finding ex post evaluations to be consistently more cost and resource intensive than expected (OECD 2003).

5.4.3 Ad hoc court or civil society monitoring of effectiveness and efficacy

In the US, the generalised Congressional oversight of executive government by the Congressional Oversight and Government Reform Committee does not tend to go to the level of regulation, unless there has been some disaster (such as the Flint Michigan leaded water fiasco), and even then it considers the performance of actors (investigating failures) rather than the suitability of the rules under which they were acting, so it is not regulatory assessment akin to the New Zealand Parliament's Regulatory Review Committee. That sort of formal ex post assessment is sometimes legislated as an agency-specific statutory requirement, done through ad hoc government or agency studies or through independent think-tank or academic studies, and sometimes happens through the Court system under reviews for irrationality or unreasonableness, but the ex post assessment system is not centralised and institutionalised in the way of the mandatory and centralised ex ante assessment. However, it is the ex post assessment which can give rich information for the continued improvement and refinement of the 'experimental' (Mumford 2011b) means of achieving the regulatory goal. There is a subcommittee of the US House of Representatives Select Committee on Small Business, the Subcommittee on Investigations, Oversight and Regulations which oversees the executive Office of Information and Regulatory Affairs. However, that oversight goes to assurances of compliance with statutory transparency requirements for rulemaking procedures and not to evaluation of whether the regulations themselves are 'fit for purpose'.

5.4.4 Ad hoc agency monitoring and evaluation of regulatory impact design predictions or design process

Also in the US, ex post evaluations of regulatory decisions are sometimes mandated for a particular agency through their empowering statute, but there is no overarching statutory or executive requirement for such. The scope of evaluations may also be determined by statute, as some statutes specifically disallow cost to be a factor in certain regulatory decisions (US Clean Air Act disallows cost considerations for setting ambient air standards) (Harrington and Morgenstern 2003). Evaluations can go to the content of the risk assessment analysis: did it consider what it either ought to have or was mandated to consider. Even with the centralised ex ante oversight of the OIRA of regulatory assessment, if the majority of the evaluations are incomplete, there is question of how they can improve regulatory decisions. One major study (by Hahn and Dudley 2000, as quoted in Harrington and Morgenstern 2003) found of 48 diverse risk assessment analyses between 1996 and 1999, all were deficient in content. No assessment covered all the expected bases to make an informed analysis, '90 percent monetised cost, 50 percent monetised benefits and only 29 percent calculated net benefits' (Harrington and Morgenstern 2003). Further only two thirds considered alternatives to regulation and only 25 percent did a cost-benefit analysis of alternatives.

Studies have found the same problem in New Zealand, where only a small proportion of impact statements met adequate quality standards to make them a credible tool for guiding decision making (Bailey and Kavanagh 2014, citing NZEIR 2010, Castalia 2012; 2013).

This raises the issue in both jurisdictions of whether RIA is more for purposes of bolstering legitimacy and the impression that 'something is being done' both to improve cost efficiency and to lead to rationally based decisions for the overall public good (the goal of the Enlightenment). Comparative analysis of the use of an impact statement in various jurisdictions of the EU, discussed in section 5.4.5, finds the same problem (manifested in a variety of ways), but not in those jurisdictions that use the impact assessment process as a highly participatory and inclusive exercise (see below). Returning to the US, if poor quality assessments provide a case for a system with a centralised and mandatory quality oversight of assessments, neither centralisation nor quality oversight guarantees best practice. This provides information about the sort of challenges a best practice model would need to overcome to ensure it was effectively integrated into the institutional culture of 'the right way' of doing things.

5.4.5 Centralised regulatory expertise produces better regulatory impact assessments, but do these assessments produce better performing regulations.

It would be instructive to explore further the differences in the centralised approaches of the US and Australian Federal Governments, as the former becomes involved after the assessment is produced by the initiating agency, as ex post quality controller, while the latter is involved from the beginning of the process. The Australian sort of centralisation of expertise goes to the issue of bolstering and supporting agency regulator skills and expertise, one of the problems identified as contributing to poor regulatory performance in New Zealand (Bailey and Kavanagh 2014). That impact assessments produced by Australia at the federal level score better on quality than those produced by the US and New Zealand systems, will impact on the design of our model to improve legislative design and resilience.

5.4.6 Using independent institutions to monitor agency impact evaluation

Still within the US, independent research organisations may be asked during the rulemaking process to assess to academic standards (as is recommended by the Hansard Society's making better law project, Fox and Corris 2010), whether those components present in the RIA are actually done well, so that any influence they would have on decision making would be accurate. Ex post evaluations of the same RIA have usually been done by interested parties, so the generally negative results cannot be said to be disinterested. Random 'in process' audits of the quality information being generated to make regulatory decisions are a useful device to encourage genuine analysis and rigour in the regulatory design process, even if it were only a real possibility. (Harrington and Morgenstern 2003).

5.4.7 Ex poste monitoring tends to be by civil society and used for future design, rather than for amelioration of the regulation at hand.

The most useful information, for future design, is from ex post reviews of regulatory outcomes compared with the outcome predicted through the design process. Much outcome analysis is performed by independent or academic research institutions. In the Netherlands, the Centre for Clean Technology and Environmental Policy examined the outcome/impact of all environmental regulations; in Sweden, academics have done much work on analysing the outcome of EU wide and country specific policies, as in France, the UK and Germany, and in the US much outcome analysis is performed by academics. The interpretation here could be that governments generally do not find this useful, or, as mentioned above, to do it over an

appropriate period of time is considered too resource intensive. Properly managed for disinterest, this could be an area to develop as it may have desirable behavioural impacts (discussed above).

5.4.8 Monitoring for intended outcome is complex and uncertain, but shows regulatory designers not immune from self-serving cognitive biases and over-optimism

Outcome studies often focus on whether a fixed goal, such as clean water, was achieved, but not on how actual costs compared with estimated cost, or with what unforeseen consequences. While this is where the lessons could be learned, the complexity of determining causality makes even assigning costs or side consequences challenging (example: Did air quality or fuel efficiency regulations cause a technological shift in fuel injection or would that technology have expanded anyway?). What ex post outcome tests have shown is perhaps more revelatory of the regulator than the effectiveness of the regulatory design process to predict outcomes. Both total costs and total benefits of regulations are generally overstated, with both being lower than forecast, but unit costs and benefit predictions are generally fairly accurate. This difference arose mainly from failure to fully implement the regulation, saving on costs and losing on benefits, so both end up lower than forecast. Formally incorporating 'partial implementation or partial enforcement' might make design forecasts more accurate and might make a model for real world constraints. Another ex post evaluation finding was that different agencies, with different cultures, erred in different ways, reflecting Radaelli's (2005) study of diffusion of similar risk assessment tools in Europe being used in different ways to come to different decisions in different political and social cultures. A model will therefore need to be sensitive to the institutional culture within which it is intended to work.

5.4.9 Institute working evaluations to transform monitoring into active response and repair

There is a wide literature available on best practice methods for incorporating stakeholder response and contribution to the law and to proposed law, with similar themes and with the Austrian enlightenment law reform project discussed above (section 3.1) as a historic example of approaching the issue in a systematic way. The practices of ex post assessment are an acknowledgment of Mumford's (2011b) idea, also discussed in section 3.1, that law making is an experimental best guess, and even if based on the best evidence available, it may not be gotten right at the first go. Institutionalising periodic assessments such as in the Evidence Act 2006 and the Privacy Act 1993 would address his argument that the law's effectiveness and legitimacy are enhanced when these truths are openly acknowledged in legislative design.

MoT (2012a) does incorporate an ex-post monitoring option but, as mentioned in section 3.1.4, it is of a very limited duration and is more of a reporting nature. As set out in that discussion, improved regulatory resilience would likely require more time and a detailed plan as to how and what to monitor, as well as to how the agency would respond to the information gathered, ie institutionally adopting the law as an 'evidenced-based' experiment attitude. The standard transition period device could be re-designed or simply followed by a period of 'flexible transition' where the regulation is presumptively in force as written, but with a fixed period for feedback and expected refinement responding to its effects on the ground before it finally becomes in force. This would be more of a 'working evaluation' than a 'reporting evaluation', as projected effects and actual effects in real world conditions are known to differ. Reporting evaluations alert agencies to this, but working evaluations could enable built-in timely response mechanisms which would allow efficient adjustment in alignment with the principles of growth supporting flexible yet durable and accountable/ transparent regulation. Such a device would provide one avenue of short-term resilience without requiring restarting New Zealand's elaborate regulatory process, but care would need to be taken with the certainty issue which could perhaps be met by provisions as to the limits of transitional adjustment.

Having considered what we can learn for the experience and thought of others from general issues of regulatory design, we now turn to consider the experiences of others in designing and implementing transport safety legislation, both from international initiatives and from initiatives undertaken at the nation state level.

6 Learning from transport safety regulatory experiences

Despite the progress achieved, the road safety problem is far from being solved (Hakkert and Gitelman 2014) and is still considered a global concern (UNECE 2012; WHO 2014). The United Nations has declared this decade (2011–2020) as the decade of actions for road safety (United Nations 2010). The five pillars for the global plan are road safety management, safer roads and mobility, safer vehicles, safer road users and post-crash response. That several governments have implemented this systems approach provides for an opportunity to learn from their experience. New Zealand's own *Safer journeys* (MoT 2010) initiative includes most of these pillars, particularly safer roads and roadsides (targeting risky roads and intersections for improvements), safer road users (speeds, fewer impaired drivers, better trained and more mature learner drivers) and safer vehicles (education and information, rating systems). The international efforts and efforts of other jurisdictions to put safety policies into action can illustrate successful strategies for overcoming 'legitimacy' or other challenges, as well as successful approaches to road safety regulations design, whether or not the particular policy in issue is one New Zealand wants to pursue.

A review of the international experience can be divided in 1) initiatives at the international level carried out by the respective international bodies; 2) experience from different national road programmes; and 3) academic research regarding specific aspects of road and public safety regulation which is seeking to explore new ground and take the current systems approach further.

6.1 Initiatives at the international level

When attempting a systems analysis of transport regulation, international organisations devoted to promoting integrated goals can provide a helpful starting point. International bodies such as the WHO, APEC and OECD, the European Transport Safety Council or the European Commission gather and share their research with members and the public. International research and guidance focus on identifying the main areas of concern as well as recommending measures to address these concerns. The areas of concern are unsafe behaviour, unsafe infrastructure, vulnerable road users (including young road drivers), vehicle safety and post-crash care (Gitelman et al 2010).

6.1.1 World Bank frameworks for improving transport performance

The World Bank has issued a number of reports on improving transport and analysing regulatory failure in the transport sector. World Bank Transport Sector and World Bank International Trade Unit (2010) provides a practical toolkit for assessing transport regulation and infrastructure in the context of facilitating a country's ability to successfully and efficiently trade internationally. The same practical assessment tools useful for emerging economies can be adapted for New Zealand's export-based economy. This report is relevant to well-designed transport regulation which does not have an unintended negative impact on trading efficiencies, but it focuses almost uniquely on network and transport efficiency, with little to no consideration of cultural, safety or environmental impacts. This is a deficit we have found in much of the literature. Such single issue focus will lead to the choice of regulatory tools which may well address the problem as narrowly defined, but will not encourage the development or exercise of a truly efficient type of regulatory judgement in making regulatory intervention decisions, as there will be too many unseen elephants in the room.

6.1.2 APEC–OECD frameworks for improving transport performance

In contrast the APEC–OECD checklists addressing similar issues tend to integrate instructions to consider safety and the environment, which may be because of the audience at which they are aimed (APEC-OECD 2005). The 2005 Checklist is still being widely used in the EU and other jurisdictions (European Commission Website, 2015). Nonetheless, the checklist does not factor in cultural and institutional considerations as part of transport or other regulatory design decisions. This is a significant omission which any model should explicitly incorporate as otherwise such considerations come in sub rosa, distorting regulatory assessments in unacknowledged ways. This can make what are solid decisions in one institutional and cultural context seem inexplicable or lead to poor decisions, as the sub rosa operations of the unacknowledged elements has meant there has not been a transparent and robust consideration of those factors.

6.1.3 The World Health Organisation's plan for road safety

Under the umbrella of the Global Plan for the Decade of Action for Road Safety 2011–2020 (WHO 2010) the WHO publishes the annual Global Status Report on Road Safety, which contains a separate section on legislation and road user behaviour. This section in line with the above-mentioned areas of concerns, assesses available legislation against current best practice. It also highlights that best practice in drafting and implementing good road safety laws is dynamic and even high-performing countries need to constantly review, revise and update their legislation to meet the latest evidence base.

6.1.4 The International Transport Forum's proposals for improving road safety and transport sustainability

The International Transport Forum (ITF) is another source of useful information. In particular, its *Moving freight with better trucks* (ITF 2011) comparative research report sets out factors important to the successful regulation of transport networks in the context of seeking a more efficient transport network which promotes productivity, environmental sustainability and better safety. This is consistent with the policy guidelines set out in Ministry of Transport's Regulatory Policy Statement (2012a) (contributing to an integrated, safe, responsive and sustainable transport system) and the objective statement for the Transport Agency set out in the Land Transport Management Amendment Act 2013 (contributing to an effective, efficient and safe land transport system in the public interest).

6.1.4.1 Comparative and systems approach

Because the ITF report looks at regulation to achieve these ends within a broad systems-based approach, and includes a focus on regulatory reform and the best regulatory designs and options to attain these goals, it is a very useful resource for the transport regulator. It also reviews comparative regulatory approaches across jurisdictions and makes recommendations for the improvement of the regulation of heavy trucks, many of those recommendations can be applied to other areas of transport regulations, including using performance-based regulation (which is a form of principled-based regulation discussed in section 5.1.1) to enable more room for innovation and space for the integration of new technologies.

6.1.4.2 Performance based regulation and spreading responsibility

The ITF report has a focus on regulatory resilience and considers Australia's and Canada's use of performance-based regulations which have permitted transport network efficiencies that prescriptive regulation would have thwarted.

In addition, it recommends spreading the responsibility for regulatory compliance and ensuring the ability to monitor and enforce is spread more broadly across the 'supply chain'. This spreading of enforcement

ability is one of the devices being used in the EU to improve resilience in environmental regulation (Garmestani and Benson 2013) discussed in section 5.3.2. It is evidence based and considers the safety impacts, positive and negative, of changes in technology and practice, including considering externalities to users of the network (perhaps having taken heed of the US CAFE experience discussed in section 5.1.9 above.) The ITF report provides a wealth of transport regulatory comparisons, analysis and recommendations based on the empirical evidence adduced, as well as current regulatory theory. It is very comprehensive, its recommendations integrate behavioural and systems considerations, it integrates network, environmental and economic productivity concerns, and looks at trade-offs as NZ Treasury (2015) recommends. Its empirical and regulatory analysis provides useful guides and checks for a regulatory design model.

6.1.5 The SUPREME project: EU, Norway and Switzerland's road safety initiative

Another source of information can be found in the SUPREME project. The goal of SUPREME was to collect, analyse, summarise and publish best practices in road safety in the European Union and Switzerland and Norway. The intention of the project was to contribute to reaching the EU target of a 50% reduction in road fatalities by 2010 (SUPREME 2007). The final project report contained a handbook for measures at the country level as well as specific reports on measures such as education and campaigns, driver education and licensing, vehicles, infrastructure, enforcement and post-crash care.

The criteria for best practice included:

1 scientifically proven effects on road safety

2 a positive cost-benefit ratio

3 expected sustainability of effects

4 public acceptance for measures

5 good transferability to countries (SUPREME 2007).

These factors, other than that of transferability, are appropriate for New Zealand transport regulatory design. Despite the project being carried out more than 10 years ago it contains valuable information on how to determine best practice and how to evaluate measures from other countries. The report highlights there is a danger in simply picking out separate measures from other countries and that an assessment must be carried out against the background of a thorough analysis of existing safety problems, a clear strategic view of what problems need to be addressed and by which type of measures on the basis of a long-term vision. This might seem common sense but considering the complexity of the regulatory regime they are certainly valuable reminders and should be reflected in the model for developing legislation.

The European Union has also established the European Road Safety Observatory which gathers harmonised specialist information on road safety practices and policy in European countries. It provides a toolbox with reports, manuals and best practice guides published by various European road safety research projects.

6.2 National road safety programmes and their implementation

Sweden, the UK and the Netherlands have some of the best road safety records and are often the starting point for road safety research. The European research project SUNflower had the purpose of investigating the three safest countries in order to understand how these could be of guidance to other countries (Koornstra et al 2002). On the basis of the first SUNflower report, researchers developed a

framework for benchmarking road safety performances and developments of a country. The framework seeks to answer the question of what exactly caused road safety to improve in a country (Wegman et al 2009). This SUNflower approach acknowledges that a comparison is more beneficial for policy and target development if the comparison takes place with countries in the same situation and with similar economic, historical, geographical background and/or same levels of motorisation. While New Zealand differs especially in its motorisation rates from the European countries (World Bank 2013) there are still valuable lessons to be learned from these comparisons and reports on best practice approaches to road safety.

Reviewing the literature of the national road safety programmes and their implementation highlights two main features: One is the focus on implementing the findings of scientific research into national programmes; the other is the focus on implementing a strong vision such as Vision Zero.

6.2.1 Focus on scientific research

Road safety research projects are considered a major contributing factor in reducing the number of road crashes in Sweden (Elvik at al 2009). Germany also uses a scientifically based safety management system where scientific research from five different fields (behaviour and safety, automotive engineering, traffic engineering, highway construction technology, and bridges and structural technology) are complemented by strategic tools and specific goals (Schulze and Koßmann 2010). The 'German Programme for Improving Road Safety' (2011) contains specific goals for:

- improving road safety continuously
- enabling environmentally friendly and sustainable mobility
- improving road safety culture;
- protecting weaker and vulnerable road users;
- supporting technical innovation of the automotive industry in road safety

The efficiency of these measures is again scientifically monitored. This road safety management system with its combination of a scientific focus and specific goals is considered to have contributed substantially to the reduction in road fatalities in Germany despite an increase in vehicles and mileage (Schulze and Koßmann 2010).

6.2.2 Focus on long-term vision

A long-term vision is now the cornerstone of most national road safety programmes in the western world. While Vision Zero may not be consistent with New Zealand's culture of pragmatism and progress, some of the strategies and challenges that were encountered in enacting the Vision Zero programme in some specific EU jurisdictions can be illustrative for the purpose of creating a model for exercising regulatory judgement and regulatory resilience.

As mentioned above, the European based Vision Zero project represents a singular focus on safety, but does consider the multiple factors contributing to that. It especially shifts the focus from the road user and its behaviour (Larsson et al 2010) to the road system which includes the user, the vehicles as well as the roads and their interactions. This is consistent with New Zealand's integrated approach in the *Safer journeys* initiative with its focus on safer roads, safer vehicles and safer drivers (MoT 2010). A road systems approach does not describe technology and people as two separate things (Elvebakk 2007, p432). Instead it sees traffic as a system where actions and responsibilities must be attributed to the whole, not to the individual actors (this might not be consistent with New Zealand's approach). The road

system should be adapted to the user not the other way round (Elvebakk 2007). Considering and investigating the interactions between the actors, the vehicles and the roads may serve as an important tool to avoid unintended consequences, for example the increase in fatality rates following the imposition of vehicle fuel economy standards in the US described above.

The literature on systems approaches, however, also indicates that a systems theory-based approach also shifts the focus from the actor to the system including to the system planner (Law 2000; Elvebakk 2007). In case of a systems failure it is no longer the actor who is blamed, or blamed alone. The focus will shift to the design of the systems and potentially to the systems' designer. While this proposition is disputed by highlighting that the system shares responsibility and seeks error tolerance (Johnston 2010), it still identifies that the systems approach brings with it a shift in responsibilities which requires a shift in attitude and mind set. The respective research is therefore still valuable for the question of how to deal with the responsibility of the planner and how the powers that come or should come with the systems approach are to be used.

6.2.3 Exploring new ground

The literature review indicates that the effect of traditional road safety measures may be exhausted (Hakkert et al 2014). In addition, changes in society and the rapid development of technology may require exploring new ground. A focus on behavioural research, taking a systems approach as well as exploring the potential of road safety culture which has been used in the field of health and safety regulation are adding a new dimension to current best practice models. Recent research, for example, explores the potential of the systems approach further and criticises most countries for applying a safe systems approach without applying systems thinking-based models and methods (Salmon et al 2012; Scott-Parker et al 2015). Another development that goes along with the systems approach to road safety is the classification of road crashes as a health and safety issue (ETSC 2003). Also the WHO has defined road crashes as a major global health hazard. Applying a health and safety perspective opened different disciplining and liability approaches for road users compared with the traditional licensing approach. Austria, Denmark, France, Germany, Italy and Netherlands, for example, apply a strict liability regime similar to workplace health and safety for motor vehicles.

Johnston (2010) and Nævestad and Bjørnskau (2012), also coming from a public health and occupational safety perspective, suggest exploring the potential of the 'road safety culture'. The concept of a safety culture is traditionally used for organisations and their members. There are substantial differences between an organisation with clear structure and the ability to monitor its members and heterogeneous road users who are substantially less monitored in their actions (Edwards et al 2014). The current research therefore has sought to either identify groups or communities that might be able to be shaped or to manage unsafe road safety behaviour through a design that addresses an existing culture.

The literature review of national road safety programmes highlights that the areas of concern as well as solutions and measures used are very developed. How to develop legislation and how to keep road safety legislation flexible and resilient is, however, rarely addressed. The review also highlights that while most countries apply a systems approach, applications which are underpinned by systems thinking-based models and methods in road transport remain sparse (Salmon et al 2012; Scott-Parker et al 2015).

7 Summarising the research

The major findings of the research on design are summarised as follows.

1 The law will need regular repair.

The project of improving the effectiveness and expression of the law has ancient roots. Thus we should expect that the law we design will not be perfect and will need improvement.

2 There is much focus on processes for making law, but little focus on processes for monitoring performance and making timely repairs.

Most jurisdictions, including New Zealand, do not have a tradition of regular review and improvement of the efficacy and effectiveness of regulation and law. Rather review and evaluation focuses on design processes and or on costs, not on repair. Better design requires the integration of review and repair mechanisms. The approach of regular review and redesign incorporated into the Evidence Act 2006, section 202 and the Privacy Act 1993 section 26 should become the norm, rather than the exception.

3 New Zealand's regulatory management system has become process heavy and substance light.

The New Zealand system has many careful processes but lacks much guidance as to the substance of the decisions which these processes guide. However, the system also has clearly set out principles and objectives, that provide parameters for its goals. Clear objectives and goals with guiding principles are a foundation of best practice. The regulatory management regime in New Zealand seems to have expanded to the extent that it mimics the very problem it was intended to avoid, which is regulatory inefficiency. Just as too much process and red tape hampers private sector efficiency, so too in the public sector. This process-heavy approach, intended to assure proposed regulations are thoroughly analysed is cumbersome and time greedy, which is not useful in an era of rapidly changing conditions. The initial regulatory reformers of the 1970s and 1980s warned against over-reacting to the inefficiencies of the administrative state which imposed so many procedural requirements and checks that efficient administrative function was impeded to the extent that taxpayers might not be getting good value for their dollar.

4 Many instances of regulatory failure share common denominators which regulators can be aware of and avoid:

   a legislating on the basis of unchallenged 'common sense' assumptions, unsupported by confirming empirical evidence

   b legislating on the basis of vague or unpopular policy

   c legislating in circumstances of capture; or conversely, with inadequate consultation

   d inappropriate use of principles based or outcome-based regulation (too trusting)

   e inappropriate use of soft (voluntary) regulation

   f attitudes of those tasked with enforcement (no buy in, inconsistency, collusion)

   g silo-ing of regulatory responsibility and rigidity of rules (no room for flexibility in changed circumstances nor for interagency collaboration)

   h insufficient monitoring and/or poor implementation

   i single sector, single issue regulatory design.

5 Successful strategies to better legislative expression:

a centralising regulatory expertise to avoid duplication, to create a pool of experienced regulators with diverse experiences, to provide for cross fertilisation and innovation, and to provide an invaluable resource and one-stop shop for agency regulators engaging in a regulatory exercise

b integrating monitoring, evaluation and repair as standard elements of legislation at any level

c principle-based regulation must be used in conjunction with 'confidence' ensuring devices to achieve its regulatory purpose, too much trust without those devices in place to make that trust is rational, leads to regulatory failure

d regulatory attitudes can ameliorate poor regulatory design and undo good regulatory design

e systems analysis leads to more efficient and effectively targeted regulatory interventions. One essential factor to fully capitalise on such analysis is the early and broad inclusive participation in defining the system, the goal and the impediments to the goal

f behavioural analysis applies to every decision maker, natural or artificial, regulated or regulator, and integrating its insights into regulatory design is essential. It counsels how to help regulators avoid path dependency and the most effective ways to target different decision makers

g statutory drafting is a systemic problem, arising from the silo-ing of drafting from design; appropriately integrating the two will lead to better expressed legislation reflecting the intent of the designers

h successful international road safety projects share a systems approach, a scientific approach and a long-term vision integrating interventions.

The findings and insights from the research in Part A of the project can be used to set up a model for best practice regulatory design. Such a model will have to function in a complex context. As was seen from the brief examination of the historical context, decision makers have always been challenged by the task of making better legislation. Acknowledging that developing legislation is a challenge and to a certain degree experimental is an important concept which needs to be integrated in a regulatory or legislative design model. The gaps identified in the analysis of the current processes indicate that the existing regulatory management system provides an incomplete framework for decision making. The analysis of the regulatory failures showed the variety of situations in which well-intended legislation suffers from cognitive failures. Part A has produced findings and insights for best practice regulatory design to provide decision makers with a better understanding of how best to investigate complex systems and which regulatory tools and approaches are available to respond to different regulatory situations and how and when they might be used.

PART B: DRAWING THE THREADS TOGETHER AND CONSTRUCTING A MODEL

8 Making a model to direct other people's behaviour

One of the fundamental tensions in the regulatory and legislative enterprise is that of telling 'free' or 'autonomous' people 'what to do', as liberalism is founded on the idea that people ought to determine their own destiny and life path (Locke 1690). Each jurisdiction, liberal or not, wrestles with this tension when seeking the appropriate balance between freedom and security, as total freedom means no constraints on conduct, leading to insecurity as to life, limb and property; while constraints on conduct, be they cultural or legal, provide security, but also constrain freedom (Berlin 1998). The two values are both essential for human flourishing, and incommensurable in that they cannot both be fully realised at the same time. Philosophers, governments, and societies (Glenn 2007) have wrestled with the appropriate balance between freedom and security, or between freedom and constraint, for generations (Strauss and Cropsey 1987).

8.1 Freedom and security: bearing the costs your behaviour inflicts on others

The problem of the regulator is situated within this historic tension, and particularly so in a society that is based on democratic liberalism such as New Zealand. The regulator's task is to direct or to influence conduct in ways that promote and/or protect the public interest (or in the Transport Agency's case, that promote a safe, efficient, effective and sustainable[10] transport system) with the least amount of intrusion into people's autonomy, while also maintaining fairness between people (Fischer 2012). One way for the regulator to proceed in good conscience, once regulation exceeds the minimalist bounds of protecting life and limb from others' wrongdoing (Nozick 1974), while conscientiously respecting the convention of public service neutrality, is to consider regulation as a way of assuring people bear the costs their conduct imposes on other people, or of minimising the costs people's conduct imposes on other people (Lytton 1993). While sounding similar to 'user pays', it is a different approach as it refers to more than paying for services. Rather it refers to reducing, in efficient ways, the negative externalities arising from conduct, whether through transferable entitlements, penalties, incentives or other devices (Calebresi and Melamed 1972). This paradigm is consistent with many ideologies and hence gives the regulator a 'neutral' framework from within which to pursue the policies of the government of the day. That is another way of saying the model proposed to guide regulatory design is one that is intended to be resilient and capable of being used through times of changing needs, problems and values. The approach is flexible, as the 'flavour' it assumes depends more on the extent of the systems analysis undertaken than on any disruption to the fundamental premise of personal responsibility for choices[11] made.

The basic premise of bearing the costs your conduct imposes on others is classical legal thought and is consistent with both the freedom and fairness paradigms important in New Zealand, as well as with the Transport Agency's particular mandate under the Land Transport Management Act 2003 section 94, as

[10] Land Transport Act 1998, section 169(a).

[11] With the caveat that the ability to make a choice must be given its fair value, ie the person truly has a choice.

amended in 2013, to provide 'an effective, efficient, and safe land transport system in the public interest' and the complementary mandate under the Land Transport Act 1998, section 169(a) to contribute to 'an integrated, safe, responsive, and sustainable transport system'. Combined with a systems and behaviouralist approach, the 'tort' like approach can aid a regulator in avoiding a path dependency leading directly to traditional mechanisms. While not necessarily unsuitable, traditional regulatory mechanisms have yet to work satisfactorily or there would be no demand for improved or alternative methods of regulatory design. Yet, because of the fundamental premise, the approach will reliably stay within the bounds of New Zealand's own balance of freedom and security, or that is, with the acceptable boundaries of 'telling free New Zealanders what to do.'

8.2 Mis-regulation and not bearing the costs your behaviour imposes on others

While 'good' and effective regulation may be consistent with classical legal thought as to the responsibilities of the citizen and those of the state, problems of legitimacy and efficiency arise when regulatory interventions fail to operate as intended. These problems of the legitimacy and efficiency of regulation and the regulatory state triggered the drives of regulatory reform which (Part A, section 3.3) date back to the 1970s. New Zealand has also experienced the issues of concerns about the legitimacy and efficiency of state exercises of regulation, from a similar time period, which drove a dramatic period of regulatory reform through the 1980s and 1990s.

More recently, the global financial crisis has been seen as a consequence of regulatory failure (see Part A. sections 5.1.3 and 5.1.4) and New Zealand has also more recently experienced what have been understood as catastrophic regulatory failures (leaky buildings and Pike River, for example) (Part A, section 5.1.4). This most recent period of concern is more focused on regulatory insufficiency, rather than the concerns of inefficient or over regulation which drove the reform movements of the 1970s to 1990s. This more recent period of dissatisfaction with regulatory performance may, in part, be due to what Stiglitz (1998) warned against, ie inefficiencies arising from over-constraining or over-regulating the regulators, so the efficiency and effectiveness of regulation itself is impaired.

Apart from the problem of 'over-constraining' regulation impeding regulatory resilience as discussed in Part A, section 5.1 there are a number of contributing factors to regulatory failures. The types of things that lead to regulatory failure can be classed as having organisational, functional and cognitive dimensions, re what went wrong and how. Although this project makes some institutional suggestions, it is primarily aimed at the cognitive dimension, re better regulatory design, from engagement with establishing the goal to be promoted, to identifying impediments to the goals and devising efficient and legitimate means to address the impediments.

The follow three chapters will first set out the model and explain its use, and second, explain in some detail the use and tools of systems and behavioural analysis; and third, set out the regulatory tool library, with explanatory notes of when and how to use each tool, and with directions to further resources. Then, as mentioned, the last chapter will step back and look at the constraints on regulatory resilience and efficiency intrinsic to the New Zealand legal system, which are less structural and more cultural in nature.

9 A model to improve regulatory and legislative design

From part A's consideration of New Zealand's legislative design processes and consideration of the national and international literature, a number of factors emerged pointing to a slightly new direction for best practice legislative design in New Zealand. For ease of explanation and of discussion about the proposed model for legislative/regulatory design, those factors will be set out and briefly described before a more thorough treatment of each. Those factors which will be integrated into the model are 1) the common law and constitutional background rules for New Zealand governance; 2) New Zealand's process-heavy but substance-light regulatory design process (this is the gap the systems model can fill); 3) a set of common factors shared in many cases of regulatory failure, which can be used to inform better design and to avoid paths that lead to mistakes; 4) the front-loading of assessment procedures, with inadequate provision for follow up on the performance of particular interventions; 5) the related failure to incorporate adequate flexible response mechanisms into regulatory or legislative interventions (MoT 2012), which is partially due to New Zealand's penchant for highly prescriptive and often complex enabling statutes. This factor is reflective of a trust and confidence issue between Parliament and the regulatory agencies it empowers, as well as between Parliament and the courts whose role is to interpret statute and regulation as guided by statute, common law constitutional traditions and judicial canons of interpretation. This issue also affects factor 6) the issue of adequate drafting, as does the failure to fully integrate legal drafting into the whole of the regulatory design process; and 7) reinforcement from other countries' and international institutions' approaches that goal and problem identification within a more holistic systems context is more likely to produce the desired outcomes than the currently predominant practice of focusing on the reactive problem/change of the moment approach (Meade 2015). But first, a rough outline of the proposed systems model will be set out, so the reader will be better enabled to see where and how its parts fit together as the discussion proceeds.

9.1 Preliminary outline

The structure of the proposed model for regulatory design is diagrammed in figure 9.2. It incorporates a number of layers of 'systems' analysis[12], with the first layer being New Zealand's 'constitutional, cultural and common law background' (see sections 4.1.1 and 4.2). The second layer is the 'legal foreground' with its enabling statutes (see sections 4.1.2 and 4.3) and the third layer is the 'design space' (see section 4.1.3). An example of how the model might work is provided in section 4.1.4.

9.1.1 The constitutional background

The constitutional background is important, as it is always operating, and it is critical to the success or failure of an intervention. Too often the focus of analysis when considering a regulatory intervention is on the problem at hand, or even on the system at hand, but in an a-contextual way. The problem or system of concern has been lifted out of its operative background, and so the initial solution may not be a good fit with that critical background, leading to a subsequently 'patched up' solution that may not be as suited to solving the problem for which it was conceived. It is proposed that all design team members become

[12] Garmestani and Benson (2013) advocate the integration of systems analysis of the regulatory system itself, as well as of the external system of concern, to promote regulatory resilience.

familiar with the core background[13], rather than it being left as the sole concern of the lawyers or drafters to be fully considered after much of the conceptual work is done, with the work product then patched to comply with constitutional norms and legal requirements. Ideally, the core background requirements should be there in the calculus from the beginning.

9.1.2 The legal foreground

Once the background is set, and set in people's minds, the next step the model proposes to add is the 'legal foreground'. That foreground in the Transport Agency's circumstance would be framed by its enabling statutes, by the basic *Wednesbury*[14] rules (see appendix B) as the minimum necessary for regulatory legality, and by any international agreements to do particularly with transport[15]/trade, so the legal bounds within which the regulator must operate are clear from the initial stages, to avoid wasted effort or later awkward fixes. Those and the requirements intrinsic to the background[16] set the limits to the design team's field of operation and imagination. Unfortunately, the Transport Agency's relevant enabling statutes are rather prescriptive, so may somewhat confound the options which would emerge from an ideal systems process; nonetheless that foreground needs to be firmly in place, although not impeding use of the model to create innovative approaches. If the systems process points to an 'un-enabled' intervention as the best approach, this can still be pursued through inter-agency cooperation and/or be forwarded to the minister for Cabinet's consideration as to whether the enabling statutes need to be either broadened and/or simplified, so they enable rather than impede efficient regulatory innovation.

9.1.3 The design space

Once that framework is set out, the model proposes that the first order of business is to identify not the problem, but the goal. What is the goal to be achieved? The goal needs to be situated in the background and/or in the empowering statutes purpose (or equivalent) clauses. The detail of how the goal is articulated will influence the analysis. What is the role of safety? Is it safety that does not unacceptably burden efficiency? Does efficiency include the costs of crashes as well as the movement of people and goods? Does the 'in the public interest' influence the articulation of the goal? Does efficiency include avoiding costly impacts 30 years down the road? How does the goal incorporate sustainability[17]? It is by defining 'the goal', and only then, that the design team can set out the relevant system for analysis and usefully identify the 'impediments' to that goal. This approach avoids reactive and encourages proactive regulatory intervention.

[13] Hopefully the relevant cultural norms will be shared if tacit knowledge, across the team, but the constitutional and common law norms may not be so.

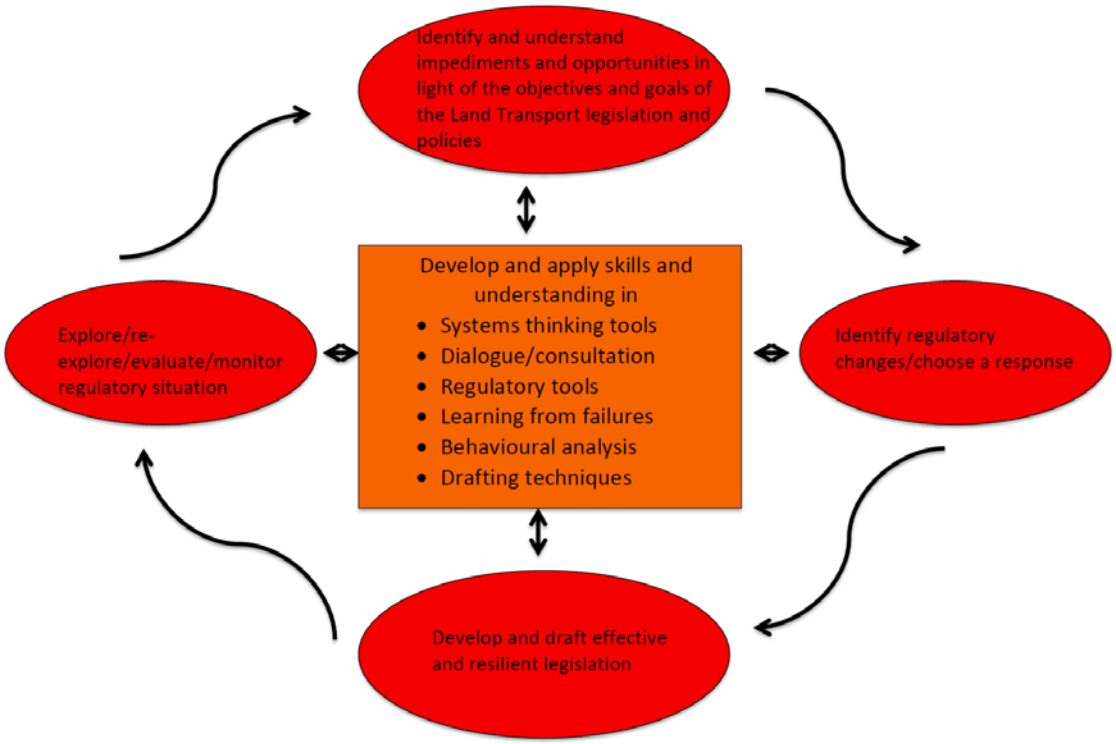
[14] *Associated Provincial Picture Houses Ltd. v Wednesbury Corporation* [1948] 1 KB 223

[15] Land Transport Act 1998, section 169(b)

[16] Remembering that the background includes the requirements of *Wednesbury*, Waitangi Treaty, international transport obligations, and so forth, to avoid later 'patches' on the design.

[17] Land Transport Act 1998, section 169(a).

Figure 9.1 Framework of legislative design process



9.1.3.1 Early and broad consultation

Ideally at (during) the point of goal, system and impediment identification, the design team brings in the diverse views of 'stakeholders', not after. The stakeholders will bring insights to impediment identification, which otherwise may not be noticed[18]. They should include representatives of those who will be subject to the regulation and of those who will be responsible, on the ground, for implementing, monitoring and enforcing it (Black 2014). This will enhance legitimacy and buy-in on both sides of the regulatory coin (OECD 2009; Nielsen 2006). The mechanism used in Australia and the EU to achieve this early broad inclusion of diverse viewpoints has already been designed and additional suggestions for doing this are included in the tool library section below. The earliest inclusion of diverse viewpoints provides the benefit of better identification and classification of the impediments to the goal, which leads to a more efficient intervention. This is because the definition of the impediment has a very strong influence on the regulatory path chosen to fix, reduce, or remove it (Bacchi 2009). One of the best methods of avoiding path dependency is to revisualise or to reframe the problem. Systems analysis helps achieve that revisualisation, but diversity of viewpoints in analysing those systems and identifying and defining impediments to optimal function helps make that analysis less likely to be an exercise leading to a predetermined outcome rather than to an innovative solution.

9.1.3.2 Red, yellow, green lights and failure factors

It is during this phase that the design team should pay special attention to the regulatory failure factors highlighted in chapter 5 of Part A. Throughout the model, only when these factors have been explicitly examined and a considered decision made, one way or another, does the 'red' light turn yellow or,

[18] This is contrary to NZ Treasury's (2017b) recommendation against 'over consultation'. We also recommend that agencies' annual proposed regulatory plans be made publicly available to promote diverse participation, for similar reasons.

depending, green. These factors should be explicitly listed for all regulatory design exercises, with the caveat that green is no guarantee, rather it means that known problems have been avoided. The 'black swan' or unknown unknown can still emerge, which is partly why the advisability of built in flexibility mechanisms is recommended as well as much more robust ex post review and adjustment mechanisms for the performance of new regulatory interventions than is currently typical. Such mechanisms could uncover the black swans while still cygnets (and easier to deal with) and should be the norm in such a complex experimental enterprise (Mumford 2011b) as creating resilient law for rapidly changing circumstances.

9.1.3.3 Decision makers and behavioural analysis

Having identified a goal, set out the system which must function correctly to reach the goal and identified the impediments to that, the question returns to what to do? This is where systems analysis must be overlaid with a behavioural analysis that recognises the different behavioural drivers of different participants in the systems. The systems layout, with entities, enables the designers to spot where are the decision makers in the system whose decisions affect the outcome, and also which of those decision makers can be most efficiently influenced to make the sorts of decisions that will minimise or remove the impediment to the goal. That is, which decision makers can be influenced with the least intrusion and with the least expenditure of resource (government's, personal or society's). In this phase, it is important to categorise the 'type' of entity which is the decision maker, to make appropriate use of the behavioural analysis tool. This is also where the regulatory tool library becomes important, to enable careful consideration of which sorts of tools best influence which sorts of entities.

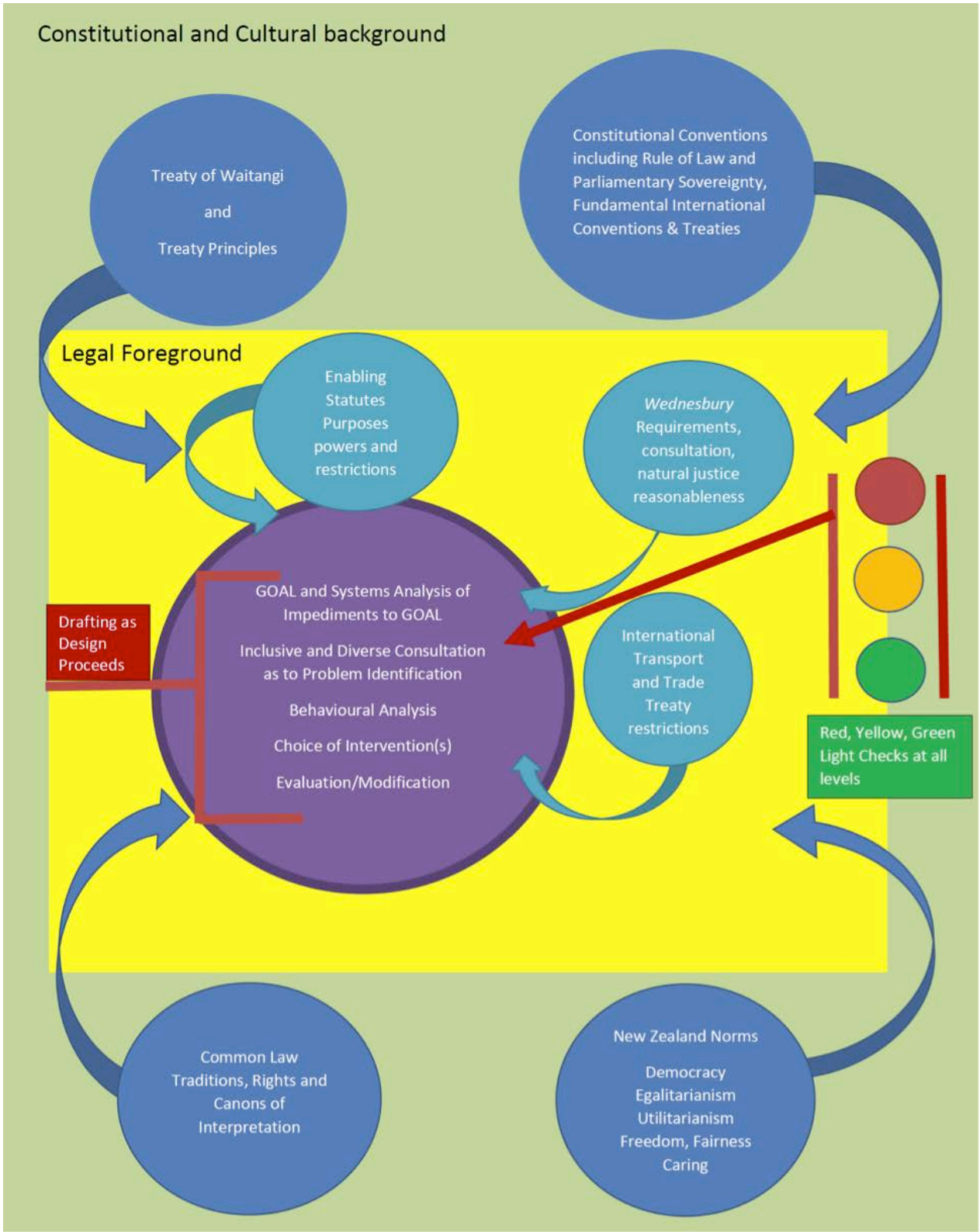
9.1.3.4 Working, monitoring, evaluation and response

Having decided an intervention (or a suite thereof), the designers must set out what sorts of behaviour changes would indicate success (or not) and how to monitor for them or for the intended impact. This should also make provision for monitoring for unintended consequences and should build in an already approved process for making adjustments to the intervention if the evidence reveals this is required.

9.1.3.5 Integrated drafting

As the process of goal, system, impediment and response proceeds, the draft regulation should be taking shape. This can be guided by the criteria for good language and good structure set out in Part A, section 5.3, by the constitutional background and by the legal foreground, of course, but also based on the integral understanding of the purpose and means of the intervention.

Figure 9.2 Decision-making system



9.1.4 An example of how the model might work

Before starting and throughout any hypothetical or real exercise, the regulatory designer uses the green, yellow, red light system to keep an eye on whether the proposed course of action is consistent with the factors of the constitutional background, the constraints of the legal foreground, and whether any of the nine regulatory failure factors are present or arising.

9.1.4.1 Fact situation

To give a concrete example, one might note that New Zealand had the highest reported rate of trucking-related fatal injury crashes in proportion to the overall annual road toll (24.9%) of all the members of the ITF, with a toll nearly three times that of Poland (the member with the lowest rate – 9.1%) (ITF 2011). Further examination showed that high percentage was substantially unchanged by 2014 at 23% (MoT 2015).

9.1.4.2 Articulating the goal and defining the system

Guided by the Land Transport Act 1998 section 169(a) to a 'goal' of safe land transport, through a systems analysis one might note that trucks are responsible for a disproportionate percentage of the road toll compared with distance travelled (6%) on the roading system and wonder where in the system a more focused goal of improving trucking safety could be effectively introduced.

9.1.4.3 Considering decision makers and possible interventions

Since current interventions do not seem to be effecting changes in behaviour or fatal injury crash rates over time, the question would be which decision makers in the transport system could best influence practices that account for the disproportionate truck fatal injury crash rate. One would note that trucks were determined to have the primary responsibility for more than 50% of all truck crashes (MoT 2015) as evidence that the aim ought to be to influence truck safety practices (rather than, say, to promote car strategies to avoid hitting trucks).

In examining the system of roads and trucking, one would note that trucks drive for a purpose, to make a profit and to deliver goods to customers scattered throughout the roading system.

9.1.4.4 Behavioural analysis

Combining a systems analysis of where and why the trucks are on the road and with whom trucking firms are interacting, with behavioural analysis tools, suggests that the most effective and efficient additional intervention may be with the customers of trucking firms. This is because trucking firms themselves have an incentive to maximise profits, which requires customers, but that same profit maximisation incentive may also encourage trucking firms to engage in unsafe practices to cut costs. A trucking firm may be able to sustain the financial penalties for unsafe practices as a 'cost of doing business,' but it could not survive without customers.

9.1.4.5 Choosing an intervention

The most effective intervention might be to extend the accountability for dangerous trucking to those who engage and benefit from the services of dangerous trucks. Doing so would also broaden the range of parties with incentives to enforce safety standards. One mechanism to do so, recommended by the ITF (2011), is to use co-liability to encourage purchasers of transport services to engage trucking companies with a higher safety rating, even if that increases their up-front costs. Holding those purchasers co-liable for any safety penalties that a trucking firm incurs while in the process of delivering their goods does not interfere with autonomous choice. It simply requires those who choose to participate and benefit from unsafe or inherently risky conduct (Lytton 1993) to bear some of the costs their behaviour is imposing on society (here, an actual or increased risk of crashes). This could be particularly effective if the level of transport-purchaser safety penalties were tied to the gravity of the risk imposed by the unsafe trucking

practices. If there was a trucking firm safety ranking list, firms could minimise their exposure by choosing the most safely ranked transporters. Even if there were not such a list, safety reputation would soon become a marketing asset about which transport purchasing firms might do due diligence. Just as employers are responsible to maintain a safe workplace, so purchasers of transport services should not hire a trucking firm without checking whether they can be safely engaged to perform commercial transport on public roads. The rationale is the same for the employer or for the haulage hirer, due diligence and responsibility for any penalty incurred for business practices that do not protect against known or knowable risks of injury.

Because such an intervention acts more extensively within the overall behavioural dynamics of the system than interventions aimed directly at trucking firms, it may change the incentives for both truckers and transport purchasers. Trucking firms would be more careful to maintain a good record and consequently be an attractive firm to engage. The transport purchaser would be less likely to hire trucking firms with unsafe practices, even if those firms made cheaper and quicker deliveries, because the cost advantage gained by externalising risk onto the public, would be neutralised and internalised through co-liability for the penalty costs of the unsafe firms.

9.1.4.6 Checking the background factors

This would be consistent with the background constraints on regulators, as to hold people responsible for choices and actions that impose risks and serious harm onto others violates neither fairness nor freedom norms. It is consistent with the background, it does not force purchasers to forgo their preferred firm, rather they must share in bearing the costs their choices inflict on others. Such a sharing of penalty would be easy to administer, and transport purchasers which engaged safer trucking firms might, as a simultaneous carrot incentive, be held responsible for a lesser percentage of any penalty or fine incurred by more safely ranked trucking firms.

9.1.4.7 Checking the foreground factors

Whether such an intervention would be consistent with the enabling statutes, or with other aspects of the legal foreground would be the next issue to consider. If not, and if it were thought likely to help reduce the road toll, perhaps such an analysis might convince the relevant government to broaden the scope of the enabling statute (as the purpose and the scope of the statute may not be well matched) (Twining and Miers 1999).

9.1.4.8 Checking the regulatory failure factors

One could ask if this is single issue regulation and flash a yellow light. Systems and behavioural analysis checks would apply. The designer would consider each factor in sequence. Is this unexamined common sense? Is any empirical evidence available? Have other jurisdictions tried this with good results?

9.1.4.9 Review and monitoring

A working monitoring and repair mechanism would be integral to such an intervention, to see whether transport purchasers did go to safer trucking firms and or if less safe firms improved their performance to win back customers. Of course, one result might be for transport users to switch away from trucking to rail or air, but even so, some trucking would need to be involved. If such a measure did have a ‘switch transport mechanism altogether’ effect, the monitoring exercise would need to consider whether the costs to the trucking industry and its employees were outweighed by any incidental gain, environmental (fewer emissions), safety wise (fewer trucks on the road), before deciding whether to repair or to leave as is.

9.1.4.10 Drafting

In this scenario, drafting (and checking the red, yellow and green light factors) would be ongoing. One of the things the drafters and designers would be checking is whether the intervention proposed was consistent with the fundamental rules and norms of the constitutional background.

9.2 The background level of the model

9.2.1 Ad hoc and evolutionary collection of rules with constitutional purposes

As mentioned, the first layer of the model is labelled the background. The background refers to New Zealand's legal and cultural background against which or within which the regulator and the regulatory/legislative intervention must operate. As noted, the common law tradition has not been to approach law and legislative design in a systematic fashion. Rather, despite Bentham's hopes, the piece-meal, as-needed approach to law-making has persisted, with an ad hoc problem-by-problem driven dynamic in reactions to safety crises, economic crises, natural disasters and so forth. Events rather than systemic analysis of an integrated interacting system generally drive legislative and regulatory action (Meade 2015). This background of ad hoc legal and constitutional evolution makes it all the more important that the regulatory or legislative designer step back to take an over-all systems view, because the system within which that regulator is situated has not already done that for them.

9.2.2 New Zealand's constitutional background is particularly unique

9.2.2.1 'Unwritten' non-legal rules which must be obeyed: a conventional constitution

For the Transport Agency regulator there are the unique constraints and peculiarities of any generic common law system with the added idiosyncrasies of New Zealand's unique context. Included are the unwritten, non-legal, but binding constitutional norms and conventions, anchored in a constitutional culture which incorporates the general values of constitutionalism, as well as normative values particular to New Zealand. The common law rules as to the requirement for natural justice, its respect for ancient common law rights and its rules as to what 'counts as law' are also important to this background. Any model for designing regulatory or legislative interventions should bring these things to the conscious consideration of the regulator, rather than leaving them as unexamined 'tacit' knowledge (Leiter 1996–97). New Zealand's independent common law evolution, including the incorporation of the principles of the Treaty of Waitangi into the interpretative background, against which all legislation and regulation must play out must also be brought into explicit consideration, as must the Treaty itself.

9.2.2.2 Designing the regulatory intervention to be consistent with the background rules

The regulator needs to keep in mind this constitutional, normative and common law 'stage' on which the regulation must play, not later at the drafting stage, but from the beginning. Otherwise, when the process of problem analysis and design is followed, even with a legal officer often on the team (whose likely focus would be the immediate foreground of the Transport Agency's enabling statutes) the context of the overall system is not in focus. This can result in things like broader international obligations, Bill of Rights issues, and other concerns coming forward midway or later in the process of building the regulatory intervention, which, as noted above, is rather like an architect being brought it to make a building compliant with code, after the structure itself, or at least the frame, has been built. This introduces inefficiencies in both the structure and function of the intervention, because of 'fixes' introduced to accommodate the background requirements. Appendix A sets out some of the core of this background, and this information, or similar, should be made familiar to the regulatory designer. It does not comprise a legal education, but a basic

knowledge of the relevant constitutional fundamentals. It is inefficient for the regulator to be asked to play a game without being familiarised with the non-negotiable rules.

9.2.2.3 Promoting efficiency by getting the 'fit' right

Without this knowledge, the regulator is not empowered (Black 2002) to design the most robust intervention that best fits not just the immediate situation, but also best fits with in the overall system, as the better the fit with the background, the better chances the intervention has to be effective and resilient. While some people have described what is necessary as a 'decentred' approach to integrate the complexities of the legal and other interactions with which the regulator is faced, others have called it the 'light systems' approach. The fundamental thing is to equip the regulator with a better view of the entirety of the interactive field impacting on their 'problem' (Black 2002). The point here is that field of human, infrastructure, economic and other interactions is superintended on fundamental legal and cultural background framework within which the regulation must fit.

9.2.2.4 Familiarity with the background essential for assessing whether other jurisdictions' regulatory practices are suitable for New Zealand.

The background factor is also important when the regulator is considering interventions originating from other jurisdictions when making their choice of tools or interventions. It also informs a comparative definition of the problem, if other jurisdictions are being looked to for options or examples. The suitability of a 'legal transplant' from one jurisdiction or context to another depends on not just the similarities of demographics and economics, but also of their legal backgrounds and all that encompasses (Spamann 2009). This is the reason for the regulator to be attuned not only to New Zealand's particular background, but also to some of the fundamentals of the civil law considered in Part A, as it is the most common alternative to the common law, internationally. When looking at importing solutions from other jurisdictions, becoming familiar with the particular context of their legal background is key. Careful attention to that jurisdictional context must be maintained throughout the design process; from considering other jurisdictions' understanding of the problem, through the evaluation of their attempted solutions and on to the decision as to which solution best fits for the situation. This is an important point, as the project recommends some very recent and excellent web-linked facilitation available for the suite of regulations with which other jurisdictions have approached their transportation (among other) issues. The legal background of the originating or New Zealand jurisdiction ought not to be a mere tacit presence against which the regulator is working, but a defined arena of play whose rules are explicitly kept in mind. A collection of fundamental background factors to consider is provided in appendix A.

9.3 The legal foreground

The next aspect of the model is making sure the design is consistent with the agency's specific legal authority and the legal constraints directly applicable to the exercise of that authority. In this context, as mentioned, these would be the enabling statutes (which frame the goal), the Wednesbury requirements (see appendix B), any transport specific international obligations, and any constraints arising from trade agreements.

9.3.1 Organising the foreground

The foreground needs to be organised around the purpose or object clauses, the statutory empowerments and restrictions, and the constraints from international transport and trade obligations. For this level of the model, two concise lists need to be drawn up, to add to the purpose clauses of each. One is the list of what the relevant statutes empower the agency to do to achieve the goals set out in their respective purpose clauses and the other is a list of what the statutes forbid the agency, if anything, to do. Added to those lists should be the Wednesbury requirements and specific articulation of the constraints on permissible

regulatory actions arising from international transport and trade-related agreements. Trade obligations are included so the regulator is careful to consider, early on, whether a proposed intervention disadvantages transport firms or purchasers located in the relevant off-shore jurisdictions. A template for arranging the foreground factors empowering and constraining the regulatory designer is suggested in appendix B.

9.3.2 The New Zealand regulator's foreground is relatively rigid and prescriptive.

Unfortunately, the Transport Agency's relevant enabling statutes are rather prescriptive, so may somewhat confound the options that would emerge from an ideal systems analysis process, but that foreground needs to be firmly in place. While setting minimum requirements to be worked within, the process should not be used to impede the use of systems and behavioural analysis to imagine innovative approaches. If the analysis points to an 'un-enabled' intervention as the best solution, as noted above, this can be explored through interagency cooperation or forwarded on to the minister for Cabinet's consideration as to whether the enabling statutes need to be either broadened and/or simplified, so they enable rather than impede efficient regulatory innovation.

9.4 Relaxing legal and cultural boundaries – de-mystifying legal rules and rulemaking to improve legislative quality

As discussed in part A, a number of factors have emerged from the research as likely or potentially problematic for designing effective and efficient regulation. One is the complexity of the legal framework within which the regulator finds themselves, as well as the ad hoc character of its structure, which has been driven by historical accident, shock, and often, sad experience.

9.4.1 Integrating law and policy in regulatory design

Part of good legislative or regulatory design is based in integrating the 'law' and the 'policy' factors together. Just as a fit for purpose house, designed for a particular function at a particular location is built with both the architect and the engineer working together, so it goes for best practice regulatory design. The architect does not draw the plan after the house has been created, and unsurprisingly, were that to be the case the resultant structure would likely need to be 'retrofitted' to comply with the code. The integrity of its design and intended function would likely be affected and it would become 'patched up'. Likewise, setting the legal form of the actual regulation or statute should not be the last thing addressed. Fitting the law to the plan should be an integral part of the process. This model envisions two things: 1) Not only should 'a lawyer' be present, but the whole team should be familiar from the start with the fundamental legal frameworks within which the regulatory structure they envision must function; 2) These legal framework constraints are made explicit in order to bring the 'drafting' exercise explicitly and continuously into the design process, rather than as a follow-on exercise completed after the regulatory analysis. A distinct separation of the two processes leads to inelegant legislative architecture.

9.4.2 Integrating design and drafting

One of the most often identified sources of poor legislative design is the 'drafting instructions' delivered after the design process (Xanthaki 2014). Currently, it appears that the agency rule articulation or the legislative drafting process follows much of the design phase (MoT 2012; Land Transport, 2014) The practice of bifurcating the investigation and regulatory design decision making from the articulation of the legal form that will implement the resulting decision leads to inefficiency in process and hampers the efficacy and simplicity of the end product. Rather than waiting until the 'drafting instruction' phase to recognise and

integrate the constraints on regulatory action, the design team needs to have the formal and practical/ conventional constraints on their options in front of them, keeping the core legal context of the system within which any intervention will be operating to the fore. It is within core background that the enabling statutes, if relevant, are situated. At present, it seems the enabling statute (legal foreground) is taken as the initial background, with any emergent regulatory decision fitted to the deeper background within which both the statute and the regulatory decision must operate. Rather, the decision-making process itself should be firmly situated in both levels. The solution may be to integrate design and drafting. Regulatory design through from concept to final rule could be more effective and efficient if the process and substance of both the intervention and its legal articulation are integrated.

9.4.3 Integrating the interacting systems at play: legal and transport

The system approach advocated here works at two levels: consideration of the interactions of the system to be regulated and consideration of the system of regulation itself, with the model making explicit. Both need to be integrated, with the behavioural characteristics of individual and/or institution actors of both systems taken into account. These need not be elaborated in nuance, the fundamentals will suffice to alert regulators as to whether their ideas, investigations and deliberations are in the areas of ‘green’, ‘yellow’, or ‘red’ light. The background derives from New Zealand’s fundamental constitutional rules and conventions, core common law norms, the fact and the principles of the Treaty of Waitangi, the basic principles of core international agreements, (which can be succinctly summarised) and the basic values governing the appropriate exercises of governmental power and discretion in New Zealand. The fundamental background rules are not numerous nor complex and ought not be kept behind some ‘acoustic’ (Dan-Cohen 1984) wall to be penetrated only by trained lawyers. The basic constitutional norms, the major international constraints, and the core rules of common law requirements for regulations to be deemed lawful, as well as the basic rules of interpretation are not mysterious, but relatively straightforward. A familiarity with them, if not expertise, better equips the regulator to avoid unwieldy retro-fits or ‘repairs’ which a bifurcated process at least invites, if not renders inevitable.

9.4.4 Empowering the regulatory designer

The history and nature of the common law, as Dan-Cohen (1984) points out, make many of its fundamentals opaque to non-legal practitioners. The decision rules courts will apply in deciding what a rule means in practice and whether it has properly been brought into force, are as if lodged behind an impenetrable ‘acoustic wall’ that one needs a legal education to penetrate. Normally that penetration takes years of study and not a little practice, and, as Justice Holmes said, once through that wall, what is found is not necessarily logical (Holmes 1881). This complicates rule design for the common law regulatory team, but can be ameliorated if that background is firmly and clearly available brought to the fore from the earliest phases of deciding whether and how to intervene, and indeed on how to articulate the goal or problem in play (Bacchi 2009). To rationally design regulatory interventions which perform efficiently and as intended, the designers working on the problem must not be functionally blind to the deep legal background in which their work product must function. To create effective efficient regulation, the regulator needs to be educated, the ‘acoustic’ wall between the primary law with which most people are familiar and the secondary background rules of law about the function of ordinary law, must be made transparent. The regulator does not need to have a lawyer’s expertise in using the law but does need enough knowledge to get a ‘feel’ (Leiter 1996–97) for how a regulation or other interventions will interact with that background. The other systems of interest to the regulatory designer of course, are the ones they are tasked to regulate. Once firmly situated in the relevant legal contexts, the focus for design becomes the promotion of an effective, efficient and safe transport system, which can be helped by systems and behavioural analysis.

10 Systems and behavioural analysis for regulatory design (unpacking the purple circle)

While a systems/behavioural approach cannot determine what the substance of a regulatory intervention should be, it can provide some substantive guidance to those tasked with that determination, encourage innovative thinking and alert regulators to substantive areas of caution. As already mentioned, the research for part A revealed a number of shared factors present in situations of regulations gone wrong, which provide some concrete cautionary guidance (see part A, section 5.1). These cautionary factors can be integrated into decisions about possible interventions in a system, in pursuit of the regulatory goal. Of course, even in the absence of all known cautionary factors, the regulator/legislative designer must be aware of the potential for 'black swan' occurrences and build some 'cushion' or 'crumple space' into their design, with such space giving room for resilience.

10.1 The big picture vs the detail

When developing regulation or legislation from a systems context, three issues arise: what is the immediate system of interest, what are the relevant 'background' systems (discussed above), and who/what are the relevant decision makers whose behaviour or decisions need to be considered. Incorporated at each level is consideration of possible 'externalities', unforeseen consequences, and the challenge of determining how the problem is defined or conceptualised (Bacchi 2009). It is for this reason, in terms of illuminating the most efficient intervention to achieve the desired outcome, a systems approach works most effectively by starting with the 'big picture'. The articulation of the problem is critical because the definition of the problem can determine the intervention chosen. If avoiding path dependency and automatically taking the same familiar paths or approaches (which may not be the most suitable) is to be avoided, the issue at hand must not be predefined. Instead, it is set out as an unclassified 'impediment' to attaining a larger goal. The goal will be informed by the enabling statute (eg safe transport). Looking at an issue simply as an impediment (not yet labelled as x, y, or z) to the satisfactory functioning of the relevant system encourages the regulator to think outside of the box. It enables a fresh look, making an innovative and possibly better intervention more likely than if a view with a predetermined understanding of the impediment as 'a problem of x' is taken.

10.1.1 Using systems thinking to avoid regulatory failure: regulatory failure factors reflect non-systems thinking.

The research of the first part of the project uncovered a number of factors common to many regulatory failures, which should flash a 'yellow' (cautionary) or 'red' (stop) light to the regulatory designer trying to decide whether, where and how to make an intervention. These cautions can then be evaluated to determine whether to proceed, with systems analysis helpful to explain whether and why the approach being considered should be either abandoned or postponed until more information is available. For example, if the intervention being considered is based on 'common sense', caution and further research is required. This may seem inefficient and difficult to defend, because common sense is often correct, but without evidence this cannot be assumed. The costs to society of using mistaken common sense to design regulations to promote desired behaviours or outcomes will far outweigh the costs of confirming common sense as correct. If the policy being propounded as a solution to a perceived problem is vague, unpopular or provides for no clear means of accountability (who will be responsible for the implementation and any consequences of this policy), caution is again advised. This is because vagueness will likely lead to a misdirected intervention in the system, and regulations to implement policies which are both vague

and unpopular will likely not be effective due to lack of any buy-in. They may also trigger legitimacy or even background concerns. Yellow or red lights should be flashing.

If the intervention being considered is advocated by those who would be regulated or by groups aligned with a narrow shared interest, capture should be a concern and yellow lights flashing. The regulator can explain the concern, by illustrating how capture leads to inefficient decisions by actors within the relevant system. For example, a consumer will be misdirected from the more efficient producer to detriment of economic efficiency and so forth. Likewise, if quality and monitoring interventions are being assigned to non-neutral parties, or parties with incentives, monetary or otherwise, to deliver 'favourable' assessments, yellow or even red lights should flash. If an impediment has been identified, and the intervention proposed impedes or prevents the possibility of effective inter-agency collaboration or cooperation, yellow lights should flash as to the possible 'legal system' inefficiencies being set up for future situations (eg, California regulatory disaster (part A, section 5.1.7) triggered by a drought, with concerned agencies legally unable to coordinate a response). If a 'single-issue' intervention is proposed, without critically considering its possible interactions with the larger system within which the intervention will operate, red lights should flash and such interventions should be avoided until further study is possible. Addressing a problem in isolation can skew decision making in the system in 'big-picture' negative ways (eg US fuel efficiency standards to reduce reliance on foreign oil, but structured to protect certain sectors from economic shock setting up decision incentives resulting in more fuel consumption and increased fatality rates) (part A, section 5.1.9). These sorts of problematic interventions further highlight the importance of getting diverse input into the representation of the problem which is impeding achieving the goal, ie on what might be important factors not obvious to the regulator, but clear to others. Further examples of green, yellow and red light situations are illustrated in part A, section 5.1, many of which occurred because of the law's antiquated understandings of behavioural dynamics. Any proposed regulatory programme which exhibits any of the factors in those nine categories should be treated with caution, with remedial or compensatory 'confidence enhancing' devices integrated to any implementation programme. Having made the cautionary 'failure factor' alerts (or pointed to where to look) and suggesting that each failure example illustrated in part A, section 5.1 could have been avoided by using systems and/or behavioural thinking defensively, the discussion now turns to show how 'big-picture' systems thinking might be used proactively to stimulate regulatory innovation.

10.1.2 Using systems and behavioural thinking to stimulate innovation

10.1.2.1 Considering the issue of speeding from the perspective of behavioural analysis

This discussion proceeds by considering hypotheticals and working through each with a systems analysis to suggest alternatives ways to approach a regulatory problem. The first example will be tied to the *Safer journeys* initiative. If an impediment to the *Safer journeys* goals is seen as too many vehicles involved in crashes, there are a number of possible ways of setting out the factors to the problem, leading to different decisions about the underlying issue and where/what would be the most efficient interventions. If one focuses on speed, one could say that people need to respect the speed limit. Or one could say the speed limits are not consistent with the road design and should be lower. If one conceives of the problem as people not respecting speed limits, one could intervene in a prescriptive way and strengthen enforcement.

10.1.2.2 Harnessing the herd

Or one could hypothesise that people will 'push' the limit (behaviouralist insight) but the average 'law-abiding' person will 'push' only within a certain 'socially acceptable' tolerance (Ayers et al 2009, re the strong prescriptive pressure of conforming to the actual norms of community behaviour). That is, one could set the speed limit for the way people actually behave and not for how the law wishes they would behave. If that

approach is taken, reducing the speed limit so the socially tolerated 'push' amount (say 5 km/h to 10 km/h) would fall within the safety boundary, without changing any use of enforcement resources. This would most likely have a more enduring success in lowering the road toll than enhanced speed limit enforcement. (This is especially so where most roads were designed at a time when the speed limit was lower.) If slower average speeds correspond with fewer crashes, there would be fewer road delays, which would counter any impairment slower speeds imparted to commercial transport efficiency. The result would be consistent with the purpose/object clauses of both the Land Transport Act 1998 and the Land Transport Management Act 2003, promoting both safety and efficient transport. Further consideration of the system, from a behavioural approach, might consider that rather than focusing on penalties alone, and more results might be gained by adding 'reward' to the regulatory suite brought to play.

10.1.2.3 Harnessing over-optimism

This raises the question of what else besides penalties (which the evidence shows are not sufficient to eliminate crashes due to speeding) could motivate humans to obey the speed limit? The path dependent way is more diverse penalties, demerit points as well as fines and a loss of licence. A behaviouralist might focus on humanity's documented 'self-serving bias' and 'overoptimism' (Jolls et al 1998). If so, they would consider whether those things might be turned to advantage. The same driver with 'bounded rationality' (Jolls et al 1998) who speeds, although knowing it is dangerous and could result in death (false sense of control tied to 'over-optimism'), might better be induced not to speed by the same sorts of motivations that influence participation in Lotto, which also depends on that same 'over-optimism' and 'bounded rationality'. If a system of an annual or semi-annual lottery were created, with the reward being either monetary or vehicular and with automatic entry for all drivers and registered vehicles with no speeding infractions (either through camera or police detection), a number of things might happen. The same people willing to gamble over a speeding ticket, might be enticed to gamble instead on getting something 'for nothing' and be motivated not to speed to 'get in to win'. As a corollary benefit, those who might otherwise not comply with vehicle registration rules, might also be motivated to do so in order to be able to 'get in to win'. Not speeding to play and win a game sets up a different 'nudge' dynamic than prescription alone for achieving fewer speed-related crashes. Further, it provides the opportunity for a reward for those who do comply with the speed limit regardless. Rarely does the state use out and out reward to encourage or celebrate habitual compliance with desired norms. Rather, it usually looks to deterrent measures. The use of threat as the primary means to motivate hoped for human behaviour might, ironically, predominate in the fields of crime and law.

10.1.2.4 Mimicking conditions known to produce the sought impact

Another alternative intervention a regulator might propose to lower the road toll is to mimic traffic conditions known to be associated with a reduction in the toll. An ITF (2015) study explored why the road toll dropped in hard times and found these meant fewer people travelling fewer miles, with the associated drop in road toll being tied to fewer cars on the roads. A systems approach would ask what intervention might mimic that effect and 'thin out' the number of cars on the road at the same time. The regulator would examine why and where intense periods of traffic occur, to indicate where a suitable intervention might be possible. If the combined school/work 'rush times' were identified, the regulator might attempt cross-agency (or government) cooperation to, say, stagger school starting times, or to authorise schools to set their own opening and closing times within a preset range, to reduce the need for so many people to deliver either themselves or their children to a place at the same time. If such a mimicking experiment could be done with minimal fiscal implications, it is unlikely it would work to raise the road toll, so might be worth trying, with an evaluation after a restricted trial. This example incorporates systems thinking, cross-agency collaboration and behavioural considerations re why people would drive at peak (unpleasant)

times. Alternatively, trial incentives might be proposed for businesses to stagger their hours, if the overall economic was thought likely to outweigh the costs of such a scheme.

10.1.2.5 Fee-bates and rationality

Another related 'road toll' example of how a systems-behavioural combined approach might come to an alternative approach is if a regulator were to focus on the safety aspects of the vehicles on the road, they could decide more vehicles were needed which: a) were less prone to end up crashing due to human error; or which b) better protected people when there was a crash. Larger vehicles might better protect occupants and smaller vehicles might handle better, or those safer for occupants might also be the safer handling ones. While the Accident Compensation Corporation (ACC) has made the intervention of lower levies for the 'safer for occupants' type of 'light' vehicle as one means to encourage safer choices (NZ Transport Agency 2016). (Although ACC has restricted the preferential levies only to safer cars in the 'light' vehicle range, they may still be re-enacting some of the US CAFE dynamic of encouraging vehicles at the 'heavier' end of the 'light car' spectrum, which while safer for those occupants could be more lethal for the occupants in vehicles at the 'light' end of that spectrum.) Also, if a comprehensive goal was to get people into safer cars, rather than approaching the goal in a 'rational' actor mode of reduced levies for such cars, a big-picture systems approach would consider what other factors in the relevant system may be motivating car purchase decisions, by which types of decision makers and what interventions would most likely motivate different decisions. This query leads into a deeper consideration of behavioural dynamics.

10.2 Integrating behavioural analysis

Law and regulation, as stated at the beginning of part B are about influencing behaviour. That being the case, if the regulatory designer wants to successfully influence human decisions to achieve a regulatory purpose, the regulation needs to engage with people as they are, rather than as the law's traditional subject, the 'rational' maximiser. That paradigm was never intended to be taken literally even in economics, but the law has persisted in designing interventions based on that fiction (Dworkin and Gross 1991) despite it having been empirically discredited for a long time.

10.2.1 The law's irrationality

Much 'protective' regulation is based on recognition of these human cognitive constraints. Licensing rules for professionals reflects the individual's limited capacity, both in time and resource, to check on the competency of every professional with whom they interact (Rose 1995). Consumer protection legislation, fundamental safety standards and WoF requirements are based on bounded rationality, capacity and self-interest, even as to self-preservation. Most people have neither the expertise nor the resources to ascertain the safety of their vehicles either at purchase or as they gain in use and wear, even though self-interest in both their own and their families' safety would rationally dictate they commit significant resources to both, hence the legislation and agency-provided guidance in these areas. Regulation or legislation in these areas is either directive (telling people exactly what to do for their own benefit and that of the community; examples abound in speed limits, building codes, fire hazard rules and so forth) or more purely paternalistic (the capacity rules for making a contract to ensure contracts are intended and conscionable; consumer protection rules; licensing rules and so forth). The law expects people to act rationally and assumes they will not.

10.2.2 The law's category errors

Part A illustrated that assumptions about shared behavioural drivers between qualitatively different decision makers can lead to failure or unintended consequences, ie corporate and human motivating

factors are significantly different. The law is significantly behind in its understanding of those factors impacting on behaviour of either artificial or natural entities (Jolls et al 1998). While natural entities suffer from 'bounded rationality', among other biases and cognitive deficiencies, artificial entities act in unexpectedly callous, but rational, profit-maximising ways. Such callous corporate behaviours are almost intrinsic to organisations with strong cultural identities combined with the human need to fit (Baumeister 1999). This would be a caution against the use of principle-based, trust-based or soft regulation with the strong organisations which might otherwise seem ideal for it, as was illustrated by the failures of responsive and risk-based regulation in the context of banking and builders discussed in part A. If the regulator proceeds with a systems design based on assumptions that corporate and natural entities respond to similar behavioural cues, or that heightened scepticism is not required when dealing with reputable organisations with strong internal cultural identities, the regulator is ignoring 'yellow' and 'red' lights and risks designing ineffective regulation.

10.2.3 Different strokes for different folks

The safer car levy example can be used to illustrate the importance of differentiating between the sorts of entities interacting in a system in designing regulation. For example, a corporate entity would likely be motivated to act in an economically rational way to reduce their annual levy. But the 'natural person fleet', where people's demonstrated 'bounded rationality' (Jolls et al 1998) is at work, may not be so motivated. Looking at the system in which the 'natural person' car purchaser is operating, the regulator might note whether there is a correlation between a natural person's socio-economic situation and unsafe car ownership, as the unsafe car, by the very virtue of being unsafe, may be less desirable and cheaper to buy. Even if there is no price differential, the judgement that, all other things being equal, people will be motivated to buy cars with lower levies might reflect a part A, section 5.1 'yellow light' situation of an intervention based on common sense. The long-term financial benefit of a lower registration fee is clear, but it also requires a long-term rational outlook which most natural persons do not, and possibly cannot, maintain (Baldwin 2014). If people under immediate budgetary constraints need to be 'nudged' or motivated to buy a safer car, a behavioural approach could suggest that rather than offering a reduced ACC levy, the funds the government would otherwise forego through reduced levies would motivate more of the desired behaviour by instead going into 'incentive' funding at the time of purchase if the car purchased has a higher safety rating. A grant at the purchase decision rather than a reduced fee over time may both have more impact on the behaviour of those people currently driving less safe cars and could be cheaper overall as a one-off expense (with administrative costs) rather than an ongoing reduction of fees. The alternative approach might be the more effective 'nudge' for natural persons, and result in more reduction in crash-related expenses for ACC.

The differing behavioural characteristics typical of artificial legal actors and natural legal actors require acknowledgment for any particular regulatory intervention to consistently produce the desired outcome, ie in mixed-entity situations a 'suite' of regulatory tools may be best suited to cover a diverse field of motivation. For rational economic actors, which corporations come closest to mimicking, may have both the institutional capacity to respond in predictable ways to the uses of classic economic and reputational incentives and disincentives. Natural actors are more affected not only by 'bounded rationality' but also 'bounded will power' and 'bounded self-interest' (Jolls et al 1998). When regulating or legislating in a 'shared arena', the qualitative differences between categories of regulated entities need to be accounted for. While this may seem to be complicating, regulation and legislation already use differential standards for large and small employers in many areas. Extending that to differential consideration for the differing motivations of qualitatively different entities does not involve a change in kind, rather only an extension of the existing recognition of the fundamentally different natures of the entities on which the law wishes to have a behavioural impact.

10.2.4 Regulatory tools and behavioural assumptions

A systems-behavioural approach would ask the regulator to do a number of things, before deciding whether a 'rational actor' intervention is likely to be the most efficient intervention. As discussed, rather than rational decision makers, natural (human) entities suffer from numerous cognitive biases. There must be a focus on regularly updating the 'understandings' of the relevant behavioural drivers, as not only the basic knowledge improves, but also as society's values change. Thus investing in research to provide more substantive guidance, away from common sense is needed as to actual behavioural drivers as best understood today for best practice regulation. The law needs to become more empirically based and creative with its interventions, whether they be educative, precatory or mandatory. For example, a study of the efficacy of 'restorative' regulatory interventions based on unchallenged assumptions about human responses to empathy and designed to motivate better regulate behaviour found they had no effect on behaviour. The study showed instead that the results were not the anticipated behavioural changes but instead attitudinal changes, ie noncompliant 'regulatees' treated in a responsive and restorative manner did not become compliant, rather they continued the noncompliant behaviour but felt worse about it. The approach produced none of the intended results, because people's behaviour was more complex than anticipated (Nielsen 2006), and it points to the importance of ex poste monitoring to make sure humans are behaving as the law presumes they will behave.

Some of the possible tools for a regulator to consider when pursuing more flexible and innovative approaches to these regulatory challenges are summarised in the following 'tool library'. Of particular interest are the electronic aids towards an evolution towards more empirical and systems-based regulatory interventions to address an 'impediment' to a goal. These tools enable regulators to go beyond traditional soft systems analysis with hand-created models and imagined interactions, towards real-time model systems which may be designed to order, incorporating interacting entities with varied motivations. Such models could be used to uncover unexpected impacts in a virtual setting rather than after the fact through real world failures. In pursuit of improved accuracy of the empirical information informing law and regulation, which of course would improve resilience, as well as improved design, the Global Regulation Corporation's Global Law website (https://www.bespacific.com/the-global-law-search-engine/) allows the regulatory design access and compares, in English, the regulations and post-regulatory evaluations of 48 countries, and the regulatory impact statements of the major western democracies. It also enables the user to compare approaches for influencing behaviour across a shared issue, together with evaluations that approach effectiveness, at least in the jurisdiction in question. That tool alone is not expensive, is comprehensive and enables various comparative analytics, which could avoid many regulatory design mistakes.

11 Regulatory tools library

Regulatory issues can be addressed in various ways. Finding the right regulatory tool to address an issue is a complex task. It not only requires a sound understanding of the available tools but also a sound analysis of the situation requiring regulation. The following example from an OECD regulatory review (OECD 2002, p71) shows the importance of assessing the situation correctly:

> *Safety regulation on aeroplanes can reduce risks of air crashes, but if air ticket prices go up, some passengers will switch to car travel, which is much more risky. Because the policy goal was not clear enough – save lives rather than prevent air crashes at any cost – a safety regulation may cause more deaths than it prevents. In this case, the more costly and apparently safe the regulation, the more perverse will be the outcome.*

The tool library will therefore not only deal with the regulatory tools as such but also with instruments and techniques that assist in identifying the issue and the system in which the regulation takes place. The tools are therefore not limited to be used to search for problems where they can be applied (Sparrow 2000, p73). They are to be applied at every level of the design process (see figure 11.1).

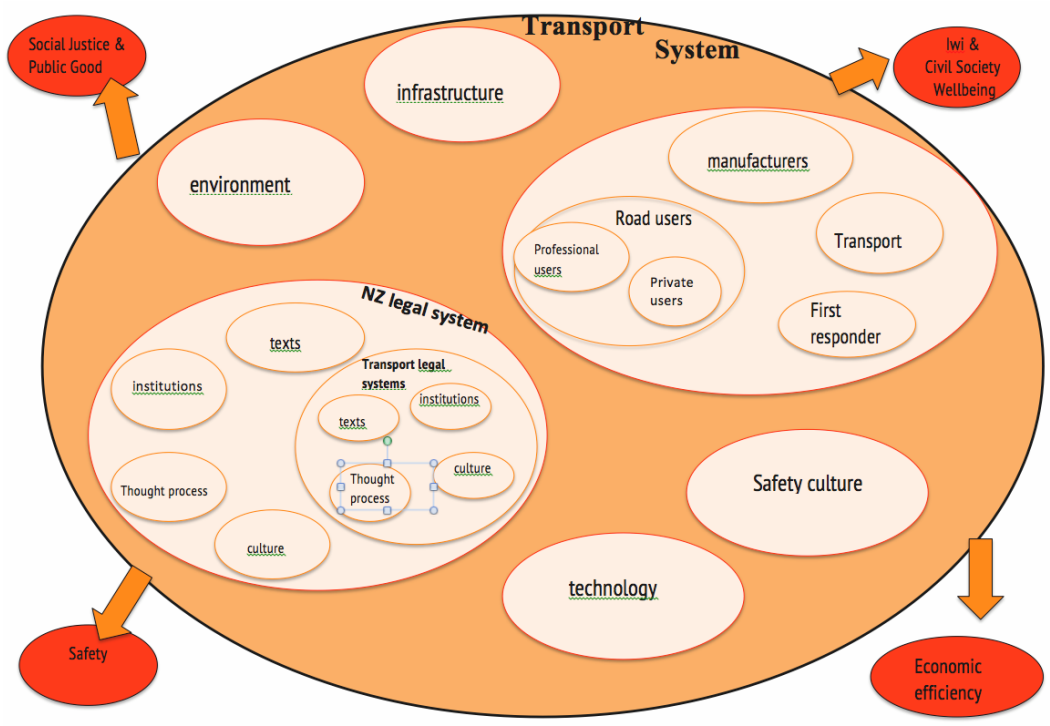
11.1 General tools (systems thinking tools)

Cognitive maps, multiple cause diagrams, systems maps, rich pictures etc are all techniques commonly used in order to explore a situation and the interrelation between its components. The European Commission has a useful website explaining how and when to use different cognitive tools (European Commission 2016). The following part will describe systems maps, system diagrams and backcasting tools which may be used in the process of developing legislative instruments. They can particularly assist with the assessment of either the broader transport system or specific transport situations.

11.1.1 Systems maps

A systems map is reflection of a situation and its environment at a moment in time. System maps are useful to clarify thoughts at an early stage of a decision-making process. It can also be used as a communication tool. It has a simple structure containing words and blobs. Systems maps will vary depending on where the user will set the boundaries of the systems. It can be used to illustrate a complex system including its subsystems. It can also highlight the environment of each system and the factors influencing the system and/or the environment. A systems map for the transport system for example can look as follows:

Figure 11.1 Transport systems map



11.1.2 System dynamics diagram

System dynamics is the mathematical, computer-based modelling convention devised by Forrester (1961) and the corner stone of systems thinking. The focus here is on the first part of the process, the diagramming stage, as the insights gained from this phase are important. System dynamic diagrams are valuable where the situation is changing over time, ie dynamic and potentially quantifiable. The objective of this technique is to find the conditions under which a system will evolve and in what direction. It aims at considering the interrelatedness and relationship between the components of the system. Once a problem is identified, the modeller will then add in all major contributors ('patterns of influence') that together create the 'system' that produces the problem. The factors that contribute to the problem are shown in form of feedback loops that are either re-enforcing (positive) or balancing (negative). The key task is to identify the 'stocks' and 'flows'. This is to determine which variables in the system define its state (stocks) and which variables define the change (flows). A successful model is able to simulate these patterns and produce system behaviour (European Commission 2016).

11.1.3 Backcasting

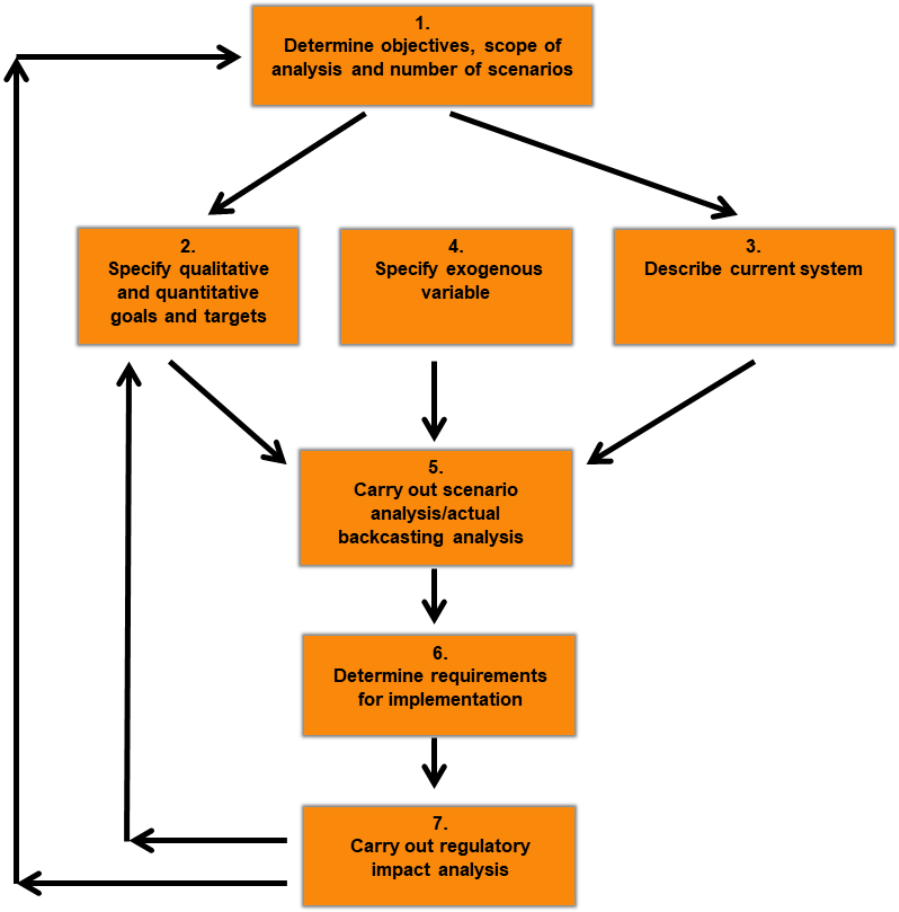
Backcasting is a technique that can be used for planning and enacting future development. As the name suggest, the tools starts from the possible future situation or desired end-state and then works backwards to the current situation and thereby working out what the roadmap would have to look like to get there. Backcasting is a key technique to break out of current ways of thinking about the future (Holmberg and Robert 2000). This technique implies that a target, vision or a normative objective exists (European Commission 2016). The New Zealand road safety strategy with its vision and targets would therefore be a good starting point for a backcasting exercise.

According to Dreborg (1996, p816), backcasting is particularly useful in long-term complex problems: when there is a need for major changes, when dominant trends and externalities are part of the problem

and when the scope and time-horizon involved are broad/long enough to allow room for the development and implementation of very different alternatives. Backcasting was for example used in the OECD Environmentally Sustainable Transport (EST) Study in order to find and assess policy instruments that would be available if the current transport emissions are reduced by 80% to 90% (OECD/EST 2000) (Geurs and van Wee 2004).

There is no standardised process of backcasting and the most important step is to develop the future scenario on the basis of the existing objectives. Backcasting can be combined with other cognitive or systems models in order to analyse either different scenarios or policies. Geurs and van Wee (2004) have outlined the following structure of the backcasting method which is described in more detail below.

Figure 11.2 Outline of backcasting method adapted from Geurs and van Wee (2004)



In step 1 the overall purpose and objectives are established. In the EST study the overall purpose was to design a transportation system that does not endanger public health or ecosystems and meets needs for access consistent with the principle of sustainability. For step 2 the study set specific sustainability targets, for example for climate change and stratospheric ozone depletion using international guidelines from organisation such as the WHO or Intergovernmental Panel on Climate Change. Step 3 should describe the present system including the driving forces behind developments. For the EST study, step 3 set out the characteristics of the current transport system which in the Netherlands is characterised by high density population, high economic activity while cycling accounts for 25% of all trips in the Netherlands and for 40% in Dutch cities. In order to describe the current system a business as usual scenario was constructed showing the continuation of present trends in transportation up to 2030. Step 4 is to identify exogenous factors such as assumptions on economic growth, demography, incomes or technological developments. Step 5 is the actual backcasting analysis. It is not based on the current

driving forces but based on selected measures and assumptions. It can be used to run different scenarios based on different assumptions or a combination of assumptions. Step 6 sets out how to implement institutional and behavioural responses required to meet the targets. The chosen instruments can then serve as an illustration of a possible pathway to a certain outcome.

11.1.4 Software and databases

Several databases and software applications are also available to assist with the analysis of the relevant system. In addition to specific legal databases such as Westlaw and LexisNexis, a new database called Global Law Search Engine has recently been established (https://www.bespacific.com/the-global-law-search-engine/). It specialises in global regulation and provides access to regulations from 48 countries each translated into English. In addition, to the legislative text, it also provides a database of definitions of legal terms used worldwide and gives access to RIS as well as an extensive 'worldwide' collection of case studies of the effectiveness of various regulatory approaches.

Specific systems thinking software such as Stella, IThink, or Vensum that have been developed for education and research may also be useful to create more complex systems diagrams in order to understand and explore the systems as well as examine the results of possible interventions. SWARM for example is an open source software developed with the objective to create a standard set of program libraries for simulating and analysing system in natural as well as social sciences (Luna and Stefansson 2012). In addition to the more complex professional software, there are several web-based applications that provide models and simulation tools for the purposes of brainstorming, exploring and understanding different situations and solutions.

11.1.5 Living standards framework (LFS)

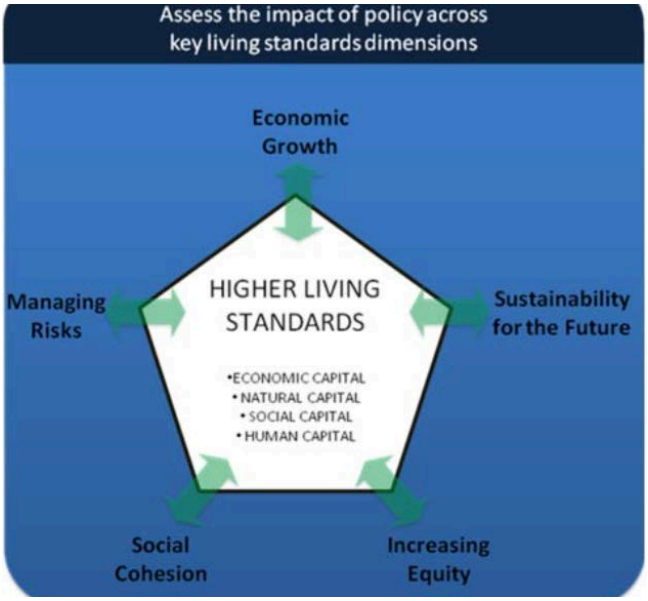
The LFS is a tool developed by NZ Treasury to assist staff to think widely about policy matters and how they impact on key living standards (NZ Treasury 2015d). Treasury defines the key living standards as:

- natural capital
- human capital
- social capital
- economic capital.

The purpose of the model is to shift the focus away from specific points to the capitals, the bigger picture and the factors that matter to society and shape society and to think about trade offs and synergies. The focus of LFS to look at the big picture fits therefore well into the systems approach that is the centre of the model for developing legislation.

NZ Treasury points out that the LFS may be more suitable for wider policy decisions than small policies with a limited range of identified impacts. It may however also be useful to assess whether an issue has correctly been identified as having a limited range and to challenge and re-assess preset attitudes and mindsets. NZ Treasury provides a range of examples where the framework has been used and provides useful background information on the framework and to use it on their website (www.treasury.govt.nz/abouttreasury/higherlivingstandards).

Figure 11.3 Living standards framework (NZ Treasury 2015d)



11.2 Regulatory tools

11.2.1 Defining regulation

In order to assess the available regulatory tools it is necessary for the regulator to assess their own understanding of what regulation is. There is certainly no consensus regarding a definition of regulation. Black (2002) for example supports the view that it does not matter what regulation means but what one wants to do with it. For the purposes of the regulatory tool library an extensive list of definitions of regulation is not necessary; instead there should be awareness that an underlying definition of regulation may affect the outcome of the decision-making process. If for example a regulatory team defines regulation as a set of rules introduced by governments accompanied by mechanisms for monitoring and enforcement (Black 2002, p11) or as an activity that restricts behaviour and prevents the occurrence of certain undesirable activities (a 'red light' concept) (Baldwin et al 2011, p3), it is most likely to limit its tools. A broader view that the influence of regulation may also be enabling or facilitative ('green light') (Baldwin et al 2011, p4) may also expand the set of available tools.

11.2.2 Identification of the issues/why regulate

MoT (2012b, p20) requires in phase one to establish whether there is a justified case for possible regulatory intervention regarding a transport issue. One of the tasks in this phase is to classify the issue and its impacts. The handbook lists a few sources from which transport issues may come. These are:

- incidents/events
- industry-driven initiatives
- crash investigation findings
- international developments'
- political imperatives
- ongoing review and maintenance of the rule stock.

As discussed in more detail above (part A, chapter 4) it is important to consider the nature of the problem in a wider context. Freiberg (2010b, p52), referring to Peters and Hornbeek (2005), explains the relationship between problem identification, tools and outcome as follows

> *Good policy design also 'requires links between causation, instrumentation and evaluation'* (Peters and Hornbeek 2005, p77)*. The ability to see regulation as a holistic process is essential to the development of good government or governance. […] If problems are to be solved, the process must be systematic and systemic. Too narrow a focus on one issue, tool, mechanism, instrument or actor may result in the failure to achieve the desired objective, either because the nature of the problem was too narrowly conceived or the response was too limited in the light of the extent and complexity of the problem. On the other hand, too broad an approach will prove impossible to achieve.*

Setting the size of the problem is a complex task but crucial to solving it (Sparrow 2008, p79 et seq). The sources listed in the handbook are incident based and may promote a reactive case-by-case approach (Sparrow 2008, p79).

The rationale for regulatory intervention can be divided into market failure (also called normative rationale) and human rights or social solidarity (also called positive rationale) (Baldwin et al 2011, p15). In case of market failure, the uncontrolled market place may produce behaviour that is not in the public interest. The regulatory response would therefore be aimed to either create a market or to control the dominant market player, or reduce externalities (eg negative side effects or third party costs) and information asymmetries. Positive rationales allow for regulators to respond to interest groups which could include benevolent motives as well as influence from industry groups or politicians. Assessing the wider regulatory issue and the possible rationale behind the obvious trigger will automatically widen the range of tools available and reduce path dependencies.

11.2.3 Regulatory process/consultation

A sound regulatory process is as important as achieving the desired outcomes effectively and efficiently. MoT (2012b) provides for such process. There is, however, room to strengthen the consultation and dialogue aspect of the process. Good regulation requires a process of engagement and dialogue between the regulator, the regulatee and other stakeholders. Only by engaging in a dialogue with stakeholders will it be possible to factor emotions into the design of regulation and see how they might affect choices or can be addressed or even corrected (Freiberg 2010b, p78).

Ladegaard (2001) summarised the importance of integrating consultation into the legislative design process as follows:

> *A comprehensive policy on public consultation will open up the regulatory process to interested groups and provide regulators with access to valuable information on regulatory impacts. A wide range of different approaches has developed, including publication of future plans, informal consultation, circulation for comments, public notice and comment, hearings, advisory bodies, complaint/ombudsman procedures, and new uses of information technologies. These approaches take numerous forms and are increasingly combined in innovative ways to allow earlier, more meaningful, and wider access to decision processes.*

MoT (2012b) provides for consultation in phase 3 out of 6 phases. The first two phases 'initiation' and 'policy investigation' do not provide for stakeholder engagement. An involvement of stakeholders in phase 3 'rule development and consultation' puts the regulatory design at risk of not setting the size or assessing the dynamics of the problem correctly. The fact that the first two phases do not specifically require stakeholder engagement does not mean that this cannot take place. Participatory backcasting in

the form of stakeholder workshops (Quist and Vergragt 2006) or even less formal ways of inviting stakeholders to contribute could still be integrated into the earlier phases of the rule development process in order to obtain a better view of the scope of the situation and the scope of the choices.

Promoting Māori participation at an early stage in the development of legislation would not only formally apply the Treaty principle to protect and consider Māori communities and resources; it would also provide an opportunity for a different worldview to enter the development process. Jollands and Harmsworth (2007) highlight the benefits of increasing community participation in government-led initiatives:

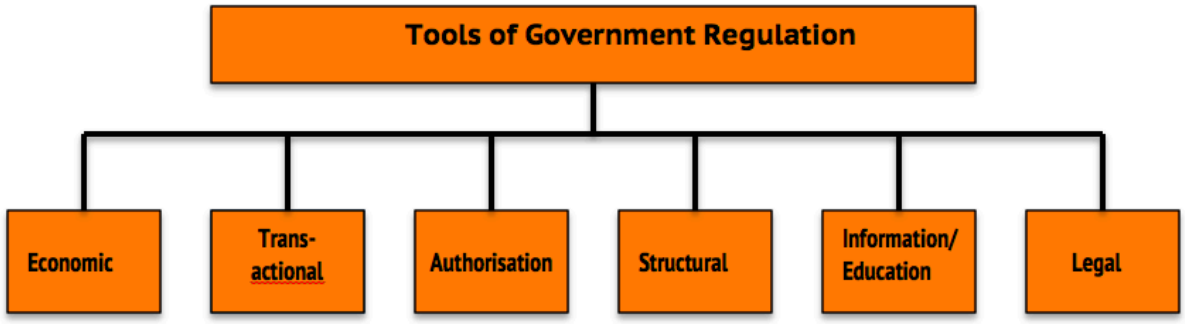
- Process is very important. Engaging Māori and other groups needs to happen at the beginning of the process. It is also important that the process be appropriate for the communities involved.
- Resourcing is essential. Adequate resources are needed as most indigenous groups do not have resources necessary to participate in official or drawn out processes.
- Openness to different perspectives is crucial. Often differing worldviews will collide. There needs to be willingness for all parties to be open to all forms of knowledge and learning from the diversity of opinions.

Looking at the Māori worldview (Māori iwi context) on what is governance, Joseph (2014) said, 'governance is about power, relationships and accountability – who has influence, who decides and how decision makers are held accountable'. The importance of accountability in alternatives forms of regulation, especially performance and principles-based regulation is discussed in more detail below at section 11.2.5. Māori participation and any other purposeful participation of stakeholders at an early stage is therefore also an opportunity to link the background and the foreground as described in part B, chapter 9 and ensuring consistency between the two by 1) ensuring a broader view when assessing the situation and the objectives and goals and 2) by promoting an understanding of the regulatory objectives and design in order to gain a greater acceptance of any responsibility under the regulation. An outline of the Treaty of Waitangi ideal consultation processes can be found in appendix C.1.

11.2.4 Classification of regulatory tools

As Freiberg (2010b) pointed out there is no agreed classification of tools and the focus should be on fitness for purpose rather than on establishing a conceptual structure. Given the complexity of the situation regulatory tools deal with and given the interaction and overlaps between tools and methods it is most likely an impossible task. Freiberg, however, groups the tools that governments can use in order to influence behaviour and these are illustrated in the following chart.

Figure 11.4 Tools of government (adapted from Freiberg 2010b)



- **Economic tools** involve making changes to the allocation and or use of resources such as money, natural resources, property or infrastructure. Commonly used tools include the creation of or influencing a market, auctions, tenders, price regulation, tradable permits, subsidies, taxes and tax exemptions. In the Netherlands for example, subsidies in form of income tax deductions are available for commuting by public transport. Tradable permits are used in the US for airlines trading landing spots at busy airports (OECD 2002, p139).
- **Transactional tools** are a form of economic tool but where it takes the form of a contractual arrangement such as procurements contracts or grants.
- **Authorisation** is a tool to regulate access to a market or conduct by introducing licensing, registration, permit, and certification or accreditation requirements.
- **Structural or physical tools** refer to the ability of the government to influence the physical environment by designing infrastructure or processes.
- **Informational tools** refer to providing access to information, knowledge and education.
- **Legal tools** refer to the ability of the regulator to use legislation, delegated legislation such as regulations and rules or quasi-legislation such as code of conducts or standards for the purposes of applying, implementing and enforcing the above-mentioned regulatory tools.

An important aspect of this approach by Freiberg (2010b) is that:

> *[G]overnments can be regarded as having many roles: as authorisers and facilitators, as economic actors, as trading partners and as information providers*

just to name a few.

11.2.5 Forms of regulations

11.2.5.1 Prescriptive regulation

Prescriptive regulation has traditionally been a popular form of regulation. Prescriptive regulation defines how activities are to be undertaken (eg the techniques, material to use, or what qualification the regulatee must hold) (Guerin 2003, p8) or in case of prescriptive legislation prescribes the design of the rules. Land Transport Act 1998, section 152 is an example of prescriptive legislation as it specifies in precise and detailed terms what the regulator will have to specify in their rules. Prescriptive regulation has the advantage of clarity and certainty but it lacks flexibility and resilience (Freiberg 2010b, p89). It can easily become outdated when social behaviour or technology changes.

11.2.5.2 Performance-based regulation

Performance-based regulation sets out the required outcomes and objectives but not how to meet them. In this form of regulation, the desired level of performance is specified in the legislation or rule and the regulatee decides how to fulfil the required level of performance (Coglianese et al 2002).

The idea of setting performance standards is not new. It dates back to the Hammurabi Code in the 18th century BC, which for example provided in §229:

> *If a builder builds a house for someone, and does not make its construction firm, and the house which he built collapse cause the death in and kills its owner, then that builder shall be put to death.*

Performance-based regulation has, however, become more popular and developed in recent years and has been promoted by the OECD as a regulatory alternative (OECD 2002, p135). The advantages of performance-based regulation are that it encourages innovation and improves regulatory costs. Prescriptive regulation in contrast may, however, even undermine the goal of safety regulation by focusing on compliance rather than the goal itself (Mumford 2011a, p24) and problems thereby falling between the gaps. Performance-based regulation, however, increases compliance costs. As several different strategies can be employed, the regulator will find it more difficult to monitor compliance. It also requires a higher degree of operational and informational guidance to ensure the regulatee is equipped with a sufficient level of understanding and knowledge to develop compliance strategies (OECD 2002, p135). In addition, smaller businesses are more likely to face difficulties that must be complied with as they may not have the financial or operational resources to develop the required compliance. In response to these problems, regulations frequently provide for safe harbours or 'deemed to comply' provisions. This, however, brings its own problems as deemed to comply provisions are effectively a prescriptive regulation and therefore set a minimum level that will rarely be exceeded (OECD 2002, p136).

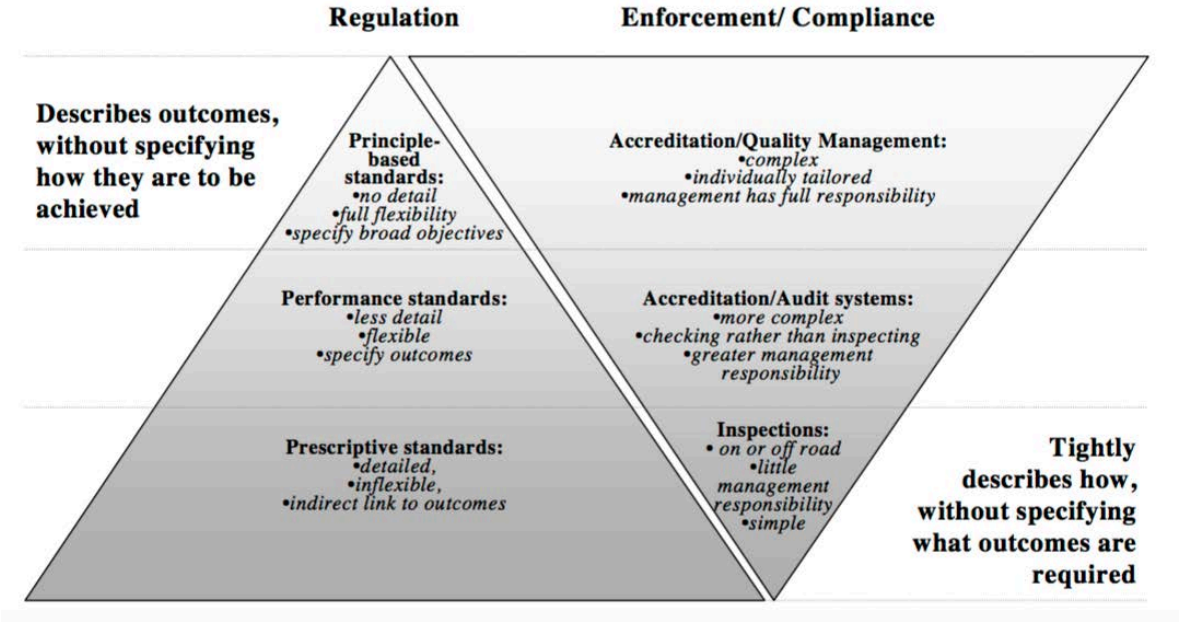
Example: PBS scheme for heavy trucks, Australia

In 2007, Australia has introduced performance-based standards (PBS) for heavy vehicle operators and developed 16 safety related standards and four infrastructure related performance standards. These standards exist alongside established mass and dimensional limits and relate for example to startability, gradeability, acceleration capability, tracking ability on a straight path, low speed swept path etc. This way the PBS govern what a heavy vehicle is capable of and not what it should look like (Freiberg 2010b, p91). In 2011, 64 PBS designs were successfully approved. This number is low compared with a sales volume of 15,000 heavy trucks per year. It seems that industry has taken a wait-and-see approach with some participants considering the scheme slow and expensive while others have been quick to utilise the system (OECD 2011, p271).

The performance-based approach in the New Zealand Building Act 1991 is an infamous example of the risks associated with performance-based regulation. The Building Act 1991 provided for the broad objectives of protecting people, their health and safety and the environment including additional sub-objectives setting out desirable building performance. In 2002 it was discovered that numerous houses built in the mid-1990s that used a particular type of cladding (monolithic-clad) were rotting as moisture was entering into the structure of the house (Mumford 2010a, p16). Several possible reasons for the failure have been identified (Mumford 2010a, p31); however, for the purposes here, the ones relating to the design of the Building Act and especially the accountability failures will be highlighted. Levi-Faur (2011) referred them to as legal accountability, bureaucratic accountability and professional accountability. The Building Act 1991 showed a shortfall in legal accountability as it failed to sufficiently describe the goal 'durability of structures' which led to inconsistencies in the interpretation by local authorities. With respect to bureaucratic accountability it has been highlighted that the Building Act 1991

did not require inspections of buildings during the construction phase and did not specify a requirement for professionals responsible for the certification of building compliance to be licensed. With regard to professional accountability building associations did not train or adequately certify third-party inspectors. These shortfalls show that performance-based regulation requires a strong focus on understanding the potential risks of the system. It also requires ongoing training and monitoring of those involved in the system, ie the regulator and the regulatee, as well as third parties. The greater the flexibility within the regulation, the greater the focus must be on compliance and accepting responsibility and accountability. OECD (2005) illustrates the relationship between flexibility and compliance as follows:

Figure 11.5 Relationship between flexibility and compliance (source: OECD 2005)



11.2.5.3 Principles-based regulation

Principles-based regulation relies on high-level, broadly stated rules or principles to set the standards by which the regulatee must conduct business (Black et al 2007). Principles-based regulation is outcome rather than process orientated and it is left to another body (such as the courts) to determine whether the conduct of the regulatee complies with the principles.

Principles can be as broad as ‘reasonable practicable’ as for example in section 36 of the New Zealand Health and Safety at Work Act 2015. A person conducting a business or undertaking (PCBU) must ensure, so far as is reasonably practicable, the health and safety of persons at work in the business or undertaking, as well as the health and safety of workers not in the PCBU’s business or undertaking but influenced or directed by the PCBU. ‘Reasonably practicable’ in relation to a duty of a PCBU means that which is, or was, at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters, including:

1 the likelihood of the hazard or the risk concerned occurring

2 the degree of harm that might result from the hazard or risk

3 what the person concerned knows, or ought reasonably to know about

4 the hazard or risk

5 ways of eliminating or minimising the risk

6 the availability and suitability of ways to eliminate or minimise the risk

7 after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

Principles-based regulation is certainly very flexible and adaptable to new developments in society including technology (Freiberg 2010b, p94). It facilitates innovation which can enhance competition and provides the regulator with a durable system (Black 2008, p 426). After the financial crisis it has become less popular and is now mainly used in combination with rule-based regulation (Freiberg 2010b, p93; Black 2008). The experiences from the financial crisis have shown that principles-based regulation heavily relies on the way it is implemented and interpreted by the regulator. The UK Financial Services Authority (now the Financial Conduct Authority and Prudential Regulation Authority), for example, employed an intensive degree of supervision in respect of retail markets but dedicated fewer resources to prudential supervision and placed too much trust on the internal processes and controls of financial institutions (Black 2012b, p1045).

11.2.5.4 Process-based or meta-regulation

Process-based regulation also called meta-regulation requires businesses to develop processes that ensure a systematic approach to controlling and minimising production risks. In this form of regulation, the regulatory body oversees a control or risk management system. The regulatee (generally a corporation) carries out the primary control function while the regulator has the role of an auditor (Baldwin 2011, p147; OECD 2002, p136). The monitoring can be combined with incentives when certain levels of compliance are reached. Process-based regulation provides for a flexible and adaptable form of regulation tailored to the specific needs of the company.

In order to function, however, the actors in a meta-regulation system must be able to be held accountable. This can either be done by parliamentary oversight of the delegated legislation, agency oversight, complaints or dispute resolution mechanisms or reporting duties (Baldwin 2011, p143; Black 1996). Public access to information about a corporation's compliance and their level of social responsibility may also influence a company's commitment to this form of regulation.

11.2.5.5 Risk-based regulation

In risk-based regulation, regulators identify and prioritise regulatory activities in accordance with the risks they pose on the regulator's objectives. Resources (especially relating to inspection and enforcement) will be deployed on those risks which the regulator sees most critical (Black 2012b, p1052). The key aspects are therefore the evaluation of the risk of non-compliance and the calculation of the impact that the non-compliance will have on the ability of the regulator to achieve its objectives (Black & Baldwin 2010, p181). Risk-based regulation can therefore provide a framework for prioritising regulatory action and regulatory rulemaking. However, as Black has highlighted, many risks are unknown or difficult to predict or measure. Regulation based on a prioritisation may in fact be regulation as a series of best guesses (Black 2012b, p1053). The risk-based approach therefore requires a detailed analysis of the assumptions and factors that may influence the risk analysis. In addition, it also requires a strong focus on monitoring and compliance which means the regulators must be equipped with a sound understanding of the market and sufficient interpersonal skills to challenge senior management of the market players.

11.2.5.6 Co-regulation

Co-regulation (also called enforced self-regulation) provides for a shared regulation between the government and the regulated industry or between the government and a corporation. In general, the industry or corporation designs and develops its own regulatory arrangement, typically in the form of a code of conduct. The code will then be endorsed and enforceable by the regulator (Freiberg 2010b, p31;

OECD 2002, p136). The codes of conduct can apply in business to business or in business to consumer transactions.

Co-regulation is another flexible and adaptable tool as it can be updated by the professional body without changing the regulation. Co-regulation generally used for the regulation of certain professions such as lawyers can be appropriate when it is necessary to ensure sufficient coverage of an industry or to provide for enforceable sanctions (Freiberg 2010a, p31).

11.2.5.7 Self-regulation

Self-regulation is the form of regulation characterised by the lowest level of government influence. Self-regulation is an institutional arrangement whereby an industry regulates its own members. Market design and conduct are based on agreements between the market participants. Until 2003, the New Zealand electricity market, for example, was bound by the Market Surveillance Committee which was not a government authority, but a committee selected by market participants (Barton 2000; 2008). Self-regulation can be suitable where there is no strong public interest and no major health or safety concern. Self-regulation also requires a functioning market in order to ensure that market participants have an interest in setting fair conduct rules as well as complying with them.

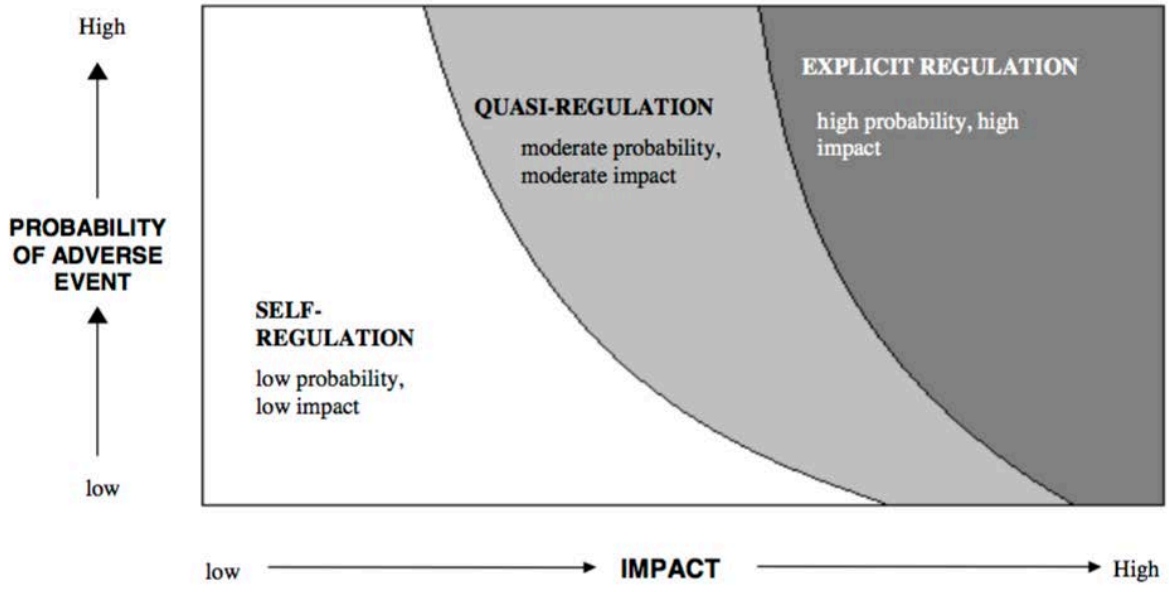
11.2.5.8 Which form to take

The factors relevant to deciding which form of regulation to take have been summarised by Coghlan (2000). Relevant are:

- the extent of risk
- the severity of the problem
- that nature of the industry concerned
- the need for flexibility or certainty.

Coghlan illustrated the trade-offs between risks and impacts and the appropriate form of regulation as follows.

Figure 11.6 Risks and impacts (source: Coghlan 2000)



While figure 11.6 provides for a general understanding of the relationship between risks and regulatory impact, it does not take into account any dynamics of a specific situation or demonstrate how to take into account

uncertainties with respect to the development of the situation, for example, changes due to developments in technology or economic factors. Similar to finding the correct instrument or tool, finding the right form of regulation can only be the result of sound analysis of the problem if combined with a sound understanding of the tools and forms and an assessment of their potential interaction. Appendix D contains an overview of alternatives to prescriptive regulation including its advantages and disadvantages and design tips.

11.2.6 Learning from regulatory failures

Even though not a regulatory tool as such, the strategies and responses to regulatory failures may also assist in developing better and more resilient regulation. The regulatory failures identified in part A are:

- legislating on the basis of unchallenged 'common sense' assumptions, unsupported by confirming empirical evidence
- vague or unpopular policy
- capture vs inadequate consultation
- inappropriate use of principles-based or outcome-based regulation
- inappropriate use of soft regulation
- attitudes of those tasked with enforcement
- silo-ing and rigidity
- insufficient monitoring and/or poor implementation
- single sector, single issue regulatory design.

Responses identified in part A are as follows:

- Legislative bundling is a technique that matches legislative proposals with both costs and benefits but with inverse structures. The costs and benefits of policy and legislative proposals in related areas are then aggregated in order to avoid relying on a single issue analysis and thereby assisting to make rational decisions. This method addresses 'loss aversion' a cognitive bias that causes individuals to overweigh losses relative to gains and therefore not support initiatives even if they are characterised by a positive net value (Milkman et al 2009).
- Use of independent agencies or technical experts. A focus on scientific research is considered a major contributing factor in reducing road crashes. Experience in European countries has shown that transport safety policies benefit from research not only in the technical requirements of vehicles but also in road design and behaviour (Schulze and Koßmann 2010).
- Focus on long-term visions.
- Focus on safety culture.
- Accountability of the actors including the regulator, the regulatee and third party providers.
- Applying strict liability regimes similar to workplace health and safety.
- Rewarding behaviour that is in line with the policy objectives and goals including spreading or passing on rewards between different but interconnected regulatees (for example by letting the supplier who uses a freight company with a high safety rating benefit from the rating).
- Participation of the stakeholders in the decision-making process in various forms and in addition to the consultation required under the current regulatory process required by the MoT.

12 Trust and confidence: obstacles to resilient law and regulation

A regulatory tool library and the systems and behaviour analysis needed to make best use of the tools to achieve regulatory goals can equip the regulator to make more efficient, effective and innovative interventions, but having knowledge and expertise in these areas serves no purpose unless there is the regulatory space to use them. This chapter addresses the quest for resilience in regulation and legislation, and analyses the legal systems own systemic impediments to achieving that goal.

While good design promotes resilience, as Mumford (2011b) points out the law is inherently an ongoing experiment and as such will inevitably sometimes get it wrong from the outset. Better analytical methods for developing legal interventions will help with that problem, but they will never overcome it completely, as humans are both complex and fallible. Another inevitable problem is that the law will be overtaken by events, as it will be designed for issues arising in one period and one context, but these pass and new contexts arrive. Technology is only speeding the process of changing circumstances, which is a challenge for the law. To maintain its claim to legitimate authority, certain processes necessary for legitimacy and stability must be followed in order for that law to change, and these take time.

New Zealand's constitutional system uses democratic and other processes to maintain law makers' legitimate authority. In other words, it uses constitutional devices to give the public the confidence (Seligman 1997) to sensibly trust Parliament with enormous legal power between elections. So, the challenge is to develop law through the necessary constitutional processes which is flexible enough to accommodate changing circumstances, without it becoming so flexible that it is unpredictable. If that occurs people have no idea what the law means, it does not serve to predictably guide conduct, loses its character as law and so loses its claim to legitimate authority.

12.1 Process as a deep legitimacy norm

12.1.1 Process and New Zealand's constitutional background

This problem can be considered at a number of different levels, as there are both vertically and horizontally interacting systems which can contribute to:

- the problem of not enough space for the law to have the capacity to quickly adapt to changing circumstances
- possible solutions which maintain the law's fundamental purpose as a legitimate and predictable guide to acceptable conduct.

Within the framework of the legal system the interacting levels are Parliament, the regulating agencies and the Courts. The constitutional and normative background of these institutions includes the Treaty of Waitangi, considerations of which can require a certain limit on the rate and the substance of acceptable change. That background also includes a tradition which has looked to process as an important constraint on power and as an important source of legitimacy. New Zealand relies on the democratic process as the ultimate check on government, not on entrenched rights or a higher law written constitution (Palmer 2007). When New Zealand had a crisis of constitutional legitimacy it turned to improved democratic processes (MMP) to bolster Parliament's democratic legitimacy rather than to other proposed 'rights-based' remedies. The deep role process plays in legitimacy at all levels of the legal system can impede

resilience, as change is either done through slow elaborate processes or, if quickly, through urgency, which triggers challenges to legitimacy (and complaints of speed causing poorly thought-out design).

12.1.2 Democratic distrust of legal institutions

New Zealand's reliance on process to prevent abuses of power, rather than on any sorts of court-enforced restraints on Parliament's powers, not only reflects the depth of the process norm in its constitutional background, but also reflects a deep distrust of the courts. The courts are seen as potential thwarters of the democratic will. This distrust of the courts might date back to the period of New Zealand colonisation, which was during the heyday of Bentham's attacks on the legitimacy of the common law. Whatever its source, a reluctance to extend any power to the courts to constrain Parliament exists. This distrust of the courts has contributed to the extraordinary quantity of detailed and complex statutes for which New Zealand is renowned (Palmer 2014). If statutes are quite detailed, Parliament can have more confidence that the courts' discretion is constrained and avoid any need to trust the courts not to usurp its democratic power. This distrust is particularly peculiar in a jurisdiction with no higher law constitution and which adheres to the convention of parliamentary sovereignty, as Parliament has the means and authority to protect the democratic will. The issue of the apparent complexity and detailed nature of much New Zealand statutory legislation has been noted by past prime ministers and past presidents of the Law Commission (Palmer 2014). The reluctance to trust the common law traditions and canons of interpretation to accurately discern Parliament's simply expressed will or to prevent the courts from abusing their power, also means that Parliament's detailed statutes are less able to be adapted to changing circumstances.

12.1.3 Prescription to protect the democratic will from legal restraint

None of this is a bad thing, but it is a situation which makes the design of adaptive resilience into the legislative enactments a challenge. Courts are not trusted to use their discretion wisely so Parliament can confidently pass more generally worded, simpler, more flexible statutes which lend themselves to adaptive interpretation. Parliament's reluctance to have confidence in the common law's internal rules of deference to the legislative will to provide adequate internal restraints on the courts' use of discretionary power, and its accompanying distrust of administrative agencies to not overreach their authority means that legislative resilience at the statutory level is rendered more unlikely. The more complex and detailed a statute, the more challenging it is for courts or administrative agencies to find adaptive interpretations in the face of rapidly changing circumstances. Parliament's unwillingness to delegate more flexibly to agencies may have made sense at the height of the administrative state, but Parliament has the Regulatory Review Committee, as well as its sovereignty and courts to keep agencies from abusing or overusing their regulatory powers.

Similarly, statutes delegating authority to ordinary administrative agencies generally contain much detailed prescription, to give Parliament confidence that the power they delegate to these agencies will be used in the anticipated way. The Land Transport Act 1998 and the Land Transport Management Act 2003 are two examples of detailed prescriptive empowering statutes. This tendency toward detailed prescription may flow from the perceived excesses of the administrative state which triggered the movement for regulatory reform (discussed in part A, section 3.4). Administrative agencies might not be trusted with simple purposive delegations of authority, although such delegations would enable agencies to act more adaptively in changing circumstances.

12.1.4 Complexity to explain the democratic will

Another source of the complexity of parliamentary statutes is the drafting norm that statutes must be drafted to speak to their three different audiences in three different languages: 1) the person on the street who understands plain English, 2) the relevant administrative agencies and enforcement agencies which have another language, and 3) the Courts which speak yet another. Xanthaki (2014) utterly rejects this norm of differential languages, in the same statute, for different audiences, as have a number of other jurisdictions. For example, California has wholly embraced the plain English norm, using no special language aimed at courts or agencies. California's 2006 Global Warming statute has 13 pages compared with New Zealand's comparable statute (Climate Change Response Act 2002) which extends to 319 pages with 59 pages of appendices. California's Act is more concise partially because it is a state, but it also has a population nearly 10 times that of New Zealand, a comparable geographic area and comparable emissions it has undertaken to control. The primary factor in the simplicity of that Act compared with New Zealand's is the willingness to speak simply to those affected; trusting the ability of courts and agencies to interpret plain English appropriately in their areas of expertise, and a willingness to delegate purposively rather than with detailed prescription. Perhaps Parliament will suddenly develop an appreciation for the ability of the courts to act with constraint and, through their canons of construction and interpretation, to correctly understand plain English (Xanthaki 2014). Such an appreciation would go far to enabling legislative resilience. However, it is unlikely, and without Parliament moving to simplify and generalise their statutes, the problem of resilience may best be addressed by adaptive regulatory mechanisms.

12.2 Administrative process and regulatory resilience

12.2.1 Process to protect the people from poor regulation

As discussed in the survey of New Zealand's existing system of regulatory design, the regulatory management regime has arguably expanded to the extent that it mimics the very problem it is intended to avoid, regulatory inefficiency and over regulation. Just as too much process and red tape hampers private sector efficiency, so too in the public sector. This process-heavy approach, intended to assure proposed regulations are thoroughly analysed and efficient, is cumbersome and time-greedy, which is not useful in an era of rapidly changing conditions. The initial regulatory reformers of the 1970s and 1980s warned against over-reacting to the inefficiencies imposed by the administrative state and imposing so many procedural requirements and checks that efficient administrative function is impeded.

12.2.2 Harnessing process to make room for flexibility and resilience

While MoT (2012b) already has processes in place for ex poste monitoring for effectiveness, they are of a limited duration and without built-in provisions for ongoing change (trials and sunset regulations do not solve the problem of facilitating ongoing adaption without triggering extensive 'reprocessing'). To promote resilience, the existing provisions enabling ex poste monitoring could be made mandatory and ongoing, with periodic reviews becoming standard after the initial period of monitoring, with a presumption that the situation will change, which, as previously mentioned, is already the case in the Evidence Act 2006 and Privacy Act 1993.

The model can facilitate the regulatory design process consider where and which other sorts of post-regulatory interventions could facilitate flexible regulatory adjustment without the need to re-regulate. This might be done through imbedded principle-based devices, but with clear standards to assure an adequate level of ongoing certainty. This could enable regulations to be constructed with 'room' to evolve with

changing conditions, as an acknowledgement of the complexity and to a certain degree the unpredictability of the systems involved.

Of course, resilience requires the regulator to consider where an initial intervention in an evolving area is best placed. While systems and behaviour analysis will help make that determination, the intervention, as nearly as possible, should be constructed with its own internal processes so it has 'room' to evolve with changing conditions. This reflects an acknowledgement of an inherent degree of unpredictability in the impact of an intervention in any circumstance. To promote resilience, regulatory interventions incorporating specific provisions for change adjustment, should become the norm rather than the exception. This is especially so in areas where change is already anticipated (such as with autonomous vehicles). The concern would be to make sure the change provisions protected adequate certainty of expectations, and met the minimum requirements of Wednesbury natural justice and reasonableness (see appendix B). These concerns could be addressed by incorporating the process paradigm.

However, if an agency's empowering statutes, through prescription, impose an overly restricted legal foreground, their ability to act creatively would be impaired regardless of whether their innovations satisfied the requirements of the constitutional background. To an extent, regulatory resilience can be enhanced through better use of systems and behavioural analysis together with more and earlier diverse participation in the design process, as well as through mandating regular ex poste monitoring and adjustment mechanisms. But, without Parliament cooperating in the endeavour by shifting its own legislative habits to expand the legal foreground within which agencies must operate, agencies' ability to regulate resiliently will be restricted.

13 Conclusions

Part B of the project has proposed a systems model for regulatory design, informed by the findings from Part A. The model integrates analysis of the external system within which the regulatory problem is located with analysis of the various interacting levels of the legal system within which the regulator and their regulatory intervention must also operate. It recommends that regulators be equipped with sufficient knowledge of the constitutional background and legal foreground to avoid later 'patch-ups' to comply with the requirements of those systems, as such patches can prevent the intervention working as intended. The model also envisions regulatory design and legislative drafting being integrated into one process, to improve the quality of both the regulatory and the drafting outcomes.

This part has also walked the reader through the use of the design space of the model, with the process being to first set a big picture goal, and to work back from that. The designer works backwards to what needs to happen to achieve the goal, identifying the relevant system and the impediments in the system. Informed by the research in part A, the model incorporates early and diverse participation in the analytical process to avoid path dependency. Early and broad participation allows consideration of alternative perspectives on the problem, enhances legitimacy and facilitates buy in. Different perspectives also improve analysis and understanding of the relevant system, the factors in that system which are impediments to the goal, and facilitate fresh thinking, innovative interventions and regulatory effectiveness. It also enhances the accuracy of identification of which behaviours of which decision makers in the relevant system to target with an intervention to remove or reduce the impediment to the goal.

The model facilitates better integration of behavioural analysis into the design process, which should produce more effective regulation. It also incorporates differentiating between the motivations and capabilities of the various sort of entities targeted in the same regulatory enterprise, in order for the regulatory intervention to be effective. That is to say, that the designer should capitalise on the behavioural research revealing the non-rational drivers of human behaviour, while still providing for the more 'economically rational' drivers of corporate behaviour. It recommends moving beyond the one size fits all approach. This report provides a library of regulatory tools with a suite of diverse representative tools to use in conjunction with the model. The library and report provide guidance on which tools would be best suited to which sorts of situations, as well as direction to further resources. The tool library includes a suite of general systems 'thinking tools' with further guidance on different aspects of systems analysis, as well direction to various available software programs, which enable creating interactive models of social systems for analysis.

Part A of the report includes a brief discussion of the fundamentals of the civil law system, re compatibility, should the designer be looking to other jurisdictions for possible solutions. The tool library includes a number of compatibility issues to consider when considering transplanting a regulatory intervention from another jurisdiction to New Zealand, and direction to the Global Regulation website, www.bespacific.com/the-global-law-search-engine/, which provides a comprehensive library of (millions of) regulations from other jurisdictions. Those are translated into English and can be searched and collated in many ways for the purposes of comparison of regulatory approaches. Regulatory impact analyses from the major common and civil law jurisdictions and extensive collection of ex poste regulatory effectiveness studies are included, all of which are translated into English and which could be useful for comparative and design purposes.

As the law is intrinsically an ongoing experimental endeavour in managing complex human and natural systems, the model envisions that post-regulation monitoring and adjustment provisions will be

incorporated into the initial design of a regulation. This facilitates the gathering of the necessary empirical evidence to adjust that experiment in view of the impact, if any, of the regulatory intervention.

More generally, this report recommends that to the extent possible, those using the model be integrated into regulatory design hubs which mimic the centralisation of expertise and experience which has been so successful in the Australian (federal) regulatory management system, discussed in part A, section 5.2.1. The EU also pursues that sort of cross-agency pooling of experience and knowledge to facilitate better design and to avoid knowable mistakes.

This part of the report finishes by considering the trust and confidence issues between Parliament, the courts and administrative agencies which are intrinsic in New Zealand's constitutional and legal system, and how these issues ultimately impact of the design of resilient regulation. Informed by the research in part A, the report raises the issue that too much 'regulation of the regulators' can impede their ability to do their job well, to adequately respond to a rapidly changing world, and to deliver the tax payer value for money. However, given these institutional constraints, some ideas are advanced on how to use regulatory design and ex poste monitoring to work more flexibly around and within the limited 'regulatory space' available. This report also concludes that unless Parliament legislates in a way that facilitates rather than impedes regulatory resilience, administrative agencies' options to improve resiliency through better design will remain constrained by their legal context.

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Appendix A: The constitutional background constraints

New Zealand's constitutional arrangements have arisen through gradual evolution, and as such there is no one authoritative document which sets out 'the constitution'. This lack of one authoritative source can cause confusion, even among 'constitutional actors' as to what 'counts' as a constitutional rule that must be respected and what are merely traditions which do not raise constitutional concerns.

One guiding principle is whether a practice is necessary to maintain the legitimacy of Parliament, free and fair elections, honouring the Treaty of Waitangi as a founding agreement, and the integrity of the 'rule of law' or compliance with our international obligations to respect people's rights.

The regulator must briefly ask if the proposed rule is consistent with:

- constitutional understandings?
- Bill of Rights and Human Rights Acts?
- the rule of law? (explained below)
- our international obligations (assumed by New Zealand) to respect people's rights and liberties?
- our constitutional values?
- Treaty of Waitangi obligations?
- Court presumptions around what Parliament intends?

The following sets out some basic constitutional rules or 'constitutional conventions' as well as some domestic and international law rises to the level of constitutional:

Parliamentary sovereignty:

While Parliament has theoretically unlimited legal powers, conventionally those powers are constrained. An administrative agency should do nothing that Parliament is not conventionally permitted to do.

Parliament (can) but should not (and thus an agency should not):

1. Legislate tyrannically (abusively).
2. Legislate retroactively (rules should not apply retrospectively).
3. Legislate in a manner that infringes on civil and political rights. (These are set out in the New Zealand Bill of Rights Act 1990 and in the International Covenant on Civil and Political Rights 1966 (ICCPR), which New Zealand has signed up to).

   The Bill of Rights and the ICCPR cover things like freedom of movement, freedom of speech, freedom to practise one's religion, freedom from unreasonable searches, freedom of belief and opinion, freedom from coerced medical treatment, freedom from discrimination, freedom of association. If New Zealand creates law or rules that violate the ICCPR, people can complain to the United Nations if the New Zealand courts or Parliament do not rectify the situation. This is embarrassing to New Zealand.
4. Legislate law which is impossible to obey or which cannot be understood.

   Courts will expect agency rules to be able to be understood by those to whom they apply and to be possible to obey (a rule that is so vague or so convoluted that one cannot discern what is required

would be unreasonable; a requirement for the ability to stop in a (literally) impossibly short distance would be unreasonable).

5 Legislate to target or punish an individual, legislation should be general and apply equally to all in the relevant class (for example, rules should apply to all car drivers or to all truck drivers, or to all truck drivers of a certain weight of vehicle, or all commercial trucking firms, or all of a certain size.)

6 Legislate in a way that discriminates against protected classes of people. The Human Rights Act 1993 sets out these classes, and New Zealand has become a signatory to International Conventions prohibiting different kinds of discrimination.

   a Agency rules or interventions should not discriminate (or have a discriminatory effect) on the basis of sex, gender identification, race, nationality, marital status, religion, political belief, family status, political belief, disability (mental or physical), employment status or colour.

   b There are exceptions for public safety, but courts will expect these exceptions to be narrowly tailored and reasonable, and to be based on evidence rather than unsupported prejudicial beliefs.

7 Legislate in a way that interferes with free and fair elections or that impedes democratic debate.

8 Legislate in a way that is contrary to the promises and principles of the Treaty of Waitangi.

   a Those principles are that iwi have a right to participation (meaningful consultation), partnership and to be dealt with in good faith. The Crown (which would include the agency) has the freedom to govern (from article I), the duty to protect Māori interests. Article II of the Treaty guarantees iwi continued authority over their land and treasures, unless ceded to the Crown. Article III of the Treaty guarantees that Māori individuals have the same rights as other citizens. The Treaty Principles and what they might mean for the Transport Agency are set out in appendix C.2.

   b New Zealand has become a signatory to the International Declaration of Indigenous Rights which promotes indigenous peoples' self-determination.

Parliament, however, has the legal power to do all of the above. If Parliament empowered an agency to act in the ways listed above, the courts would interpret that empowering statute very very narrowly. Parliament would have to make its intent to violate those conventions and the rights protected by them absolutely crystal clear. Agencies should act very conservatively under such an empowering statute.

Courts and the rule of law

The rule of law is a doctrine that is conventionally respected by Parliament, and it is also a doctrine that is legally binding on agencies.

It can generally be stated as: a) any government (agency) action must be authorised by law, b) that the law authorising that action must be clear and distinct for both about the agency's authority and about what is required of the citizen; c) and that the legal authority to act must not be such that it grants arbitrary or widely discretionary powers. There has to be clear boundaries to the authority.

The idea behind this is to assure that it is the law (representing the norms of the community) which is being applied, rather than the personal opinion of John Doe as to what ought to happen. The other fundamental idea is that the law should be applied equally and unbiasedly to all people.

1 Any agency action must be authorised by the law. That law might be a statute, it might derive from the royal prerogative, or if might be from the common law, but an agency needs to be able to point to some superior law that authorises its actions. If the agency authorises others to act, it must provide clear guidelines and boundaries to confine their discretion.

2 Any agency action must comply with, besides other things, the Bill of Rights 1990 and the Human Rights Act 1993.

3 Any agency action ought not violate the guarantees of the Treaty of Waitangi.

4 Courts will assume that Parliamentary statutes intend to comply with constitutional norms and rights and will interpret them to do so. If an agency is in doubt, better to assume the empowering act intends to comply with constitutional norms.

5 Courts, when interpreting law, will presume that:

- a intrusions on or limitations of liberties are not intended unless clearly authorised by Parliament
- b any ambiguity about infringements are in favour of liberty and the common expectations of citizens in a constitutional democracy
- c the government is never justified in acting unlawfully, even in necessity
- d the law should be interpreted as an ordinary citizen in a constitutional culture would understand it
- e the law should be interpreted based on public knowledge
- f authorisations of government actions should be interpreted narrowly
- g Parliament did not intend the law to apply retroactively (changing the rules after the game is highly unfair)
- h the law intends to comply with natural justice (notice, fair hearing, impartiality and that Parliament does not intend to authorise anyone to be a judge in their own case)
- i both sides are intended to be able to present their story
- j Parliament intends the agency to act within its delegated authority
- k Government will compensate for taking private property
- l Parliament does not intend to authorise changes in long standing rights
- m Parliament does not intend to create injustice
- n laws are not intended to apply against unforeseen circumstances (so need to build that option clearly in circumstances of expected change)
- o Parliament and the government intend to respect and apply the international agreements they sign up to.

Constitutional norms and culture

New Zealand's constitutional culture has been argued to be one grounded in the values of equality, fairness, freedom, pragmatism, democracy, and, within those confines, the greatest good for the greatest number, that the good of the community is something of value to be promoted and protected.

Executive government agencies

1 Are legally required to comply with the Bill of Rights Act 1990 and the Human Rights Act 1993.

2 Are required to comply with the Privacy Act 1993 (protecting citizen's private information from public disclosure) (such as drivers' medical notes).

3 Must act in such a way that is consistent with the law and the conventional rules set out in the *Cabinet manua*l (DPMC 2008) (which is aimed at guiding executive conduct), re conflicts of interests, nepotism etc in awarding contracts and such.

4 Must always act under law, consistently with the rule of law and within their authorised authority.

Appendix B: Template for the legal foreground pamphlet

The regulator's direct authority is derived from the legal foreground, which also imposes constraints on how the regulator may exercise that discretion.

This appendix provides a template for the Transport Agency to utilise in considering its own legal foreground, as the authors do not presume to be familiar with the detail of all of the relevant empowering statutes, nor with the relevant trade and transport treaties. They can, however, set up the framework for such, for the convenience of the Transport Agency's own legal experts.

B1 Empowering statutes

The enabling statutes will have empowering clauses which provide the Transport Agency's legal authority to act in certain areas. These clauses may be several.

The enabling statutes may also have 'reserve' clauses, which specifically disempower the Transport Agency from certain areas or acts.

The enabling statues (as noted) also have purpose clauses, which are relevant to interpreting the extent of the authority granted to the agency and as to how it may be used (purpose clauses also situate the 'goal' in the model).

The regulatory design team needs to become familiar with these clauses, as well as any existing prescription in the enabling statutes:

a purposes clauses

b empowering clauses

c restrictive clauses

d relevant prescriptions

e any savings clause which provides authority beyond prescriptions.

For the information to be digestible and useful, only the actual language of the purposes, empowerment and restrictive clauses should be directly produced, with prescriptions and savings generally noted as something to consider if working directly in their areas.

Each of the Transport Agency's enabling statutes should be made available in the same way, even if they seem irrelevant, with the open design process deciding its relevance. This is to avoid unintentionally blocking a novel and innovative approach to visualising a system, a goal impediment and possible sites/methods of intervention.

B2 International trade agreements

This section should include:

- transport-specific trade agreements and more general international trade agreements, as both could restrict the options available to the regulator. This is best known early on, rather than after a lot of effort has been expended in selecting an intervention

- any restrictions on what technical requirements may be imposed and consideration of how an intervention could be seen as violating the terms of those agreements, whether by disadvantaging an offshore entity or specifically advantaging one provider of (x) over another
- any international standards to which New Zealand or the Transport Agency has agreed to adhere, specifically noting whether they must be met exactly, or whether it is permissible to exceed them
- whether the relevant agreements permit or forbid New Zealand to suspend trade in certain items as part of its public safety and regulatory management strategy
- the extent to which Parliament has reserved its authority to legislate exceptions, so that a path to innovation is not closed off by designers unaware of their options to petition for room to manoeuvre.

B3 Ordinary administrative law restraints

This section should lay out the primary constraints on regulatory interventions arising from ordinary administrative law requirements:

It should include the Wednesbury reasonableness test, and the post-Wednesbury requirements re consultation, natural justice and so forth. The designers need to know these tests so as to design in a way that the decision makers working within that regulation will have a structure that makes it likely, or at least possible, they will meet the ordinary administrative law requirements just mentioned. This goes to enabling efficient *operation* of the regulation as well as to its design.

Wednesbury principles:

- Discretionary administrative powers are to be exercised in the public interest and for the public good.
- Regulatory decision may be challenged in court if:
  - it is contrary to the law
  - it considered irrelevant factors
  - It did not consider relevant factors
  - no reasonable person, acting reasonably, could have reached that decision.

Post-Wednesbury principles:

- illegality
- irrationality
- procedural impropriety (as per natural justice, irrelevance, bias, etc and as per statute/rule requirements), or
- inadequate consultation
- will invalidate regulatory decision making.

B4 Other relevant foreground law

There may be other foreground law, outside of empowering statutes, trade and transport agreements, and the fundamentals of administrative law, which are very relevant to Transport Agency regulatory action in which we are unschooled. If so, its fundamentals should be included.

Appendix C: Best practice regulatory design and the Treaty of Waitangi

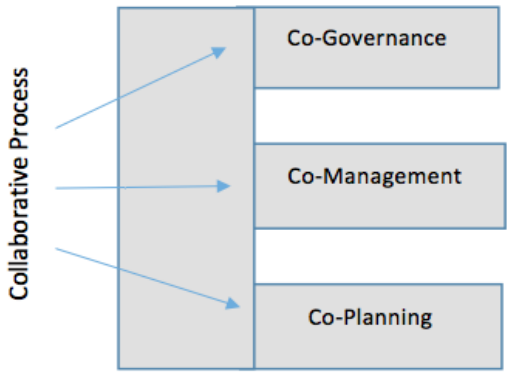
C1 Treaty of Waitangi and the collaborative decision-making and design process (Mylene Rakena)

Looking at the Māori world view (Māori iwi context) on what is governance, Dr Robert Joseph said 'governance is about power, relationships and accountability – who has influence, who decides and how decision-makers are held accountable' (Joseph 2014). Professor Mason Durie (1998) added:

> *Governance at local or national levels requires a level of organisation which incorporates both customary Māori practices and the application of democratic principles. The two are not incompatible, nor should their juxtaposition be discounted. Māori can be strengthened by the past and can learn from it. But the challenges of tomorrow will require a canopy of skills and wisdoms many of which will come from other cultures and nations.*

There are three elements that make a collaborative model work: co-governance, co-management and co-planning. Co-governance and co-management are interchangeable terms. Co-governance refers to the degree of power sharing/influence, the ability to **direct**, ie set the policy and procedures, plan a framework for work and ensure the work is done (Lenihan 2013). Co-management relates to an array of arrangements for sharing management responsibilities for common property resources between state administrators and the interest groups dependent on those resources (Sen and Nielsen 1996; Natcher et al 2005). Co-management focuses on **doing** it, ie carrying out policies/procedures and implementation of strategy (Lenihan 2013). Co-planning is an advanced stage of the collaborative process to **recognise** and understand the value of Mātauranga Māori[19] through 'any or local regional and implementation stage'.

Figure C.1 Collaborative framework for planning and policymaking



[19] Mātauranga Māori is defined usually extended to include present–day, historic, local, and traditional knowledge; systems of knowledge transfer and storage; and the goals, aspirations and issues from a Māori perspective.

C1.1 Indigenous and mainstream perspectives on co-management between the Crown and the indigenous community

With the Crown entering into co-governance agreements with Māori, fears surfaced around other interest groups requiring similar participatory roles, so it 'preferred to consider indigenous communities as one of the many interest groups' (Hoverman et al 2012). However, this approach does not satisfy the criteria for collaborative and co-management where stakeholders of a problem domain engage in an iterative process, using shared rules, norms and structures to act or decide on issues related to that domain (Wood and Gray 1991); nor does it satisfactorily negotiate the specifics of a management power-sharing agreement emphasising the equal status of the parties to an agreement (Borrini-Feyerabend 1996). Figure C.2 outlines the indigenous and mainstream perspective on co-management between the Crown and indigenous community (Tipa and Welch 2006).

Figure C.2 Indigenous and mainstream perspectives on co-management

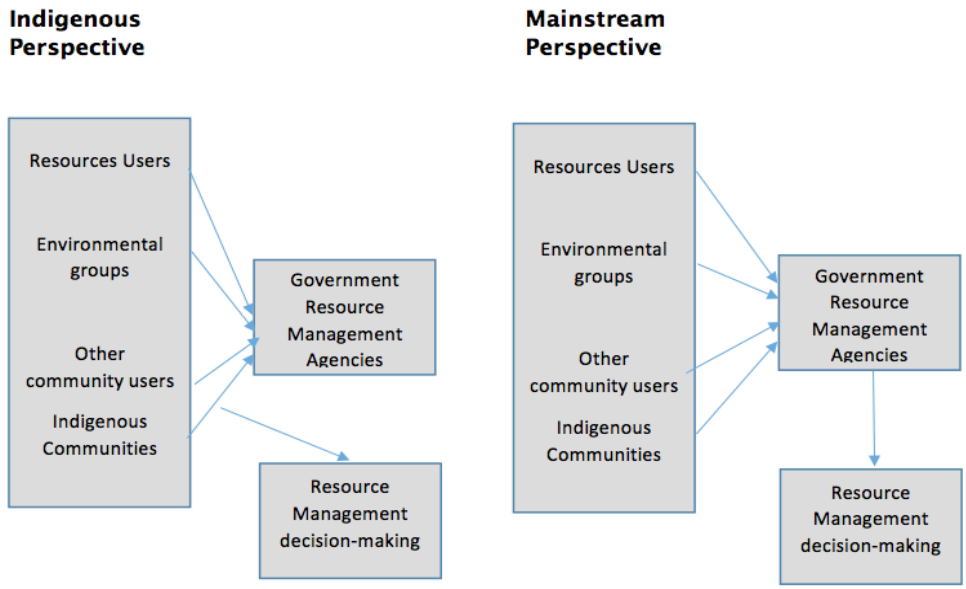
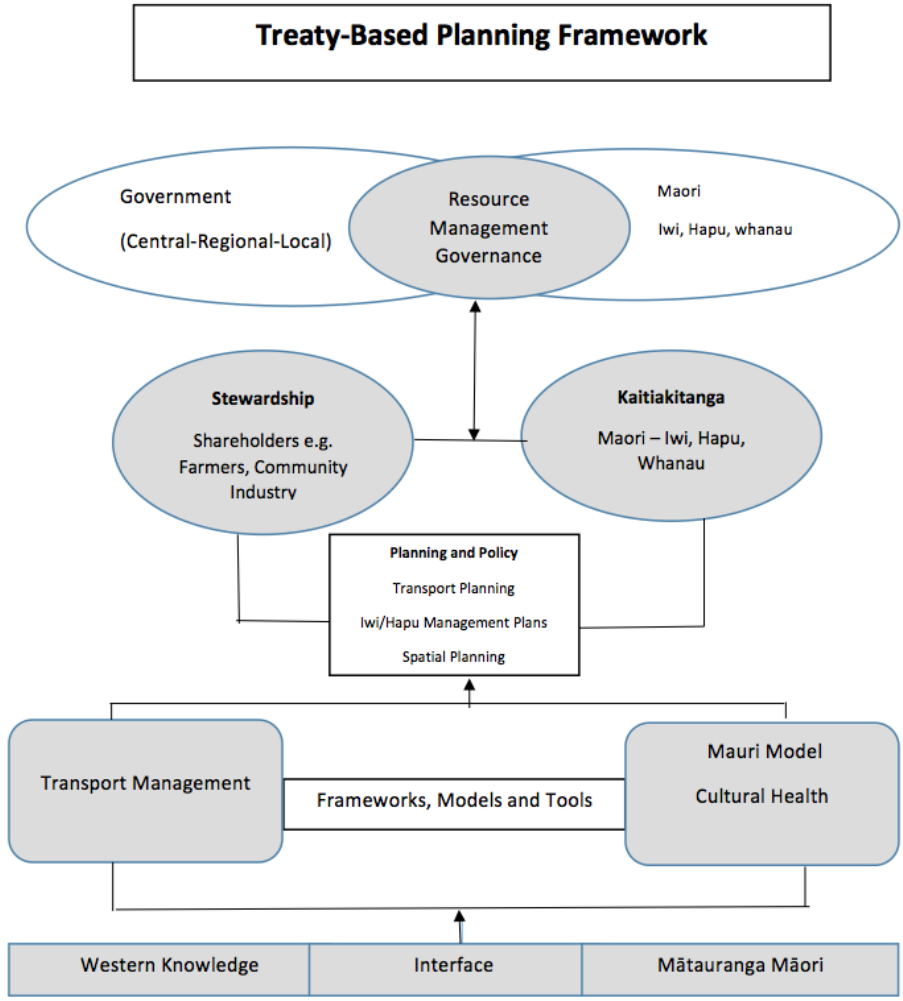


Figure C.3 shows a Treaty of Waitangi-based partnership supported by an appropriate governance structure. The framework shows how discourse between two world views (Māori and non-Māori) can be brought together to achieve planning and management goals.

Figure C.3 Treaty-based planning framework for resource planning and management (adapted from Harmsworth et al 2013)



C1.2 Issues to consider

Lenihan (2013) provides a list of issues to consider on how accountability and responsibility can be managed between the Crown and the other party when entering into a collaborate process with co-governance and co-management (this list is not exhaustive):

Crown

1 Ensure an aligned policy approach regarding bottom lines and a hierarchy of arrangements that may be entered into in certain instances, ie the more power sharing, the greater the risk (and potential gain), the greater level of detail required in the agreement.

2 How will the Crown give effect to any Treaty obligation?

3 When would the Crown consider elements of 'co-governance' – where specialist skills are required for eg core work on endangered species? For an iconic conservation site? What are the risks of failure?

4 Develop a standard policy and accompanying procedure, with standard documentation that aligns with the risk – a shorter less formal document may be appropriate for a voluntary organisation carrying out a low-risk activity where few if any co-governance/co-management elements exist.

5 Have a checklist of 'pre-entry' requirements before any specific co-governance/co-management agreement is entered into, such as legal entity, has members with specific expertise needed, has financial means to carry out the activity for the defined term, eg for species work.

6 Pre-negotiate to ensure understanding of tasks, skills, outcome required, etc.

7 Ensure agreements cover all potential risks – ensure appropriate level of experience, set standards, have review conditions, monitor performance, record-keep, clear outcome required.

8 Set clear objectives/outcomes to be achieved.

9 Outline clear responsibilities and accountabilities for respective parties.

10 Provide for adequate information flows.

11 Outline performance standards.

12 Outline monitoring systems to ascertain performance standards achieved.

13 Provide for effective performance assessment.

14 Include sanctions for poor performance.

15 Ensure strong dispute resolution clauses.

16 Include non-performance conditions – potentially a bond in certain circumstances (eg where a commercial operator and the risk is high).

17 Manage the agreement – this is imperative as although some responsibility/accountability may be transferred via the agreement, a large degree of accountability is likely to remain with the Crown.

Third parties

1 For smaller volunteer organisations, ask the department to extend its insurance cover to include the volunteers.

2 Form a legal entity.

C1.3 NZ Transport Agency obligations for engagement through legislation

The purpose of the Land Transport Management Act 2003 (LTMA) is to contribute to the aim of achieving an affordable, integrated, safe, responsive and sustainable land transport system. The Transport Agency as a Crown agency is directed by section 3 of the LTMA to:

> *In order to recognise and respect the Crown's responsibility to take appropriate account of the principles of the Treaty of Waitangi and to maintain and improve opportunities for Māori to contribute to land transport decision-making processes […] provide principles and requirements that are intended to facilitate participation by Māori in land transport decision-making processes.*

Other provisions relating to section 4 are as follows:

1. LTMA section 18: This is the consultation requirements when preparing a regional land transport plan. The consultative principles are specified in section 82 of the Local Government Act 2002 (LGA). A special consultative procedure specified in section 83 of the LGA is very prescribed in preparation of documents, accessibility of documents is publicly available, opportunity for submissions by interest groups, and the provision to allow person/s to present their views to the local authority.
2. LTMA section 18A: This provision specifies combining the consultative process with the relevant council's long-term plan under the LGA.
3. LTMA section 18G: This is a clear duty to separately consult with Māori affected by any activity proposed that affects or is likely to affect Māori land, land subject to any claims settlement Act or Māori historical, culture, or spiritual interests.

LTMA section100(1)(f): 'any steps that the Agency intends to take, having considered ways in which it might foster the development of Māori capacity to contribute to the Agency's land transport decision-making processes, over the period covered by the statement of intent.'

The Transport Agency's *Statement of intent 2012–2015* provides for engagement with affected communities under section 7 'Operating policies'. Section 96(1)(a)(ii) of the LTMA requires the Transport Agency to take into account the views of affected communities in relation to its functions. The Transport Agency also believes that to make good decisions, and provide sound advice to decision makers, it is important to include the perspectives of its stakeholders in its work.[20] The Transport Agency's approach is to 'develop strong collaborative relationships with stakeholders' in line with MoT's (2012b) *Regulatory development and rule production* handbook, which contains sections on stakeholder engagement and consultation.

The Treaty compels government organisations through legislation to move into relationships with iwi/hapu to co-govern and co-manage natural resources. There is hesitancy to enter into this arena and debate lingers over what process will best suit engaging with iwi/hapu, debates about ownership and management of resources. Robb et al (2015) posit in the fresh water planning context regarding the 'How to do it' basket:

> *Lack of express provision in the RMA and LGA relating to local government obligations to Māori under the Treaty places strain and uncertainty on both parties in these discussions* (Robb et al 2015).

Despite the challenges that Crown agencies and local government face with engaging in a collaborative process with Māori and involving them in the decision-making process, many councils are increasing their engagement with iwi/hapu to co-govern and co-manage natural resources.

C1.4 Collaborating with Māori as stakeholders

1. The collaborative process is unique to the parties involved. Cradock-Henry et al (2014) identify three key design considerations to bring about success in the collaborative process: stakeholder recruitment, group composition and mandate.
2. A crucial first step to start the collaborative process is the stakeholder recruitment phase. Building trust and successful enduring relations stem from this initial consideration. Extensive international literature provides insight and good practice for collaborative processes. Robb et al (2015) draw on

[20] www.nzta.govt.nz/resources/statement-of-intent-2014–2018/2012–2015/section-7/

this literature with the Hawke's Bay TANK process to conclude stakeholder composition and recruitment is the major consideration widely agreed upon that brings success to the collaboration. Second, in this process there must be space to consider what biases may surface and mitigate accordingly.

Choosing group composition for the collaborative process is not a precise science. The role of tangata whenua[21] is included in this process. Achieving representation or deciding on the composition of the group is challenging and imprecise (Cradock-Henry et al 2014). Table C.1, adapted from Bryson et al (2013) summarises various options for group composition and the effectiveness of the group selection in a collaborative process.

Table C.1 Options for choosing group composition (Bryson et al 2013)

Singular	Participants are drawn from a single sector or from a single criterion or category of interest.	Not representative of wide interests so not generally used for a collaborative process – but can be used to form smaller working groups.
Universal	Group composition reflects all relevant categories.	May not be practical for collaborative processes given the diversity of interests involved.
Anarchic	Self-selection of participants willing to be involved.	Not favoured by collaborative processes as easily captured
Selective	Stakeholders are chosen purposively to represent a chosen selection of categories.	Commonly used in collaborative processes. Categories could be determined through community consultation, expert knowledge or based on the purpose of the collaborative process.
Proportionate	All relevant categories and criteria are represented relative to their distribution in the wider population.	Also used in collaborative processes. Risks are that such groups cannot make decisions that run contrary to the status quo.

Mandate provides the reason and purpose for the collaboration. The goals needs to clear, purposeful, specific and agreed upon all both parties. Table C.2 sets out proposed criteria for evaluating the success of the collaboration process.

Table C.2 Proposed criteria for evaluation the success of the process of collaboration (Cradock et al 2013)

Criteria	Measure of success
Purpose and incentives	The purpose is driven by a shared purpose and provides incentives for participation and for working towards consensus in the collaborative process.
Inclusive representation	Majority/all parties with a significant interest in the Heretaunga plan change, related issues, and relevant outcomes are involved through the process.
Voluntary participation and commitment	Affected or interested stakeholders participate voluntarily and are committed to the process.
Self-design	The parties involved work together to design the process to suit the needs of the HSG and stakeholder-participants.
Clear ground rules	As the process is initiated, a comprehensive procedural framework is established that includes clear terms of reference, operating procedures, schedule, and protocols.

[21] Used to define the Māori people of a particular locality or land.

Criteria	Measure of success
Equal opportunity and resources	The process provides for equal and balanced opportunity for effective participation of all interested/affected stakeholders.
Principled negotiation and respect	The process operates according to the conditions of principled negotiation including mutual respect, trust and understanding.
Accountability	The process and its participants are accountable to the broader public and their own constituencies.
Flexible, adaptive, creative	Flexibility is designed into the process to allow for adaptation and creativity in problem solving.
High-quality information	The process incorporates high-quality information into decision making.
Time limits	Realistic deadlines and milestones are established and managed throughout the process.
Commitment to implementation and monitoring	The process and final agreement include commitments to implementation and monitoring.
Effective process management	The collaborative process is managed and coordinated effectively and in a neutral manner.
Independent facilitation	The process uses an independent facilitator throughout the process.

C1.5 Implications for legislative/regulatory design

There is increasing trend in recent years for communities, including Māori communities to be more involved not only in directing and carrying out conservation and other resource-related work but also in having a role in creating policy and decisions as to the best ways to implement that policy. With this trend comes increasing accountabilities for all parties and there is a need to consciously develop policy and procedure to accommodate this. New collaborations are occurring on the ground level. This integration increases legitimacy and buy-in to regulatory decisions, which enhances compliance, creates efficiencies in enforcement and enhances the resilience of a regulatory programme as people are more invested in making it work (through and around the unforeseen) rather than in using those unexpected factors as means to impeding its success. Enhancing legitimacy and gaining buy-in through early inclusion, as discussed elsewhere, is critical to enhancing resilience, as there will always be the unforeseen and unexpected to be navigated. The attitude of the affected community towards the regulation will directly affect the ease (or not) of that navigation, be it changes to safety regulations or to road layouts. Further the breadth of alternative perspectives both to alternatively frame problems and to imagine innovative solutions would be enhanced by bringing in 'on the ground' Treaty partner participation to the suite of regulatory decisions, not just in those to do with physical resources.

This is also a straightforward Treaty responsibility for decisions impacting on the Treaty partner, under the principle that the Crown must act in good faith and make informed decisions[22] which impact on their obligations to the Treaty partner. As any decision which has a socio-economic impact on people often differentially impacts upon Māori, either positively or negatively, due to the socio-economic statistical disparities between Māori and non-Māori, the Transport Agency would have a duty for such decisions to

[22] 'the responsibility of one treaty partner to act in good faith fairly and reasonably towards the other puts the onus on the Crown, when acting within its sphere to make an informed decision'. New Zealand Māori Council v Attorney-General [1987] 1 NZLR 641, 683. This responsibility runs both ways, so the process to make an informed decision must not 'hold up the processes of Government in a way contrary to the principles of the Treaty.' Ibid 665.

be informed. This has not been interpreted as an unwieldy duty to consult formally on ordinary processes of governance, but to nonetheless be informed when making ordinary decisions. One possible relatively straightforward model for gaining Māori input into safety-related decisions might be that used by University of Otago researchers when conducting a pilot study focused on developing an inclusive methodology (Begg and Stephenson 2003) to address traffic safety issues of concern to young Māori (a group disproportionally represented in the already disproportional youth crash statistics). The researchers included the Ngai Tahu Māori Health Research Unit in the design of the project, and Māori civil society leaders in a range of geographic regions and types of communities, ie a spread of urban, 'suburban, semirural, rural and remote rural' locations where there were relatively large Māori populations. There are also other Māori research centres with which the Transport Agency could collaborate, which seek to improve Māori input into policy development and ordinary governance decisions, such as the Māori and Indigenous Governance Centre at the University of Waikato.[23] This could be a strategy for the Transport Agency to develop a reference group from which to seek Māori input. Making sure a diversity of Māori perspectives is included at the participatory phases of policy and problem definition, besides improving the odds of avoiding path dependency and repeating the same interventions which have yet to solve safety issues, would also help assure the Crown is fulfilling its duty of making good-faith and informed decisions. Therefore, where the legislative/regulatory design model suggests earlier and broader participation, both of stakeholder or interested parties identified by the Transport Agency as well as self-identified interested parties, in defining the impediments to resolved, that necessarily includes bringing in/reaching out to Māori communities of interest.

C2 Treaty of Waitangi: Principles and constitutional role (Mylene Rakena)

C2.1 The purpose

This section focuses on the question of whether the principles of the Treaty of Waitangi (the Treaty) can be applied to create an effective decision-making model that can be used by diverse interest groups in the community, in particular, Māori, the indigenous people of New Zealand. The section also discusses collaborative/collective approaches to decision making and detail some New Zealand case studies where Māori ae engaged in co-management agreements.

We also assess the key factors, barriers and the feasibility of such a decision-making model versus the current templated Western forms of decision making. Liberal supported decision-making models promote a standardisation of strategies or interventions that often fail to deliver decisions that can be widely accepted by diverse interest groups. Traditional customary and indigenous approaches to decision making and reconciliation can offer a consensus reached decision, relation focused, participatory, with groups forging partnerships as prescribed by the principles of the Treaty.

C2.2 Background to the Treaty of Waitangi

Māori lived here in Aotearoa/New Zealand before Pākehā. The Treaty was a signed agreement between two sovereign peoples who would occupy the same lands in 1840. The legitimacy of the government system New Zealand operates within owes much to the Treaty. The Crown is sovereign. However; the

[23] Te Piringa-Faculty of Law University of Waikato 'Te Mata Hautū Taketake/Māori and Indigenous Governance Centre' <www.waikato.ac.nz/law/research/centre-for-maori-and-indigenous-governance/>.

Treaty is controversial and different understandings of the Treaty have long been the subject of debate. The treaty remains pivotal around debates about New Zealand and its future, and more significantly; its bearing on the Māori/Pākehā relationship. Further conflict arises as Māori continue to question, query and challenge fundamental perspectives of sovereignty and appropriation between the two sovereign peoples.

New issues emerge as the Treaty has exploded on the legalistic stage and been included in a range of legislation. There has been greater recognition by the Crown of its duty to recognise the Treaty, and the claim process for Māori/Māori grievances has been transformed. Wilson (1999) said 'While the Treaty itself is not a legally enforceable agreement of itself, it has "political reality" that has received recognition from successive governments[24] and the Court of Appeal'.[25]

Recent years have witnessed a resurgence of interest in Māori indigenous, traditional and customary approaches for economic development and when engaging in dialogue with the Crown. Through the *Lands* case[26] as determined by the Court of Appeal, the Treaty of Waitangi has had a 'makeover' where principles of the Treaty have been superimposed over articles of the Treaty (which will be discussed later).

In the context of the post-treaty settlement era, more collaborative governance of resources and benefit sharing seems inevitable and economically beneficial. However, the success rate to moving towards collaboration is a result of taking the Crown to task and co-governance regimes are an alternative mechanism for redress in the Treaty claims. Māori continue to interpret their culture and landscape from the Māori world view within the Treaty of Waitangi. Māori with commercial clout quietly purchase lost lands and acquire other lands – resources the Transport Agency may want to use. New Zealand governmental organisations may/must engage with Māori to manage resources that Māori have recovered through redress.

Second, supporters claim that indigenous approaches to decision making (governance) are participatory and relationship-focused, and that outcomes have a higher chance of Māori adherence than templated-style westernised decision-making interventions effected through the neo-liberalist approach.

In conclusion, it is argued that Māori's fundamental legal, political framework is entrenched and given legitimacy and longevity through the Treaty of Waitangi. The Treaty principles came about because of the depletion of natural resources and pollution. As a result, Māori spiritual and cultural values are becoming embodied within the resource management legislation (Environmental Act 1986; State Owned Enterprises Act 1986; Conservation Act 1987; Māori Fisheries Act 1989; Resource Management Act 1991). As a bi-product, it appears that bicultural jurisprudence is gradually evolving.

C2.3 The principles of the Treaty of Waitangi

Māori have never lost sight of the Treaty. Chief Justice Prendergast's dismissal of it as a 'simple nullity' in 1877 saw the Treaty banished from political and legal connection in New Zealand for over a hundred years. However; with consecutive governments attempting to 'clear the deck' of age-old grievances of Māori with 'full and final settlement' clauses; seminal decisions of the courts on how the Crown should engage with Māori in regard to the Treaty has heralded a new era of change in its status quo. Given that

[24] The Treaty of Waitangi Amendment Act 1985, that gave the Waitangi Tribunal jurisdiction to hear claims under the Treaty of Waitangi dated back to 1840, was a clear acknowledgement by government of the political reality of the Treaty.

[25] *New Zealand Māori Council v Attorney-General* [1987] NZLR 641.

[26] Above n 3.

the principles of the Treaty are embedded in legislation, they provide a 'strong mandate for Māori participation in all government processes' (Jollands and Harmsworth 2007).

The turning point for the Treaty came in 1987 with *New Zealand v Attorney-General* [1987] NZLR 641.[27] Within this case, the duty fell upon the Court of Appeal to determine the principles of the Treaty with which the Crown's actions had been inconsistent. As determined by the courts, the Treaty is to be interpreted through the application of the following principles. The following chapters will focus and discuss the principles of protection, participation, partnership and power-sharing (tino rangatiratanga); appropriately named as the '4 Ps'. The remaining three principles revolve around the Crown's duty to govern,[28] remedy past remedies[29] and to consult Māori.[30]

It is noted that the power sharing was not a principle envisaged by the *Lands* case[31]; however, co-management agreements with Māori iwi have become an alternative mechanism of redress for the Crown that is bringing 'tino rangatiratanga' into discussion.

On the other hand, Professor Gordon Orr of the Waitangi Tribunal (1989) has observed that it may never be possible to formulate a comprehensive or complete set of principles because the Tribunal has dealt with only a limited range of cases and has not speculated about principles relevant to cases yet to be heard. The courts also asserted that the provisions of the Treaty itself should not be supplanted by the principles emerging from it. In the words of Justice Richardson in the 1987 case:

> *much of the contemporary focus is on the spirit rather than the letter of the Treaty, on adherence to the principles rather than the terms of the Treaty. Regrettably, but reflecting the limited dialogue there has been on the Treaty, it cannot yet be said that there is broad general agreement as to what those principles are.*[32]

Substantive endorsement regarding the interpretation of the Treaty as stated by Sir Robin Cooke is 'a broad, unquibbling, and practical' interpretation.[33] It is the spirit of the Treaty that matters. On a final note, the Waitangi Tribunal said:[34] 'The spirit is more than a literal construction of the actual words used can provide. The spirit of the Treaty transcends the sum total of its component written words'.

C2.4 Discussion on the principles of the Treaty of Waitangi

1 The acquisition of sovereignty in exchange for protection of rangatiratanga (power sharing)

In the *Lands* case, the first fundamental principle of protection immerged. Justice Cooke noted that the basic terms of the Treaty according to him were 'that the Queen was to govern and the Māoris [sic] were to be her subjects; in return their chieftainship and possessions were to be protected, but that sales of

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[27] *New Zealand Māori Council v Attorney-General* [1987] NZLR 641. [*Lands case*].

[28] At 665-666.

[29] At 664-665.

[30] At 683.

[31] At 641.

[32] At 672–673.

[33] *Tainui Māori Trust Board v Attorney-General* [1989] 2 NZLR 513 at 581 (CA) per Cooke P: 'Statutory provisions for effect to the principles of the Treaty of Waitangi in matters of interpretation and administration should not be narrowly construed': *Ngai Tahu Māori Trust Board v Director-General of Conservation* [1995] 3 NZLR 553 at 558 (CA) per Cooke P.

[34] Waitangi Tribunal *Motunui Report (*Wai 6, 1983) at [10.1].

land to the Crown could be negotiated'. Justice Cooke further observed that 'these aims are partly conflicting'.[35]

2 The Treaty established a partnership and imposes a duty on the partners to act reasonably and in good faith

The principle of partnership imposed a duty on the partners to act reasonably and in good faith was independently agreed by all five members of the Court of Appeal, albeit expressed differently by each. Justice Cooke added: 'the duty to act reasonably and in the upmost faith is not one-sided'.[36] Justice Richardson of the same case 'In the domestic constitutional field […] there is every reason for attributing to both partners that obligation to deal with each other and with their Treaty obligations in good faith.'[37]

Justice Cooke continued that the duty was 'infinitely more than a formality'. He said 'If a breach of the duty is demonstrated at any time, the duty of the Court will be to insist that it be honoured' (Jollands and Harmsworth 2007). It is also noted that the partnership is not necessarily equal.[38] The responsibilities of the parties to act in good are analogous to fiduciary duties.[39]

As well, the Treaty principle of partnership integrates notions of cooperation, reciprocity and opportunities of power sharing through the transfer of certain functions.[40]

3 The Crown's duty of active protection;

The Crown is obliged to protect (and not in a passive way) Māori interests, including Māori use of their lands and waters, to the fullest extent practicable.[41] Again, Justice Cook observed that 'the duty of the Crown is not merely passive but extends to active protection of Māori people in the use of their lands and waters to the fullest extent practicable.'[42]

This principle obligates the Crown to actively protect Māori tino rangatiratanga (sovereignty) and kaitiakitanga (stewardship) over their resources.[43]

C2.5 Legislation that includes provisions around the Treaty of Waitangi

The Treaty is recognised in some thirty Acts which require officials to act consistently with the Treaty. The following provisions are examples:

- *Crown Pastoral Land Act 1998, s 25 (1) (b)* – 'In acting under this Part, the Commissioner must (to the extent that those matters are applicable) take into account-[…] (b) The principles of the Treaty of Waitangi and…'.
- *Hazardous Substances and New Organisms Act 1996, s 8* – 'All persons exercising powers and functions under that Act shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi)'.[44]

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[35] Above n 12 at 633.

[36] At 664.

[37] At 682.

[38] *Tainui Māori Trust Board v Attorney-General* [1989] 2 NZLR 513 (CA) at 527.

[39] Above n 18 at 719.

[40] At 719.

[41] *New Zealand Māori Council v Attorney-General* [1987] 1 NZLR 641 at 664.

[42] At 664.

[43] Above n 18 at 719.

- *Resource Management Act 1991, s 8* – 'In achieving the purpose of this Act, all persons exercising functions and powers under it, […] shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi)'.[45]
- *Education Act 1989, s 181(b)* – 'It is the duty of the Council of an institution, in the performance of its functions and the exercise of its powers, - […] (b) to acknowledge of the Treaty of Waitangi'
- *Conservation Act 1987, s 4* – 'This Act shall so be interpreted and administered as to give effect to the principles of the Treaty of Waitangi'.[46]

These provisions impose positive duties to have regard and comply with the principles of the Treaty of Waitangi. However, these provisions have not provided satisfactory legal defences according to Māori.

C2.6 Co-management/joint management/co-governance/power sharing with Māori

Co-management, joint management and co-governance are terms that are interchangeable with each other. These terms can be used to describe a raft of arrangements where one or more parties come together over a common interest or specified resource and govern and are decision makers over that resource and its management. Co-management agreements come into reality through legislation.

From the early 1990s onwards, successive New Zealand governments have been involving Māori in decision making concerning natural resources. Inclusions of provisions in legislation were largely to meet the obligations under the Treaty, albeit unsatisfactory to Māori. These forays into compliance with the Treaty principles acted as forerunners for Māori to look for innovative ways to reintroduce 'tino rangatiratanga' (self-governance) and address the allocation of resources that attach to Crown redress. Co-management is trending as the prelude to Māori self-governance while not encroaching on the sovereignty of the Crown. A clear definition for co-management with end users can be defined as:

> *A mechanism for accommodation of two streams of management and aspirations, and for each Māori to forge separated agreements that reflect their local needs, knowledge and customs*. (Taiepa et al 1997)

This definition suggests compromise through accommodation of management approaches. Second, Māori in their own locale act as individual groups and establish their preferred approach of co-management that can incorporate their culture and their traditional indigenous approaches to resource management specific to their area.

A more complex definition that aligns with positioning of government organisations is offered by Taiepa et al (1997, p237) who state:

> *Co–management broadly refers to a continuum of arrangements involving various degrees of power and responsibility – sharing between the government and the local community.*

By unpacking the more definitive statement, it shows there are varying degrees of equity, of power, of responsibility-sharing in co-management agreements. It does not state categorically that there will be

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[44] Compare Crown Minerals Act 1991, s 4.

[45] On the extent of this obligation, see Lord Cooke in *McGuire v Hastings District Council* [2002] 2 NZLR 577 (PC): "These are strong directions to be borne in mind at every stage of the planning process".

[46] *New Zealand Māori Council v Attorney-General* [1987] 1 NZLR 641.

equal sharing of the various components of the arrangement, rather it establishes a partnership that is 'developed and implemented co-operatively by the mutual agreement of all parties involved.' Taiepa et al (1997) continue that the most effective forms of co-management include:

1. One or more parties who share decision making are in an equitable arrangement. This arrangement is classed as 'strong co-management'.
2. Mere consultation is 'no longer a sufficient surrogate for true co-management'.
3. The devolution of resource management responsibilities from government agencies denotes a relinquishing of decision-making power that may create contentious debate.
4. The balance of power must recognise and respect each iwi and give effect to their status as a Treaty partner.
5. Self-determination and equity spur many initiatives for Māori to become involved with co-management and it is argued that the equity principle 'is likely to be as prominent and fundamental to the establishment of appropriate administrative structure as any issues relating to the resource itself'.
6. When real decision making devolves to Māori, Māori are more likely to foster sound resource management.

Taiepa et al (1997) also outline the indicators of good co-management as agreements must be location specific and incorporate all the concern of major interest groups. The co-management agreement must detail all the 'systems of rights, obligations, a collection of guidelines, detailing actions under various circumstances and procedures for the making of collective decisions'.

The co-management approach has gained traction with central and local government and tangata whenua as a practical legal mechanism to collaborate on the decision making and management of resources. Through this structured approach, the principles of the Treaty can come into play: a partnership of acting reasonably and in good faith, meaningful participation and protection of resources (taonga) by the Crown in consultation with Māori.

Some benefits derived from co-management are the diversity of world views, and more comprehensive approaches to problems and solutions. Culture values, traditional approaches can be incorporated and used if practical and reasonable to cement community 'buy in' and strong adherence from all parties. The incorporation of traditional resource management techniques coupled with existing strategies can result in a blending of methodologies and thinking. A disadvantage is by extending power sharing with others, the decision-making process can be prolonged, delayed and ineffective. Here are some examples of Māori who entered into co-management agreements.

Ngai Tahu Claims Settlement Trust 1998 was the first settlement legislation to incorporate co-management paradigms. The Te Arawa Lakes Settlement Act 2006 had the beds of the Rotorua Lakes vested and a joint strategy group was established to create policy of resource management for the lakes. Waikato-Tainui Raupatu claims (Waikato River Settlement Act 2010, Ngati Tuwharetoa, Raukawa and Te Arawa River Māori Waikato Act 2010) heralded a new era of co-management. Part of the infrastructure includes a regional co-managed trust and joint management with local councils. Interestingly, all these settlements contain a raft of power-sharing provisions silhouetted against the Treaty principles. The combination of property rights coupled with public authority lends itself neatly as a Treaty consistent structure.

Taiepa et al (1997) review the challenges and opportunities that arise from moving into a collaborative model between Māori and Pākehā. While the context is co-management of New Zealand's conservation

estate almost twenty years ago, the report provides a basis for comparing what were challenges or opportunities and have these been addressed or achieved twenty years on. Taiepa et al (1997) identify nine challenges and opportunities in great detail.

Here are a few examples that were advanced:

1 Environmental icons of collective identity

Māori management of conservation estate has been widely debated. National parks, unique and internationally renowned biota and places are seen as powerful symbols of the national identity of New Zealand. Pākehā then were committed to preserve and manage the conservation estate rather than place it in the hands of Māori who assert that these resources form part of their treasured taonga as well as the spiritual and cultural connections they have with the land. Today, fisheries, forestry tracts have a co-managed element in the legislative provisions providing some decision-making at small levels.

2 Participation by Māori in conservation is part of a wider human rights debate

It has become apparent that kaitiakitanga (environmental guardianship) and self-determination are inter-related and Māori tirelessly advocate for their recognition. International agreements and covenants such as the Rio Declaration on Environmental and Development, the Declaration of Indigenous People Rights to name a few, provide connections between power sharing and environmental guardianship. Domestic agreements are creating new spaces of engagement with Māori.

3 Divergent and common philosophies

Kaitiakitanga and euro-centric approach users differ in their approach to resource management. The predominant euro-centric approach rests on ‘preservation to achieve conservation’. Kaitiakitanga purports ‘conservation for future use’ (Kirikiri and Nugent 1995; Roberts et al 1995; Moller 1996). There is an opportunity to establish a strong coalition of allies to work for a common purpose. In the present time, the interpretation of Treaty principles hangs heavily on the side of the Crown. Indigenous peoples have been practising resource management prior to the colonisation of New Zealand.

4 Institutionalised inertia and a lack of concrete models of working partnerships

Taiepa et al (1997) argue that partnership between Māori and Pakeha will occur when there is recognition of the authority of both parties. The prophetic message that the establishment of co-management agreements would accelerate has proven true. Within the space of 15 years, five co-managements inclusive of 12 Māori iwi and eight regional councils have been entered into. Information freely available on local government websites shows a deluge of properly phrased platitudes of engaging with Māori. No empirical evidence on current partnerships is available to critically analyse a shift from institutional inertia and working partnerships.

Other obstacles and opportunities are outlined here and more detailed narrative can be accessed through the article.[47]

a Kaitiakitanga – out of place and time or is there a viable alternative?

b There is a lack of resources to develop parallel Māori resource management initiatives.

c There is a need for capacity building with indigenous peoples.

d There is a need for more research on substantive issues of Māori interest.

[47] Above n 2 at 239-242.

e Opposition from conservation non-government organisations.

The following table summarises all the co-management, joint managed and co-governance agreements of Māori and local authorities in New Zealand. [48]

Table C.3 New Zealand's existing collaborative regulatory models

Name	Parties	Type of arrangement
Te Whakaaetanga Ma Te Whakakotahinga a Rōpū Whakahaere	• Taupō District Council • Tūwharetoa Māori Trust Board representing the Ngāti Tūwharetoa Māori	The joint management panel provides for Ngāti Tūwharetoa participation in resource consent and private plan change decision making and an enhanced consideration and recognition of the relationship of Ngāti Tūwharetoa to their culture and traditions.
Rotorua Te Arawa Lakes Strategy Group	• Bay of Plenty Regional Council (BoPRC) (formerly Environment Bay of Plenty) • Rotorua District Council • Te Arawa Lakes Trust	Co-governance committee
Waikato River Co-Governance Arrangements	• Waikato-Tainui • Ngāti Tūwharetoa • Raukawa • Te Arawa • Ngāti Maniapoto • Environment Waikato • Hamilton City Council • Waikato District Council • Waipa District Council • Taupo District Council.	A number of co-governance, co-management and customary activity provisions.
Te Upoko Taiao	• GWRC • The seven Māori authorities in the greater Wellington region: • Te Rūnanga o Raukawa Incorporated (Inc) • Te Rūnanga o Āti Awa ki Whakarongotai Inc • Te Rūnanga o Toa Rangatira Inc • Wellington Tenths Trust (Ngā Tekau o Pōneke) • Te Rūnanganui Taranaki Whanui ki te Upoko o te Ika a Maui Inc • Ngāti Kahungunu o Wairarapa Taiwhenua Inc • o Rangitāne o Wairarapa Inc	A council committee with seven non-council members and seven council elected members. The non-councillor members are appointed for their skills, attributes or knowledge relevant to the work of the committee and including their knowledge of the rohe of the relevant authority to which they belong. In making appointments, the council has regard to the recommendation of each of the region's seven Māori authorities.

[48] www.lgnz.co.nz/assets/Uploads/Local-Authorities-and-Māori.pdf

C2.7 The Treaty principle of participation of Māori

Māori and other interest communities are important sectors of society that have a strong mandate to be involved and participate in decision-making processes, especially when it impacts on their communities and resources. The first step in participation is to 'recognise a Māori group such as tangata whenua, hapu or iwi as a legitimate group or entity to engage, consult and work' (Harmsworth 2005). Jollands and Harmsworth (2007, p717) articulate the need for participation by all interest groups. Three reasons for encouraging participation are detailed as follows:

1 Lessens or overcomes the impact of bounded rationality which according to Fearon (1998, p56) is faced with a complex problem – individuals or groups might 'wish to pool their limited capabilities through discussion and so increase the odds of a making a good choice.(Jollands and Harmsworth 2007)[49]

2 Legitimises the final decision.[50]

3 Makes for better decisions. Participation can improve the allocation of unevenly distributed information leading to better decisions.[51]

Māori participation is important as they 'can offer a unique indigenous perspective for planning, policy, decision-making and activities such as projects'.[52] Jollands and Harmsworth (2007) highlight some crucial success components for increasing community participation in government-led initiatives:[53]

- *Process is very important*. Engaging Māori and other groups needs to happen at the beginning of the process. It is also important that the process be appropriate for the communities involved.
- *Resourcing is essential*. Adequate resources are needed as most indigenous groups do not have the resources necessary to participate in official or drawn out processes.
- *Openness to different perspectives is crucial*. Often differing world views will collide. There needs to be a willingness for all parties to be open to all forms of knowledge and learning from the diversity of opinions.

C2.8 Summary

The Treaty is a living instrument. It is a social contract adaptable to meeting new circumstances as Māori continue to call for the Crown to honour the Treaty of Waitangi together with the re-assertion of 'tino rangatiratanga', allocation issues and resource management. Co-management agreements provide a vehicle of self-determination for Māori while retaining sovereignty for the Crown. Mutual respect and adherence between Māori and Pākehā to the broad principles of the Treaty makes the Treaty relevant today where Māori and Pākehā have interests in shared resources.[54]

As part of good practice, there are strategies that should be used to develop, build partnerships and collaboration with Māori groups and at the local government level. To make a serious relationship work

[49] Above n 41 at 717.

[50] At 717.

[51] At 717.

[52] Above n 40 at 7.

[53] At 717.

[54] *New Zealand Māori Council v Attorney-General* [1987] NZLR 641 at 137.

between parties requires parties to work in good faith, demonstrate mutual respect and communicate transparently. The essence or spirit of the Treaty presupposes that both Māori and Pākehā share fiduciary duties and are honourable to each other.'[55]

There is a trend toward collaboration decision making where 'decisions are made by a consensus of affected parties' (Tanz and Howard 1991). Co-management can function at varying degrees. Of most interest is the interplay of power sharing between government and local resource users (Berkes et al 1989). Co-management of natural and other resources allow Māori and Pākehā to articulate their own cultural principles on their own terms, recognising the need to work together. Diversity should not only be respected but encouraged (Taiepa et al 1997).

Finally, Māori will continue to interpret their culture and landscape from the Māori world view bound within the Treaty of Waitangi. Quality decision making needs effective participation between key stakeholders. The forming of strong partnerships should be built on trust, respect and understanding working in a collaborative co-managed model. The Crown has a duty to protect the taonga of Māori which includes resources. Indeed, the principles of the Treaty of Waitangi can be used to a build a bridge that spans two sovereign peoples' culture and values but provides a road of communication to common interests and goals.

[55] *Te Runanga a Wharekauri Rekohu v Attorney-General* [1993] 2 NZLR 301 (CA).

Appendix D: Alternatives to prescriptive regulation

(adapted from Department of State Development, Queensland, *Guidelines on alternatives to prescriptive regulation*)

Type of regulation	Pros	Cons	Application	Design
Performance based regulation	• Flexible • Able to keep up with technological and social change • Encourages innovation • Able to use industry approaches to achieve outcomes	• Effort and relatively high costs for small business • Monitoring is crucial and monitoring costs may be greater	• Suitable where industry is cohesive and has common value expectations and is represented by a strong industry association • More suitable for industries with larger businesses	• Requires strong involvement from the regulated industry for design as well as enforcement • Requires alternative approaches for smaller businesses such as deemed compliance/safe harbour provisions (careful design required in order to avoid that everyone simply relies on safe harbour provisions) • Can be combined with regulatory tiering (ie treating different industry segments differently) • If no strong industry association then more government involvement/ enforcement required • Requires ongoing education and information.
Codes of conduct	• Effective in encouraging or discouraging behaviours • Improves industry standards and promotes best practice • Improves public image of industry • Sets minimum standards for industry behaviour • Flexible as easy to update and revise • Maybe voluntary or mandatory	• May not encourage improvement • May be anti-competitive	• Can be applied in co- or self regulation setting depending on the role of the industry association as well as the affected values and interests	• Objectives must match industry values to be accepted • Require strong involvement from industry to be accepted and continuously improved • Require consultation • Non-compliance must be negative for industry either via reputation and /or sanctions • Require independent complaints procedure

Appendix D: Alternatives to prescriptive regulation (adapted from Department of State Development, Queensland)

Type of regulation	Pros	Cons	Application	Design
Standards	• Ability to quantify performance outcomes • Industry understands standards and process controls • Can be adjusted to changes	• Must be continuously monitored • Require strong industry involvement and understanding • May disadvantage smaller business depending on high the standards are	• Suitable where reliable measures are available	• Require constant monitoring to be successful • Must be ensured that measurement and monitoring does not outweigh the benefits • Require strong industry involvement • Important to determine whether minimum or ideal standards are required
Tradeable permits	• Allow effective use of resources • Able to embed performance expectations in permits • May reduce administrative costs by relying on market to make decisions	• Can restrict market entry • Market failures can prevent system from working • May require government intervention and adjustment of the system • Initial allocation and access may be controversial	• Suitable where enough participants are available • Suitable to regulate overuse of resources or facilities • Not suitable where the right or the issue that is being traded is of low value	• Appropriate performance outcomes must be attached to the rights and permits • Design must ensure it is not possible for non-participants to perform the activity without the permit • Requires a platform for the trade to take place (complex to set up?)
Education programmes/ information disclosure	• Increases compliance by raising awareness about specific issues • May reduce compliance costs • Informs users/consumers of products and services	• May be less effective • Education/information does not necessarily change behaviour • Difficult to monitor suitability of the measure	• Suitable when identified that non-compliance is the result of lack of information • Suitable in combination with other regulatory measures • Information disclosure suitable when the activity has a significant negative impact	• Requires clear objectives • Target audience must be identified • May be combined with a focus on safety culture for long term changes of behaviour and awareness
Rewarding good behaviour	• Response to industry values • Financial incentives or market acceptance encourages appropriate behaviour	• Requires monitoring • Fails if industry is not involved or rewards are not appropriate	• Useful in supporting codes of conduct • Useful in combination with performance-based regulation • Suitable when sanctions or rewards are economically significant to industry.	• Incentives/disincentives must be set at appropriate level • Requires industry involvement and consultation in order to assess current and expected behaviour