

Victorian Guide to Regulation: Problem Analysis Toolkit

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This toolkit complements the Victorian Guide to Regulation, available at:
<https://www.vic.gov.au/victorian-guide-regulation>

You can use parts of this toolkit to help address the first of the seven key questions ***Why is the Government considering action?*** and to support problem analysis for all policy and regulatory design projects. The toolkit has been structured to allow readers to jump to relevant sections to support their work and does not need to be read from beginning to end.

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Use this toolkit to support problem analysis

This toolkit has been prepared for policy makers ('you') to support the impact assessment process set out under the Victorian Guide to Regulation (VGR). It provides techniques and frameworks that you can apply when answering the key question 'Why is the Government considering action?'.

Use this toolkit to support your analysis	<p>You can use this toolkit to broaden your understanding of problem analysis and to identify concepts that may be relevant to discuss in your Regulatory Impact Statement (RIS) or Legislative Impact Assessment (LIA).</p> <p>This toolkit compiles established theoretical frameworks for diagnosing regulatory problems, and other relevant concepts. You do not have to follow it end-to-end. Use material where it is relevant.</p>
This toolkit complements the VGR	<p>The VGR <i>Problem analysis</i> section asks you to describe the harms of concern, to draw on evidence, to break down the problem to better understand it, and to account for the impact of government and non-government actions.</p> <p>Follow the VGR for your overall approach. Draw on this toolkit where it is useful, especially to diagnose the problem using a suitable structure.</p>
This toolkit helps you to structure problem analysis	<p>The VGR asks you to use suitable concepts and frameworks to explain the problem, e.g., in terms of:</p> <ul style="list-style-type: none">• market failures• behavioural science• social or equity concerns or objectives. <p>This toolkit summarises these concepts, as well as how to consider government or regulatory failure in problem analysis. When conducting an impact assessment, you should consider all these concepts and how they may be useful in framing the problem.</p>
This toolkit guides on proportionality	<p>While every situation differs, the level and depth of analysis should be proportionate to the risk and potential impacts of a proposal. Building on the VGR, this toolkit provides suggestions on how to be proportionate in your analysis.</p>
This toolkit introduces risk assessment	<p>Risk assessment is essential to good policy making, especially on complex issues. This toolkit introduces how risk can be applied in problem definition. Risk concepts summarised in this toolkit are also important to use at later stages, such as assessing options and evaluating impacts.</p>
Consult BRV for other tools and techniques	<p>The frameworks in this toolkit can be applied directly in your policy work. If you are collaborating with others, additional tools can help you to gather and structure insights. BRV delivers training on impact assessment and may be able to suggest tools to facilitate problem definition with others, available at:</p> <p>https://www.vic.gov.au/better-regulation-training</p>

Draw on suitable concepts and frameworks to understand the problem

Governments should have a clear basis for introducing regulation. This typically comes from examining why existing actions by individuals or businesses, and existing laws and rules, are not sufficient to address a harm. Consider what perspective is most relevant to your work. Key ideas are summarised below, with the following tables listing common examples.

Account for social policy objectives	<p>Governments may seek to pursue social objectives, which may require a regulatory response. Relevant objectives might include:</p> <ul style="list-style-type: none"> • law and order • cultural objectives • protecting human rights • supporting vulnerable groups • redistributing income to support equity goals • reducing community exposure to risks or harms • preserving and protecting environmental resources.
Consider 'market failures' that give rise to harms	<p>Many activities can be considered in terms of voluntary exchanges between individuals or groups. These exchanges (e.g. goods, services or money) occur within markets.</p> <p>Markets connect buyers and sellers by matching demand for a good or service with its supply. Markets can also have shortcomings that disadvantage or harm buyers or sellers, or others outside of those transactions, known as 'market failures.'</p> <p>A market failure is present when there is an inefficient distribution of goods and services within a market free of government regulation (also known as a 'free market'), which often leads to worse economic/social outcomes.</p> <p>Types and examples of market failures are described in Table 1.</p>
Consider behavioural science to help explain behaviours	<p>Cognitive biases are behavioural tendencies that influence human decision-making and action in predictable ways. These can explain behaviours that cause problems. For example, risk-taking behaviours, and failure to account for information or rules.</p> <p>Consider whether these biases could be:</p> <ul style="list-style-type: none"> • influencing the behaviours that lead or add to the problem (e.g. because some people underestimate risks, leading to injury) • limiting the effectiveness of current regulations (e.g. because people may not process and take account of all available information). <p>Types and example of cognitive biases are described in Table 2.</p>

Consider government failure	<p>For many policy problems, there are existing government interventions, or rules and requirements set by the Government.</p> <p>In some cases, the Government's response to a harm may have missed the underlying problems or causes, is not well targeted, has caused unintended consequences, or has not kept pace with change. This is known as 'government failure'.</p> <p>Regulatory failure is a subset of government failure involving regulatory interventions. It may occur when the regulations put in place do not:</p> <ul style="list-style-type: none"> • address or overcome market failures • protect the public • have no impact or unintended impacts on society. <p>Examples of government and regulatory failure are described in Table 3.</p>
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Account for compliance settings

In many cases, a problem might be significantly influenced by whether:

- regulated entities (or 'duty holders') adequately manage risks and harms in their actions
- existing rules or compliance requirements are followed
- regulators and other government actors drive compliance with existing rules.

In these cases, additional considerations around compliance are especially important to problem definition. For example, consider the following.

Account for compliance behaviours	<p>In many cases, there may be existing rules or standards in place that are not being correctly followed.</p> <p>Consider what influences compliance with regulations, including:</p> <ul style="list-style-type: none"> • what motivates people to comply or avoid rules, such as threat of detection and belief in the value of rules • people's 'compliance posture', e.g. wilfully non-compliant, opportunistically non-compliant, or consistently compliant • social and economic costs of compliance or non-compliance • non-government influences (e.g. activism, social media, community and industry groups). <p>Influences on compliance behaviour are described in Table 4.</p>
Account for the current compliance settings	<p>Consider how the approach to monitoring and enforcing compliance impacts on the problem to answer such questions as:</p> <ul style="list-style-type: none"> • Is the regulator using the full range of regulatory tools available to drive compliance (e.g. education campaigns through to compliance monitoring, remedial action, and prosecutions)? • Should more regulatory tools be made available? • Should focus/resourcing be shifted between tools?

Account for non-government influences on compliance	<p>In some cases, problems are influenced by the role of business bodies, not-for-profits, government service delivery agencies and the community in monitoring and acting on non-compliant behaviour.</p> <p>If there are shortcomings in compliance with existing requirements, it is important to assess whether the design of compliance monitoring frameworks adequately accounts for the potential role of these parties, rather than solely relying on the regulator alone. This is especially important where the regulator faces legislative, resource or knowledge constraints.</p>
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Use the concepts and frameworks to develop your problem analysis

A good problem analysis will draw on relevant frameworks to help understand the problem and set up the later sections of an impact assessment, such as options analysis. Consider the following:

Focus on understanding the problem	<p>Take time to understand and clearly articulate the problem. More complex problems will require more research and time to understand, but it is also important to consider which aspects of the problem are most important for the sake of understanding the aims of the proposed policy.</p>
Understand the causes of the problem	<p>Describe the factors that give rise to the problem (e.g. lack of knowledge, indifference to risk, private incentives, market advantage).</p> <p>Use existing data, case studies and research and current program evaluation outputs to inform your understanding. Where causes are not known, transparently describe the efforts made to understand the problem and the limitations faced.</p> <p>It may not be easy or possible to collect quantitative data. In this case, using more accessible, qualitative data, may be sufficient to understand the causes of the problem. However, the expectation to use or develop quantitative data increases in line with the significance of the problem.</p>
Take a hypothesis led approach	<p>Undertake new analysis based on existing information to test hypotheses and to draw conclusions. A hypothesis-led approach involves developing a hypothesis based on the findings of initial research and your understanding of the issue. The hypothesis is then used to determine what data is needed to completely understand the issue.</p> <p>While gathering this data, you may find that your original hypothesis is wrong and needs to change. Research and analysis should continue until the current hypothesis is supported by evidence.</p>
Identify impacts on different groups	<p>When a problem affects multiple sectors or has varying degrees of impact (e.g. by groups affected or region), discuss these in a qualitative sense. Quantify impacts where practicable. Use existing compliance, reporting or case data to further analyse or 'break down' the effects of the problem by group. Where relevant, use case studies and consultation with regulators or regulated parties, to support and complement quantitative analysis.</p>

Use multiple data sources	<p>As much as practicable, use quality data from trustworthy organisations. Use multiple data sources, drawing on early engagement and data gathering with stakeholders. Seek comparable data from other jurisdictions. Combine qualitative and quantitative information, where appropriate, to describe the different elements of the problem.</p> <p>Be proportionate in sourcing data. Using existing data can reduce time spent on analysis. Collect new data and conduct primary research where practicable and where existing data is insufficient for your analysis.</p>
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Analyse risk in your problem analysis

In general, most impact assessments will benefit from considering problems in terms of 'risk,' as it can help you to focus on different attributes of the problem. Consider the following stages in your approach:

Risk assessment accounts for the impact of hazards	<p>Key concepts associated with risk are:</p> <ul style="list-style-type: none"> • Risk – the likelihood and consequence of a hazard occurring. • Hazard – a potential source of harm. • Likelihood – the chance of a hazard eventuating. • Consequence – the amount of harm or impact, should a hazard occur.
Account for the government's attitude to risks	<p>Seek to clarify the Government's objectives and approach to the risks. To do this, consider:</p> <ul style="list-style-type: none"> • interpreting information (e.g. legislation, second reading speeches, government policy statements) • conducting research on government and community expectations.
Account for who can act on the risk	<p>Recognise that the Government should be cautious before assuming responsibility for managing risks, as:</p> <ul style="list-style-type: none"> • private mechanisms (such as rating systems and insurance) may be more effective and better placed to address the risk • assuming responsibility can undermine people's capacity to protect themselves. <p>Therefore, you should identify the capacity and incentives for private parties to manage risks.</p>
Consider whether government should act	<p>Think about whether or not governments should intervene. For example:</p> <ul style="list-style-type: none"> • whether the risks that government intervention would address are significant compared with other risks • the extent to which government intervention would reduce the risk (i.e. the effectiveness of the response) • whether there is capacity and incentives for private parties to manage risk (i.e. there is less need for prescriptive regulation if businesses have strong commercial incentives to control risk).
Express the risk outcome you are seeking	<p>Considering the attributes of risks, develop an idea of what success looks like and how regulation could achieve these objectives. This may mean expressing whether you seek to eliminate or reduce a risk. It may also mean, discussing the level of risk that is considered acceptable given any costs associated with regulation.</p>

Analyse the nature of the risk

Once you have developed your perspective on risk, analyse the nature of the risk.

Identify and analyse the risks that relate to the problem	<p>Consider the activities, events, industry operations or natural processes that create risks that potentially contribute to the identified harms and the likelihood and consequences of their associated risks.</p> <p>There are a number of tools that can be considered to assess and rank the relevant risks. A risk matrix (as demonstrated in Example - Applying risk tools) is one tool that may assist in mapping and categorising these risks based on the likelihood (probability) and consequences (effects) of these risks occurring.</p> <p>It is important to consider the appropriate use of qualitative and quantitative data in analysing the risks.</p>
Compare multiple problems using risk tools	<p>Where there are multiple problems there is a need to prioritise focus or to analyse how options would compare in addressing risk. This involves identifying hazards and estimating the probability that they will occur and their consequences (recognising that there will be uncertainty surrounding such assessments).</p> <p>A risk matrix can assist to map and prioritise these different problems (as demonstrated in Example - Applying risk tools).</p> <p>When applying risk tools, consider the size of the population likely to be affected and the severity of the impact. This will indicate the aggregate effect of an adverse event.</p> <p>For example, 'major' consequences may include significant harm to a small group of affected individuals or moderate harm to a large number of individuals.</p>
Use risk assessment to focus your analysis	<p>Risk tools help provide a more rigorous understanding of problems and links to subsequent stages, including options development and impact analysis. It will not be required in all impact analysis documents.</p> <p>On some documents it may be appropriate to conduct further analysis based on the initial higher-level risk assessment, such as developing a list of a manageable number of significant risks and further analysing the key drivers, likelihood, and consequences of each of the risks. This can help ensure that you spend effort where it is most material to understanding the problem.</p>
Consider changing risks, perceptions and special circumstances	<p>It is important to recognise:</p> <ul style="list-style-type: none"> • emerging or increasing risks • different perceptions of risk by the community and experts • when specific analytical tools are required for catastrophic risks (low probability, high consequence).

Develop risk treatments

With an understanding of the nature of the risks, you can develop options to treat risks. This activity will mainly occur during your options analysis stage.

Identify appropriate and proportionate response to risks	<p>The aim when dealing with risk should not be reducing risk at all costs but rather to balance the marginal benefits and costs to society by lowering the risk. As regulation cannot eliminate risk entirely, you will need to consider acceptable levels of risk to 'tolerate,' and how much it will cost the community to reduce or eliminate that risk in relation to your policy problem, bearing in mind that sometimes regulation may simply shift risk.</p>
Categorise your risk treatments	<p>There are many different 'treatment categories' available for risk, including:</p> <ul style="list-style-type: none">• Tolerate: Take no action but consider risks for contingency planning.• Transfer: Share risk/s with another party, such as through outsourcing or insurance.• Mitigate: Remove the source or reduce the consequences or likelihood of the risk occurring.• Avoid: Stop activities that might lead to the risk occurring. <p>The best choice of treatment category will depend on the level of risk that can be tolerated, the ability to influence the risk, and the costs and benefits of doing so.</p>
Consider who is responsible for contingency planning	<p>A contingency plan is a course of action designed to help an organisation respond effectively to a significant future incident, event or situation that may or may not happen, to reduce the burden on the organisation and society if the event occurs.</p> <p>Consider who has responsibility for contingency plans and responding to adverse events. This includes:</p> <ul style="list-style-type: none">• clearly defining the department and regulator's role in initiating policy or regulatory changes• clarifying the regulator's scope to respond to emergencies or emerging issues• identifying when the department and/or regulator should be involved in the regulatory change process.

Risk analysis – hypothetical example

A gym equipment manufacturer releases a new weight training device onto the market, which quickly becomes popular with the help of endorsements from influencers and celebrities. Several other suppliers launch similar devices, some targeting a lower price point. There are reports of injuries occurring to users of this type of device. The original manufacturer argues the product is safe and that injuries could only have occurred due to misuse of the product or failures of cheap imitations. Some people propose banning the product to prevent adverse health consequences. However, a ban could lead to job losses in a growing industry which is expanding into export markets,

A risk register and matrix can be used to analyse the risks posed by the product. Because the product is new to the market, there is a lack of historical data available. The risk register draws on desktop research, consultation with medical experts and qualitative scenario analysis to assess the potential likelihood and consequences of the risks identified.

Risk register

Risk	Likelihood	Consequence
1. Health effects from inappropriate use by general population	Medium	Low
2. Health effects from inappropriate use by people with pre-existing medical conditions	Medium	High
3. Health effects from poor product quality used by the general population	Low	Low
4. Health effects from poor product quality used by people with pre-existing medical conditions	Low	High

Risk Matrix

The categories of risk from the register are mapped in a matrix to identify areas of high (red), medium (yellow) and low (green) risk.

Likelihood	High	Medium risk	High risk	High risk
	Medium	Low risk	Medium risk	High risk
	Low	Low risk	Low risk	Medium risk
		Low	Medium	High
		Consequence		

The most significant risks (those ranked red or yellow) are then analysed in more detail to answer questions such as:

- Does the health of consumers (such as medical conditions) contribute to likelihood of injury?
- What characteristics of the product or its use make it more prone to causing harm?
- Do the behaviours of businesses such as cutting material costs, contribute to this potential harm?
- How informed are consumers likely to be of the potential harm?
- Are there incentives or disincentives for businesses and/or consumers to self-control and limit the potential harms caused by their products?
- Is there already general regulation, or non-regulatory options such as information provision, that could be used to address the problem?

Reference tables

Table 1: Common types of market failures

Consider if any of these market failures are present, and their relevance to understanding the problem.

Market failure	Explanation
Public goods	<p>A private good is one where access to users can be restricted to those who have paid for it ('excludability'), and one which once paid for by one consumer cannot be used by another ('rivalry'). For example, an individual's car constitutes a private good. A public good is non-excludable (anyone can have access to it once it is provided) and is non-rivalrous (any person can benefit from it without diminishing anyone else's utility. For instance, national defence and street-lighting are commonly cited examples of public goods. Once provided, all members of the community can benefit from a public good, but it is not feasible to charge all users for these goods. As a result, public goods may not be provided, or be under-provided, unless governments intervene.</p>
Unclear or unenforceable property rights	<p>For a market to function effectively, parties need to have confidence the transaction will work as expected. If property rights are not clearly defined, it is difficult for parties to pursue opportunities for exchange.</p> <p>The protection of property rights by governments can facilitate mutually beneficial exchanges between parties. The protection of property rights promotes confidence in investment. Unclear property rights may restrict investment, resulting in limited supply of goods and services and higher prices for consumers.</p>
Externalities	<p>An externality is a positive or negative impact on third parties to a transaction involving the production or consumption of a good or service (i.e. consequences not felt by not the buyer or seller).</p> <p>An example of a positive externality is education, where employers benefit from an educated and skilled population through improved productivity. An example of a negative externality is pollution, where the costs of cleaning up pollution, negative health impacts, and the aesthetic effects of pollution fall on the broader community (rather than the business generating the pollution or consumers of the business' goods).</p> <p>Governments should consider the impact externalities have on society, both present and future.</p>
Tragedy of the Commons	<p>A 'common pool resource' is non-excludable (anyone can have access to it once it is provided) and is rivalrous (any person's consumption will diminish another person's enjoyment). This can lead to overuse of shared resources known as a 'tragedy of the commons.'</p> <p>Subsidies, incentives, quotas or programs can in some cases drive overuse of a resource or a 'rush' to extract a resource to, for instance, meet maximum allowance under a quota or secure rights to resource use before competitors do (e.g., extraction of groundwater and fishing quotas).</p>

Market failure	Explanation
Excessive market power	<p>Markets work well when buyers can choose between a large number of sellers, and when sellers have a large number of prospective customers (buyers). If there are only a few buyers or a few sellers, then they can have 'market power' and influence the quantity, quality and market price of a good or service. If sellers (or buyers) have market power, other parties are less able to go elsewhere to get a better deal.</p> <p>Excessive market power often arises from uncompetitive market structures (e.g. a 'natural monopoly' where there are high fixed costs which represent a barrier to entry for competitors to a single large firm/service provider) or anti-competitive conduct that sees several parties acting as a single player in the market (e.g. collusion). With limited competition, sellers who have market power can set prices well above costs, leading to higher prices and limited product options for consumers. Buyers with significant market power can drive down prices.</p>
Imperfect information	<p>Markets are more likely to allocate resources efficiently if producers and consumers both have identical and complete (or 'perfect') information about the characteristics of a good or service.</p> <p>With perfect information, consumers are aware of the product quality and are able to determine if the price is fair, as well as having the opportunity to compare product options offered by a range of sellers. With greater information sharing between business and consumers, consumers can participate more effectively in a competitive market. This usually leads to lower prices. This can benefit business by giving consumers confidence to buy their products, increasing profits and providing business stability.</p> <p>In reality, perfect information is very rarely available, and even when it exists, parties may not be able to fully access and interpret relevant information.</p> <p>Shortfalls in information can disadvantage buyers or sellers. Asymmetric information (where the buyer or seller has more information) can advantage the party (buyer or seller) with more information. For example, the seller of a used car or other product has more information about product quality than the buyer, and the buyer of a health insurance policy has more information about their health than the seller. It is important to understand the characteristics of 'shortfalls' in information availability and accessibility, whether market solutions are emerging via signals or other means, and who these deficiencies impact.</p> <p>Governments can help improve the quantity and quality of information provided in markets by requiring sellers to disclose information, providing the information themselves or placing restrictions on the supply of goods or services regarded as dangerous. Governments can also contribute to greater confidence in a product or industry by supporting information sharing between industry and government. For example, governments can share investment information with insurers to build confidence in resilience and risk management.</p> <p>'Moral hazard' is also an example of an information problem that can lead to market failure. Moral hazard occurs when someone can benefit at the expense of another person from knowing their own actions better. Moral hazard is discussed further below in the context of government and regulatory failure.</p>

Table 2: Cognitive biases

Consider if any of these cognitive biases could be influencing the behaviours that lead or add to the problem or could be limiting the effectiveness of current regulations.¹

Cognitive bias	Explanation
Anchoring	When a person's estimate is influenced by a reference value. For example, consumers may purchase the mid-priced option out of three products by inferring from the prices alone that it is higher quality than the cheapest option and represents better value than the more expensive option.
Availability bias	Additional weight is placed on information that is readily available rather than systematically weighing a range of information on its merits. For example, picking the first business that comes up in an online search, when a competitor may represent better value.
Choice overload	When making a choice becomes harder because there are too many options, also referred to as analysis paralysis, leading to a decision based on incomplete information or no decision at all.
Confirmation bias	When a person places more weight on evidence that confirms their pre-existing beliefs and/or discounts evidence that challenges those beliefs.
Endowment effect	When a person values something they have at greater than market value (for example, attaching sentimental value to a possession).
Framing effect	When the way in which information is framed changes behaviour. For example, a undergoing a medical procedure may be influenced by expressing the likelihood of an adverse outcome as a survival rate rather than a mortality rate.
Information overload	Too much information makes it harder to identify the key evidence and make a choice based on systematic analysis of the relevant information.
Loss aversion	When a person is more sensitive to a loss than a gain of the same value due to the anticipated disappointment of losing (e.g. Preferring to take a guaranteed return of \$400 than a 50/50 shot at \$1000, with an expected value of \$500).
Mental accounting	When the perception of the value of money changes based on the form it is expressed in or its source (e.g., allocating a tax refund to a discretionary purchase rather than treating it as part of annual income to be allocated according to regular patterns of spending and saving).
Overconfidence bias	When someone's confidence in their own ability is greater than their actual ability, for example because they do not know enough about the activity or project they are undertaking to identify likely challenges or sources of complexity.
Present bias	When values today are considered more valuable than in the future (e.g. not wanting a small cost today even though it may result in significant future gains).
Status quo bias	Favouring courses of action that continue existing procedures due to fear of uncertainty or blame if an alternative course of action is successful. .
Survivorship bias	Focusing on those who survived or succeeded in a particular process rather than those who failed (and may therefore be absent from the sample), even though we can often learn more (or more important) things from the latter. For example, data on the performance of investment funds could be skewed because it might not include poorly performing funds that have closed down.

¹ The VPS Innovation Network has resources on behavioural insights: <https://innovationnetwork.vic.gov.au/>

Table 3: Government and regulatory failures

Consider if any of these government or regulatory failures are present, and how the problem might be different if they changed.

Government and regulatory failure	Explanation
Influence of special interests on purchasing requirements	Where the government mandates use of a product or service to achieve a policy goal, this will shape markets and behaviours. In some cases, special interests or entrenched practices or conventions can influence policy settings with the potential for negative outcomes and distortion of markets. For example, mandating the use of ethanol in automotive fuel with related impacts on corn/food prices and trade tariffs in the USA.
Risks to market stability and impacts on investment	Regulations can create or curtail industries. Such powers add uncertainty and risk in markets, which can discourage investment.
Compromise in regulation-making	Concessions and negotiation in law making can lead to definitional uncertainties or gaps in the legal framework. Where there is substantial scope for interpretation, this can create tensions and disagreement between regulators and regulated parties.
Damaging competition and protecting existing interests	New standards, such as environmental standards, can create compliance and cost challenges for existing industries established under older frameworks. Concessions or exemptions introduced to account for these industries can then create undesirable 'barriers to entry' (e.g. higher costs) for new market entrants, which could reduce competition.
Weakening feedback	Feedback (e.g. in the form of consumer valuing of goods, or price signals on resources) is an essential component of many activities. Government action (e.g. through taxation and cross-subsidisation to support 'unproductive' activities) can weaken or eliminate important feedback.
Actions created under crisis	A swift government response created in response to a significant incident or crisis risks generating unintended consequences, because there is insufficient time to analyse risks.
General unintended consequences	Unintended consequences of regulation can be many and varied as they can change incentives and encourage people to act in ways that were not foreseen. For example, restrictions and taxes on the sale of cigarettes contributing to sales of illegal tobacco and vapes.
Concentrated benefits and diffused costs	There are usually some businesses or other parties that benefit from a regulation. These benefits might be direct (e.g. government supporting certain businesses or restricting entry into a market, which benefits existing businesses) or indirect (e.g. licensing requirements for businesses or professions create a barrier to entry which can deter new entrants into a market). For existing regulations, benefiting parties will likely advocate to retain existing advantages. However, there may be greater costs to the regulation, and if these are spread amongst a population there is little incentive for those bearing the costs to raise issues with costs of inefficiencies.

Government and regulatory failure	Explanation
Stifling innovation	If regulations mandate a particular solution to a problem, there is limited incentive for companies to develop alternatives. Technology quickly becomes outdated, and existing arrangements can hold back superior (e.g. safer, less polluting, more efficient) options.
Security measures reducing the level of perceived risk	<p>Having regulations and regulatory activity can give individuals a greater sense of security. As a result, people may take greater risks, or not take appropriate precautions in the belief that they will be protected, or that 'bad' operators have already been managed.</p> <p>This relates to the 'Peltzman Effect', which is a theory that people are more likely to engage in risky behaviour when security measures have been mandated.</p>
Moral hazard	In the context of government and regulatory failure, moral hazard can occur when businesses or community fail to adequately manage risks because of a perception that those risks will be borne by another party. Examples include where major institutions are 'too big to fail' and thus receive government 'bail outs', where government is perceived as being ultimately responsible for managing industrial waste (leading to reduction in industry vigilance) or where consumers do not adequately assess risks when engaging a practitioner because they believe government licensing manages these risks.
Inequitable allocation	<p>Private markets may not equitably distribute goods and services to communities where a large proportion of people lack purchasing power. This can leave individuals and groups without adequate access to essential goods and services, which can lead to negative outcomes including increasing the prevalence of preventable diseases.</p> <p>For example, social services in rural or remote areas may not be well provided for by markets, and government intervention may be able to improve equity.</p> <p>It is important to consider how the presence, or lack of, regulation and non-regulatory intervention may influence the equitable distribution of goods and services.</p>

Table 4: Influences on compliance

For existing problems, it is important to understand why the problem continues under existing regulations. The motivations and characteristics of individuals and businesses can influence their perception of regulations and compliance. Consider the following factors, which can help identify the causes and extent of any non-compliance under current regulations.²

Dimension of compliance	Key questions
Knowledge of the rules <i>Familiarity and clarity of legislation and standards among the target group</i>	<ul style="list-style-type: none"> • Familiarity: Does the target group know the rules or only need to make limited efforts to find out about the rules? • Clarity: Is the legislation complex for the target group? Are there impediments to the target group understanding the rules?
Costs and Benefits <i>The tangible/intangible advantages and disadvantages of breaking (or complying with) the rule, as expressed in time, money and effort</i>	<ul style="list-style-type: none"> • Economic: According to the target group, does complying with the rules cost relatively little time or money? Does the target group perceive that breaking the rules results in an advantage (e.g. does missing a requirement reduce operating costs), or a disadvantage (e.g. reputation impacts)? • Intangible: Does the target group believe that complying brings emotional value, or social advantage, and that not complying has disadvantages?
Capacity to comply <i>Does the target group have the capacity to comply to the rules?</i>	<ul style="list-style-type: none"> • Is compliance relevant to the target group's business model or is it an 'afterthought', or even irrelevant? • Do they lack the money, time, education or expertise to become aware of their obligations, decide to comply and implement compliance? • Do they have sufficient management systems to implement compliance?
Degree of Acceptance <i>The degree to which the target group regards the policy and the rules as acceptable</i>	<ul style="list-style-type: none"> • Acceptance of policy objectives: Does the target group feel a shared responsibility towards the problem or objectives? • Acceptance of effects of policy: Does the target group regard the current or proposed regulations as proportionate and reasonable?
Target groups' respect for authority <i>The extent to which the target group respects governmental authority</i>	<ul style="list-style-type: none"> • Official Authority: Does the target group generally abide by the rules and have respect for authority? • Competing authority: Are the target group's own values in line with legislation?

² For further information, see Parker and Nielsen's Regulatory Theory Chapter 13 – Compliance: the 14 Questions – see <https://www.jstor.org/stable/pdf/j.ctt1q1crtm.21.pdf>

Dimension of compliance	Key questions
Non-governmental control (social control) <i>Perception of consequences from groups other than the authority for non-compliance.</i>	<ul style="list-style-type: none"> • Social control: Does the target group feel that violation of the rules would be noticed by their community? Does the target group believe that their community disapproves of violations and that there may be consequences (social sanction)? • Horizontal supervision: Does the target group use any forms of horizontal supervision (e.g. financial auditing, industry codes of practice, supply chain QA/QC) that prompts compliance? • Do industry groups and other regulated parties, customers, investors, trading partners, local communities, industry groups, non-governmental organisations or other stakeholders facilitate compliance?
Risk of being reported <i>Perception of the likelihood of a violation being reported to the authorities by others</i>	<ul style="list-style-type: none"> • According to the target group, are the community or horizontal supervision parties generally inclined to report detected violations to authorities?
Risk of inspection <i>Perception of the likelihood of being inspected by the authorities for possible violations</i>	<ul style="list-style-type: none"> • Is the regulator selective in identifying and prioritising targets for inspection? • Do some members of the target group perceive themselves as falling outside the priority targets for inspection? • Are they aware of how the regulator 'screens' for breaches when inspecting or investigating? • Does the target group believe there is a major risk of being inspected? • Does the target group have the impression that the regulator is likely to target their group for inspection?
Risk of detection <i>Perception of the likelihood of a violation being detected if the authorities inspect</i>	<ul style="list-style-type: none"> • Can everything be inspected at a physical inspection and is it easy for inspectors to detect violations?
Risk of sanction <i>Perception of the likelihood of a sanction if a violation is detected</i>	<ul style="list-style-type: none"> • Does the target group estimate the likelihood of a sanction resulting from a detected non-compliance as being high?
Severity of sanction <i>The severity of a sanction associated with the violation and additional disadvantages of being sanctioned</i>	<ul style="list-style-type: none"> • Severity of sanction: Does the target group know the sanctions they face if not compliant? Does it regard sanctions as severe? • Damage to reputation: Does the target group care if it becomes known that it has been sanctioned?