



Australian Government  
Department of Industry, Science,  
Energy and Resources

# Reforming Australia's Measurement Legislation

## Consultation Regulation Impact Statement

RIS ID: 23160

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# 1 Executive summary

This consultation Regulation Impact Statement (RIS) has been prepared to consider the reform options developed under the Measurement Law Review and seek feedback from stakeholders on these options. It has been developed by the Department of Industry, Science, Energy and Resources in accordance with *The Australian Government Guide to Regulatory Impact Analysis* and in consultation with the Office of Best Practice Regulation.

This document covers the first four of the seven standard RIS questions:

1. What is the policy problem to be solved?
2. Why is government action needed?
3. What policy options are being considered?
4. What is the likely net benefit of each option?

Following feedback from stakeholders, this document will be expanded to cover the three remaining RIS questions:

5. Who was consulted and was their feedback incorporated?
6. What is the best option from those considered?
7. How will the chosen option be implemented and evaluated?

The final RIS will be submitted for government consideration in late 2021.

## 1.1 Role of measurement legislation

The national measurement legislation underpins significant economic and social outcomes for Australia and provides confidence in measurement across the economy. It supports domestic and international trade, ensures that consumers get what they pay for, and protects the health and safety of Australians through trusted measurement. It also provides a basis for uniformity of all measurements in Australia, from traditional weights and measures to advanced chemical and biological analysis, ensuring consistency and interchangeability of measurements nationally and internationally.

## 1.2 Limitations of current measurement legislation

There are, however, significant issues and limitations with the current measurement legislation, including:

- an inability to adapt to new and emerging measurement technologies
- not allowing for new ways to determine measurements, particularly in relation to traceability<sup>1</sup>
- being too prescriptive, resulting in a lack of flexibility
- a lack of consistency across measurement-based transactions and appointment of authorised third parties

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<sup>1</sup> A glossary covering key terms can be found at Appendix 1. **Traceability** is defined by the as: the property of a **measurement result** whereby the result can be related to a reference through a documented unbroken chain of **calibrations**, each contributing to the **measurement uncertainty**.

- limited compliance and enforcement mechanisms focussed on individual deterrence and punishment which treats small and large enterprises the same
- exemptions that were intended for review on transition of responsibilities to the Commonwealth (in 2010).

The measurement framework needs to evolve to facilitate innovation in industry and measurement practices. This will allow Australia to keep pace with its trading partners, and maintain international (and regional) obligations and influence. Undertaking a thematic review of the legislation will allow for a contemporary approach that minimises burden for industry and reduces the risk of deliberate fraud facilitated by malicious software or devices, while maintaining confidence in the measurement system.

The limitations of the existing legislation are discussed in more detail in response to [RIS Question 1](#).

### 1.3 Rationale for government involvement

The Australian Government has constitutional responsibility for measurement and is best placed to make, maintain and enforce relevant laws, ensuring consistency which reduces internal barriers to trade, lowers the cost of doing business and creates a level playing field for Australian businesses. This approach facilitates Australia's entry into international and regional cooperative agreements that enhance international alignment, cooperation and economic outcomes. This is discussed further in response to [RIS Question 2](#).

The primary policy objective of Australia's measurement legislation is to provide a strong and effective measurement system that is accepted and trusted both domestically and internationally.

This primary objective is supported by three subordinate objectives:

**Measurement confidence** through:

1. **Industry efficiency** – by establishing a level playing field for industry to be able to trade with confidence, reducing transaction costs and enabling fair competition.
2. **Community trust** – ensuring everyone gets what they pay for and limiting market failures including from information asymmetry.
3. **Government reliance** – by enabling key government outcomes needing accurate and reliable measurement (for example, food, health, agriculture, the environment, law enforcement and safety).
4. **International recognition** – ensuring Australia's measurement system is globally recognised and accepted, supports international trade and meets treaty obligations.

**Legislative adaptability** to:

5. **Enable innovation** – by adjusting to emerging measurement technologies.
6. **Be fit for purpose** – by regulation being appropriate and proportionate to measurement risk and usage.
7. **Provide future flexibility** – to accommodate changing business practices and evolving measurement needs.

**Outcomes for stakeholders** including:

8. **Industry investment** – by establishing an environment that encourages industry to invest in building and maintaining capability reliant on measurement.
9. **Balancing market costs and benefits** – by minimising unnecessary regulatory burden and cost for industry while maintaining confidence in the measurement system.

10. **Balancing cost to government** – delivering key capabilities and services that benefit Australian industry and the community at a reasonable cost.

## 1.4 Overview of reform options

This RIS outlines three reform options for consultation.

*Table 1: Reform options for consultation*

Status quo	Reform option 1	Reform option 2	Reform option 3
No change	Streamline with Minimal Change	Flexible and Future Focused	Flexible with Additional Regulatory Powers
Maintain existing prescriptive legislative framework	Streamline the legislation and reduce prescription by taking a principles-based approach, whilst largely maintaining the current scope	Streamlined as for Option 1, and further reduce regulatory burden by significantly increasing flexibility and support for innovation	Extend Option 2 by providing appropriate powers to regulate measurements relied upon by other policy owners

These options were developed following analysis of the measurement framework and significant consultation with a broad range of stakeholders.

A high level overview of these options is provided below. Further detail, and the differences between the options are provided in response to [RIS Question 3](#). The timing of potential changes is outlined in [Appendix 4](#).

### 1.4.1 Option 1: Streamline with minimal change

**Option 1** streamlines the legislation and reduces prescription by taking a principles-based approach, whilst largely maintaining the current scope. Option 1 involves:

- updating the existing legislation to align with present day practice and address current needs of industry, but with limited future support for industry and innovation needs.
- streamlining and simplifying the legislation to have less prescription and more principles-based requirements
  - *Example: simplifying requirements for pre-packaged products.*
- fixing key issues that have arisen over time, but with limited change in scope and limited flexibility to adapt to future changes.
- maintaining existing exemptions.
- assisting in short-term economic recovery by providing enhanced confidence for industry to invest in jobs and technology, without enabling future legislative flexibility to properly support long term growth.
- issuing guidance material to assist industry.

### 1.4.2 Option 2: Flexible and future focused

**Option 2** includes the streamlining under option 1, and further reduces regulatory burden by significantly increasing flexibility and support for innovation. Key enhancements under option 2 include:

- in addition to the simplification and streamlining under option 1, introducing extra flexibility to adapt to future needs.
- a slight extension in scope to better underpin trade and support innovation. Option 2 enables fit for purpose regulation of measurement for trade and the flexibility to adapt to emerging measurement issues, changing technologies and business practices.
- maintaining exemptions but transferring them from the primary Act to the regulations, simplifying future review.
- modernising the primary legislation to become largely principles-based, and providing the appropriate mechanisms that enable adjustment of key regulatory settings over time.
  - *Example: adjusting degree of regulation for different measuring instruments based on design, use and risk.*
- supplementing principles-based regulation with guidance material.
- providing greater support for innovation and future measurement needs to help grow industry and technology, which are vital to Australia’s economic recovery and long term competitiveness.

### 1.4.3 Option 3: Flexible with additional regulatory powers

**Option 3** extends option 2 by providing appropriate powers to regulate measurements relied upon by other policy owners, beyond a primary focus on trade under options 1 and 2. Key enhancements under option 3 include:

- the flexibility gained under option 2, with an expansion of scope providing the additional power to directly regulate all measurement-based activity (including measurements relied on by other regulators).
  - *Example: regulatory frameworks for food, health and the environment rely on measurements to inform key requirements. Where appropriate, measurement law could be extended to support confidence in these areas, in consultation and agreement with the responsible policy owners.*
- the exercise of powers in policy areas of other portfolios would be in specific areas, either by agreement or unilaterally if warranted (for example in a crisis).
- the reduced regulatory impact under option 2, with an ability to regulate all measurement-based activity in a collaborative and proportional manner that avoids regulatory duplication where possible.
- positioning Australia to respond to future regulatory gaps by supplementing coverage of other frameworks in relation to measurement, enabling a greater ability to provide expertise and confidence to industry and government.

## 1.5 Policy analysis of reform options

A detailed analysis of how each option meets the policy objectives and principles is provided in response to [RIS Question 3](#). This analysis is summarised in Table 2 below. The degree of alignment between an option and the key policy principle is indicated as low, medium or high via colour coding.

Alignment with principle:

Low

Medium

High

From this analysis, **option 2** appears to provide the greatest alignment with the policy principles and objectives. It does this by providing a framework that supports industry growth through innovation and technological advances that meet both current and future measurement needs, whilst balancing costs and benefits for stakeholders and government.

Table 2: Alignment of proposed options with the key policy principles

	Principle	Status quo	Reform option 1	Reform option 2	Reform option 3
Measurement Confidence	<b>Industry Efficiency</b> Establishes a level playing field for industry to be able to trade with confidence, reducing transaction costs and enabling competition	Prescriptive legislative framework	Supports level playing field, with limited flexibility	Supports level playing field with flexibility to streamline trade measurement requirements	Supports level playing field with flexibility to streamline broad measurement requirements
	<b>Community Trust</b> Ensuring everyone gets what they pay for and limiting market failures including from information asymmetry	Prescriptive legislative framework with some gaps	Prescription partially reduced and some gaps addressed	Significantly less prescription, gaps addressed, broader coverage of goods and services	Greater ability to support trust in all measurements relied on by society
	<b>Government Reliance</b> Enabling key government outcomes needing accurate and reliable measurement (for example, food, health, agriculture, the environment, law enforcement and safety)	Instrument regulation for trade use is hard to link to for non-trade outcomes	Limited flexibility to assist government agencies other than service agreements	Government agencies more able to link to legislative framework	Flexibility to regulate all measurement-based activity
	<b>International Recognition</b> Ensures Australia’s measurement system is globally recognised and accepted, supports international trade and meets treaty obligations.	Some alignment limitations for international references	Greater alignment for chemical and biological measurements	Increased flexibility to accommodate greater trade alignment	Flexibility to accommodate greater alignment across all measurement and practice
Adaptability	<b>Enables Innovation</b> Facilitates innovation by adjusting to emerging measurement technologies	Prescriptive requirements create barriers and technology assumptions	Align with current but not future technology and practice	Ability to respond to and drive innovation and technology changes for trade and legal purposes	Ability to respond to and drive innovation and technology for all measurement
	<b>Fit for purpose</b> Ensures regulation is appropriate and proportionate to measurement risk and usage	Prescriptive regulation, one size-fits-all	Less prescriptive requirements, some exemptions	Principles-based and flexible regulation enables targeted trade requirements	Principles-based and flexible regulation to address broader measurement failures
	<b>Provides Future Flexibility</b> Provides regulation that can accommodate changing business practices and evolving measurement needs	Limited flexibility	Some flexibility	Greater flexibility to support emerging trading practices	Significant flexibility to support all measurement outcomes
Outcomes	<b>Industry Investment</b> Encourages industry to invest in building and maintaining capability reliant on measurement	Prescriptive legislative framework for measurement services supports industry capability	Measurement services roles simplified, with additional capability pathways	Flexibility to support evolving measurement services aids industry development	Greater principles-based regulatory engagement creates opportunity
	<b>Balancing Market Costs and Benefits</b> Minimises unnecessary regulatory burden and cost for industry while maintaining confidence in the measurement system	Prescriptive framework is one size-fits-all rather than targeted to risk	Principles-based approach reduces regulatory burden	Flexibility enables very targeted arrangements, reducing burden	Potential for regulatory duplication
	<b>Balancing Cost to Government</b> Ensures costs to deliver are reasonable, key capabilities and services are delivered to the benefit of Australian industry and the community	Known cost for a functioning, but ageing framework	Potential increase in enforcement costs, but reduced administration costs, and more effective framework	Enforcement costs and costs to manage flexible arrangements result in more effective framework	Supporting agencies via infrequently used capability is expensive



## 1.6 Net benefits of reform options

In response to [RIS Question 4](#), this RIS seeks to identify the net benefit of each option by providing:

- an estimate or description of regulatory burden based on options of reform
- an impact analysis on key stakeholders
- a preliminary net benefit assessment of each option.

The conclusions from this analysis are outlined below.

### 1.6.1 Changes in regulatory burden

This RIS calculates regulatory impacts from the reform options which can be reliably costed. Where possible this RIS adopts the Regulatory Burden Measurement framework, or alternative costing methods tested with the Office of Best Practice Regulation, in order to cost the impacts of the options.

The way in which some of the options would be implemented will depend on future data collection, analysis and consultation. This means that it is not possible to completely cost the change in regulatory burden that would flow from each reform option.

The quantifiable changes in regulatory burden that have been identified are outlined in the table below.

*Table 3: Summary of quantifiable changes in regulatory burden by option*

Area of regulatory burden	Stakeholders	Option 1	Option 2	Option 3
<b>Measurement marking requirements on packaged products</b>	Industry	-\$5.7m	-\$6.4m	-\$6.4m
	Consumers	+\$0.1m	+\$0.9m	+\$0.9m
<b>Understanding packaging requirements</b>	Manufacturers and Importers of packaged products	-\$2.7m	-\$2.7m	-\$2.7m
<b>Pattern approval costs</b>	Instrument manufacturers	-\$0.01m	-\$0.04m	-\$0.04m*
<b>Verification costs</b>	Industry: Authorised third parties and trading businesses	-\$0.1m	-\$0.3m	-\$0.3m*
	<b>TOTAL</b>	<b>-\$ 8.4m</b>	<b>-\$ 8.5m</b>	<b>-\$ 8.5m</b>

\* Under option 3 this number would be adjusted by an unquantifiable contingent increase in regulatory burden on measuring instruments for regulatory purposes

Detailed costings are given in [Appendices 10 – 14](#).

### 1.6.2 Stakeholder impacts

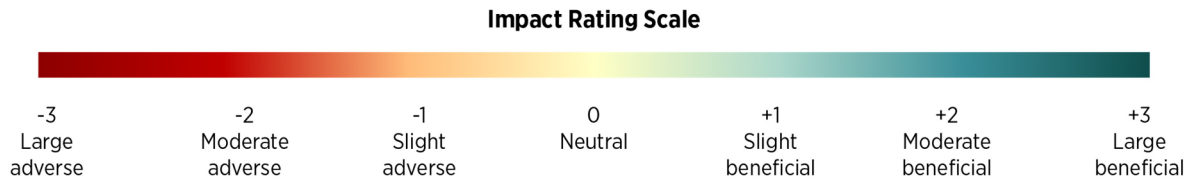
The impact of the reform options is considered for 5 key stakeholder groups:

- **consumers**
- **industry** - represented by
  - **measuring instrument manufacturers**

- **Authorised third parties<sup>2</sup>**
- **wholesalers, retailers, importers and packers**
- **government regulators.**

Impacts for these groups are considered in detail in [Appendices 5 – 9](#).

The assessment uses a 7 point scale, indicating the anticipated impact of changes on particular stakeholder groups relative to the status quo.



A key aim of consultation is to refine this initial assessment. The average rating for the individual impacts applying to the different stakeholders is summarised in the table below.

*Table 4: Overall impact of options on stakeholders*

Stakeholder	Reform Option			Explanation
	1	2	3	
Consumers	+0.75	+0.75	+0.75	All reform options will provide a slight net benefit to this stakeholder group. Options 2 and 3 provide greater coverage of measurement transactions. Adverse impacts of changes to labelling requirements are increased slightly under options 2 and 3, compared with option 1.
Industry – Manufacturers of measuring instruments	+0.60	+1.60	+1.00	Options 1 and 3 provide slight benefit. Option 2 provides greater benefits for the manufacturers of measuring instruments and greater support for innovation.
Industry – Authorised third parties	+0.25	+0.75	+0.75	Options 2 and 3 provide for authorised third parties to have a more flexible and innovative approach in their regulated activities and to reduce regulatory compliance costs. Regulation will be streamlined in all three options and will reduce regulatory burden.
Industry – wholesalers / retailers / importers / packers	+1.00	+1.33	+1.33	All reform options will benefit this stakeholder group. Options 2 and 3 provide the greatest net benefit.

<sup>2</sup> Authorised third parties are businesses which are appointed or licensed under the measurement legislation to perform a particular measurement service. These include servicing licensees, utility meter verifiers, public weighbridge operators and Legal Metrology Authorities.

Stakeholder	Reform Option			Explanation
	1	2	3	
Government Regulators	+0.75	+1.50	+1.38	Options 1 and 3 provide a slight benefit to regulators whereas option 2 provides a more moderate benefit.
Overall (rounded)	+0.7	+1.2	+1.0	Analysis of stakeholder impacts shows that option 2 provides the greatest benefit to stakeholders.

This assessment of stakeholder impacts indicates that:

- **Option 1** provides an overall slight benefit across all stakeholder groups.
- **Options 2 and 3** overall provide slight benefits to some stakeholder groups, with more moderate benefits to others.
- **Option 2** provides the greatest overall benefit across all stakeholder groups.

### 1.6.3 Net benefit assessment

Overall, analysis shows that:

- **Option 2** has the greatest alignment with key policy principles and provides the greatest net benefit to affected stakeholders. It provides a strong overall combination of changes to reform the measurement framework and maintain it into the future. **Options 2 and 3** provide the equal highest quantifiable reduction in regulatory burden (\$8.5m).
- While **option 3** provides many of the same benefits as option 2, it comes at additional costs to government and additional potential regulatory burdens when compared to option 2.
- **Option 1** maintains an overall positive impact on stakeholders but is less aligned with the key policy principles, and results in a lower quantifiable reduction in regulatory burden (\$8.4m). Option 1 also has greatly reduced ability to support innovation over time.

## 1.7 Making a submission

The department seeks input from stakeholders on the reform options outlined in order to develop accurate estimates of option impacts and to test underlying assumptions.

This RIS has been released on [consult.industry.gov.au](https://consult.industry.gov.au) and the department has drawn the consultation process to the attention of stakeholders most likely to have an interest in the process.

During the four week consultation period, the department will hold a series of virtual town hall discussions to provide a further opportunity to engage with the Measurement Law Review and provide feedback on the reform options. The sessions will be targeted at key stakeholder groups including consumers, industry and regulators. Further information about public consultation and the town hall discussions can be found on the [Measurement Law Review](#) webpage and related news items.

The stakeholder engagement plan for this process is included at [Appendix 2](#).

In [Chapter 6](#) of this paper there are questions for you to consider in your submission, identified by stakeholder group, with a full list of questions also included at [Appendix 15](#).<sup>3</sup> There is no obligation to answer any or all of the questions. There is no limit to the length of submissions.

Following the public consultation period, the Measurement Law Review will consider your feedback and use it to inform the proposed options before providing further advice to government.

**The closing date for submissions is Friday 14 May 2021.**

Responses to the consultation RIS can be provided as follows:

**By email:** [measurementlawreview@industry.gov.au](mailto:measurementlawreview@industry.gov.au)

**Online:** <https://consult.industry.gov.au/measurement-law-review/mlr-consultation-regulation-impact-statement/>

Please direct any questions to 1300 686 664 or [measurementlawreview@industry.gov.au](mailto:measurementlawreview@industry.gov.au).

**Please note:** Unless you indicate that your submission is to be treated as confidential, the department may publish your submission on its website along with your name or organisation. This includes any personal information within your submission. We may also disclose submissions (including confidential submissions) and personal information where the department is required or authorised to do so under law.

Further information about privacy and the publication of submissions is available at the end of this consultation RIS. By clicking 'submit' or otherwise sending us your submission, you are consenting to the use and disclosure of any personal information as described in [Chapter 7](#) of this consultation RIS.

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<sup>3</sup> Questions for consumers at 6.3.3.1.5, for measuring instrument manufacturers at 6.3.3.2.4, for authorised third parties at 6.3.3.3.4, for wholesalers, retailers, importers and packers at 6.3.3.4.4 and for regulators at 6.3.3.5.4.

## 2 Background and context

### 2.1 Context for the review

The foundation for Australia's current measurement legislation has existed since 1960 and while the legislation has been updated since then, it has not been fully reviewed.<sup>4</sup> While the legislation continues to provide confidence in measurements made in Australia and meets international obligations, it requires modernisation to effectively accommodate advances in measurement science, engage with new technologies and support Australia's measurement needs into the future.

In 2007 the Council of Australian Governments agreed to the formation of a national trade measurement<sup>5</sup> system administered by the National Measurement Institute (NMI). In 2010, responsibility for trade measurement was transferred to the Commonwealth from the states and territories, but the arrangements were not substantively reviewed and reflect pre-existing legislation from the states. These arrangements were based on the uniform trade measurement legislation that was developed following a review completed in 1989.

The Measurement Law Review provides an opportunity to deliver an updated, flexible legislative framework that better meets government, industry and community needs now and into the future. Further information on the [review](#) and the [Terms of Reference](#) are available on the department's website.

### 2.2 Why accurate and reliable measurement is important

Measurement is relied on to make important decisions in trade, taxation, innovation, scientific endeavour and industrial processes. It is relied on to make decisions about everyday purchases and is also a critical part of effective regulation that supports community health, safety and environmental protection outcomes. To properly inform these decisions and support measurement-related regulations, it is important that the measurements relied upon are sufficiently accurate<sup>6</sup> and reliable.<sup>7</sup>

Effective regulation is fundamental to support measurement confidence and the efficient and fair functioning of markets. Markets cannot operate efficiently or effectively if buyers and sellers have inadequate information about the products in the market, or lack trust in the measurements that underpin it. Similarly, regulation which is reliant on measurement is less able to achieve its intended outcomes if the underpinning measurements are not sufficiently accurate and reliable.

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<sup>4</sup> Australia's measurement legislation consists of the *National Measurement Act 1960*, the *National Measurement Regulations 1999*, the *National Trade Measurement Regulations 2009* and the *National Measurement Guidelines 2016*.

<sup>5</sup> Trade measurement refers to buying and selling of goods and services where the value is determined by measurement.

<sup>6</sup> Sufficiently close to the true value of the thing being measured.

<sup>7</sup> Having a trusted and consistent level of accuracy for each measurement result.

## 2.3 Role of Australia’s measurement legislation

Australia’s measurement legislation delivers the government’s constitutional responsibility for weights and measures. It plays a critical role in implementing inter-governmental treaty obligations,<sup>8</sup> and supports industry, trade, consumer confidence and effective regulation.

It does this by:

- establishing a national system of measurement units, aligned with international standards and recognised worldwide, that are realised through standards of measurement and reference materials<sup>9</sup>
- requiring the use of these measurement units for legal purposes
- creating the NMI and outlining its responsibilities
- establishing mechanisms for achieving national and international recognition and acceptance of Australia’s measurement system
- establishing a national system of trade measurement, that regulates transactions based on measurements and measuring instruments used in trade.

In doing so, the legislation makes clear that Australia is to align with, and contribute to the development of, internationally recognised measurement standards and accepted measurement practices. The legislation also provides a fair and level playing field in domestic and international trade, ensuring all parties can be confident they get what they pay for.

The legislation establishes Australia’s national measurement system which ensures that measurements can be made on a consistent and trusted basis. The measurement system:

- reduces technical barriers to trade and investment, both domestically and internationally
- enhances business and consumer confidence through reliable and accurate measurement
- provides confidence to the Australian community that references to measurement in everyday statements are trustworthy and comparable, without requiring end users to have a thorough knowledge of measurement
- supports science, technology, industry competitiveness and innovation, as well as collaboration with international partners
- supports other Australian Government policy outcomes, including those related to manufacturing, energy, the digital economy, agriculture and water, defence, the environment, health and sport, law enforcement, safety, and security
- contributes to ongoing economic prosperity for Australia by reducing transaction costs and supporting accurate tax collection.

## 2.4 Key terminology

The RIS avoids technical vocabulary as far as possible but key terms are defined when introduced, with a complete list in Appendix 1.

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<sup>8</sup> Under the International Organization of Legal Metrology (OIML) Convention and the Metre Treaty.

<sup>9</sup> The term ‘standard of measurement’ includes measuring devices, instruments, systems and formulae.

## 3 RIS Question 1: What is the policy problem to be solved?

### 3.1 Overview

Australia's measurement legislation has historically supported a strong degree of confidence in the measurements made in Australia. Consultation undertaken during the Measurement Law Review identified support for key components of the current arrangements. These are referred to as 'thematic areas' and include:

- legislative scope
- traceability
- measuring instruments
- measurement-based transactions
- third party arrangements
- compliance and enforcement arrangements

Consultation and analysis also identified that the legislation has been overtaken by new measurement technologies, evolving measurement methods and business practices, and international developments. Australia's approach to regulation has also matured, requiring that it is only introduced where necessary and with least cost to business.

These findings are explored in this chapter through the following six key issues:

1. Emerging measuring instrument technologies require a new approach.
2. The international measurement system is evolving and creating new ways to recognise legal measurements.
3. Industry has identified some prescriptive requirements as burdensome and unnecessary.
4. Australia's trading environment and economy have matured significantly since 1960.
5. Exemptions need to be reviewed and more flexible.
6. Compliance and enforcement mechanisms are limited.

### 3.2 Emerging measuring instrument technologies require a new approach

Feedback from stakeholders provided strong indication that the current legislation is not sufficiently able to respond to and support uptake of new and innovative measuring instruments.<sup>10</sup>

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<sup>10</sup> New and innovative measuring instruments may use new technologies, measure new quantities, measure multiple parameters simultaneously, or relate to innovative applications and business models.

A key example cited is the current way that instruments are approved for trade use<sup>11</sup>, with pattern approval<sup>12</sup> and verification<sup>13</sup> required prior to first use in the marketplace and limited checking of instruments when in service.

An increasing range of novel and complex instruments are being developed which are not well suited to the current design approval process, including where instruments include any of the following:

- embedded machine learning or artificial intelligence to self-adjust over time
- complex and integrated system designs, whereby the measurement process occurs across multiple devices and platforms, and potentially across multiple jurisdictions and economies
- digital or other proprietary designs that obscure the underlying measurement processes.

In order to appropriately meet these challenges, greater flexibility is required in the legislation to provide alternative assurance arrangements. This will enable the risk associated with new and innovative measuring instruments to be appropriately managed. This flexibility would also facilitate lower regulatory burden for lower risk measuring instruments, including where either an instrument itself or the way that an instrument is used carries lower risk.

While it would be possible to update the primary legislation to reflect current measurement technologies, a more flexible legislative framework would avoid the need for continued amendments, future-proofing it to accommodate ongoing advances in measurement and instrument technologies.

### 3.3 The international measurement system is evolving and creating new ways to recognise legal measurements

Where a measurement is being relied on for a legal purpose, Australia's measurement legislation provides for the measurement to be compared to one or more trustworthy reference points (the International System of Units - SI units).<sup>14</sup> This list of reference points has expanded over time, and the legislation requires expansion to meet current and future needs.

An example of this flows from the redefinition of the SI Units of measurement by reference to fundamental constants of nature.<sup>15</sup> The definition enables measurement standards to be independently realised by anyone anywhere in the world rather than directly linked to a national hierarchy of measurement standards. Australia's measurement framework needs a way to recognise independently realised primary standards as appropriate reference points for measurement (consistent with national primary standards). This would ensure consistency of legal measurement in

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<sup>11</sup> Instruments are considered to be used for trade (and therefore needing to be approved) where the measurement from the instrument is being used to determine the price of a transaction or the amount of a tax or tax credit: s 3 *National Measurement Act 1960*

<sup>12</sup> Pattern approval is where an impartial body examines the design of an instrument prototype against our national or international standards. This determines the measurement accuracy of the instrument and whether the instrument retains this accuracy under a range of environmental and operating conditions

<sup>13</sup> The verification process includes testing the accuracy of an instrument and affixing a verification mark if the instrument is operating within appropriate error limits. For more information regarding verification of instruments used for trade, see: <https://www.industry.gov.au/regulations-and-standards/servicing-licensees/verifying-measuring-instruments-for-trade>

<sup>14</sup> The International System of Units (SI) is the globally-agreed system of measurements more commonly known as the metric system

<sup>15</sup> For example, in the revised SI, *c* helps to define the metre, kilogram and kelvin. *c* is the speed of light in a vacuum and is equal to 299,792,458 meters per second. <https://www.nist.gov/si-redefinition/meet-constants>



Australia and avoid any technical barrier to trade based on the use of an independent primary standard.

### 3.4 Industry has identified some prescriptive requirements as burdensome and unnecessary

The current measurement legislation is prescriptive and lacks flexibility, which reflects a historical approach to regulation. While there are areas where this is appropriate, contemporary legislative drafting takes a more principles-based<sup>16</sup> approach in line with government efforts to reduce burden and establish fit for purpose regulation. This is supported by consultation with stakeholders who identified the need to consider where principles-based regulation would provide greater flexibility and be more fit-for-purpose. In particular, stakeholders identified that:

- Introducing appropriate principles-based arrangements would give greater flexibility to meet the needs of an evolving digital economy and adapt to new challenges.
- Areas specifically identified as being appropriate for principles-based provisions include:
  - packaging requirements;
  - how products are sold (trading practices);
  - how measuring instruments are to be used for trade, including their accuracy and their suitability for some purposes;
  - determining whether measuring instruments are fit for trade use; and
  - requirements that measurement statements be accurate.
- Some prescription is necessary to ensure that measurements are traceable back to the Australian legal units of measurement (ALUMs) and meet international obligations. However this could be included in guidance materials rather than the Act.
- Prescription via clear National Instrument Test Procedures (NITPs) gives important guidance to industry on how measuring instruments may be tested and verified, and supports technical capabilities required for accurate measurement.

### 3.5 Australia's trading environment and economy have matured significantly since 1960

The way Australians buy and sell goods and services has evolved, as seen through the rise in packaged goods, and the range of services and imported products now available. The legislation has not kept pace with these changes and operates inconsistently in a number of areas.

In relation to measurement-based transactions these inconsistencies include:

- **pre-packaged vs non pre-packaged goods:** there is a disparity between the requirements for products when sold either packaged or loose.<sup>17</sup>

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<sup>16</sup> Principles-based regulation involves imposing outcome based requirements without specifying exactly how these outcomes must be achieved.

<sup>17</sup> This includes:

- The requirement to use trade approved and verified measuring instruments for weighing loose products at the point of sale, but not for pre-packaged goods.
- The requirement to sell goods by specified units of measure when pre-packaged but not loose (exception: meat, beer and the 5 basic spirits).
- The Secretary's list, which sets out alternative units of measure for specified pre-packaged products, is a mechanism used to try to keep pace with industry practice, however industry consider the list to be onerous and the process confusing.

- **buying and selling goods:** there are currently offences for selling goods with a measurement less than the amount represented (shortfall) but no related offences for a purchaser misrepresenting the measurement of goods that they buy. A notable example is where the legislation prohibits misrepresenting the measurement by a person selling gold, but does not prohibit the misrepresentation of the measurement by a person buying gold.
- **provision of services:** similar to the buying and selling of goods, there is also a growing market for the provision of measurement-based services. The current legislation does not prohibit measurement misrepresentations in relation to the provision of these services (examples include freight or waste collection).
- **labelling requirements:** the increase in imported and exported packaged goods has highlighted differences in Australia's measurement marking requirements and those of some key trading partners (such as the EU). This places a burden on importers required to re-label products and is particularly apparent in the area of cosmetics, where exemptions are considered on a case by case basis.

There are also inconsistencies in the ways in which third parties are authorised to perform particular functions under the legislation, including the terms of appointment, preconditions, reporting and compliance arrangements.

## 3.6 Exemptions need to be reviewed and more flexible

Historically, exemptions were introduced to reflect other regulatory arrangements, usually to avoid duplication of requirements. For example, taxi fares and parking metering are already regulated at the state level. These exemptions need to be reconsidered for consistency, appropriateness and ability to respond to changing measurement needs. Particular issues include:

- **relevancy of existing exemptions:** the current exemptions to trade measurement provisions are based on historical measurement requirements. These will require future review following data collection and further consultation.
- **location of exemptions:** currently some exemptions are contained in the primary legislation while others are contained in the regulations. Those exemptions provided in the primary Act should be moved to the regulations to provide consistency and enable long term review following appropriate consultations.
- **administrative powers to waive:** the current legislation lacks administrative powers to waive requirements in appropriate circumstances. The addition of these mechanisms would provide flexibility to adapt to future measurement needs and allow waivers to be considered in a timely and appropriate manner.

## 3.7 Compliance and enforcement mechanisms are limited

The compliance and enforcement mechanisms in the current measurement legislation are based on older regulatory models, focusing on individual deterrence and punishment and primarily utilising the imposition of sanctions to affect future behaviour.

The current legislation consists only of criminal offences and is out of step with modern Commonwealth frameworks that have adopted civil penalty provisions.<sup>18</sup> The *Regulatory Powers (Standard Provisions) Act 2014* also contains standard provisions relating to civil penalties that can be triggered by other Commonwealth Acts.<sup>19</sup> Civil penalties provide a means to introduce penalty options for offences that perhaps do not warrant criminal prosecution and allow the courts greater flexibility to determine appropriate penalties.<sup>20</sup>

Most low-level compliance options currently utilised by NMI in its regulatory activities exist outside the legislation. Those compliance options outlined in the measurement legislation are heavily focussed on the threat of criminal offences and infringement notice provisions. There are only a limited number of legislated administrative options available and a lack of varying penalty units for infringement notices.

These mechanisms no longer align with modern regulatory approaches. Modern approaches now seek to achieve compliance by focusing on changing the culture of organisations and leveraging general deterrence to influence broader market behaviour. The current legislation does not adequately support this and does not adequately reflect NMI's risk-based, cooperative approach to compliance and enforcement activities in practice.

New and updated compliance and enforcement mechanisms are needed to address some of the gaps in the current regulatory toolkit to better support a contemporary approach to compliance and enforcement.

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<sup>18</sup> Some examples of Commonwealth Acts that contain civil penalty provisions include the *Competition and Consumer Act 2001*, *Therapeutic Goods Act 1989*, *Corporations Act 2001*, *National Consumer Credit Protection Act 2009*, *Work Health and Safety Act 2011*, *Environment Protection and Biodiversity Conservation Act 1999* and *Telecommunications Act 1997*.

<sup>19</sup> Part 4 of the *Regulatory Powers (Standard Provisions) Act 2014* creates a framework for the use of civil penalties to enforce civil penalty provisions.

<sup>20</sup> Explanatory Memorandum, *Regulatory Powers (Standard Provisions) Bill 2014* (Cth).

# 4 RIS Question 2: Why is government action needed?

## 4.1 Overview

Without change, the measurement legislation will become increasingly outdated, limit innovation and growth, and impact Australia's ability to maintain its international standing and obligations. There is some potential for industry to provide partial solutions to innovation and international aspects. However, significant risks exist with this approach, and the underlying issues will remain unless government undertakes legislative reform.

## 4.2 The current legislation is increasingly outdated

While the existing legislation will provide a level of measurement confidence for Australia into the future, it will continue to be outpaced by advances in industry and measurement practice and eventually become a significant barrier to innovation. Unless the legislation is reformed, the law will remain inflexible and prescriptive, continue to apply a one-size-fits-all approach and remain limited by compliance and enforcement arrangements that focus on punishment and deterrence. These changes can only be legislated by government.

The inability of the current legislation to adapt to new and emerging technologies, or to support new ways of ensuring measurement accuracy, will result in Australia being left behind the rest of the metrological world. Without change, Australia's legislative framework will increasingly be:

- out-of-step with new and emerging technology
- lacking foundational legislative infrastructure to support innovation and growth
- unable to support Australian businesses to compete in the international market with confidence
- unable to accommodate some modern advances developed overseas, potentially limiting Australia's access to advances in measurement technology
- unattractive to key regional and international collaboration partners, resulting in:
  - diminishing opportunities to leverage international expertise and investment
  - a reduction of Australia's influence and reputation, both regionally and globally.

The increasing complexity of technology is producing diverse measurement systems and outputs that are moving away from the traditional national hierarchy of measurement standards. There is likely to be an increase in the degree of confusion and uncertainty within the economy about the accuracy and reliability of such measurements. This uncertainty will reduce industry confidence in the measurement services that their activities rely on.

The increasing reliance on digitally-enabled, inter-connected measurement devices and processes brings an associated increase in the risk of incorrect measurements, and potentially of fraud facilitated or manipulated by malicious software or devices. Maintaining outdated measurement legislation may leave Australia vulnerable, and ill-equipped to protect itself from these types of fraudulent measurement practices. Examples include online measurement-based transactions from international sellers, or where digital transfer of measurement data across the national border occurs.

## 4.3 The private sector cannot ensure a level playing field

Due to the nature of the measurement system and its pervasiveness in the economy, it is not appropriate to rely on the private sector to solve the measurement challenges facing Australia. Whilst the private sector could address some of the issues, government intervention and stewardship of the system is required, and legislative amendment is required to prevent significant market failures.

The six key issues identified in response to RIS Question 1 are repeated below for ease of reference. They are:

1. Emerging measuring instrument technologies require a new approach.
2. The international measurement system is evolving and creating new ways to recognise legal measurements.
3. Industry has identified some prescriptive requirements as burdensome and unnecessary.
4. Australia's trading environment and economy have matured significantly since 1960.
5. Exemptions need to be reviewed and more flexible.
6. Compliance and enforcement mechanisms are limited.

The legislative focus of issues three to six require government intervention to ensure the intent is still achieved, although in a more fit for purpose way.

While legislative concerns are still a large contributor to the first two issues, and some degree of legislative amendment is needed to enable new areas to be covered, there is potential for them to be partially addressed through private sector solutions. Non-legislative barriers to private sector solutions emerging to address issues one and two include:

- lack of financial incentive to provide complete or sustained long term solutions
- real or perceived conflicts of interest and lack of impartiality
- lack of expertise to implement and maintain the infrastructure needed across an economy
- smaller market sizes in Australia meaning less opportunities for economies of scale.

Risks with private sector led solutions in these areas include:

- **Market failure:** an individual business may be at a disadvantage investing in the development of a measurement standard through a privately funded project. This is because other firms benefit at their expense (a free rider problem).<sup>21</sup> Consequentially, businesses may exclude others from accessing the standard, resulting in an individual but not market solution.
- **Unfair market advantage:** businesses exercising their interests may result in market distortion, monopoly and anti-competitive behaviour while increased transaction costs and inefficiencies may be placed on other operators in the market.
- **Partial solutions:** competing business priorities may take precedence resulting in partial or incomplete solutions, where accuracy in measurement is only one factor in a broader business decision.

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<sup>21</sup> The free rider problem occurs when a person or organisation benefits from a public good, but neither provides it nor contributes to the cost of collective provision. Thus, they free ride on the efforts of others.

- **Under-investment:** measurement projects<sup>22</sup> are subject to economies of scale and scope. There are large fixed costs associated with the development of some measurement projects. In general, these fixed costs exceed the benefit that the individual business would receive by investing in a private measurement project.
- **Sustainability risk:** a business may decide to discontinue a specific capability after having established it, with no obligation to ensure continuity.

Individually and collectively, the limitations associated with these private sector led solutions effectively undercut the principle of a level playing field.

## 4.4 Government intervention is required for an effective framework and to facilitate trade

Measurement supports and stimulates innovation, collaboration and commercialisation. It provides the technical infrastructure and tools necessary to further innovation, and provides a platform upon which new technologies and processes can be built and demonstrated. Section 51(xv) of the Constitution provides the Australian Government the power to make laws with respect to weights and measures. Over a period of decades, responsibility for measurement functions has increasingly been transferred to the Australian Government in the interests of national consistency, thereby reducing compliance costs for industry as well as internal barriers to trade and operational arrangements between states and territories. For example, the establishment of a national servicing licensee framework was widely applauded by industry at the time.

Government leadership provides a level playing field for businesses and consumers to operate within, and ensures the safety and integrity of the system. Lack of future Commonwealth leadership may result in fragmented measurement requirements between the states and territories, and increased costs for businesses, both Australian and international, that operate across state and territory borders.

## 4.5 International recognition and engagement are essential

For well over a hundred years, global trade has relied on a common international system of measurement. More than ever, access to international markets requires our trading partners to have confidence in Australian measurements, from the tonnage of iron ore, to the energy content of liquefied natural gas, to the level of agrichemical residue in exported food.

Australia is a signatory to the two inter-governmental treaties in measurement, the Metre Convention (for scientific measurement) and International Organization of Legal Metrology (OIML) Convention (for legal metrology).<sup>23</sup> Australia is also a member of the corresponding peak forums at regional level in the Asia-Pacific. Some of the ways the Australian Government uses these global frameworks to ensure international recognition and acceptance of Australia's measurement system are:

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<sup>22</sup> For example, developing specialised equipment or unique facilities, which may involve considerable research.

<sup>23</sup> **Legal Metrology** refers to measurement used for legal purposes. **Metrology** is the scientific study of measurement.

- ensuring the functions and regulation of the measurement framework align with and address Australia’s international commitments
- representing the interests of Australian stakeholders in the governance of these international frameworks, including by participating in:
  - the 9 discipline-based expert committees under the Metre Treaty<sup>24</sup>
  - technical committees under the OIML Convention in areas of priority for Australian stakeholders
  - corresponding committees at regional level
- effectively participating in mutual recognition arrangements, to reduce technical barriers to trade, as signatories to the Mutual Recognition Arrangement of the International Committee for Weights and Measures (CIPM MRA) and the OIML Certification System (OIML-CS)
- aligning Australia’s legal metrology regulations with OIML guidance and recommendations
- engaging and coordinating with the international metrology community and relevant domestic organisations

A national approach to the management of a robust, multifaceted measurement system, including its many international interactions, has benefits for industry and the Australian community. Legislative reform is important to ensure the continued effectiveness of the system and alignment with international developments.

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<sup>24</sup> <https://www.bipm.org/en/committees/cc/> Acoustics, Ultrasound and Vibration, Electricity and Magnetism, Length, Mass and Related Quantities, Photometry and Radiometry, Amount of Substance: Metrology in Chemistry and Biology, Ionizing Radiation, Thermometry, Time and Frequency.

# 5 RIS Question 3: What policy options are being considered?

## 5.1 Overview

In response to the drivers for change outlined above, and consistent with national measurement policy objectives, the Measurement Law Review has developed three reform options for consideration alongside the status quo. These options were developed following analysis of the measurement legislation and significant consultation with a broad range of stakeholders. They are:

*(Copy of) Table 1: Reform options for consultation*

Status quo	Reform option 1	Reform option 2	Reform option 3
No change	Streamline with minimal change	Flexible and future focused	Flexible with additional regulatory powers
Maintain existing prescriptive legislative framework	Streamline the legislation and reduce prescription by taking a principles-based approach, whilst largely maintaining the current scope	Streamlined as for option 1, and further reduce regulatory impact by significantly increasing flexibility and support for innovation	Extend option 2 by providing appropriate powers to regulate measurements relied upon by other policy owners

This chapter provides:

- an overview of the process for options development
- a discussion of reform options not progressed
- a description of options being considered and comparison against the status quo
- a discussion of the significant changes under the different options
- an analysis of how each option meets the policy objectives.

Information on the timing of potential changes is in [Appendix 4](#). The impact of specific changes under each option on stakeholders is outlined in response to RIS Question 4 in the next chapter.

### 5.1.1 Discussion by thematic area

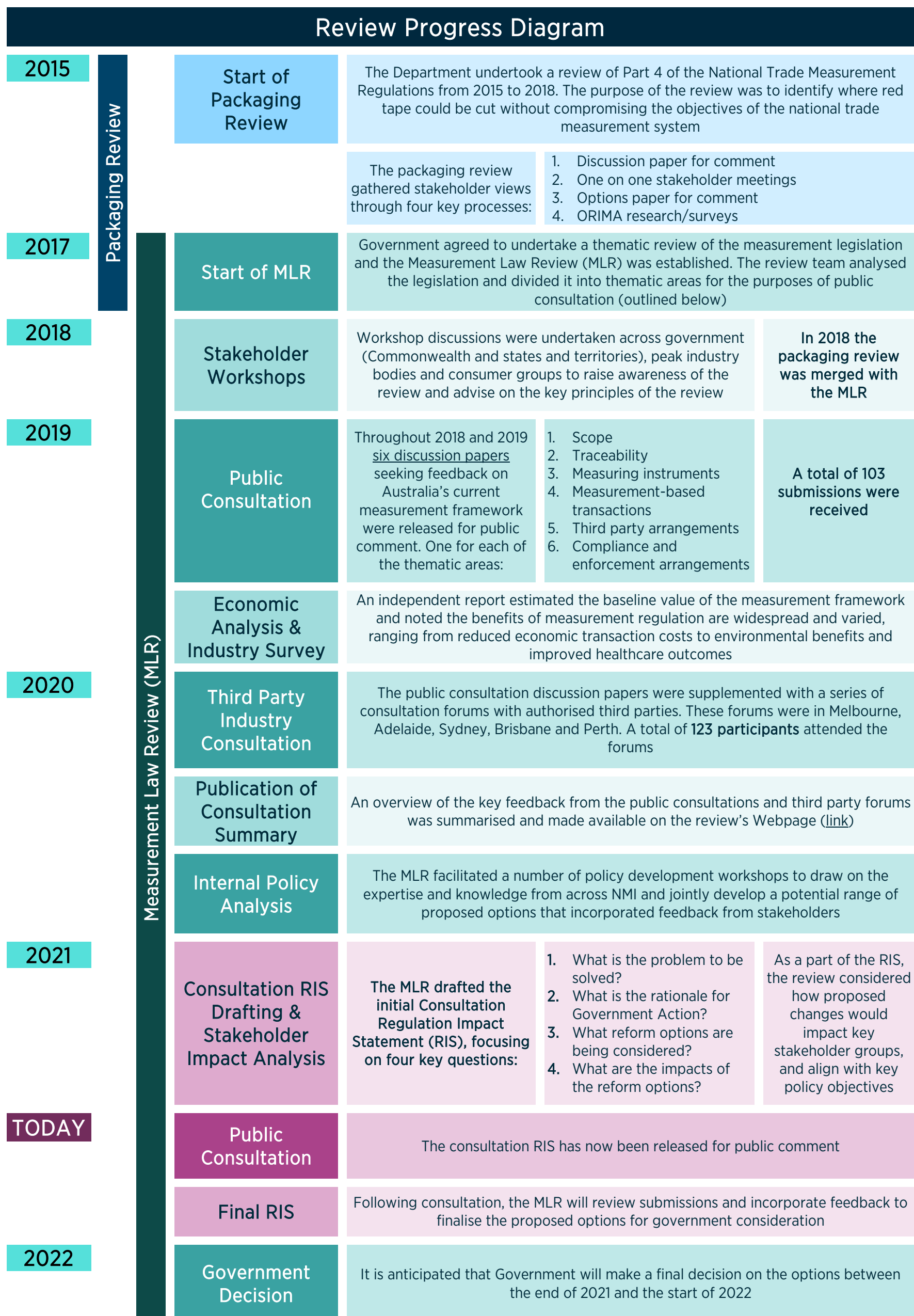
Under all options presented, key fundamental elements of the legislative framework (referred to as ‘thematic areas’) remain including:

- the traceability of measurements
- the regulation of measuring instruments
- requirements for measurement-based transactions
- arrangements for appointment and use of authorised third parties (ATPs)<sup>25</sup> to provide various measurement services
- tools to enable appropriate compliance and enforcement activities.

<sup>25</sup> ATPs are organisations appointed under the legislation and include Servicing Licensees, Utility Meter Verifiers, Public Weighbridge Licensees, and Legal Metrology Authorities.



## 5.2 Process of options development



Further details on the review to date are in [Appendix 3](#).

## 5.2.1 Other options not progressed

Reform options were considered against the measurement policy objectives (section 5.5) to ensure the regulation is fit for purpose and minimises regulatory.

A more extensive deregulatory option was also investigated, essentially focusing on the accuracy of the measurement result without specifying how measurement should be made or verified. Informed by stakeholder input and analysis, the review concluded that this option should not be considered further, as it would:

- present a significant divergence from global practice
- reduce confidence in measurement (particularly for trade)
- present increased risk to the community
- be costly and inefficient for government to administer, due to significantly increased requirements for monitoring, surveillance, compliance and enforcement activity
- be detrimental to Australia's international standing
- not meet the needs of stakeholders.

The remaining valid options for consideration are outlined below.

## 5.3 The options being considered

### 5.3.1 The status quo

The current legislative framework:

- establishes a national system of units and standards of measurement of physical quantities
- provides for the use of those uniform units and standards of measurement throughout Australia
- coordinates the operation for the national system of measurement
- provides a national system of trade measurement.

The system provides measurement confidence for transactions based on measurement (e.g. export of commodities, sale of meat), the use of measuring instruments for trade purposes (e.g. use of a belt weigher) and for legal purposes such as to serve the needs of law enforcement and regulators (e.g. certified evidential breath analysers), and provides for independent evidence of measurement (e.g. using public weighbridges).

The current legislative framework has the following characteristics:

**Approach:** It uses a prescriptive approach with limited flexibility. For example:

- The legislation makes sure that only ALUMs are used for trade and legal purposes and are traceable to the SI in prescribed ways.
- The NMI and ATPs appointed under the Act disseminate consistent measurement and issue regulation certificates as a record of the measurement's legal standing. These ATPs are appointed to tightly defined categories with specific appointment criteria.
- Measuring instruments used for trade and within scope of the legislation must be of an approved pattern, be verified before first use, be accurate to specified Maximum Permissible Error (MPE) when in use, and be used correctly.
- Short measure is prohibited for the sale of goods, however other types of transactions (e.g. services and purchase of goods) are not covered.
- Packaged goods must have the measurement mark presented to satisfy prescriptive labelling requirements (e.g. position, format, minimum font size and colour contrast).

- Compliance and enforcement mechanisms are based around criminal offences, with no civil penalty provisions, non-variable penalty amounts for infringement notices and limited provisions supporting administrative compliance options.

**Legislation:** It is prescriptively written to provide consistency, stability, certainty and support for industry. However, the legislated framework is inflexible, and to adjust or keep pace with technological and scientific changes, NMI uses exemptions and administrative solutions not covered by the legislation.

**Outcome:** The legislative framework will continue as is, and with its current limitations. An increasing number of instrument and measurement applications will not be properly covered by the Act as technology evolves and practices change.

### 5.3.2 Option 1 – Streamline with minimal change

This option enhances the current legislation and aligns it to current international technology and measurement practices. It would have the following characteristics:

**Approach:** Fix known issues with the current framework, and largely maintain the existing approach and scope of regulation:

- Additional mechanisms will be provided for the Chief Metrologist to determine other references to support accurate and reliable measurement beyond traditional ‘weights and measures’, particularly for chemical, biological and other complex measurements.
- The current pattern approval and verification requirements for measuring instruments used in trade will be largely preserved. The Chief Metrologist will have the ability to grant exemptions for particular measuring instrument types to provide some flexibility. Verification marks could be either physical or digital.
- Existing exemptions in the Act will be maintained.
- Presentation requirements of the measurement mark on packaged goods will be simplified. Introduction of an exemption for cosmetic products such that the measurement mark is prominent and legible. Ability to grant future exemptions and deemed compliance pathways for categories of products under the regulations.
- Prohibition on short measure to be extended to cover false or misleading measurements for the sale of goods. Coverage also expanded to include purchase of goods (for example, refunds on can and bottle recycling, scrap metal recycling and gold buying).
- Consolidating six ATP appointment types into four, as well as introducing additional flexibility for appointments and competency. Servicing Licensees are merged with Utility Meter Verifiers (UMVs), while Certifying Authorities and Verifying Authorities are merged into a single appointment. Approving Authorities and Public Weighbridge Licences remain as separate appointment types and prescription is reduced for public weighbridges.
- Introduction of additional compliance and enforcement tools including civil penalties, tailored infringement notice penalties and additional administrative compliance options.

**Legislation:** Under this option, the legislation will be simplified, streamlined and phrased to be more technology neutral. It will be supported by guidance material issued to assist in its interpretation. Prescription will be maintained where required (for example, NITPs and certain pattern approval requirements). Legislation will be brought up to date with current technology and measurement practices but subsequent amendments would be required to reflect future changes in technology and measurement practices.

**Outcome:** The framework is improved for the present time, with limited change in scope and cost, but not future proofed beyond the near term.

### 5.3.3 Option 2 – Flexible and future focused

This option enhances the measurement framework by making it significantly more flexible and adaptive through additional mechanisms that enable a fit for purpose approach when applying regulations. The framework will appropriately engage with emerging and future measurement technologies and techniques. It would have the following characteristics:

**Approach:** Apply a flexible approach to regulation, supporting current needs and future needs as they arise:

- Additional measuring instrument control mechanisms will be provided to enable the degree of regulation to be adjusted instead of applying a one-size-fits-all approach across all instrument types, either through regulations, other legislative instruments, or decision making powers. This removes unnecessary prescription and allows the framework to evolve and remain fit for purpose over time.
- Current arrangements for both measuring instruments (pattern approval and verification requirements) and legislative exemptions will be maintained initially. These arrangements will be reviewed over time following data collection, risk assessment and appropriate consultation.
- Principles-based approach to the presentation of the measurement mark on packaged products with limited prescriptive presentational requirements retained. Ability to grant exemptions and deemed compliance pathways, or introduce additional requirements (where there is a need) for categories of products under the regulations.
- Scope coverage for false or misleading measurements to include both sale and purchase of goods (as per option 1) and also extend to services.
- Providing a single class of ATPs with sufficient flexibility to accommodate any relevant measurement service roles needed now and in the future. Mechanism to introduce general licences in the future to offer an alternative to formal ATP appointment for certain activities. Arrangements preserved on introduction of the new legislation and evolved over time.
- Legislated mechanisms for the Chief Metrologist to enable flexibility in applying controls that would support innovation (for example, providing for a range of ways to achieve confidence in innovative measuring instruments).
- Powers for the Chief Metrologist to identify additional trusted measurement reference points (traceability pathways). These are important for supporting reliability and accuracy of measurements used for legal and trade purposes.
- Additional compliance and enforcement tools included (as per option 1), with the ability to accommodate enforceable Industry Codes of Practice and implement recalls on measuring instruments and packaged products.

**Legislation:** The primary legislation will be largely principles-based and provide additional power for purposes of flexibility. Guidance material will supplement principles-based regulation, but prescription may be maintained where required due to risk (for example via NITPs and certain pattern approval requirements). Legislation phrased to be technology neutral so that it is able to respond to changing technologies. The legislated traceability framework keeps pace with advances in measurement technology and technique and will not become a barrier for stakeholders (for example, biological and chemical measurements).

**Outcome:** The measurement framework maintains measurement confidence and supports industry growth as technology changes, as it has much greater flexibility to adapt to future needs.

### 5.3.4 Option 3 – Flexible with additional regulatory powers

This option builds on option 2 and provides the government with additional power to more broadly and proactively support measurement confidence for regulatory outcomes using a risk-based approach. It would have the following characteristics:

**Approach:** NMI will have a general power to regulate measurement, beyond the current primary focus on trade, with the ability to directly take action to address measurement issues that reflect national priorities. This power would be used selectively and in consultation to support confidence in measurements which other regulators rely upon. This would help enable rapid response in a crisis, or provide coverage where other regulators lack a sufficient existing framework or jurisdiction to resolve measurement issues.

**Legislation:** Flexible and principles-based legislation establishes mechanisms to directly provide solutions to measurement-based issues faced by other regulators, who rely on measurement to achieve their policy objectives but do not have a complete legal framework in place. NMI helps to set and settle measurement confidence issues in regulatory frameworks where required, in addition to providing technical expertise and coordination to support regulators (as it does currently).

**Outcome:** NMI can respond where other regulators have incomplete jurisdiction, insufficient powers or lack the technical capability to address measurement failures. NMI must work closely with relevant regulators to manage potential overlap between measurement outcomes and other policy outcomes.

### 5.3.5 Comparison of options

A high level comparison of the merits of the reform options is outlined in Table 5 below.

*Table 5: High level comparison of options*

Options	Benefits and opportunities	Challenges and risks
<b>Status quo</b>	<ul style="list-style-type: none"> <li>• <b>Industry:</b> Domestic business and industry continue to operate under a known legislative framework.</li> <li>• <b>Consumers:</b> Historically has helped to provide confidence that consumers are getting what they pay for.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Industry:</b> Prescriptive legislation applies a one-size-fits-all approach. Known issues remain unaddressed.</li> <li>• <b>Consumers:</b> Focus on regulating where consumers purchase goods. Does not cover services or consumer sales (e.g. bottle recycling).</li> <li>• <b>Innovation:</b> The legislation is not updated and remains disconnected from new technologies. Industry needs for technological innovation are not supported.</li> <li>• <b>Government:</b> Limited support for other policy outcomes.</li> </ul>
<b>Option 1</b>	<ul style="list-style-type: none"> <li>• <b>Industry:</b> Reduced red tape and regulatory burden through streamlining and simplifying. Provides some flexibility (including packaging) while maintaining certainty.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Industry:</b> Meets current needs but does not support future changes.</li> <li>• <b>Consumers:</b> Still no coverage of services.</li> <li>• <b>Innovation:</b> The framework still does not adjust to full impacts of emerging</li> </ul>

Options	Benefits and opportunities	Challenges and risks
	<ul style="list-style-type: none"> <li>● <b>Consumers:</b> Provides confidence for buyers and sellers of goods, with primary focus on quantities of things being traded.</li> <li>● <b>Economy:</b> Increased consistency across different measurement transactions (including packaging requirements for some products).</li> <li>● <b>Innovation:</b> Legislation brought up to current business and technology practice. Increased short term support for innovation and business investment. Principles drafted to be technology neutral, ability to grant some exemptions.</li> </ul>	<p>technologies. Short term support for innovation and business investment, which erodes over medium to long term.</p> <ul style="list-style-type: none"> <li>● <b>Government:</b> NMI has limited flexibility to assist government agencies other than through service based arrangements.</li> </ul>
<b>Option 2</b>	<ul style="list-style-type: none"> <li>● <b>Industry:</b> Increased flexibility for industry supports greater variety of valid measurement practices (including packaging). Regulation more fit for purpose and targeted based on risk. <ul style="list-style-type: none"> <li>○ <i>For example, scope to recognise international requirements and approvals.</i></li> </ul> </li> <li>● <b>Consumers:</b> Provides confidence for buyers and sellers of goods and services where the value relies on measurement, extending beyond quantity alone.</li> <li>● <b>Economy:</b> Increased responsiveness to significant economic shifts and practices.</li> <li>● <b>Innovation:</b> Flexibility to respond to industry innovation and technology changes. Ongoing support for innovation and investment.</li> <li>● <b>Government:</b> NMI has greater ability to assist other regulators and agencies through provision of appropriate metrological services.</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Industry:</b> Increased flexibility may create less certainty for industry regarding future requirements and may affect investment. Mitigate through communication and consultation.</li> <li>● <b>Consumers:</b> Greater flexibility regarding packaging requirements increases time to locate the measurement marking.</li> </ul>
<b>Option 3</b>	<p>As for option 2, plus:</p> <ul style="list-style-type: none"> <li>● <b>Government:</b> Power to be a generalist regulator and directly</li> </ul>	<p>As for option 2, plus:</p> <ul style="list-style-type: none"> <li>● <b>Industry:</b> Industry may need to deal with multiple regulators for differing</li> </ul>

Options	Benefits and opportunities	Challenges and risks
	<p>take action to address measurement issues encountered by other government agencies.</p> <ul style="list-style-type: none"> <li>• <b>Innovation:</b> Applying NMI expertise supports adoption of new technologies and leverages capability to support government outcomes.</li> </ul>	<p>requirements for same activity. Perception of increased regulatory burden. Agency cooperation may reduce actual burden.</p> <ul style="list-style-type: none"> <li>• <b>Government:</b> Capacity and resourcing challenges.</li> </ul>

## 5.4 Changes to the legislation under the options

The reform options introduce a number of changes to thematic areas that have broad reaching impacts on the measurement legislative framework. They introduce flexibility as well as additional opportunities to extend, exempt or expand certain requirements. The changes are implemented differently across the three reform options and include:

- shifting to a principles-based approach in legislation
- changes to the traceability framework
- changing the way measuring instruments are regulated
- changes to requirements regarding use alternative units of measurement and use of measuring instruments
- supporting other regulators (under options 2 and 3)
- expanding the scope of coverage from shortfall to false or misleading measurement statements
- a principles-based approach to marking packaged products to better facilitate acceptance of imported products
- changes affecting ATPs
- additional compliance and enforcement arrangements across all options.

Some of these changes would occur from the introduction of the legislation, but others would be introduced following a subsequent process of analysis and consultation with affected stakeholders. Where reform options introduce new substantive obligations (e.g. new obligations that would result in current acceptable regulatory behaviour no longer being permitted) appropriate transition periods would be implemented to provide time to make necessary adjustments.

Changes apply across the reform options in varying ways as outlined below. A summary of day 1 changes is provided in [Appendix 4](#).

### 5.4.1 Shifting to a principles-based approach in the legislation

*Principles-based legislation states what the outcome (or principle) is that must be achieved and leaves the method of compliance to be determined by the relevant party. This enables multiple possible compliance pathways unlike prescriptive legislation, which imposes detailed requirements on how an outcome must be achieved.*

*The primary benefit of principles-based legislation is that it is flexible in adapting to changing circumstances and scenarios.*

The current legislation is highly prescriptive. While some simplification of the legislation is aimed for **option 1**, a holistic principles-based approach is common to **options 2 and 3**. This is anticipated to bring the legislation more in line with best practice regulatory standards. Shifting to principles-based legislation typically requires:

- a full redraft of legislation
- significant technical policy capability that can provide detailed guidance documents on how to interpret the legislation
- education programs to ensure understanding of what is required and how to comply with the legislation
- a phased transition of some elements
- a sophisticated monitoring capability for compliance.

## 5.4.2 Changes to the traceability framework

Across **all reform options**, legislation will continue to support confidence in measurement, make sure that ALUMs are used for trade and legal purposes<sup>26</sup> and that measurements are derived from realised units of primary standards that are traceable to the SI or other trusted systems of measurement as may be recognised by the Chief Metrologist.

The legislation will continue to provide for pathways for legal traceability through the certification of standards of measurement, measuring instruments and reference materials. Relevant provisions in the legislation that support traceability will be improved for clarity. The framework will be made more flexible to enable recognition of additional traceability pathways and provide infrastructure to support confidence. All changes would contribute to reducing technical barriers to trade and regulatory purposes where applicable.

Across **all options**, the new measurement legislation will provide broader scope of powers for the Chief Metrologist to support traceability of complex measurements used for legal purposes including chemical, biological, material properties, such as measurements of nanomaterials, and method-dependent measurements. This will include a mechanism to determine appropriate methods to ensure that the measurement framework provides consistent results in ALUMs and are accurate, and to more easily specify new ALUMs.

The application of specific changes to the traceability framework under each option are outlined below.

### 5.4.2.1 Option 1

**Option 1** will maintain the status quo but provide mechanisms for the Chief Metrologist to identify additional trusted measurement reference points (traceability pathways), particularly in the areas of chemical and biological measurements.<sup>27</sup> These expanded mechanisms for the Chief Metrologist would include the ability to determine:

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<sup>26</sup> Including where measurement forms the basis of regulation.

<sup>27</sup> For example, recognising all references listed in the [Key Comparison Database](#) established under the CIPM Mutual Recognition Arrangement, which is the framework through which National Metrology Institutes across the world demonstrate the international equivalence of their measurement standards and the calibration and measurement certificates they issue.



- reference methods for material properties and potentially recognising entries in the Key Comparison Database (KCDB) in line with international commitments
- appropriate methods that would support complex measurements, including method-dependent measurements that are traceable to the method used, and do not have an independent true value
- additional ALUMs, e.g. to support method-dependent measurements, and make these changes more easily.

Other improvements to legislation under **option 1** include:

- drafting it to be technology neutral with improved clarity
- updating it to reflect greater international alignment with current practices that are essential in making chemical and biological measurements, such as identity of substance in chemical/biological measurement, the activity in biological measurements, methods used, and international approaches and standards that apply to chemical and biological measurement.<sup>28</sup>

### 5.4.2.2 Option 2

**Option 2** will include the changes from option 1 and would also enable the legislated traceability framework to keep pace with advances in measurement technology and techniques used in measuring instruments and applications across sectors involving physical, chemical and biological measurements. The legislation would provide greater support for stakeholders who want to achieve traceability through an overseas or newer type of standard.

Under option 2, the NMI will assume a larger role in researching and managing measurement structures within Australia with a stronger role in coordination (scientific, economic, business analysis, strategic outreach). This would be achieved through greater flexibility and mechanisms for the Chief Metrologist to:

- determine additional appropriate traceability points<sup>29</sup>
- recognise international arrangements or references, databases, and outputs from other NMIs
- recognise instruments as source of traceability with structure expanded to encompass Artificial Intelligence (AI) systems, self-checking and self-learning instruments
- revoke recognition of traceability points (e.g. to enable superseded methods to be revoked)
- revalidate approved traceability points to reflect change in algorithms
- recognise additional traceability paths (other than to SI units) particularly for chemical or biological measurement and other complex measurements
- determine additional ALUMs, e.g. to support method-dependent measurements, and make these changes more easily.

### 5.4.2.3 Option 3

**Option 3** applies the approach and benefits from option 2 more broadly to measurement frameworks used for regulatory purposes. NMI would have the legal standing to directly help regulate measurements that other regulators rely on (discussed further below). Option 3 aims to support regulators and agencies in establishing appropriate metrological arrangements (in consultation with policy owners), and with separate powers to support the validation of

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<sup>28</sup> For example, the World Health Organisation Biological Reference Materials/guidelines and recommendations, or the CODEX Alimentarius Commission standards.

<sup>29</sup> For example, independent standards disconnected from the Australian national hierarchy of standards may be integrated through a process to be determined by the Chief Metrologist.

measurement-based information. Examples of the types of requirements that NMI might impose include:

- determining that a particular test method must be used to calculate a measurement that is important for a regulator
- specifying that instruments used for particular regulatory purposes meet certain requirements, to ensure that the measurements they produce are traceable.

### 5.4.3 Changing the way measuring instruments are regulated

The regulation of measuring instruments aims to give confidence in their performance within Australia. The controls on instruments help to ensure they can provide reliable measurement results and are capable of maintaining performance under a range of different environmental and disturbance conditions that may be encountered across the nation.<sup>30</sup> This is important as the people owning and operating these instruments may not have an underlying understanding of how to use and maintain these instruments to ensure accurate measurement.

#### 5.4.3.1 Current approach

The current measurement legislation directly regulates instruments used in trade, and provides a supporting framework for instruments used for legal purposes outside trade.

The controls on measuring **instruments used in trade** have broad system-wide benefits that flow to a number of different stakeholder groups, for example:

- **consumers** purchasing petrol at a fuel dispenser can have confidence that they are getting what they pay for
- **farmers** selling stock measured using a weighbridge can be confident that they are getting the correct weight for their livestock
- **exporters** measuring mining shipments via belt-weighers can have confidence in the measurement of the product they are shipping out, and recipients can have confidence in the amount received.

The measurement legislation sets up an arrangement which supports confidence in **instruments used for legal purposes outside trade**. This confidence is achieved through the use of instruments that are certified<sup>31</sup> by a Certifying Authority. This process results in instruments that can be directly trusted,<sup>32</sup> noting that how an instrument is used will also affect the accuracy of the measurement result. This supportive arrangement benefits regulators who choose to have the increased certainty from measurements made by certified instruments. For example, **law enforcement** officers use the measurement of the blood alcohol content in a driver made by certified evidential breath analysers.

#### 5.4.3.2 Limitations of current approach

The current arrangements (**status quo**) apply a one-size-fits-all approach by requiring the approval of measuring instrument design (pattern approval) and the verification of the instrument prior to first use in the marketplace when used for trade purposes. The legislation allows two mechanisms to be

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<sup>30</sup> Noting that aside from the nature of the instrument, the method of use and location of use can also impact on the end measurement result.

<sup>31</sup> Under regulation 37 of the *National Measurement Regulations 1999: Certification of measuring instruments*.

<sup>32</sup> Rather than the measurement needing to be traced back to some other trusted reference point under s 10 of the *National Measurement Act 1960* if the accuracy of an instrument is challenged.

used as monitoring tools: in-service inspection and conformity to type (CTT).<sup>33</sup> Some exemptions from these requirements are provided in the legislation<sup>34</sup> and have been supplemented via administrative arrangements. For example, where the quality infrastructure<sup>35</sup> is still in development for certain measuring instruments this has been achieved by not enforcing pattern approval requirements.

### 5.4.3.3 Reform options for measuring instruments

The reform options progressively provide greater flexibility and scope for supporting confidence in measuring instruments. Key points include:

- Under **all options**, the default way that measuring instruments used for trade will be controlled will remain pattern approval and verification.
- **Option 1** introduces the potential to exempt certain instruments from these requirements.
- **Option 2** provides various other mechanisms which could be used if more appropriate for the particular instrument type, application, risks and harm, which would be implemented following data collection, analysis, and appropriate consultation.
- **Option 3** builds on option 2 and enables requirements to be imposed on instruments used for legal purposes outside trade as well, where appropriate.

#### 5.4.3.4 Option 1

**Option 1** retains pattern approval and verification as key controls for measuring instruments used in trade, with an additional decision making mechanism to formally exempt instruments. Exemption could occur either under a legislated exemption category or where an administrative decision has been made to not compel approval for particular instruments. Greater flexibility will be provided to support the approval of measuring systems and parts of measuring instruments, with greater consideration for overseas test results. Existing mechanisms to impose requirements regarding verification (including reverification) via regulation to remain, with any revision of verification arrangements subject to further data collection, consultation and regulation impact analysis.

#### 5.4.3.5 Option 2

**Option 2** will introduce greater flexibility by targeting different kinds of control mechanisms depending on measuring instrument types, application and potential risk and harm, rather than the one-size-fits-all approach. Current arrangements would be preserved initially and reviewed over time:

- Pattern approval and verification would be retained as the default mechanism of control for instruments used in trade.
- Current legislated exemptions would initially be preserved in regulations due to their number and complexity and reconsidered over time to better reflect operational practice, including whether new legislated exemption categories should be introduced.

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<sup>33</sup> CTT is a process where a larger number (or sample) of instruments are assessed to see if they have been manufactured in accordance with the approved design (pattern). CTT powers under the current measurement legislation are limited to certain offence provisions. Under the *National Measurement Act 1960*, it is an offence to install (s 18BG), supply (s 18GC) or verify (s 18GK) instruments which are not of an approved pattern. It is also an offence to falsely represent that a particular pattern for an instrument is approved or that a particular instrument is manufactured in accordance with an approved pattern (s 19B(a) and (b)).

<sup>34</sup> For example, certain types of utility meters are exempt from verification requirements.

<sup>35</sup> For example, no existing standards, testing procedures or accreditation that applies.

- Over time, additional data collection, risk assessment and consultation may reveal a more fit for purpose mix of instrument controls commensurate with the risk associated with a particular type of measuring instrument and application.
- Powers would be provided to the Chief Metrologist to establish these alternative instrument controls.

Both pre market<sup>36</sup> and post market<sup>37</sup> controls would be available, including requirements regarding:

- Accurate operation
- Appropriate use
- Pattern approval
- Conformity of an instrument to the pattern approved<sup>38</sup>
- Quality system assessment and auditing
- Verification
- Re-verification
- In-service inspection
- Instrument suitability requirements/ranges

These control mechanisms would be drafted to be accessible to other regulators who may wish to access them, rather than being specifically limited to trade use. This would also enable other regulators to more easily access ATPs to support these controls for their regulatory needs.

#### 5.4.3.6 Option 3

Under **option 3**, the measurement legislation would provide the power to extend the control mechanisms available under option 2 to apply directly to measuring instruments relied upon by other regulators (rather than needing other regulators to specifically adopt them). When introducing new requirements, there would need to be a demonstrable need to ensure confidence in instrument use, compliance and enforcement. NMI would also require an enhanced ability to collect data to help identify emerging measurement problems and assess the level of risk.

#### 5.4.3.7 Changes in relation to the verification of measuring instruments

**Across all options**, the new legislation will continue to require reporting of measuring instrument verification for trade. The use of verification marks will not be removed, but the reforms will introduce alternatives to physical marks. More modern ways of identifying verified measuring instruments, providing the information and reporting to the government (e.g. using digital markers or QR codes) are expected to increase the efficiency of verification and inspection, and provide greater access to this information for traders.

The ability to introduce mandatory re-verification periods for instruments will be retained in the legislation. Any future consideration of adding or removing mandatory re-verification for particular types of instruments would be subject to an analysis of any market failures, further data collection and consultation. A further regulatory impact analysis would also be conducted prior to amending requirements.

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<sup>36</sup> Pre market is defined as before sale of a measuring instrument for trade use (e.g. pattern approval) and before its first use for trade purposes (e.g. initial verification).

<sup>37</sup> Post market is defined as after first use of a measuring instrument for trade purposes, for example periodic re-verification or in-service inspections.

<sup>38</sup> This is also known as conformity to type (CTT).

## 5.4.4 Changes to requirements for use of alternative units of measurement and use of measuring instruments

Under **all reform options** a measurement representation must be made available to the purchaser at the time of sale (including online transactions), unless the purchaser is present and able to witness the measurement process.

- For **non-packaged products** the measurement statement will be acceptable as either a statement of the net measurement, or the unit price and total price (from which the net measurement could be calculated).
- **Packaged products** will continue to require a net measurement mark on the package. For example, when purchasing a packaged product online it would be sufficient to state the measurement in the title or description of the product. The photo of the product would not necessarily have to show the measurement mark. However the package itself would need to be marked with a measurement.

**Option 1** will streamline requirements relating to the unit of measurement used for packaged products and retain current requirements for non-packaged products:

- **Packaged products:** Streamlining and refinement of the current approach ('Secretary's list') to allow alternative units of measurement to be used (e.g. weight, volume, count, linear measurement, etc.) for packaged products. Additional rules regarding the required use of a particular unit of measurement could also be introduced, where a need is identified.
- **Non-packaged products:** Requirements for unit of measurement for non-packaged products would remain as per the **status quo** and would include the ability to introduce requirements that certain non-packaged products be sold by a particular unit of measurement, where needed. Introduction of any new requirements for non-packaged products to be sold by a particular unit of measurement would be through a separate processes in the future.

**Options 2 and 3** will shift requirements relating to the unit of measurement used to a principles-based approach:

- **Packaged products:** Requirements regarding the unit of measurement used will align with those in OIML Recommendation 79<sup>39</sup>. This adopts a more principles-based approach to the unit of measurement used for packaged products, rather than relying on an approval process. Similar to **option 1**, a mechanism would exist to enable introduction of additional rules regarding the required use of a particular unit of measurement, where a need is identified.
- **Non-packaged products:** Retains the **status quo** for non-packaged products regarding the unit of measurement used (as outlined in **option 1**) and includes the ability to introduce requirements that certain non-packaged products be sold by a particular method of measurement, where a need is identified.

Requirements to sell meat by weight and certain types of alcohol by volume will be retained but streamlined under **all options**. These requirements are expected to be reviewed in future but this would be subject to a separate regulatory impact assessment process. The power to introduce requirements for certain goods to be sold by reference to measurement will also be retained.

Across **all reform options** requirements relating to the method of use of measuring instruments for trade will become more principles-based with minimal prescription retained as necessary. Also, where measuring instruments are used to pack random measurement packaged products, these

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<sup>39</sup> [OIML R79](#) includes recommendations at 5.5 regarding the method of measurement that should be used for packaged products.

instruments will need to comply with the same requirements applicable to measuring instruments used for over the counter transactions (e.g. trade approved and verified).

### 5.4.5 Supporting other regulators under options 2 and 3

NMI currently provides a range of technical capabilities to help support Australian Government agencies, and regulation across a range of sectors, including energy, the environment, food and agriculture, health and law enforcement. NMI would continue to provide these services under **all options**.

Under **option 1**, the measurement legislation continues to focus on regulating trade measurement. While regulators can partially leverage off this framework, to provide confidence in the measurement they rely on, the legislation would still be focused on achieving trade measurement outcomes.

**Option 2** supports other regulators by establishing arrangements regarding measuring instruments that are broadly accessible for use by other regulators (rather than established primarily to cover measuring instruments used in trade). This includes both the controls applied to instruments and the arrangements for ATPs who help to provide assurance that those instruments are sufficiently accurate. NMI would have a greater ability to assist other regulators and agencies through the provision of appropriate measurement services. Due to increased flexibility of controls for measuring instruments, NMI would be able to tailor mechanisms of control for measuring instrument types used in different regulatory regimes.

**Option 3** builds on option 2 and provides mechanisms under the measurement legislation to proactively support confidence for other regulatory outcomes that depend on measurement. It introduces a generalist regulator function for NMI and provides additional powers to the Australian Government to strategically deploy NMI's expertise as Australia's peak measurement body. This can help give shape to the metrological framework needs of other regulators, and provide metrological solutions where these are required, including in times of crisis. This change would contribute to overall confidence, efficiency and effectiveness of government regulatory policies. NMI's role as the specialist regulator of trade measurement and expert authority on scientific measurement would sit alongside this general regulator support role. More specifically, NMI would be able to establish specific ATP appointments to support the needs of specialist regulators.

Under **option 3** (specifically where measurement is concerned), NMI could collaboratively determine the bespoke framework a regulator would use and help settle measurement issues for government agencies (federal and state). The increased flexibility and extended scope enables the NMI to use its capability and international standing to support other regulators. For example, currently NMI adapts international standards for the purposes of measuring instruments used for trade. **Option 3** would see NMI also adapting relevant international measurement standards useful for Australian regulatory purposes.

### 5.4.6 Expanding scope of coverage from shortfall to false or misleading measurement statements

The scope of coverage for shortfall<sup>40</sup> in the sale of goods (e.g. buying laundry powder at the supermarket) will expand across **all options** to cover false or misleading measurement statements. This updates the language used to reflect that used in comparable legislation, such as the *Australian*

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<sup>40</sup> Shortfall is a term in the current measurement legislation used to describe the circumstance where the actual measurement of a product is less than the stated quantity. For example, where a bottle of apple juice marked 1.25 L only contains 1.2 L of juice.

*Consumer Law* (ACL) and Food Standards legislation. While this change represents an expansion of scope of the current measurement legislation it should be noted that false or misleading statements are generally prohibited under the ACL.

- **Option 1** expands the scope further to include the sale and purchase (e.g. can and bottle recycling, gold buying and scrap metal recycling) of goods. The type of measurements that will be regulated under **option 1** for the purposes of false or misleading measurement statements remains the same as under the status quo.
- Under **option 2** scope is further expanded to include the sale and purchase of both goods and services (e.g. paying a fee for a courier based on the measurement of a package, paying for the removal of waste based on the measurement of the waste). **Option 2** includes a broader approach to measurement in the overall legislative framework (e.g. to accommodate greater inclusion of chemical and biological measurements for legal purposes). Under this option the application of regulatory requirements, such as those for false or misleading measurement statements, will be clearly restricted to trade measurement applications.
- **Option 3** would also cover false or misleading statements in the sale and purchase of goods and services. Measurement would be broad enough to cover not only trade measurement applications, but also other measurement applications. Regulation of false or misleading measurement statements would automatically be covered for trade measurement applications. Where needed, a mechanism in the legislation would enable the Minister to extend regulatory coverage to other measurement applications.

#### 5.4.7 A principles-based approach to marking packaged products to better facilitate acceptance of imported products

Where requirements in other economies do not align with those in Australia, this can lead to products being imported into Australia that do not meet domestic requirements. While the majority of products imported into Australia comply with domestic requirements, there are some products that do not have to meet the same prescriptive labelling requirements in the country in which they are packaged. For example, current Australian requirements align with those in international recommendation OIML R 79.<sup>41</sup> Despite this, there is sometimes a need to relabel imported products to satisfy Australian requirements as not all economies align with OIML R 79. In particular, cosmetic products imported from the European Union (and the UK) do not have the measurement mark presented on the principal display panel.

Some industry groups have indicated that Australia's prescriptive requirements are burdensome and, in the case of some imported goods (particularly cosmetics), come at an increased cost to relabel products for the Australian market. Because Australia is a small economy relative to other markets, packaging for some products is not always produced with the Australian market in mind. In industries where this is more common, products may have to be repackaged or relabelled in order to meet Australian requirements. Alternatively, these perceived hurdles may mean that some overseas businesses may choose not to export products to Australia, potentially resulting in reduced access to products for the Australian community.

Balancing these industry concerns are the concerns of consumers. Consumer associations have contended that the existing prescriptive regulations for the measurement mark allow consumers to easily access measurement information to assess value for money, ensure products are fit for

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<sup>41</sup> [OIML R79](#) recommends at 5.1 that "a pre-package shall bear a declaration of the nominal quantity on the principal display panel".

purpose, and protect consumers from manufacturers downsizing products (related to value for money).

The approach to measurement marking under the reform options followed a consideration of this stakeholder feedback and submissions made both during the Measurement Law Review and the Packaging Review<sup>42</sup>, and also a consideration of the impact of the Unit Pricing Code (UPC)<sup>43</sup>. While the UPC does not have universal application across all packaged product purchases, where applicable it does enable consumers to quickly compare products of different sizes and brands in order to calculate which one offers the best value.

#### 5.4.7.1 How each option applies a principles-based approach

**All options** for reform will introduce a more principles-based approach to the measurement marking of packaged products with minimal prescription:

- **Option 1** will require the measurement mark to be “prominent and legible” and will retain requirements for the marking to be on the principal display panel, as well as minimum font height and colour contrast. This option will introduce a mechanism to exempt products from the principal display panel marking requirements. It will initially retain existing marking exemptions (e.g. for packaged automotive parts<sup>44</sup>, wine bottles<sup>45</sup> and prescription therapeutic goods<sup>46</sup>) and will introduce an exemption covering imported and domestic cosmetics. This may leave some other types of imported products non-compliant with the requirements, however additional exemptions may be introduced in future where justified. A mechanism will also be introduced to enable deemed compliance pathways where certain types of packaged products satisfy other specified labelling requirements. For example, non-prescription therapeutic goods would be deemed to comply with the measurement labelling requirements provided they comply with relevant TGA labelling requirements<sup>47</sup>.
- **Options 2 and 3** take this approach one step further with the measurement marking to be “prominent and legible” and only font height and colour contrast requirements retained. This option will provide a mechanism to exempt products and introduce deemed to comply arrangements (as per **option 1**), as well as introduce additional requirements for products where needed (e.g. if there is a preference for principal display panel requirement for certain types of products). Such requirements could be introduced either at the commencement of new legislation or at a future date. In future, where seeking to introduce additional requirements, exemptions for products or deemed to comply mechanisms, this would be subject to additional consultation processes.

**Note:** for **all options** any package labelling that is compliant with current measurement labelling requirements will continue to be compliant under new arrangements.

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<sup>42</sup> The department reviewed Part 4 of the *National Trade Measurement Regulations 2009* from 2015 to 2018. Part 4 defines how the measurements related to packaging are controlled. The purpose of the review was to identify where red tape could be cut without compromising the objectives of the national trade measurement system. Further information on the Packaging Review can be found here: <https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging>.

<sup>43</sup> Further information on the UPC can be found at: <https://www.accc.gov.au/business/industry-codes/unit-pricing-code>.

<sup>44</sup> Paragraph 4.10(3)(a) *National Trade Measurement Regulations 2009*.

<sup>45</sup> Paragraph 4.10(3)(b) *National Trade Measurement Regulations 2009*.

<sup>46</sup> Clause 3.1 of Schedule 4 *National Trade Measurement Regulations 2009*.

<sup>47</sup> *Therapeutic Goods Order No. 92 – Standard for labels of non-prescription medicines*, particularly order 7.



## 5.4.7.2 Interaction with other legislation

Other domestic regulations refer to principles-based requirements for labelling and use the “prominent” and “legible” display of labelling information. For example:

- the Australia New Zealand Food Standards code<sup>48</sup> general legibility requirements for a word, statement, expression or design to be contained, written or set out on a label must be:
  - (a) legible
  - (b) prominent so as to contrast distinctly with the background of the label (Standard 1.2.2, Division 6, section 1.2.1-24).
- This is consistent with the language used for legibility requirements for the Country of Origin Food Labelling Information Standard 2016 [Part 4, 28 (2)].<sup>49</sup>
- Under the Trade Practices (Industry Codes – Unit Pricing) Regulations 2009<sup>50</sup> the UPC principles define that the display of the unit price for a grocery item [Part 2, 6(2)] is:
  - (a) displayed prominently and in close proximity to the selling price for the grocery item
  - (b) legible and unambiguous.

Removing the requirement for the measurement mark to be on the “principal display panel” under **options 2 and 3** would be a shift away from the international recommendation in OIML R 79. However, the approach adopted across other economies does not appear to be consistent. For example:

- **No specification for placement of measurement mark:** Hong Kong, Japan, Russia and Singapore do not appear to specify the location of the measurement mark on packaged products.
- **General front of pack for products:** a number of economies specify a general front of package measurement mark requirement for packaged products.
  - The United States federal requirements are for the measurement mark to be on the “principal display panel”.<sup>51</sup>
  - Canada,<sup>52</sup> New Zealand,<sup>53</sup> and India<sup>54</sup> require the measurement mark to be “on the side of the package that is visible to the consumer / purchaser” or “in close proximity to/on the same display panel as the good’s name or description” for packaged products.
  - The European Union (EU) has a general requirement for the marking of weight and volume on certain pre-packaged products that markings are “affixed in such a manner as to be indelible, easily legible and visible on the pre-package in normal conditions of presentation”.<sup>55</sup>
  - The United Kingdom (UK) generally requires the measurement mark to be “indelible, easily legible and visible in normal conditions of presentation”.<sup>56</sup>

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<sup>48</sup> <https://www.legislation.gov.au/Details/F2018C00464>

<sup>49</sup> <https://www.legislation.gov.au/Details/F2009L02457>

<sup>50</sup> <https://www.legislation.gov.au/Details/F2009L02457>

<sup>51</sup> [15 USC Ch 39: Fair Packaging and Labeling Program](#), paragraph 1453(a)(2)

<sup>52</sup> [Weights and Measures Regulations \(C.R.C., c. 1605\)](#), paragraph 47(a)

<sup>53</sup> [Weights and Measures Regulations 1999](#), paragraph 79(a)(a) – general and paragraph 79A(5)(b) – packages of food

<sup>54</sup> [The Legal Metrology \(Packaged Commodities\) Rules, 2011](#), regulation 8

<sup>55</sup> [Council Directive 76/211/EEC of 20 January 1976 on the approximation of the laws of the Member States relating to the making-up by weight or by volume of certain prepackaged products](#), Clause 3, Annex 1

<sup>56</sup> [The Weights and Measures \(Packaged Goods\) Regulations 2006](#), regulation 5(1)

- **Front of pack for food:** some economies have specific front of package measurement mark requirements for food products.
  - China requires the net content to be “on the same display side where the food name is located on the package or container”,<sup>57</sup> which must be “in a prominent place” on the label.<sup>58</sup>
  - The EU requires the net weight to be “marked in a conspicuous place in such a way as to be easily visible, clearly legible and, where appropriate, indelible”<sup>59</sup> and be in the same field of vision as the name of the food”.<sup>60</sup>
- **EU and UK marking requirements for cosmetics:** the EU has specific regulations that apply to cosmetic products<sup>61</sup> that are also applicable in EU Member States as well as the UK.
  - The requirement for marking the measurement on cosmetic products is more flexible than the general requirement for packaged products, only requiring that it is marked in “indelible, easily legible and visible lettering”.<sup>62</sup> It does not specify placement of the measurement mark.

### Trans-Tasman Mutual Recognition Arrangement

The *Trans-Tasman Mutual Recognition Act 1997*<sup>63</sup> provides for the mutual recognition within Australia and New Zealand of regulatory standards adopted in either country regarding goods and occupations. Where products comply with domestic requirements in Australia they will be accepted in New Zealand, even if New Zealand domestic requirements differ, and vice versa.

Australia’s current measurement marking requirements are more prescriptive than those in New Zealand. New Zealand requires the measurement mark to be “in a prominent position, and, where the goods are marked with their name or description, in close proximity to that marking” (minimum font height and colour contrast requirements also apply). As requirements are largely aligned neither economy is adversely impacted by the mutual acceptance of packaged products.

Where Australia chooses to implement changes to the placement of the measurement mark on packaged products, this could have flow on impacts for New Zealand. As such, the MLR will consult with New Zealand on these changes.

<sup>57</sup> [General Principles for the Labelling of Prepackaged Foods \(GB7718-xxxx\) \(in draft for comment with the WTO, 14 May 2020\)](#), section 4.5.3.

<sup>58</sup> As above, section 4.2.1.

<sup>59</sup> [Regulation \(EU\) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers](#), Article 13(1).

<sup>60</sup> As above, Article 13(5).

<sup>61</sup> [Regulation \(EC\) N 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products](#), defines cosmetics in Article 2.1(a): ‘cosmetic product’ means any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours.

<sup>62</sup> As above, Article 19(1).

<sup>63</sup> <https://www.legislation.gov.au/Details/C2020C00304>.

# Case Study 1 - Locating the measurement mark on packaged products

Industry have expressed concerns that current labelling requirements are prescriptive and confusing. They have also raised concerns that imported products, such as cosmetics, may need to be relabelled or repackaged so the measurement is on the front.

Options 1, 2 and 3 seek to increase consumer confidence and address industry feedback. They provide greater flexibility to industry while still enabling consumers to make informed purchasing decisions.



## Scenario: Peter's shopping trip

### About Peter

Peter is time poor and he likes product information, including measurement information, to be easily accessible.

Peter regularly checks package labels for measurement, nutritional information, ingredients and country of origin.

### Peter's Purchase

Peter stops by the supermarket on his way to work. He needs to get milk, cereal, laundry powder and mince. While there, Peter visits the cosmetics aisle to get some moisturiser.

### Status Quo

#### Outcome of Peter's shopping trip

All packaged products must include the measurement marking on the front of the package (principal display panel).

All products are marked with a measurement on the front of the pack.

Peter does not usually need to pick up products from the shelf, or use shelf labels, to see the measurement.



### Peter's shopping trip was successful

He quickly identified the measurement marking of each product.  
He easily compared like products.  
He was able to make an informed purchasing decision regarding the measurement.

### Option 1

#### Outcome of Peter's shopping trip

Some products could be granted an exemption so that they do not have to have the measurement mark on the front of the package.

The majority of products are marked with a measurement on the front of the pack.

In this scenario cosmetics (including moisturiser) have been granted an exemption and are marked on the back, near the ingredients.



For products not marked on the front Peter can find the measurement by:

1. Picking up the product to locate the measurement; or
2. If the store displays a unit price, using the unit price and total price on the supermarket shelf.

+20s



Additional **time burden** is minimal - Peter usually picks up packages to check ingredients and can see the measurement mark at the same time.

### Peter's shopping trip was still successful

He easily identified measurement markings on products, but had to pick up the moisturiser to find the marking.  
He was still able to compare like products and make informed purchasing decisions.

### Options 2 and 3

#### Outcome of Peter's shopping trip

Requirement for the measurement mark to be on the front of the package has been removed. Instead the measurement mark must be prominent and legible. NMI retains the power to require front of pack marking for certain products, where market issues are identified.

Peter may find that many products still have a measurement mark on the front.

He notices that the laundry powder and moisturiser no longer have a measurement mark on the front of pack.



For products not marked on the front Peter can find the measurement by:

1. Picking up the product to locate the measurement; or
2. If the store displays a unit price, using the unit price and total price on the supermarket shelf.

+40s



Additional time burden is greater than Option 1 – As in Option 1, Peter usually picks up packages to check ingredients anyway.

### Peter's shopping trip was still successful but took more time to compare products

He easily identified the measurement marking on each product as all were prominent and legible, but had to pick up the moisturiser and laundry powder.  
He was still able to compare like products and make informed purchases.

# Accessible version: Case study 1 - locating the measurement mark on packaged products

## Background

Industry have expressed concerns that current labelling requirements are prescriptive and confusing. They have also raised concerns that imported products, such as cosmetics, may need to be relabelled or repackaged so the measurement is on the front. Options 1, 2 and 3 seek to increase consumer confidence and address industry feedback. They provide greater flexibility to industry while still enabling consumers to make informed purchasing decisions.

## Scenario: Peter's shopping trip

### About Peter

Peter is time poor and he likes product information, including measurement information, to be easily accessible. Peter regularly checks package labels for measurement, nutritional information, ingredients and country of origin.

### Peter's Purchase

Peter stops by the supermarket on his way to work. He needs to get milk, cereal, laundry powder and mince. While there, Peter visits the cosmetics aisle to get some moisturiser.

### Status Quo: outcome of Peter's shopping trip

All packaged products must include the measurement marking on the front of the package (principal display panel). All products are marked with a measurement on the front of the pack. Peter does not usually need to pick up products from the shelf, or use shelf labels, to see the measurement.

### Peter's shopping trip was successful

He quickly identified the measurement marking of each product. He easily compared like products. He was able to make an informed purchasing decision regarding the measurement.

## Option 1 - Outcome of Peter's shopping trip

Some products could be granted an exemption so that they do not have to have the measurement mark on the front of the package. The majority of products are marked with a measurement on the front of the pack.

In this scenario cosmetics (including moisturiser) have been granted an exemption and are marked on the back, near the ingredients. For products not marked on the front Peter can find the measurement by:

1. Picking up the product to locate the measurement, or
2. If the store displays a unit price, using the unit price and total price on the supermarket shelf.

### +20 seconds

Additional time burden is minimal. Peter usually picks up packages to check ingredients and can see the measurement mark at the same time.

### Peter's shopping trip was still successful

He easily identified measurement markings on products, but had to pick up the moisturiser to find the marking. He was still able to compare like products and make informed purchasing decisions.

## Options 2 and 3 - Outcome of Peter's shopping trip

Requirement for the measurement mark to be on the front of the package has been removed. Instead the measurement mark must be prominent and legible. NMI retains the power to require front of pack marking for certain products, where market issues are identified.

Peter may find that many products still have a measurement mark on the front.

He notices that the laundry powder and moisturiser no longer have a measurement mark on the front of pack.

For products not marked on the front Peter can find the measurement by:

1. Picking up the product to locate the measurement, or
2. If the store displays a unit price, using the unit price and total price on the supermarket shelf.

### +40 seconds

Additional time burden is greater than Option 1 – As in Option 1, Peter usually picks up packages to check ingredients anyway.

### Peter's shopping trip was still successful but took more time to compare products

He easily identified the measurement marking on each product as all were prominent and legible, but had to pick up the moisturiser and laundry powder.

He was still able to compare like products and make informed purchases.

## 5.4.8 Changes affecting Authorised Third Parties (ATPs)

The current legislative framework enables appointment of ATPs to perform various measurement services to support legal measurement in Australia. There are currently six kinds of ATPs, who perform the following services:

- verification of measuring instruments for trade (Servicing Licensees)
- verification of utility meters (Utility Meter Verifiers, or U MVs)
- operation of public weighbridges
- certification of reference materials and measuring instruments (Certifying Authorities)
- verification of standards of measurement and artefacts (Verifying Authorities)
- examine measuring instruments and measuring instrument designs (Approving Authorities).

**Note:** Certifying Authorities, Verifying Authorities and Approving Authorities are known collectively as Legal Metrology Authorities (LMAs).

Some of these appointments are specific to trade measurement applications, even though they may share common capabilities and methods with those for other legal purposes.

Requirements to obtain certain measurement services from ATPs for regulated measurement activities are upheld across **all options** to ensure continuing confidence in measurement. Changes proposed to the nature of appointments across the different options will potentially enable ATPs to offer services across a wider scope of activities with less administrative overhead subject to having appropriate skills and being competent to do so.

Future changes to the way measuring instruments are regulated for trade will also potentially enable ATPs to offer similar services for other areas of legal measurement.

ATPs are currently appointed according to specific licence or authority types, with varying degrees of prescriptive conditions and oversight by NMI. This acts as a barrier to enabling flexibility in the scope of appointment types and being able to better tailor appointments according to demonstrated risk. This lack of flexibility also potentially impacts the speed at which innovation can be introduced into markets to address emerging measurement needs. More flexible appointment types may help provide better support for such things as utility meters, electric vehicle charging stations and measuring instruments with remote monitoring and checking functions.

Proposed changes offer varying degrees of flexibility through streamlining arrangements for licensing or appointments:

- For **all options** there will be a greater emphasis on describing appointments by reference to competency categories and test method,<sup>64</sup> rather than instrument classes. This will likely involve combining some current servicing licence classes and sub-classes.
- **Option 1** merges appointment types that perform similar functions to streamline arrangements, reducing six appointment types to four. U MVs are merged with Servicing Licensees as they perform similar roles in verifying measuring instruments to establish the accuracy of individual instruments. Certifying Authorities and Verifying Authorities are merged into a single appointment type as they share commonalities as appointed calibration and testing laboratories to support traceability and the accuracy of measurement used for legal purposes. Approving Authorities and Public Weighbridge Licensees remain as separate

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<sup>64</sup> The test method being used to test and verify measuring instruments is typically formalised as a National Instrument Test Procedure (NITP).

appointment types, with public weighbridge licensee and operator requirements made more principles-based and streamlined.

- **Options 2 and 3** provide for appointment of a single type of ATP. The specific nature of the appointment will depend on the proposed measurement activity and the level of risk. The legislation would include general conditions applying to all appointments, with specific details, such as scope of appointment and conditions, specified in the appointment documents.
  - There will be a number of common categories of measurement services which will have common conditions applying to all appointments who offer those services.
  - Where newer types of measurement services could be provided under an appointment, then the conditions are expected to be bespoke initially, but likely to be settled over time.

Currently the pathways to demonstrate competency vary for different appointment types, despite some appointment types sharing similarities in the roles they perform. Even within individual appointment types, competency must be demonstrated in relation to specific measurement activities.

- Servicing Licences are granted on the condition their employees demonstrate competence, in the form of a statement of attainment from a registered training organisation (RTO), to perform measurement-related functions for each class of licence they hold.
- UMs and LMAs are typically required to demonstrate competency through National Association of Testing Authorities (NATA) laboratory accreditation.

Under **all options** there will be increased flexibility as to how competency can be demonstrated, with NMI releasing guidance material identifying the different acceptable pathways to demonstrate competency. For example, some types of ATP may be able to obtain either a statement of attainment issued by a RTO or NATA accreditation, whereas for other types of ATP, demonstration of competency may be acceptable via another method.<sup>65</sup> Flexibility will allow NMI to set the competency framework that is most appropriate for the role performed by a particular type of ATP and accommodate hybrid and emerging roles for ATPs in the future.

#### 5.4.8.1 General Licences

ATPs provide a variety of measurement services, ranging in complexity, to support the use of measurement in trade and other sectors. Under current measurement legislation ATPs must apply for appointment and be approved prior to conducting activities. **Options 2 and 3** introduce the potential for general licences to be phased in over time to enable the performance of certain measurement activities and functions that may instead be better suited to a level of regulatory oversight that does not necessarily align with that in place for the appointment of ATPs.

General licences are permissions to undertake certain types of regulatory activities, subject to meeting particular requirements when performing the activities, but without needing to apply and be granted a licence. In Australia, general licences have been established to help manage some low-risk activities, including use of the radiofrequency spectrum, grazing on public land and for ships engaging in coastal trading.

General licences could be appropriate for some measurement activities associated within certain existing ATP functions, as well as being able to accommodate other types of measurement activities or services in the future. This approach can be used to provide for a lower level of regulatory

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<sup>65</sup> This would be considered on a case by case basis following a risk assessment and may include such things as accreditation through any International Laboratory Accreditation Cooperation (ILAC) accreditation body, peer assessment or an NMI review of capability.

oversight compared to other types of licences or appointment, with no associated licence fee and reduced administrative costs. For example, one area where general licences are being considered for the future is in relation to the operation of public weighbridges.

#### 5.4.8.2 Public Weighbridges

Public weighbridges require a licence to operate and are the only measuring instrument under the measurement legislation that currently requires an appropriately qualified operator. During consultations, views were expressed that:

- the legislation for public weighbridges is prescriptive;
- public weighbridges need to be subject to continued licensing with strong and transparent obligations to provide confidence in the system, noting the role that public weighbridges play in relation to road safety, and the waste and recycling trade; and
- there is a general perception that the licensing requirements for public weighbridges have created an uneven playing field between public weighbridges and those used for trade.

For **all options** the operation of public weighbridges will continue to be subject to some form of authorised appointment. However, the licensing and operational requirements for public weighbridges will be streamlined to varying degrees under the different options.

Under **option 1**, appointment and competency requirements for public weighbridges would remain largely the same. Requirements on public weighbridges and operators would be streamlined and made more principles-based, with administrative guidance provided by NMI to assist operation.

Under **options 2 and 3**, the functions and activities currently performed under public weighbridge licenses may in future be supported by general licences. If so, instead of applying for a licence to operate a public weighbridge, any weighbridge would be able to conduct a public weighing provided they comply with the specific requirements of the general licence. These requirements may be similar to some of the conditions currently imposed on public weighbridges but would be subject to further consultation in the future.

#### 5.4.8.3 Reporting requirements for Utility Meter Verifiers and Legal Metrology Authorities (LMAs)

Currently, UVMs and LMAs report on the activities they perform at the request of the NMI, rather than being subject to routine reporting requirements. A lack of regular reporting impacts NMI's access to the necessary data and information to help identify ATPs that might not be delivering reliable measurement outcomes, therefore warranting further investigation and possible compliance and enforcement action. New regular reporting requirements for some ATPs will provide greater transparency of ATP activities.

The changes to reporting requirements would require UVMs (under **all options**) and LMAs (under **options 2 and 3**) to routinely submit data after performing measurement activities (such as meter verification or reference standard certification). This would align reporting requirements to those in place for Servicing Licensees, who are required to report on an ongoing basis after performing measurement activities.

Proposed changes under the different options would be implemented following a transition period and development of an appropriate reporting framework. Reporting efficiencies will likely depend on the level of sophistication of the reporting framework. During the transition period UVMs (under **all options**) and LMAs (under **options 2 and 3**) would continue to be required to report ad hoc at NMI's request.

# Authorised Third Party (ATP) – Explanation of Licensing/appointment types

## Status Quo - Licensing/appointment arrangements

Authorised Third parties (ATPs) are licenced or appointed under measurement legislation to perform particular functions necessary to maintain confidence in the accuracy of measurements used for trade or legal purposes.

There are currently six different kinds of ATPs:



**Servicing Licensees (SLs)** test and verify the accuracy of measuring instruments used for trade.



**Certifying Authorities (CAs)** certify measuring instruments or certify reference materials.



**Utility Meter Verifiers (UMVs)** test and verify the accuracy of utility meters.



**Verifying Authorities (VAs)** verify standards of measurement and artefacts.



**Public Weighbridge licensees (PWBs)** make weighbridges available for public use.



**Approving authorities** examine and test patterns of measuring instruments.

## Proposed Reform Options

All proposed options aim to increase flexibility and reduce prescription in the way ATP appointments and licences are established.

### Option 1

#### Consolidation of existing licence and appointment types

Under Option 1, certain ATP types with similar roles will be merged, reducing the overall number of appointment types.

ALL of the functions under the Status Quo will be maintained but the administrative process will be streamlined.

CAs and VAs are merged to into a single Appointment type.



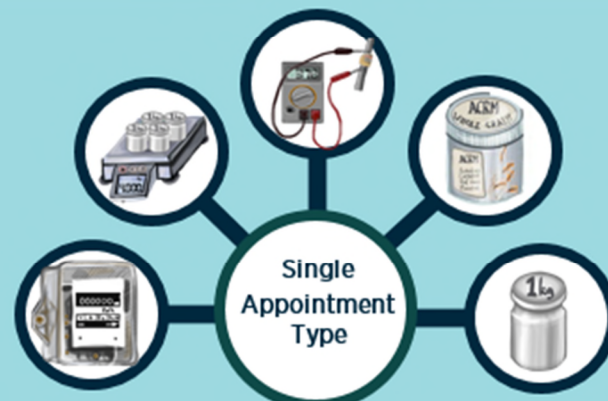
SLs and UMVs are merged into a single Appointment type.



PWBs, as well as Approving authorities, will remain as separate appointment types.



### Options 2 and 3



#### Single Appointment Type

Under Options 2 and 3 all appointment types, except PWBs, are merged. Distinction between different appointments will be made in appointment documents, and may include things such as appointment scope, specific conditions, and bespoke reporting requirements.



#### General Licence

Under options 2 and 3 a general licence power will be introduced allowing a lower level of regulatory oversight for certain measurement activities than ATP appointment. This is being considered for public weighbridges – which would allow public weighings without applying for a licence, provided they comply with the general licence requirements.

## Key information for ATPs – ALL OPTIONS

From day one, ATPs will not see any change.

Transitional arrangements will be established under ALL options.

The scope of existing appointments and licences will be maintained on transition to the new appointment framework.

Transition to the new arrangements will occur upon renewal of appointments.



# Authorised Third Party (ATP) Scenario – Impact on an ATP

## Scenario: *Willala Verifications*

*Willala Verifications* are a large Australian company employing 100 staff nationally.

They hold three appointments



Servicing Licensee



Utility Meter Verifiers



Verifying Authority

Each appointment requires renewal after a set timeframe. Three separate applications are required for the three independent appointments.



### Option 1

#### Impact on Willala Verifications

#### Key benefit of Option 1 – Marginal reduction in administrative burden

When it comes time to renew their licence they transition to the new arrangements and instead of holding 3 appointments, they only have to manage 2, their appointment as an LMA and their consolidated testing and verification licence (the combined SL/UMV licence).

Their administrative burden is marginally reduced.

Their business activities have not been impacted

### Options 2 and 3

#### Impact on Willala Verifications

#### Single Appointment Type

When it comes time to renew their licence they transition to the new arrangements. They now only have to manage one single appointment and lodge one application every three years. Details in their appointment documents include the scope of appointment, specific conditions, and bespoke reporting requirements.

They notice a reduction in administrative burden through reduced application burden and fees.

Their business activities have not been impacted

### Flow on benefits under Options 2 and 3

#### Future of Metrology

Significant technological advancements have been made, particularly in the field of software validation

#### Future of Willala Verifications

Willala Verifications want to expand their business to include software validation and other new and emerging areas of metrology that were not covered by the original appointment types by the Status Quo.

#### How do Options 2 and 3 enable Willala Verifications to grow in the face of evolving technology.

Willala Verifications apply to modify the scope of their existing appointment

Single appointment type is able to adjust to flexibly adapt to meet future needs.

NMI reviews their application, and updates the details in their appointment documents.

Willala Verifications are able to expand their operations more easily.

## 5.4.9 Additional compliance and enforcement arrangements across all options

In addition to existing monitoring, compliance and enforcement tools, the proposed options will introduce a number of contemporary and flexible tools. This will provide for a range of monitoring, compliance, and enforcement arrangements that can be utilised to more appropriately target different levels of the escalating enforcement model.

Under **all options**:

- Introduction of additional **permits**<sup>66</sup> and **corrective notices** (e.g. improvement notices and prohibition notices) will provide increased flexibility to tailor the compliance approach in order to achieve desired outcomes, without having to resort to penalties.
- Tailored **infringement notices**, penalty units for infringement notices will align better with the nature of the contravention and approaches adopted by other government regulators (i.e. higher for a body corporate than an individual, lower penalties for contravention of some provisions and higher for provisions of a more serious nature).
- Ability to publish details regarding non-compliance, which may include the introduction of an infringement notice register, similar to that utilised by the Australian Competition and Consumer Commission (ACCC).<sup>67</sup>
- **Civil penalties**, there are no civil penalties in the current legislative framework but they are becoming standard in most government regulatory frameworks. NMI has completed 6 prosecutions in the past 10 years and would be unlikely to see a considerable increase in cases taken to court with the introduction of civil penalties. However, fines under civil penalty provisions are likely to be significantly higher, particularly for large corporations.
- Other **court orders**, including ability for courts to make additional orders, such as adverse publicity orders and non-punitive orders, will mean businesses that NMI does take court action against may be subject to such orders in addition to a monetary fine.
- **Due diligence defence**, inclusion of a defence for businesses where it can be demonstrated that they exercised due diligence to prevent the contravention.

In addition to the introduction of the tools outlined above, **options 2 and 3** would include additional mechanisms to support industry based solutions through enforceable industry codes of conduct. It will also enable the recall of measuring instruments and packaged products to provide added confidence for the introduction of more flexible instrument assurance pathways.

## 5.5 Understanding how the options deliver measurement policy objectives

The Australian Government's primary policy objective is to provide a strong and effective national measurement system that is trusted, recognised and accepted both domestically and internationally. The review identified ten principles that together provide confidence in the measurement system, ensure adaptability of the legislation, and outcomes for stakeholders.

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<sup>66</sup> Permits could be issued to temporarily allow the sale of a non-compliant product or the use of a non-compliant measuring instrument for a limited period.

<sup>67</sup> The Australian Competition and Consumer Commission (ACCC) is an economy-wide regulator responsible for delivering compliance with competition, consumer protection, product safety and infrastructure laws.

Table 6: Key policy principles

Policy objective	Policy principle
Measurement confidence	1. Industry efficiency
	2. Community trust
	3. Government reliance
	4. International recognition
Adaptability of the legislation	5. Enables innovation
	6. Fit for purpose
	7. Future flexibility
Outcomes for stakeholders	8. Industry investment
	9. Balancing market costs and benefits
	10. Balancing cost to government

A summary of the assessment provided below is in *Table 2 – Alignment of proposed options with the key policy principles* in the Executive Summary.

Overall this assessment concluded that:

- **Status quo** meets the policy principles to a low to moderate degree.
- **Option 1** meets the policy principles to a moderate degree.
- **Option 2** meets the policy principles and principles to a high degree.
- **Option 3** meets the policy principles and principles to a high degree.

### 5.5.1 How the options were assessed

The options were assessed against the key policy principles to determine how they would meet the requirements for the measurement framework. This included:

1. identifying the benefits and costs of each reform option
2. considering interdependencies and reliance by stakeholders (i.e. business, government, trade)
3. detailed analysis by thematic area of the measurement law<sup>68</sup>
4. analysis of impact on the broader measurement framework as a whole
5. consideration of evidence from stakeholder consultation
6. jurisdictional analysis and international comparison.

Each reform was then rated against the policy objective and principles as: low, medium or high. This rating scale is intentionally distinct from the rating scale used to assess the impacts of the options on stakeholders in the next chapter.

### 5.5.2 How each reform option meets the policy principles

The reform options have been designed to address the limitations of the existing legislation in meeting the current and future measurement needs of Australia. The below section provides an analysis of how the proposed changes meet the policy principles for the review.

<sup>68</sup> Analysis was carried out according to thematic areas: traceability, measuring instruments, third party arrangements, measurement-based transactions and compliance arrangements.

## 5.5.2.1 Measurement Confidence:

### 5.5.2.1.1 Industry efficiency

Definition: Creates a level playing field for industry to be able to trade with confidence, reducing transaction costs and enabling competition.

The proposed changes that contribute to this principle include:

- **A broader suite of compliance and enforcement tools: All options** enable government to better target non-compliant behaviour with appropriate compliance and enforcement tools. This supports competition and enables industry to trade with greater confidence knowing they are operating on a level playing field. **Options 2 and 3** also introduce enforceable codes of conduct to support a more targeted, collaborative approach with industry that appropriately targets both small business and large enterprises.
- **Expanding scope of coverage from shortfall to false or misleading measurement: Option 1** partially addresses current gaps through inclusion of purchase of goods (currently only sale of goods is covered), partially addressing current gaps and further reinforces a level playing field. **Options 2 and 3** provide coverage for all types of transactions (i.e. sale and purchase of goods and services), strongly reinforcing a level playing field for industry, enabling industry to trade with greater confidence.
- **Efficient access to measurement services: All options** streamline requirements for administration of ATPs, reducing administrative cost burdens for measurement services industry. **Options 2 and 3** provide further flexibility through a single appointment type, enabling ATPs to operate more efficiently and better support emerging measurement needs. This would enhance competition in the market for measurement services. **Option 3** would also involve greater scope for regulators to seek measurement services from ATPs to support regulatory measurements, resulting in greater demand for services and driving more efficient access to measurement services.
- **Instrument marks: All options** enable digital marks as an alternative to current physical marks, making the process of conducting verification more efficient for some ATPs who are able to remotely verify. Enables future reporting efficiency gains for ATPs where combined with other technology, such as QR codes or another scannable mark. Benefits to ATPs in relation to operational efficiency and reduced travel time. Benefits to industry more broadly regarding easier access to verification, particularly for regional and rural business.
- **A framework for new and innovative measuring instruments: In options 2 and 3** a level playing field can be maintained as new and innovative measuring instruments enter the market because the legislation can accommodate these technologies. Prescriptive elements of the measurement framework are retained where needed to maintain benefits from standardisation. In contrast, the **status quo and option 1** provide a low level of support for new and innovative measuring instruments due to applying a one-size-fits-all approach.
- **Enhanced ATP reporting and compliance increases confidence in quality of measurement services: Option 1** involves increased reporting and oversight for UMGs, providing greater support for confidence in the measurements they make. **Options 2 and 3** extend this approach to LMAs, providing greater support for measurement confidence across all measurement services.

#### Overall alignment of options with policy principle:

- **Status quo:** medium alignment as prescriptive framework provides confidence as to a level playing field

- **Option 1:** medium alignment through marginal improvement which provides some limited flexibility
- **Option 2:** high alignment through streamlined and flexible requirements that support a level playing field in trade
- **Option 3:** high alignment through streamlined and flexible requirements that support a level playing field in trade and beyond

#### 5.5.2.1.2 Community trust

Definition: Provides confidence in measurement, ensuring everyone gets what they pay for and limiting market failures including from information asymmetry.

The proposed changes that contribute to this principle include:

- **A broader suite of compliance and enforcement tools: All options** enable government to provide appropriately target and address issues identified in the market. Strengthened tools supports fair and effective compliance outcomes for the Australian community, further building community confidence and trust in trade measurement.
- **Expanding scope of coverage from shortfall to false or misleading measurement: Option 1** partially addresses current gaps through inclusion of purchase of goods (currently only sale of goods covered), reinforcing community confidence in measurements for the goods they both buy and sell. **Options 2 and 3** provide coverage for measurements used in all types of transactions (i.e. sale and purchase of goods and services), strongly reinforcing community confidence in these transactions. **Option 3** also includes the ability to cover false or misleading measurement statements, where needed, for non-trade measurement applications (minor beneficial increase compared with option 2).
- **A principles-based approach to marking packaged products: Option 1** would result in a slight time increase for consumers to locate measurement marking for exempt products (including some cosmetic products), but continues to ensure consumers have easily accessible measurement information for the majority of packaged products. Under **Options 2 and 3** there is increased flexibility for how measurement mark must be presented. This may result in additional time increase for consumers to locate measurement marking where mark is not on the front of the package. Ease of access to measurement information may be adversely impacted for more products, as compared with option 1 and status quo. Consumers can still have confidence in the measurement marking, but may need to invest time in finding it, which may potentially introduce some information asymmetry.
- **Supporting trust in performance of new and innovative measuring instruments: Options 2 and 3** provide a pathway to integrate innovative measuring instruments into the framework and supports high level of trust in their measurement results. In contrast, the **status quo and option 1** provide a low level of support for new and innovative measuring instruments due to applying a one-size-fits-all approach.
- **Enhanced trustworthiness in complex measurement:** Improvements to the use of chemical, biological, complex measurements and use of independent primary standards in **options 1 through 3** strengthens the basis to trust these kinds of measurements used for products, services and regulatory activities. The **status quo** currently provides limited coverage of these kinds of measurements.

**Overall alignment of options with policy principle:**

- **Status quo:** supports medium level community trust, but with some known gaps.

- **Option 1:** supports medium level community trust, through partially reducing prescription and addressing known gaps
- **Option 2:** high alignment through significantly less prescription, addressing gaps and providing broader coverage of goods and services.
- **Option 3:** high alignment through ability to support trust in all measurements relied on by society

#### 5.5.2.1.3 Government reliance

Definition: Enables key government outcomes needing accurate and reliable measurement (for example, agriculture, the environment, law enforcement and safety).

The proposed changes that contribute to this principle include:

- **Greater ability to share information with other regulators:** All options remove current secrecy provisions which prevent NMI sharing protected information, except in very limited circumstances. This change helps to support the outcomes of other regulators.
- **Better regulatory collaboration and support for government on measurement issues:** Across all options, regulators would have greater access to ATPs who currently may only provide some measurement services for trade purposes. There is potential in option 2 to make ATP arrangements more available to support other regulators. Under option 3, NMI can more directly support and help address the measurement issues or market failures faced by other regulators.
- **Improved measuring instrument framework and traceability for legal purposes:** Changes to how measuring instruments are controlled in option 2 and improvements to traceability across all options provide greater support for the accuracy and reliability of measurements that government outcomes rely on. Under option 3, the NMI could help specify requirements that must be met for the measurements and instruments that other regulators relied on for legal purposes.

#### Overall alignment of options with policy principle:

- **Status quo:** support for other government regulators provided under NMI's service delivery function, but limited specific legislative support for matters outside trade.
- **Option 1:** provides a medium level of support for government outcomes, through increased confidence in measurement, however has limited flexibility to directly assist government agencies other than services agreements.
- **Option 2:** high alignment as agencies able to link to a more accessible and flexible legislative framework.
- **Option 3:** high alignment as both able to link to a more accessible and flexible legislative framework and NMI is able to provide more direct regulatory support for the measurements they rely on.

#### 5.5.2.1.4 International recognition

Definition: Ensures Australia's measurement system is globally recognised and accepted, supports international trade and meets treaty obligations.

The proposed changes that contribute to this principle include:

- **Maintaining international alignment of trade measurement requirements:** All reform options ensure Australia continues to align with international expectations for trade measurement.

- **Maintaining confidence in Australia’s trade measurements:** Across **all reform options**, a tailored and strong compliance and enforcement framework helps ensure international trading partners can have confidence in the measurements being used, supporting acceptance of Australian measurement and Australia’s positive international trade reputation.
- **Reduced barriers for imported packaged products:** Under **all reform options**, less prescriptive measurement marking presentation requirements provides greater flexibility to accept imported products while maintaining alignment with international expectations. Supports emerging trade requirements for imported and exported products.
- **Greater recognition of international test results and assessments. All reform options** provide greater ability to accept and adopt international approvals, test results regarding instruments (e.g. MID approvals or OIML CS<sup>69</sup> certificates) and references (such as those listed in the CIPM-MRA database).
- **Reduced technical barriers to trade through improved traceability: All reform options** support confidence for chemical, biological and other complex measurements. This will ensure measurement law is reflective of current scientific practices and can adjust to future scientific developments. In addition, under **options 2 and 3** Australia has a framework to provide greater acceptance of international traceability pathways and to engage independent primary standards.
- **Supporting adoption of new and innovative measuring instruments:** Under **options 2 and 3**, approval pathways for innovative measuring instruments will support domestic use and also the global trade in these instruments. In contrast, the **status quo and option 1** do not provide the same level of support for innovative measuring instruments due to applying a one-size-fits-all approach.

#### Overall alignment of options with policy principle:

- **Status quo:** medium level of international alignment through continuation of existing globally recognised processes.
- **Option 1:** provides a medium level of support for international recognition, through enhanced acceptance of international chemical and biological references and measurements.
- **Option 2:** high alignment through reduced technical barriers to trade from improved traceability and greater support for trade in innovative instruments.
- **Option 3:** high alignment as for option 2, with broader application beyond trade.

### 5.5.2.2 Adaptability of the Legislation:

#### 5.5.2.2.1 Enables innovation

Definition: Facilitates innovation by adjusting to, adopting and developing emerging measurement technologies and practices.

The proposed changes that contribute to this principle include:

- **Supporting new and innovative measuring instruments:** Changes to the measuring instrument framework under **options 2 and 3** encourages innovation, the uptake of innovative instruments and reduces technical barriers to trade arising from new measurement technology or techniques. In contrast, the **status quo and option 1** do not

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<sup>69</sup> OIML-Certification System.

provide the same level of support for innovative measuring instruments due to applying a one-size-fits-all approach.

- **Support for innovations in chemical, biological and complex measurements:** In **option 1**, the traceability framework is brought up to date with current international chemical and biological practice, with **options 2 and 3** introducing powers to enable other traceability pathways, references, methods and units of measurement. **Across all reform options**, there would be increased confidence in and adaptation of chemical, biological and complex measurements.
- **Flexible ATP arrangements better able to support emerging measurement technologies and applications:** ATPs create a critical role in providing support to industry underpinning the adoption of emerging technologies and practices. Under the **status quo**, ATPs have tightly defined scope under their appointment classes. Under **option 1**, appointments are streamlined to expand service provision opportunities for ATPs outside trade measurement. **Options 2 and 3** enable more flexible appointments, allowing ATPs to adopt and develop new measurement technologies, as well as providing greater support for industry uptake of new techniques and technologies.

#### Overall alignment of options with policy principle:

- **Status quo:** low alignment as prescriptive framework create barriers and technology assumptions
- **Option 1:** medium alignment through marginal improvement which provides some limited flexibility to support technology and practice which emerges over time
- **Option 2:** high alignment through streamlined and flexible requirements that can respond to and drive innovation and technology changes for trade and legal purposes
- **Option 3:** high alignment through streamlined and flexible requirements that can respond to and drive innovation and technology changes for all measurement

#### 5.5.2.2.2 Fit for purpose

Definition: Ensures regulation is appropriate and proportionate to measurement risk and usage.

The proposed changes that contribute to this principle include:

- **Principles-based regulation:** Across **all reform options** a broader risk-based regulatory approach to trade measurement requirements is enabled. Increased flexibility creates benefits for business, while enabling NMI to better focus resources on high-risk areas. Industry benefits are likely to be slightly higher for **options 2 and 3**, compared with option 1, as some prescription is kept for a small number of requirements under option 1.
- **A principles-based approach to marking packaged products:** The current requirements for measurement marks on packaged products is overly prescriptive and inconsistent with other related domestic and international regulations. **Option 1** provides a medium level of alignment by applying a more principles-based approach to products including by consolidating and reducing prescription. **Options 2 and 3** provide a high level of alignment through reducing requirements regarding the placement of measurement markings, commensurate with risk.
- **Enhanced suite of compliance and enforcement tools:** Current compliance and enforcement tools are heavily focussed on individual deterrence and punishment and are not well suited to a modern and risk-based regulatory framework. **All reform options** provide a range of contemporary and flexible compliance tools which can more



appropriately target different levels of the escalating enforcement model and respond appropriately (i.e. tailored to consider small businesses or large enterprises).

- **Streamlined and flexible appointment arrangements for ATPs:** Under the **status quo and option 1**, ATPs have tightly defined classes and requirements which are not always appropriately aligned with risk associated with their roles. Under **options 2 and 3**, a single appointment mechanism, with details of appointment scope specified in appointment documents, supports better alignment of regulatory requirements for ATPs with measurement risk.
- **Introduction of general licences for certain measurement functions and activities:** the possible use of general licences is introduced under **options 2 and 3**. This would enable certain measurement functions and activities to be performed, subject to certain conditions being met, without the need to apply for an appointment. The introduction of general licences would enable the regulatory burden associated with the provision of certain measurement functions and activities to be more appropriately aligned with the necessary level of regulatory oversight.
- **The regulation of measuring instruments is proportionate to risk and usage:** Pattern approval and verification remain default controls across **all reform options**. Under the status quo they are an inflexible mandatory pathway for market entry on all trade measuring instruments. **Option 1** retains the current single path for instrument regulation, but introduces some flexibility via a legislated power to determine if certain instruments may be allowed to enter the market without prior approval, or grant a provisional approval. **Option 2** enables a fit for purpose regulation of instruments by using a range of control mechanisms that can be applied commensurate to risk. **Option 3** will enable the application of appropriate controls on measuring instruments used by regulators.

#### **Overall alignment of options with policy principle:**

- **Status quo:** low level of alignment as legislation is inflexible and adopts a one-size-fits-all approach in some areas.
- **Option 1:** medium level of alignment due to less prescriptive requirements.
- **Option 2:** high level of alignment that regulation is appropriate and proportionate to measurement risk and usage in trade.
- **Option 3:** high level of assurance that regulation is appropriate and proportionate to measurement risk and usage including beyond trade.

#### **5.5.2.2.3 Future flexibility**

Definition: Provides regulation that can accommodate changing business practices and evolving measurement needs.

The proposed changes that contribute to this principle include:

- **Shift to principles-based regulation:** **All options** introduce the use of principles-based regulation as appropriate, providing greater flexibility for the legislation to remain relevant despite industry growth and technological advances. **Options 2 and 3** do this to a greater extent than **option 1**. Particular areas where a principles-based approach enhances future flexibility include:
  - marking and unit requirements for packaged products
  - arrangements regarding correct use of measuring instruments for trade
  - requirements to avoid false or misleading measurement statements.

- **Streamlined and flexible appointments for ATPs:** Streamlining and merging some appointment types under **option 1** provides some flexibility to better accommodate changing measurement needs, however offers limited ability to evolve to future needs. Flexibility introduced in **options 2 and 3**, including enabling the possibility of hybrid and novel appointment types, provide ATPs with greater flexibility to respond to changing industry practices and measurement needs. **All reform options** introduce flexible competency pathways that align better with the role a particular ATP performs. Aligning competency requirements with test methods and ATP activities, rather than particular types of instruments, will enable greater flexibility for ATPs to provide measurement services to meet evolving measurement needs.
- **Changes to the traceability framework:** Updating the traceability framework allows the legislation to keep up with scientific developments. Key traceability provisions are improved in **option 1** to align them with current needs. **Option 2** ‘future-proofs’ the traceability framework through improvements that provide additional traceability points and ensures new and emerging measurement technologies and techniques provide confidence and traceable measurement. **Option 3** builds on **option 2** and will also provide government with powers to support the validation of measurement-based regulations. **All reform options** enable greater uptake of international standards and reference materials (e.g. under the CIPM-MRA).
- **Increased flexibility for controls over measuring instruments:** **Option 1** provides the ability to be flexible in regulating instruments via exemptions or determinations from the Chief Metrologist. The range of controls in **option 2** would be open to use before or after entry to market but would be commensurate to risk. The risk-based approach is used to determine the appropriate level of regulation of measuring instrument types and applications. **Option 3** provides the flexibility of **option 2** but with increased scope to support other regulators. **All reform options** provide greater acceptance of overseas test results or instrument approvals to be recognised where possible (e.g. under the OIML CS), providing greater ability to accommodate and adjust to international developments in measuring instruments.

**Overall alignment of options with policy principle:** Provides regulation that can accommodate changing business practices and evolving measurement needs.

- **Status quo:** is highly prescriptive and provides low level ability to accommodate changing business practices and evolving measurement needs because of limited flexibility.
- **Option 1:** provides medium level ability to accommodate changing business practices though alignment to current business needs and some ability to make determinations to support future business needs.
- **Option 2:** provides high level ability to accommodate evolving measurement needs and applications, including innovative measuring instruments, with greater flexibility to support emerging trading practices.
- **Option 3:** provides high level ability to accommodate changing business practices and evolving measurement needs, including measurement outcomes outside trade.

### 5.5.2.3 Outcomes for Stakeholders:

#### 5.5.2.3.1 Industry investment

Definition: Encourages industry to invest in building and maintaining capability reliant on measurement.

The proposed changes that contribute to this principle include:

- **Supporting investment by ATPs via changes to appointments and competency:** Under **option 1**, similar appointment types are merged, resulting in some administrative savings. For **options 2 and 3**, ATP roles are expanded and made more general to accommodate a greater range of instrument types and measurement services. ATPs are more easily able to expand the service offering under their appointments, which provides a lower barrier to investment.
- **Supporting investment by industry:** While the legislation provides certainty, **all options** seek to reduce prescription that may constrain business and industry activities.
- **Integrating new and innovative measuring instruments:** Integration of new and innovative measuring instruments into the measurement framework under **options 2 and 3** provides certainty to markets as to their acceptability and reliability. This further encourages investing in new and innovative measuring instruments and using them with confidence for trade or regulatory purposes.
- **Recognition of independent standards:** Across **all options**, recognition of independent primary standards of measurement will provide a path for private sector investments in metrological capabilities which can then be used with confidence in the economy.

#### Overall alignment of options with policy principle:

- **Status quo:** Current prescriptive framework provides industry with confidence they are operating on a level playing field and justifying investment in capability. Medium level of policy alignment.
- **Option 1:** Measurement services roles simplified, with additional capability pathways. Fixes issues with status quo, but keeps operating environment largely known, maintaining business certainty. High level of policy alignment.
- **Option 2:** Flexibility to support evolving and innovative measurement services aids industry development and capability investment. High level of policy alignment.
- **Option 3:** Expansion of measurement activities beyond trade creates opportunities for industry. High level of policy alignment.

#### 5.5.2.3.2 Balancing market costs and benefits

Definition: Minimises unnecessary regulatory burden and cost for industry while maintaining confidence in the measurement system.

The proposed changes that contribute to this principle include:

- **Shifting to principles-based regulation reduces costs:** **All options** introduce the use of principles-based regulation as appropriate, providing greater flexibility for businesses to reduce costs through alternative compliance pathways. **Options 2 and 3** do this to a greater extent than **option 1**. Particular areas where a principles-based approach enables this includes:
  - marking and unit requirements for packaged products
  - arrangements regarding correct use of measuring instruments for trade.
- **Enhanced suite of compliance and enforcement tools:** Across **all options**, a greater selection of tailored compliance and enforcement tools supports minimising unnecessary regulatory burden and cost for industry, while maintaining confidence in the measurement system. Recall powers under **options 2 and 3** provide additional confidence in the system to support the inclusion of greater flexibility. May result in some potential cost to industry where a recall needs to be issued.

- **Fit for purpose controls for measuring instruments:** Increasing flexibility across all options allows for a reduction in regulatory burden. Under all reform options, pattern approval and verification remains the default requirements for instruments used in trade. Under option 1, there would be a decision making power enabling particular instruments to be excluded from pattern approval or verification requirements. Under options 2 and 3, there is greater flexibility to accommodate alternative compliance pathways for differing instrument types and applications, compensate with risk.
- **Additional reporting requirements for some ATPs:** Comprehensive ATP reporting across all types of appointments enables improved NMI data analysis to ensure ATPs are delivering trustworthy measurement outcomes, supporting confidence in the measurement system. Minimal regulatory burden for ATPs with existing routine reporting requirements and extended to UMs under option 1 following development of reporting framework. Minimal regulatory burden for routine reporting applicable to all ATPs under options 2 and 3.
- **Measurement controls supporting government regulators:** Under the status quo and options 1 and 2, the legislation regulates trade measurement and provides a supportive framework that other regulators can access. Under option 3, the legislation would enable NMI to impose legal requirements regarding the measurements that other regulators rely on. Examples include requiring that a specified method be used to make a particular measurement or that instruments relied on meet certain requirements. This may result in both NMI and another regulator operating in a particular area, increasing risk of perceived regulatory duplication.

#### Overall alignment of options with policy principle:

- **Status quo:** low level of alignment as legislation is inflexible and adopts a one-size-fits-all approach in some areas.
- **Option 1:** medium alignment as principles-based approach reduces regulatory burden.
- **Option 2:** high alignment as streamlined and flexible requirements enable very targeted arrangements for trade, aligning burden with risk.
- **Option 3:** medium alignment as very targeted arrangements for trade partially offset by potential for perceived regulatory duplication outside trade.

#### 5.5.2.3.3 Balancing cost to government

Definition: Ensures costs to deliver are reasonable, and key capabilities and services are delivered to the benefit of Australian industry and the community.

The proposed changes that contribute to this principle include:

- **Principles-based approach to regulation:** Whilst a principle-based approach reduces cost to industry under all options, it is more expensive for government to deliver and requires more detailed guidance material to be provided to industry and the inspectorate. Operating in a less prescriptive environment will require the development of additional guidance material to outline regulatory focus and provide further detail to principles-based requirements. Additional resources will be needed to develop and maintain this material, as well as costs associated with testing principles in court from time to time.
- **Expanded suite of compliance and enforcement tools:** The compliance and enforcement tools available under all options enable NMI to direct resources towards the most effective regulatory approach. However, it requires government investment to establish a litigation fund, retrain the inspectorate and develop supporting infrastructure (including IT systems).

- **Supporting measurements other regulators rely on:** Under **all options** NMI helps to provide support to other regulators through advice and services agreements. Under **option 3** NMI can take a more direct role to impose legal requirements where critical to support these measurements. As scientific and regulatory capability is expensive to develop/source, and maintain, this would require dedicated funding to achieve without compromising NMI's core functions.
- **Provision of measurement services by ATPs:** Under **all options** certain measurement services are provided by ATPs rather than government. Under **options 2 and 3**, ATP arrangements are made more accessible to other regulators and their regulated communities (e.g. services previously only available for instruments used for trade could be utilised by other sectors). This enables greater support of other government measurement needs through ATPs, rather than direct involvement from NMI, however it requires increased NMI oversight of ATPs performing these functions in addition to the current scope of ATP appointments.
- **Increased government access to reference materials, standards and instruments for legal purposes:** Under **all reform options** the new measurement legislation will provide a broader scope of powers for the Chief Metrologist to support the use of complex measurements for legal purposes including chemical, biological, materials properties, nano-measurements, and method-dependent measurements. Under **all options** there is also enhanced recognition of overseas reference materials, standards, instruments and data sources. This will provide increased assurance for agencies who need to need reliable and accurate measurement to support their policy outcomes.

**Overall alignment of options with policy principle:**

- **Status quo:** low alignment due to cost for maintaining a functioning, but ageing framework
- **Option 1:** medium alignment through potential increase in enforcement costs, but reduced administration costs, and more effective framework in the short term. Government able to have easier access to and greater reliance on reference materials, standards and instruments for legal purposes.
- **Option 2:** medium alignment, with enforcement costs and costs to manage flexible arrangements resulting in a more effective framework that can evolve to meet changing future needs. Government able to have easier access to and greater reliance on reference materials, standards and instruments for legal purposes.
- **Option 3:** low alignment, as supporting agencies via infrequently used capability is expensive.

## 6 RIS Question 4: What is the likely net benefit of each option?

### 6.1 Overview

This section identifies the net benefits of each reform option and seeks stakeholders' views on the assessment presented. In doing so, this section provides:

- an estimate or description of regulatory burden based on options of reform
- an impact analysis on key stakeholders
- a preliminary net benefit assessment of each option.

This analysis indicates that option 2 provides the greatest net benefit for stakeholders, and seeks feedback on this assessment for further consideration.

More detailed analysis of the impacts for each stakeholder group is provided in the appendices:

- [Appendix 5: Impacts on consumers](#)
- [Appendix 6: Impacts on measuring instrument manufacturers](#)
- [Appendix 7: Impact on Authorised Third Parties](#)
- [Appendix 8: Impacts on wholesalers, retailers, importers and packers](#)
- [Appendix 9: Impacts on government regulators](#)

Detailed regulatory burden costings are included in the following appendices:

- [Appendix 10: Costing the regulatory burden of changes to measurement marking requirements on packaged products](#)
- [Appendix 11: Costing the regulatory burden for businesses to understand requirements for packaged products](#)
- [Appendix 12: Costing the regulatory burden from pattern approval](#)
- [Appendix 13: Costing the regulatory burden on Authorised Third Parties](#)
- [Appendix 14: Costing the regulatory burden from verification by servicing licensees](#)

### 6.2 Regulatory burden estimates

Where possible this RIS adopts the [Regulatory Burden Measurement framework](#) or alternative costing methods tested with the Office of Best Practice Regulation in order to cost the impacts of the options.

The way in which some of the options will be implemented will depend on future data collection, analysis and consultation. This means that it is not possible to completely cost the change in regulatory burden that would flow from each reform option.

Where it is not possible to accurately cost the changes associated with a particular option, this RIS uses a descriptive approach to indicate the potential changes.

This RIS presents costings for changes in the regulatory areas:

- **Cost of relabelling pre-packaged products** – arising from regulations that impose requirements for the presentation of a measurement mark on pre-packaged products.

- **Cost of understanding requirements for packaged products** – arising from regulations that impose requirements on manufacturers and importers of packaged products.
- **Cost of pattern approval** – arising from regulations on measuring instruments that impose requirements for pattern approval on manufacturers of measuring instruments.
- **Cost of appointment and cost of reporting as an ATP under measurement law** – arising from regulations that impose application, renewal and reporting requirements on ATPs providing measurement services under measurement law.
- **Cost of verification and reverification** – arising from regulations on measuring instruments that impose requirements to verify a pattern approved measuring instrument used for trade purposes

In each of these areas it has not been possible to fully cost the changes, and we welcome feedback from stakeholders on the assumptions relied upon and the impacts that the options would have for them.

## 6.2.1 Summary of regulatory burden changes

### 6.2.1.1 Labelling costs of pre-packaged products

*Table 7: Regulatory burden costing summary for labelling of pre-packaged products*

Area of regulatory burden	Stakeholders	Option 1	Option 2	Option 3
Net impact of changes to measurement marking requirement on packaged products	Industry	-\$5.7 m	-\$6.4 m	-\$6.4 m
	Consumers	\$0.1m	\$0.9m	\$0.9m
	<b>Overall Change</b>	<b>-\$5.6m</b>	<b>-\$5.5m</b>	<b>-\$5.5m</b>

Under the **status quo**, products imported into Australia that do not have the measurement marking on the principal display panel need to be relabelled or repackaged. Under **option 1**, the marking would still need to be on the principal display panel but a power to exempt products would be used to exempt cosmetics, resulting in a net regulatory saving of \$5.6m per annum. Under **options 2 and 3**, the marking would only need to be prominent and legible, further increasing the savings to business (\$6.4m), but introducing an increase in time burden for consumers to locate the measurement mark (\$0.9m) and resulting in a net regulatory saving of \$5.5m.

### 6.2.1.2 Understanding packaging requirements for manufacturers and importers of packaged products

*Table 8: Regulatory burden costing summary for manufacturers and importers of packaged products*

Area of regulatory burden	Stakeholder	Option 1	Option 2	Option 3
Understanding packaging requirements	Manufacturers and Importers of Packaged Products	-\$2.7m	-\$2.7m	-\$2.7m

Under the **status quo**, manufacturers and importers are collectively estimated to have an annual labour cost of \$8.1m, based on spending 1.5 hours of staff time per business to understand complex marking requirements in order to ensure packaging is compliant. Under all options, this time cost is expected to be reduced to 1 hour or less saving at least \$2.7m annually.

### 6.2.1.3 Regulations over measuring instruments

Table 9: Regulatory burden costing summary for changes to measuring instruments

Area of regulatory burden	Stakeholder	Option 1	Option 2	Option 3
Pattern approval (PA)	Instrument Manufacturers	<b>Potential savings</b> from reduced volume of instruments to approve- <b>\$0.01m</b>	<b>Greater savings</b> from reduced volume of instruments to approve- <b>\$0.04m</b>	<b>Greater savings</b> from reduced volume of instruments to approve- <b>-\$0.04m</b>  Plus an unquantifiable contingent increase in regulatory burden on measuring instruments for regulatory purposes
Verification	ATP Business traders	<b>Savings</b> from improved efficiencies: - <b>\$0.14m</b>	<b>Savings</b> from improved efficiencies: - <b>-\$0.28m</b>	<b>Savings</b> from improved efficiencies: <b>- \$0.28m</b>  Plus an unquantifiable contingent increase in regulatory burden on measuring instruments for regulatory purposes
Other control mechanisms	Instrument Manufacturers	N/A	<b>Unquantifiable</b> – burden to be determined in future	<b>Unquantifiable increase</b> in regulatory burden on measuring instruments for regulatory purposes

Under the **status quo** there is an annual regulatory burden associated with pattern approval cost for instruments used in trade calculated as approximately \$0.18m. The power to exempt instruments is anticipated to reduce the volume of instruments requiring approval under options 1 and 2 by 5% and 20% respectively. This would result in an annual collective saving to instrument manufacturers of approximately \$0.01m under option 1 and \$0.04m under option 2. Under option 3, where expanded scope is exercised but is not quantifiable, the regulatory burden on instruments is expected to be higher than for option 2.

Under the **status quo** there is an estimated annual regulatory burden associated with mandatory verification of instruments used in trade of approximately \$7.06m in verification service fees. The power to exempt instruments from verification is anticipated to reduce the volume of verifications by 2% under option 1 and 4% under option 2. This would result in an annual collective saving to industry of approximately \$0.14m under option 1 and \$0.28m under option 2. Under option 3, where expanded scope is exercised but is not quantifiable, the regulatory burden on measuring instruments is expected to be higher than for option 2.



## 6.2.1.4 Application, renewal and reporting changes for Authorised Third Parties

Table 10: Regulatory burden costing summary for changes to Authorised Third Party arrangements

Area of regulatory burden	Stakeholder	Option 1	Option 2	Option 3
Appointment and reporting for ATPs	<b>ATPs</b>	<p><b>Savings</b> from streamlined appointment arrangements that could apply to some ATPs.</p> <p><b>Increased cost of reporting</b> for UMGs, subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs.</p>	<p><b>Greater savings</b> from streamlined appointment arrangements that could apply to all ATPs.</p> <p><b>Increased cost of reporting</b> for UMGs and LMAs subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs.</p>	<p><b>Savings</b> described under <b>option 2</b>, plus an <b>unquantifiable increase in regulatory burden</b> based on a potential rise in the number of ATPs providing measurement services due to the potential introduction of requirements for other regulatory purposes (non-trade). This includes increased applications, renewal, reporting.</p>

Under the **status quo**, the collective burden to ATPs for application and renewal processes is approximately \$495,000, with costs of reporting and informing an additional \$3.1m per annum. Of this amount, servicing licensees account for \$235,000 in the burden for application and renewal and over \$3m in reporting and notification costs.

Under all options, these regulatory burdens are expected to change, but the amount of change is not able to be reliably costed. Changes to reporting requirements will apply to UMGs and LMAs and reporting framework changes to accommodate this may result in savings for SLs.

## 6.3 Impact analysis on stakeholders

### 6.3.1 Approach

#### 6.3.1.1 Key stakeholders

This part provides an overall assessment of impacts on five key stakeholder groups:

- **Consumers**
- **Industry**, represented by
  - **measuring instrument manufacturers**
  - **ATPs**<sup>70</sup>
  - **wholesalers, retailers, importers and packers**
- **Government regulators.**

#### 6.3.1.2 Other stakeholder groups

Other stakeholders may rely on the measurement system more broadly (which is supported by the legislation) but are not directly regulated under the legislation. This includes:

- scientific organisations and agencies who may need to demonstrate metrological traceability for other purposes (for example in line with satisfying standards to obtain accreditation as a calibration and testing laboratory or as a producer of certified reference materials (CRMs))
- innovators who need to demonstrate the effectiveness of an invention or product using measurements
- organisations that provide or require specialised precision services and rely on traceable measurement to the highest accuracy references available

In providing and/or using measurement services, these stakeholders rely on the measurement system. They will not be directly impacted by the reform options, but have an interest in ensuring that the legislation supports the continuation of Australia's trusted measurement system. As this has already been covered previously, the below assessment does not specifically refer to them as a separate stakeholder group.

#### 6.3.1.3 How were impacts assessed/rated?

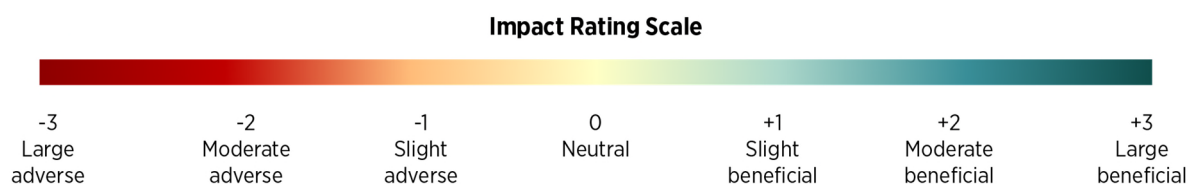
Feedback from public consultations was combined with the views of NMI legal and scientific metrologists to assess the likely impacts of the options on stakeholders. This included:

1. Assessing how the changes in each reform option may impact key stakeholder groups.
2. Identifying any regulatory burden and whether the impact would increase or decrease.
3. Providing an assessment of the impact, using a common scale for the estimated magnitude.

The assessment uses a 7 point scale, indicating the anticipated impact of changes on particular stakeholder groups relative to the status quo:

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<sup>70</sup> ATPs are businesses which are appointed or licensed under the measurement legislation to perform a particular measurement service. These include servicing licensees, UMTVs, Public Weighbridge Licensees and LMAs.



Changes which result in a beneficial impact for stakeholders, or reduce burden, have been rated as positive. Changes which increase operating costs, risk, burden or result in a detrimental impact for stakeholders have been rated as negative. The neutral rating was used both to signify minimal impact and also used for impacts that have not yet been assessed as they are to be determined through future changes to the legislation (and will undergo further assessment and consultation).

These ratings have been determined as outlined in [Appendices 5 - 9](#). While numbers have been applied to this rating scale, these are intended to support accessibility and readability of the ratings rather than representing a precise scale.

### 6.3.1.4 Limitations and assumptions

Changes to regulatory burden under each reform option were identified for each stakeholder group but cannot be quantified as a dollar cost due to lack of data. [Appendices 10 - 14](#) provide some information about specific areas for which there are some regulatory burden costings.

In some areas, the change under a particular option is to provide flexibility in regulatory approach. Where this is the case, subsequent data collection will be used to help identify the risks involved and further consultation will be undertaken to strike an appropriate regulatory balance between the risks to be managed and the level of regulatory burden.

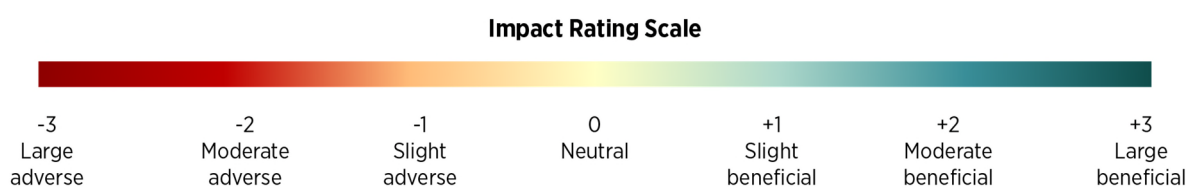
## 6.3.2 Summary of stakeholder impacts by reform option

Based on the assessment, options 2 and 3 provide moderate benefits to some industry stakeholder groups and government regulators; but only slight benefits to other stakeholder groups. The table below provides how each reform option is likely to impact stakeholders.

*Table 4: Overall option impact on stakeholders*

Stakeholder	Reform Option			Explanation
	1	2	3	
<b>Consumers</b>	+0.75	+0.75	+0.75	All reform options will provide a slight net benefit to this stakeholder group. Options 2 and 3 provide greater coverage of measurement transactions. Adverse impacts of changes to labelling requirements are increased slightly under options 2 and 3, compared with option 1.
<b>Industry – Manufacturers of measuring instruments</b>	+0.60	+1.60	+1.00	Options 1 and 3 provide slight benefit. Option 2 provides greater benefits for the manufacturers of measuring instruments and greater support for innovation.

Stakeholder	Reform Option			Explanation
	1	2	3	
Industry – ATPs	+0.25	+0.75	+0.75	Options 2 and 3 provide for ATPs to have a more flexible and innovative approach in their regulated activities and to reduce regulatory compliance costs. Regulation will be streamlined in all three options and will reduce regulatory burden.
Industry – wholesalers / retailers / importers / packers	+1.00	+1.33	+1.33	All reform options will benefit this stakeholder group. Options 2 and 3 provide the greatest net benefit.
Government Regulators	+0.75	+1.50	+1.38	Option 1 and 3 provide a slight benefit to regulators whereas option 2 provides a more moderate benefit.
Overall (rounded)	+0.7	+1.2	+1.0	<b>Analysis of stakeholder impacts shows that option 2 provides the greatest benefit to stakeholders.</b>



### 6.3.3 Net impacts for stakeholders

The overall impacts for the different stakeholder groups are outlined below. Under each stakeholder group is a list of questions, which is a combination of questions specifically targeting impacts relevant to each stakeholder group and three general questions.

#### 6.3.3.1 Net impacts on consumers

##### 6.3.3.1.1 Positive impacts

###### **Expanding scope of coverage from shortfall to false or misleading measurement statements:**

Under **all reform options**, expanded coverage of false or misleading measurement statements, along with the inclusion of additional compliance and enforcement tools will provide consumers with greater confidence in the measurements they rely on when buying and selling. Consumers also benefit from expanded NMI oversight of measurement-based transactions, which helps ensure industry are operating on a level playing field. The expansion of coverage in **option 1** to include both sale and purchase of goods will mean consumers can have confidence that they are being paid based on the correct measurement when they are selling goods (e.g. selling unwanted jewellery to a gold buyer). In **options 2 and 3** coverage extends beyond that under **option 1** to also include all transaction types (i.e. sale and purchase of goods and services).

**Option 1** only partly addresses known gaps in the current legislation, whereas under **options 2 and 3** consumers can have greater confidence that they are getting what they pay for in all measurement-

based transactions. **Option 3** also benefits from the ability to cover false or misleading measurement statements, where needed, for non-trade measurement applications.

**Additional compliance and enforcement tools:** Across **all reform options**, improvements are made to the range of compliance and enforcement tools available to NMI. This is expected to result in higher industry compliance rates and greater awareness (through increased publication of enforcement activities, enabled by the removal of information sharing restrictions). Where industry are operating on a level playing field, and those who are not are held accountable, consumers can have greater confidence that they are able to trade fairly. Providing greater assurances to consumers means they can shop with confidence, ultimately saving time and effort.

#### 6.3.3.1.2 Neutral impacts

**Unit of measurement requirements:** Under **all reform options**, changes to the current requirements (the 'Secretary's list') relating to the use of appropriate units of measurement (e.g. mass, volume, area, length, number) for packaged products are expected to result in no net impact. In practice, the new arrangements are anticipated to largely operate in line with current requirements.

#### 6.3.3.1.3 Adverse impacts

**Measurement mark placement on packaged products:** Changes to requirements for the placement of the measurement mark on packaged products may have some negative impacts on consumers due to increased time to locate the measurement mark. These impacts will be limited to cosmetic products and non-prescription therapeutic goods under **option 1** but may extend to other types of products in future, if further exemptions are granted. The increased flexibility afforded under **options 2 and 3** will have a more notable impact on consumers compared with **option 1**, noting that the measurement mark may not necessarily always be on the front of the pack but must still be "prominent and legible". However, this impact is reduced if the purchase is made from a business covered by the UPC. Even with the option of increased flexibility, businesses may decide not to alter their labelling as any package labelling compliant with current requirements will continue to be compliant under new arrangements. To help address residual concerns regarding the negative impacts identified with **options 2 and 3** in relation to packaged products, NMI will develop additional guidance material to help guide and encourage industry to continue to provide adequate and accessible measurement information.

#### 6.3.3.1.4 Overall net impact

The positive impacts described above are seen as providing a moderate benefit to consumers. These impacts are broad, system wide benefits that will further ensure consumers can have confidence in all measurement-based transactions. The adverse impacts described above are seen as having only a slightly adverse impact on consumers. These impacts are predominately in relation to the placement of the measurement mark on packaged products, and thus are likely to be isolated to particular types of packaged products, rather than impacting all packaged products.

Overall, there is a slight net benefit to consumers across **all reform options**, with **options 2 and 3** being only slightly more beneficial than **option 1**.

This is mainly due to the added benefits seen in **options 2 and 3** from complete coverage of false or misleading measurement statements (i.e. sale and purchase of goods and services), combined with the inclusion of an expanded suite of compliance and enforcement tools.

### 6.3.3.1.5 Questions for consumers

#### General Questions

1. Are there any other benefits and costs to you resulting from each of the three reform options that you think should be considered? Are there any notable impacts which have not been included?
2. Can you see any issues with the regulatory burden costings? Please describe any specific issues, including the assumptions used in estimating the regulatory burden.
3. Do you agree with the overall assessment that option 2 has the greatest net benefit? Why or why not?

#### Specific questions regarding consumers:

4. What impacts, positive or negative, do you see for consumers in expanding the scope of shortfall to instead cover false or misleading measurement statements?
  - a) How do these impacts differ for consumers between **option 1** (where sale and purchase of goods is covered) and **options 2 and 3** (where sale and purchase of goods and services is covered)?
5. What impacts do you think the proposed options regarding acceptable units of measurement will have for consumers? (For example, allowing greater flexibility for products to be sold by alternative units of measurement such as count, linear and area measurement, rather than mass and volume)
6. Are there any particular types of packaged products where retaining any of the existing presentational requirements (e.g. front of pack measurement marking) is important? If so, why?

The full listing of questions across all stakeholders is located at [Appendix 15](#).

### 6.3.3.2 Net impacts on measuring instrument manufacturers

#### 6.3.3.2.1 Positive impacts

**Fit for purpose regulation of measuring instruments:** Flexibility in how measuring instruments are regulated will replace a current one-size-fits-all approach that requires pattern approval and verification as control mechanisms for all trade measuring instruments. In **option 1**, flexibility will be principally applied through an express legislative mechanism to exempt instruments from pattern approval and/or verification. Instruments would still be required to be sufficiently accurate and within specified maximum permissible error limits. **Options 2 and 3** would introduce powers to apply these and other control mechanisms flexibly, allowing their evolution over time through, for example, a risk-based approach to trade and legal measuring instruments. Reduction in regulatory burden for measuring instrument manufacturers is dependent on exemptions and level of risk assessment for specific measuring instruments.

**Measuring instruments enter the market with less delay:** Streamlining approvals and recognitions will speed up entry to market of measuring instruments, in addition to reducing approval costs to measuring instrument manufacturers. **Option 1** provides for exemptions while **options 2 and 3** may recognise overseas test results, evaluations, approvals and conformance assessments.

**Reduced barriers for innovative measuring instruments:** Integrating innovative instruments into the measurement framework can support investment in innovative measuring instruments and provide

certainty for manufacturers. A reduction in regulatory burden may result from exemptions and provisional approvals, both of which reduce time to market in **option 1**, or control mechanisms based on a risk assessment in **option 2**.

**Better compliance outcomes:** Expanded compliance and enforcement tools will support a tailored and collaborative approach for measuring instrument manufacturers. This will give greater confidence to instrument manufacturers that they are competing on an even playing field.

#### 6.3.3.2.2 Adverse impacts

**Uncertainty:** The regulatory requirements (that are to be determined in the future) would need to be transitioned or managed well to mitigate any adverse impact of uncertainty on manufacturers, particularly in regard to the way measuring instruments will be regulated.

#### 6.3.3.2.3 Overall net impact

Comparatively, **option 2** brings moderate benefits to manufacturers of measuring instruments while **option 1 and 3** provide slight benefits. The reform options provide benefits to manufacturers through reductions in technical barriers, regulatory burden and making the measurement framework flexible enough to respond to future changes in measurement technologies.

#### 6.3.3.2.4 Questions for measuring instrument manufacturers

##### General Questions

1. Are there any other benefits and costs to you resulting from each of the three reform options that you think should be considered? Are there any notable impacts which have not been included?
2. Can you see any issues with the regulatory burden costings? Please describe any specific issues, including the assumptions used in estimating the regulatory burden.
3. Do you agree with the overall assessment that option 2 has the greatest net benefit? Why or why not?

##### Specific questions regarding measuring instrument manufacturers

7. In what other ways can the measurement framework increase flexibility regarding how it regulates measuring instruments? How can confidence in measuring instruments be maintained under a flexible approach?
8. What is the impact of the potential uncertainty regarding the control mechanisms applying to trade measuring instruments and the need for increased consultations?
9. Can you provide any examples of technical barriers to approval faced by innovative instruments? What impacts have these had on your business?

The full listing of questions across all stakeholders is located at [Appendix 15](#).

#### 6.3.3.3 Net impacts on ATPs

##### 6.3.3.3.1 Positive impacts

**Simplification and merger of appointment types:** For all options there will be greater emphasis on describing appointments by reference to competency categories and test method, rather than instrument classes. This approach enables greater flexibility in future for ATPs to introduce new measurement services without necessarily having to obtain additional appointments or meet

separate competency requirements. The scope of existing appointments and licences will continue to be maintained when new legislation is introduced, with arrangements established to enable a smooth transition to new appointment types over a period of time.

Under **option 1** appointment types with similar functions will be aligned, simplifying arrangements and reducing administrative burden and cost for ATPs who hold multiple appointments. Certifying Authorities and Verifying Authorities are merged, while U MVs are merged with Servicing Licensees, potentially providing opportunities for easier expansion of business scope for some ATPs. Approving Authority appointments and PWBs will remain separate, with public weighbridge requirements made more principles-based and streamlined, reducing some of the administrative burden associated with operating a public weighbridge.

**Options 2 and 3** offer the greatest flexibility through the introduction of a single appointment type. General conditions will apply to all appointments, with additional tailored details set out in the appointment documents (e.g. scope of appointment and specific conditions). Additional appointment details will better align with the risk and purpose of the proposed measurement activity, providing greater flexibility in appointment type and enabling appointment based on skillset. More flexible ATP appointments will better support current and emerging measurement needs, innovative instrument types and potentially accommodate new types of ATP appointments in the future.

**Fit for purpose competency pathways for ATPs:** Across **all options** ATPs will continue to be appointed on the basis of competency or fitness to perform the task expected of them. NMI will have the flexibility to set the competency framework that is most appropriate to the role that a particular type of ATP will perform and will support hybrid and emerging roles that ATPs may perform over time. In some instances this may reduce the cost and time burden associated with maintaining multiple qualifications or accreditations in order to demonstrate competency, and will particularly benefit those ATPs who currently hold multiple appointments / licences.

**General licences offer flexibility where formal ATP appointment not appropriate:** Under **options 2 and 3**, general licences could be used to provide flexibility in setting the appropriate level of regulatory requirements and oversight for certain types of measurement activities and functions. This approach offers a lower burden alternative to the formal appointment of ATPs. Regulatory burden would be slightly reduced for any functions or activities currently subject to ATP appointments (e.g. Public Weighbridge Licences) that transition to a general licence, as there would be no associated appointment fee and reduced administrative costs. Some regulatory burden will still exist as the requirements of the general licence are likely to be similar to some existing requirements (e.g. competency and traceability of measurement outcomes). Further, this means that for certain measurement functions and activities not currently subject to ATP appointments, there may be an increase in the regulatory burden associated with these activities where a general licence imposes requirements that previously did not exist for that function or activity.

#### 6.3.3.3.2 Adverse impacts

**Additional reporting requirements for U MVs and LMAs:** Under **all options**, U MVs will be required to routinely submit data and report to NMI after providing measurement services. **Options 2 and 3** extend this requirement to all LMAs, who will share common reporting requirements under the single appointment type model. There would be some level of administrative cost associated with routine reporting, however it is not expected to be significant as U MVs and LMAs likely already record the information that would need to be reported. Changes to routine reporting requirements would follow a transition period and development of an appropriate reporting framework, designed



to limit the increase in administrative burden associated with reporting. Reporting for UVMs and LMAs during the transition period would continue to be on an ad hoc basis at NMI's request.

**Potential for increased regulatory burden due to possible scope increase under option 3:** For all proposed changes, **option 3** has an unquantifiable potential increase in regulatory burden for ATPs as compared with **option 2**. This is due to the possible expansion of regulatory requirements for ATPs into non-trade areas. This may also create benefits for ATPs where they are able to expand their services into new markets.

#### 6.3.3.3.3 Overall net impact

The changes described above will deliver some benefit to ATPs across **all reform options**, mostly through reduced administrative burden and costs associated with streamlining appointment types and fit for purpose competency requirements. It is expected that **option 1** will only deliver marginal benefit to ATPs and routine reporting requirements are expected to only slightly adversely impact UVMs once an appropriate reporting framework is established.

Overall, **options 2 and 3** are slightly more beneficial to ATPs than **option 1**. Broadly ATPs will benefit from the flexibility to accommodate innovative technology and emerging measurement needs. ATPs will likely benefit to varying degrees from positive impacts associated with merging ATPs into a single appointment type, flexible competency requirements and future introduction of general licences (although the future use of general licences in some areas may see an increase in regulatory burden where measurement functions and activities were not previously subject to ATP appointment). Increased burden associated with routine reporting will only impact UVMs and LMAs, with the development of an appropriate framework aimed at limiting this impact. However, **option 3** possibly may include an unquantifiable potential increase in regulatory burden.

#### 6.3.3.3.4 Questions for ATPs

##### General Questions

1. Are there any other benefits and costs to you resulting from each of the three reform options that you think should be considered? Are there any notable impacts which have not been included?
2. Can you see any issues with the regulatory burden costings? Please describe any specific issues, including the assumptions used in estimating the regulatory burden.
3. Do you agree with the overall assessment that option 2 has the greatest net benefit? Why or why not?

##### Specific questions regarding Authorised Third Parties:

10. To what extent do you agree with the identified impacts and benefits of more streamlined (**option 1**) and flexible (**options 2 and 3**) appointment types?
  - a) What risks, costs and benefits do you see with the approaches under **option 1, 2 and 3**? How could these risks and costs be mitigated?
  - b) What would be an appropriate period of transition for the measurement services industry to move to flexible appointment types?
11. What types of measurement functions and activities might be appropriate for a **general licence**? Please explain why.

12. If the functions currently performed under a Public Weighbridge Licence were transitioned to a **general licence** in future, how would this impact you as a:
  - a) Public Weighbridge Licensee?
  - b) Business who relies on services provided by public weighbridges?
  - c) Operator of a non-public weighbridge who may consider providing services under a general licence arrangement, rather than a formal appointment?
  
13. What impact would routine reporting have on utility meter verifiers (under **all options**) and legal metrology authorities (under **options 2 and 3**)?
  - a) How could NMI minimise the impact of routine reporting?
  - b) What sort of transition period would be appropriate for the introduction of new reporting requirements or a change in reporting system?
  - c) What features would you like the reporting system to have?

The full listing of questions for across stakeholders is located at [Appendix 15](#).

### 6.3.3.4 Net impacts on wholesalers, retailers, importers and packers

#### 6.3.3.4.1 Positive impacts

**Expanding scope of coverage from shortfall to false or misleading measurement statements:** No additional regulatory burden for **all reform options**. The expansion of scope aligns with obligations under Australian Consumer Law and the current expectation for the sale of goods under the current measurement legislation. The changes seek to address known gaps in the current legislation to help ensure a level playing field for industry, rather than imposing any new substantive obligations.

**Option 1** will increase business confidence in comparison to the **status quo** by expanding the coverage for false or misleading measurement to include the purchase of goods. Business confidence will be further enhanced under **options 2 and 3** due to the expansion of coverage for false or misleading measurement to also include services. **Option 3** also benefits from the ability to cover false or misleading measurement statements, where needed, for non-trade measurement applications.

**Additional compliance and enforcement tools:** Across **all reform options**, improvements are made to the range of compliance and enforcement tools available to NMI. This is expected to result in fairer compliance outcomes, higher industry compliance rates and greater awareness. It also enables better targeting and engagement with small and large businesses. This provides further assurances to industry that they can compete in a level playing field and have confidence in the trade transactions they engage in, ultimately saving time and money.

**Greater flexibility for business:** **Option 1** will make it easier to do business by streamlining the legislation in a number of areas (e.g. approval to use alternative units of measurement for packaged products (the ‘Secretary’s list’), how measuring instruments are used in trade and placement of the measurement mark on packaged products) and reducing prescriptive requirements. This will reduce the burden on industry to navigate complex and confusing regulatory requirements, saving time and effort. **Options 2 and 3** provide further benefits with greater flexibility introduced for industry (e.g. industry to determine/influence the appropriate unit of measurement to be used for packaged products (replaces the ‘Secretary’s list’ approach) and more flexible packaging and labelling requirements), further reducing regulatory burden for industry as compared with **option 1**. Where

flexibility is thought to introduce a level of uncertainty for industry, particularly for small to medium enterprise (SME), supporting guidance material will help these businesses understand how to meet their obligations.

**Reduced relabelling costs:** Less prescriptive measurement marking requirements provide greater acceptance of imported products, promotion of trade between Australia and other economies and relabelling cost savings for industry e.g. for imported cosmetic products. Changes to labelling requirements for the measurement mark on packaged products will result in no additional costs to industry as all labels currently compliant with the regulations will remain compliant. **Option 1** streamlines and reduces prescriptive requirements but retains the front of pack requirement for the measurement mark, along with minimum font height and background colour contrast. An exemption will be provided for cosmetic products (as well as products with existing exemptions), resulting in reduced relabelling costs for industry for some imported products. There will also be a deemed to comply pathway introduced for non-prescription therapeutic goods to reduce regulatory duplication for these products.

**Options 2 and 3** will retain font height and colour contrast requirements, but provide for further flexibility for the placement of the measurement mark requiring that it is prominent and legible, rather than specifying front of pack. The flexibility under **options 2 and 3** provides the same costs savings associated with the exemptions under **option 1** and additionally provides the potential for savings in other sectors. Reduced regulatory duplication through deemed compliance pathways is also applicable under **options 2 and 3**.

**Greater certainty for businesses for packaged product exemptions:** For **all reform options** exemptions can be introduced in relation to certain labelling requirements. Previously non-compliant packaged products could only be sold if granted a time limited permit under the legislation or administratively given a grace period. While these are useful short term approaches for individual products, they are not well suited to providing long term solutions for broader categories of products. Exemptions provide a way to give long term certainty for industry in relation to the presentational aspects of packaged product labelling requirements. Industry can have greater confidence that products they are importing will not require relabelling.

#### 6.3.3.4.2 Neutral impacts

For **all reform options**, changes to align requirements for measuring instruments used to pack products with random measurements with those for measuring instruments used for over the counter sales is likely to have no overall net burden. It may result in a small cost burden for some manufacturers/packers to ensure their instruments comply, however it is thought that most manufacturers/packers already use instruments that would comply. A transition period will provide these businesses with sufficient time to ensure their instruments are compliant.

#### 6.3.3.4.3 Overall net impact

Overall, there is a slight to moderate net benefit to industry across **all reform options**, with **options 2 and 3** being marginally more beneficial than **option 1**.

This is mainly due to the added benefits seen in **options 2 and 3** from increased flexibility in a number of areas (e.g. how goods and services are sold by measurement, how measuring instruments are used in trade and placement of the measurement mark on packaged products). As well as the positive impacts associated with complete coverage of false or misleading measurement statements (i.e. sale and purchase of goods and services), combined with the inclusion of an expanded suite of compliance and enforcement tools to support a level playing field.

#### 6.3.3.4.4 Questions for wholesalers, retailers, importers and packers

##### General Questions

1. Are there any other benefits and costs to you resulting from each of the three reform options that you think should be considered? Are there any notable impacts which have not been included?
2. Can you see any issues with the regulatory burden costings? Please describe any specific issues, including the assumptions used in estimating the regulatory burden.
3. Do you agree with the overall assessment that option 2 has the greatest net benefit? Why or why not?

##### Specific questions regarding wholesalers, retailers, importers, and packers:

14. If you are a business who packs random measurement packaged products:
  - a. How would the requirement to use pattern approved and verified measuring instruments impact your business?
  - b. Would you incur any additional costs to meet this requirement? (Note: pattern approved instruments typically cost more than non-pattern approved instruments).
  - c. What types of businesses do you think will be most affected by this change?
15. What burdens do you currently experience in understanding your current requirements under the measurement legislation? What can be done to reduce these?
16. Are there any particular types of packaged products where retaining any of the existing presentational requirements (e.g. front of pack measurement marking) is important? If so, why?

The full listing of questions across all stakeholders is located at [Appendix 15](#).

#### 6.3.3.5 Net impacts on regulators

##### 6.3.3.5.1 Positive impacts

**Broader access to measurement services and advice:** Increased flexibility across all options will provide regulators with greater access to measurement services from ATPs to perform particular measurement services or functions. The benefit would be greatest under **options 2 and 3** as the appointment types will become more flexible in **option 2**, and in **option 3** NMI may establish specific appointments to support the needs of specialist regulators.

**Increased collaboration with NMI:** Under **all options**, the secrecy provisions that limit the information that NMI can share would be removed. Slight benefit for regulators across all options. Under **option 3** NMI would be able to help regulate measurements that other regulators rely on and to take targeted action in partnership with or on behalf of them.

**Greater access to international instruments:** Regulators can leverage off the measurement framework to identify reliable overseas measuring instruments. All options will provide some efficiencies for regulators. **All options** help identify suitable instruments that may be used for regulatory purposes under Australian conditions. Under **option 1**, arrangements for the recognition

of overseas test results are streamlined. This is expanded under **options 2 and 3** to include recognition of overseas approvals, verifications or assessments.

**Greater confidence to use innovative measuring instruments:** Regulators can leverage off the measurement framework to use innovative measuring instruments. **Options 2 and 3** provide a way to fit innovative instruments within the measurement framework with flexibility to determine control mechanisms that can be applied (depending on the nature of the instrument and how it will be used).

**Greater support for use of independent primary standards:** **Options 2 and 3** enable independent 'primary' standards to be integrated into the framework for traceable measurement. Regulators can access these independent standards with greater confidence providing more choice for regulators.

**Improved traceability and confidence for chemical, biological and other complex measurements:** Across **all options**, an increase in confidence in chemical, biological or other complex measurements will improve the ability to check compliance or confront non-compliance of regulatory requirements based on these measurements. This includes better access to international standards and reference materials.

**Greater support for use of overseas reference standards and CRMs:** Under **all options**, legal assurance for the use of overseas standards and CRMs will facilitate the identification and use of overseas reference materials and standards of measurement by regulators for legal purposes.

#### 6.3.3.5.2 Adverse impacts

**Uncertainty:** Under **option 3**, NMI could exercise legal oversight to support measurement relied upon by other regulators. This would involve increased resourcing and risk for the NMI. This may create some uncertainty for regulators but this oversight would be used cooperatively, following consultation with the relevant regulator, and is likely to be exercised where there is a legislative gap, incomplete jurisdiction, crisis or market failure, or a new measurement application that is not yet regulated.

#### 6.3.3.5.3 Overall net impact

The impacts on regulators were considered in so far as their policy objectives are determined on the basis of measurement, reliance on a measuring instrument and using the measurement framework.

Overall, there is a slight net benefit to regulators across **all options**. Both **option 2 and 3** support improvements in view of regulators using overseas measuring instruments, innovative instruments and independent primary standards. **Option 2** has the highest net benefit for regulators. **Option 3** was rated as slightly lower due to the potential uncertainty created for regulators regarding when NMI's expanded regulatory scope would be exercised.

#### 6.3.3.5.4 Questions for regulators

##### General Questions

1. Are there any other benefits and costs to you resulting from each of the three reform options that you think should be considered? Are there any notable impacts which have not been included?
2. Can you see any issues with the regulatory burden costings? Please describe any specific issues, including the assumptions used in estimating the regulatory burden.

3. Do you agree with the overall assessment that option 2 has the greatest net benefit? Why or why not?

#### Specific questions regarding government regulators

17. What measurement services do you depend on most as a regulator in order to be able to trust the measurements you rely on?
  - a) Are these currently adequately supported by the measurement legislation? If not why not?
  - b) Are there any market gaps in the kinds of measurement services you anticipate you will need?
18. Could NMI have a role in helping to regulate the measurements that your agency relies on currently or may rely on in the future? Where would this be most helpful?
19. Are there any enhancements which could be made to the measurement legislation which would enable regulators to have greater confidence in the measurements they rely on?

The full listing of questions across all stakeholders is located at [Appendix 15](#).

## 6.4 Overall net benefit of options

Assessment of regulatory burden impacts indicates that:

- **Option 1** has a quantifiable reduction in regulatory burden of \$8.4 million.
- **Option 2** has a quantifiable reduction in regulatory burden of \$8.5 million.
- **Option 3** has a quantifiable reduction in regulatory burden of \$8.5 million with additional contingent regulatory burdens in relation to pattern approval.

Assessment of stakeholder impacts indicates that:

- **Option 1** provides an overall slight benefit across all stakeholder groups.
- **Options 2 and 3** provide slight benefits to all stakeholder groups with government regulators gaining moderate benefits from **option 2**.
- **Option 2** provides the greatest overall benefit across all stakeholder groups.

### 6.4.1 Net benefit assessment

Overall, analysis shows that:

- **Option 2** has the greatest alignment with key policy principles and provides the greatest net benefit to affected stakeholders. It provides a strong overall combination of changes to reform the measurement framework and maintain it into the future and the equal highest quantifiable reduction in regulatory burden (\$8.5m).
- While **option 3** provides many of the same benefits as option 2, it also has additional unquantifiable regulatory burdens when compared to option 2.
- **Option 1** maintains an overall positive impact on stakeholders but has a lesser degree of alignment with the key policy principles, and results in a lower quantifiable reduction in regulatory burden (\$8.4m). Option 1 also has a greatly reduced ability to support innovation over time.

## 7 Privacy and submissions

The Department of Industry, Science, Energy and Resources is bound by the Australian Privacy Principles in the *Privacy Act 1988*. We respect your rights to privacy under the Privacy Act and we will comply with the requirements under the Act in respect of the collection and management of your personal information.

The department's Privacy Policy contains information about how to access or correct your personal information or make a complaint about a breach of the Australian Privacy Principles. The Policy is available at [www.industry.gov.au/data-and-publications/privacy-policy](http://www.industry.gov.au/data-and-publications/privacy-policy).

We respect your rights to privacy under the Privacy Act and we will comply with the requirements under the Act in respect of the collection and management of your personal information.

By clicking 'submit' or otherwise sending us your submission to this consultation, you are consenting to the use and disclosure of any personal information contained in your submission as detailed in the following section of this consultation RIS.

### **Personal information being collected**

As part of this consultation process, the department will collect the following personal information from you: your full name, mailing or street address, email address and contact telephone number.

### **Purposes for which we have collected your personal information**

We request that you provide your personal information so that we can contact you in the event that your submission is unclear or incomplete. We may also use this personal information to keep you informed about the outcomes of this consultation process, as well as inform you of other relevant consultation processes. If you do not provide your personal information we may be unable to contact you regarding your submission or other consultations.

### **Disclosure of your personal information and submission**

We may disclose your submission (including confidential submissions) and personal information to other government agencies, and state and territory governments, only for the purposes of providing advice to Government, for related purposes, and otherwise as required or permitted by law. Submissions marked as confidential will be treated as such by other agencies and will not be circulated further without the express permission of the department and the author.

We may also disclose submissions (including confidential submissions) and personal information where the department is required or authorised to do so under law.

### **Other person's personal information and their consent**

If you are making a submission which contains the personal information of another person, and you have not obtained the person's consent to their information being included in your submission, please de-identify or otherwise remove the personal information before providing your submission to the department.

### **Publication of submissions**

Unless you indicate that your submission is to be treated as confidential, the department may publish your submission on the department's website along with your name or organisation.

This includes any personal information within your submission. If you choose for your submission to be treated as confidential, please indicate whether you agree for your submission to be published as an anonymous response.

We recommend that submitters remove any personal information that they do not want published prior to making a submission.

The department reserves its rights to edit, and/or not consider or publish submissions that contain potentially offensive, defamatory or irrelevant material.



## 8 Appendix 1: Glossary

### A-I

**Approving authorities** are Legal Metrology Authorities who examine measuring instruments and approve patterns of measuring instruments.

**Australian Competition and Consumer Commission (ACCC)** is an economy-wide regulator responsible for delivering compliance with competition, consumer protection, product safety and infrastructure laws.

**Australian Legal Units of Measurement (ALUMs)** are certain units of physical quantities specified under the measurement legislation that must be used for certain legal purposes. ALUMs include the SI and units derived from or used with the SI.

**Authorised Third Party (ATP)** is an organisations appointed under the measurement legislation to perform particular measurement services, being Servicing Licensees, Utility Meter Verifiers (UMVs), Public Weighbridge Licensees, and Legal Metrology Authorities (LMAs).

**Certified Reference Materials (CRM)** are reference materials characterized by a metrologically valid procedure for one or more specified properties, accompanied by a certificate that provides the value of the specified property, its associated uncertainty, and a statement of metrological traceability.

**Certifying authorities** are Legal Metrology Authorities who certify measuring instruments or certify reference materials.

**Chief Metrologist** is a technical scientific role created under section 18A of the *National Measurement Act 1960*. This role has certain powers to determine metrological matters as provided under the Act or Regulations.

**Complex measurements** are measurements that involve a number of different mechanisms and factors that interact in multiple ways. In this RIS, we are considering all the following as complex measurements: chemical, biological, material properties, nano-measurements, and method-dependent measurements. For example: measurement of a nanoparticle diameter by light scattering may be dependent on many different input parameters, and also upon the method

**Conformity to Type (CTT)** is a process where production instruments are assessed to see if they have been manufactured in accordance with the approved design (pattern). CTT powers under the current measurement legislation are limited.

**Consumers** include the general public and are stated in the RIS as a stakeholder group

**General licences** are permissions to undertake certain low risk activities, subject to meeting particular requirements when performing the activities, but without needing to apply and be granted a licence

**Industry** as a sector is referred to in this RIS as a stakeholder group and includes all and any of the following: manufacturers, suppliers and distributors of measuring instruments used for trade; manufacturers, wholesalers, importers and packers of packaged goods; Retailers, traders, wholesalers of goods/commodities or services based on measurement (e.g. pre-packaged goods); third parties appointed by the measurement framework; peak bodies representing industry groups; businesses in ANZSIC industry code groups.

## L-R

**Legal Metrology** refers to measurement used for legal purposes.

**Legal Metrology Authorities (LMAs)** are scientific organisations which have been appointed to provide specific measurement functions that maintain confidence in measurements relied upon for legal and trade purposes. They include Approving Authorities, Certifying Authorities, and Verifying Authorities.

**Legislative framework** refers to the primary legislation and the subordinate regulations and guidelines underneath it. This includes the *National Measurement Act 1960*, the *National Measurement Regulations 1999*, the *National Trade Measurement Regulations 2009* and the *National Measurement Guidelines 2016*.

**Measurement legislation** refers to the *National Measurement Act 1960*, the *National Measurement Regulations 1999*, the *National Trade Measurement Regulations 2009* and the *National Measurement Guidelines 2016*.

**Method-dependent measurements** are measurements which have a value dependent on the test method used, and no independent true value. For example: Industry standard methods used to determine the major components (moisture, fat, protein and carbohydrate) of complex foods.

**Metrology** is the scientific study or technical use of measurement

**National Instrument Test Procedures (NITPs)** are used to assess whether measuring instruments measure within the maximum permissible errors and comply with the certificate of pattern approval issued for that instrument.

**Pattern approval** is where an impartial body examines the design of an instrument prototype against national or international standards. This confirms the measurement accuracy of the instrument and whether the instrument retains this accuracy under a range of environmental and operating conditions.

**Principles-based regulation** involves imposing outcome based requirements without specifying exactly how these outcomes must be achieved.

**Public weighbridges** are weighbridges that are available to make reliable and independent weighing of heavy loads accessible to communities across Australia.

**Public Weighbridge Licensees** are entities who hold a **Public Weighbridge Licence** and are permitted to operate a public weighbridge.

**Reference material** is a material that is sufficiently homogeneous and stable with respect to one or more specified properties, which has been established to be fit for its intended use in a measurement process.

**Regulators** are a stakeholder group referred to in this RIS comprising government agencies that rely on measurement such as departments and regulators at the Commonwealth, State/Territory, and Local government level.

## S-Z

**Servicing Licensees** are private operators appointed under the measurement legislation to help ensure businesses are using accurate measuring instruments. They do this by testing and verifying

measuring instruments used for trade. **Utility Meter verifiers (UMVs)** perform a similar function but specifically in relation to utility meters.

**SI** (the *Système International* or International System of Units) is the globally-agreed system of measurements more commonly known as the metric system.

**Standard of measurement** includes measuring devices, instruments, systems and formulae.

**Thematic areas** are the six different areas that the measurement legislation covers, and which were used to structure consultations for the Measurement Law Review. These are:

- **Scope:** What should Australia's measurement laws cover in a modern economy
- **Traceability:** What are the legally acceptable ways of ascertaining if a measurement is consistent with a unit of measurement allowed for legal use in Australia
- **Measuring Instruments:** What is the best way to ensure measuring instruments are suitably accurate and appropriate for use in both trade and non-trade contexts
- **Measurement-Based Transactions:** How can measurement laws ensure a level playing field for trade and ensure consumer confidence in a modern economy
- **Third Party Arrangements:** What arrangements for third parties would best support Australia's measurement framework and technical measurement infrastructure
- **Compliance Arrangements:** What mechanisms can be used to effectively encourage compliant behaviour

**Trade measurement** refers to buying and selling of goods and services where the value is determined by measurement.

**Traceability** is defined by the as: the property of a **measurement result** whereby the result can be related to a reference through a documented unbroken chain of **calibrations**, each contributing to the **measurement uncertainty**.

**Utility Meter Verifiers (UMVs)** are private operators appointed under the measurement legislation to help ensure businesses are using accurate utility meters. They do this by testing and verifying utility meters used for trade.

**Servicing Licensees** perform a similar function but in relation to measuring instruments used for trade more broadly.

**Verification process** includes testing the accuracy of an instrument and affixing a verification mark if the instrument is operating within appropriate error limits. For more information regarding verification of instruments use for trade, see: <https://www.industry.gov.au/regulations-and-standards/servicing-licensees/verifying-measuring-instruments-for-trade>.

**Verifying authorities** are Legal Metrology Authorities who verify standards of measurement and artefacts.

**Weighbridges** are measuring instruments that have a capacity of 3 tonnes and can be used to determine the mass of a vehicle, including prime movers and connected trailers. They are used to weigh goods such as farm produce, agricultural products, scrap metal and landscape materials weighing over 3 tonnes.

## 9 Appendix 2: Consultation plan

### 9.1 Objective

To provide an overview of the activities and timeline for the release of the Consultation Regulatory Impact Statement (consultation RIS).

### 9.2 Consultation activities and timeline

Table A2- 1: MLR consultation activities and timeline

Timing (2021)	Activity	Purpose
<b>March</b>	Outreach	<ul style="list-style-type: none"> <li>• Bulk mail out (include peak bodies)</li> <li>• Internal outreach for the best channels to engage stakeholders – via legal metrology and scientific metrological experts</li> <li>• Consumer Industry Liaison Committee (CILC)</li> <li>• Tailored outreach to rural, remote, regional and Indigenous (RRRI) organisations</li> </ul>
<b>Apr</b>	<b>Publish/release the Consultation RIS (to be open for 4 weeks)</b>	
<b>Apr</b>	Media release	Inform the public and gain attention for the Consultation RIS
<b>Apr</b>	Digital promotional activities	Promote consultation process on media platforms, social media, departmental news article and send out bulk emails
<b>Apr/May</b>	Targeted consultations	Engage peak industry and consumer groups
<b>Apr/May</b>	Online town halls	To discuss the options with key stakeholder groups
<b>May</b>	<b>Submissions close</b>	
<b>mid – year</b>	Publish consultation outcomes	Provide a summary of the feedback from public consultation

#### 9.2.1 Outreach

Early outreach to occur through:

- Bulk emails to peak bodies
- Targeted emails to rural, remote, regional and Indigenous organisations
- CILC members. CILC is a forum to allow key discussions to take place between consumer and industry members and exchange views about trade and regulatory matters related to trade measurement.

## 9.2.2 Consultation Hub

The Consultation RIS will be hosted on the department's Consultation Hub. Consultation Hub is:

- a single location for all the department's consultations
- a place where stakeholders can see forthcoming, open and closed consultations at a glance
- a digital solution that is integrated with the department's corporate website

The Consultation RIS will be open for 4 weeks during which time stakeholders can submit their comments / feedback on the options.

## 9.2.3 Media release

Publish a media release to launch the public consultation of the Consultation RIS.

## 9.2.4 Digital promotional activities

- News Item / Article
  - Publish an article on the department's news channels (Business.gov.au, Industry.gov.au)
  - Encourage CILC members to provide updates in key industry and consumer newsletters and consultation groups.
- NMI / Departmental Social Media channels
- Targeted emails
  - Email distribution to over 3,000 key stakeholders who have subscribed for MLR updates
  - CILC member emails
  - State / territory jurisdictional working group members.

## 9.2.5 Targeted consultations

Targeted consultations to begin early in the consultation phase including a meeting with CILC which involves peak industry bodies and consumer groups.

## 9.2.6 Virtual town hall discussions

- NMI will hold a series of (covid-safe) web-based town halls during the consultation period to gather feedback on the proposed options.
- The sessions will be targeted at key stakeholder groups including:
  - Consumers
  - Industry – wholesalers / retailers / importers / packers
  - Industry – measuring instrument manufacturers
  - Industry – ATPs
  - Regulators
  - Scientific user group – appropriate scientific and international stakeholders.

## 9.2.7 Publish consultation outcomes

A summary of the feedback will be published on Consultation Hub and the department's website (expected in mid-2021).

# 10 Appendix 3: Further background and context for the review

## 10.1 The existing legislation

Australia's current measurement legislative framework consists of the:

- *National Measurement Act 1960* (the Act)
- *National Measurement Regulations 1999*
- *National Trade Measurement Regulations 2009*
- *National Measurement Guidelines 2016*

The Act establishes a national system of units and standards of measurement of physical quantities, provides for their uniform use throughout Australia, coordinates the national system of measurement and brings about the use of the metric system of measurement as the sole system of measurement of physical quantities. It also provides for a national system of trade measurement.<sup>71</sup>

The Act establishes the NMI and the position of Chief Metrologist. The metrological functions of the government are executed by the Secretary of the department (who may delegate those functions and powers within the department). The Act specifies:

- The Australian legal units and standards of measurement to support the legal metrology system that covers both trade and legal purposes (e.g. law enforcement, regulators)
- General provisions for using measuring instruments for trade, their approval, verification and use of trade measuring instruments, third parties involved in verification of measuring instruments used for trade (servicing licensees and UMTVs)
- Requirements for public weighbridges
- Requirements for goods packed in advance for sale, their markings, measurement expression, sampling methods, shortfall provisions, packed goods not marked with an AQS mark
- The role and powers of the inspectorate, and enforcement arrangements that may be used.

The Act is supported by two sets of regulations.

The *National Measurement Regulations 1999* define and detail the requirements in relation to legal units and standards of measurement, the verification and marking of standards of measurement (to include their uncertainties, values and/or variations). The Regulations also include:

- The approval and certification of measuring instruments used for legal purposes
- The measurement of artefacts
- The provision of legal standing of chemical and biological reference materials used for legal purposes

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<sup>71</sup> Section 4.

- The appointment of competent authorities as certifying authorities (with respect to reference materials), verifying authorities (with respect to standards of measurement) and approving authorities (with respect to patterns of measuring instruments used for trade).

The *National Trade Measurement Regulations 2009* detail the requirements in relation to trade measurement inspectors and matters which require compliance. These include the correct use of measuring instruments in trade, verification and batch testing requirements, packaging requirements, and public weighbridge requirements. These regulations provide for:

- The use of measuring instruments for trade purposes, how they should be verified and marked, the batch testing and marking of glass measures, and the services and prescribed fees that apply to servicing licensees.
- The detailed requirements for weighbridges used for trade and requirements for public weighbridges.
- Packaging regulations include requirements for marking of the name and address of packers, the requirements for the marking of measurement, unit price marking on packages and detailed systems of sampling and thresholds.
- Establishing prohibited expressions, shortfall and other offences.
- Establishing prescribed qualifications of trade measurement inspectors and the forms of their identity cards.

The *National Measurement Guidelines 2016* specify how Australian legal units of measurement may be combined and how they are to be expressed.

## 10.2 The Measurement Law Review journey

### 10.2.1 Packaging review and consumer survey (2015-2018)

The Australian Government's commitment to a regulation reform agenda to drive productivity and efficiency gains within the economy included reducing the regulatory burden for individuals, businesses and the community. The department reviewed Part 4 of the National Trade Measurement Regulations from 2015 to 2018. The purpose of the review was to identify where red tape could be cut without compromising the objectives of the national trade measurement system.

Part 4 defines how the measurements related to packaging are controlled. It describes how the name, address and measurement mark should be displayed. It states what expressions are prohibited on the package relating to measurements, and details whether the product matches the measurement marking. The review of packaging regulations sought to determine whether regulations could be simplified, exemptions increased or decreased and if a principles-based approach should be adopted for regulations overseeing the measurement mark.

The department consulted with the public on the review through a discussion paper providing detail on the scope of the review and seeking feedback on Part 4, and a streamlined online survey addressing issues specific to the measurement mark labelling. Both consultations were open for comment from 11 November 2015 until 18 December 2015. During the consultation period 22 written submissions were received as well as 593 online survey respondents.

One-on-one meetings were also held with a range of businesses, industry associations and consumer groups. This included food manufacturers and labellers. The meetings focussed on discussing the potential cost of reforms and implementation issues

An options paper<sup>72</sup> presenting a range of considerations and a proposed approach to make the regulations more flexible was also open to public comment from May to June 2017. This paper sought views on options for improving the labelling requirements in Part 4 of the *National Trade Measurement Regulations 2009*.

The department also commissioned ORIMA Research to investigate the importance and usage of the measurement mark on packaged fast moving consumer goods (FMCG) products as part of wider agenda to reduce potentially unnecessary Government regulation.<sup>73</sup> ORIMA undertook two research stages:

1. A series of 25 x 15 minute in-store qualitative intercept interviews with consumers in the midst of a purchase decision at one of four retail environments (supermarkets, pharmacies, hardware stores and liquor stores); and
2. A 15 minute online quantitative survey of n=1,593 respondents, representative of the demographic profile of the general population.

In 2018, the packaging review was incorporated into the broader Measurement Law Review (which was launched at the end of 2017).

### 10.2.2 MLR thematic review and public consultation (2017 – 2019)

The former Assistant Minister for Industry, Innovation and Science, the Hon Craig Laundy MP launched the review in November 2017.<sup>74</sup>

### 10.2.3 Thematic review

In 2017, the review team analysed the legislation and divided it into 6 thematic areas for the purposes of public consultation: scope, traceability, measuring instruments, measurement-based transactions, third party arrangements and compliance and enforcement arrangements.

### 10.2.4 Consultation to date

In November 2017, a workshop was held with 36 different agencies from government, peak industry bodies and consumer groups to raise awareness and advise on the key principles of the review.

Further engagements and briefings held included:

- Approximately 30 workshops, forums and presentations, and over 50 one-on-one direct meetings with state and territory jurisdictions, government agencies and regulators, industry (including peak industry bodies) and consumer groups
- International engagement including direct meetings with counterpart national measurement organisations from 5 economies and a presentation on the review to delegates from 21 economies

The department also consulted with the public on the review through:

- Six discussion papers seeking feedback on Australia's current measurement framework
  1. Scope of Australia's Measurement Laws
  2. Traceable Measurement
  3. Measuring Instruments

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<sup>72</sup> DIIS, *Review of Part 4 of the National Trade Measurement Regulations, Options Paper* - May 2015.

<sup>73</sup> ORIMA Research: Understanding Consumer Preferences Towards Measurement Markings On Fast Moving Consumer Goods Product Packages- [https://consult.industry.gov.au/packaging-review-team/measurement-mark/supporting\\_documents/ORIMASurveyResults.docx](https://consult.industry.gov.au/packaging-review-team/measurement-mark/supporting_documents/ORIMASurveyResults.docx)

<sup>74</sup> <https://www.minister.industry.gov.au/ministers/craiglaundy/media-releases/measurement-it-rules>.



4. Measurement-Based Transactions
  5. Third Party Arrangements
  6. Compliance Arrangements
- A series of forums held with ATPs<sup>75</sup> across Australia. A total of 123 participants attended the forums which were held in Melbourne, Adelaide, Sydney, Brisbane and Perth.

The department received 103 submissions to the discussion papers. The papers and the submissions (other than those marked as confidential) are available on the department's website along with a summary.<sup>76</sup>

## 10.2.5 Economic analysis and industry survey 2019/2020

An independent report estimated the baseline value of the measurement framework to be significant and far outweighs the costs of the system.

### 10.2.5.1 The benefits of measurement regulation are significant<sup>77</sup>

Independent economic analysis of the measurement framework found that between 1984/85 and 2017/18, measurement regulation cumulatively contributed between *\$66.9 billion and \$141.8 billion to quantifiable overall economic growth* in Australia, or between 5.72% and 12.12% of GDP growth.<sup>78</sup>

Measurement regulation supports economic output across all sectors of the economy.<sup>79</sup> It also provides important non-quantifiable benefits in areas such as product safety, environmental benefits, healthcare, law and order, defence and security, consumer confidence and international trade.

### 10.2.5.2 The cost of the system is low relative to benefits

The quantifiable benefits are large compared to the modest *average annual cost of around \$200 million* of the measurement system. This is comprised of the costs to government and third parties to administer the framework estimated to be around \$80 million, plus the maximum estimated annual costs to business of around \$120 million for pattern approval and verifications.

### 10.2.5.3 Regulatory burden estimates

Regardless of the assumptions used in estimating burden, it is highly unlikely that the costs of the measurement framework would ever come close to approximating its benefits. This means that there will always be a **net benefit** that can be argued in favour of measurement regulation.

### 10.2.5.4 Industry survey

Industry consultations were also used to inform the economic analysis of Australia's measurement legislation. This included a survey to assess the level of engagement of industry with the measurement system which gathered responses from 562 businesses across different industry

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<sup>75</sup> Third parties are entities licensed or appointed under the measurement legislation to perform a particular domestic function necessary to maintain confidence in the accuracy of a measurement used for trade or legal purposes.

<sup>76</sup> <https://www.industry.gov.au/regulations-and-standards/measurement-standards/measurement-law-review>.

<sup>77</sup> *Economic Analysis of the Measurement Framework*, January 2020, Ernst and Young Consultancy Report to the Department of Industry, Science, Energy and Resources.

<sup>78</sup> *Ibid.* Note, this calculation uses a methodology of apportioning the contribution of the measurement system to productivity and implied contribution to economic growth.

<sup>79</sup> *Ibid.*

sectors. Survey responses were used to help assess the regulatory burden, benefits and costs associated with the current measurement regulations.

- In 2019, the regulated community was estimated to include approximately 860,000 businesses, or around 37% of all businesses trading.
- An estimate of the total stock of measuring instruments in use in Australia suggests that approximately 124 million instruments are owned by businesses. Of this number, approximately 54% are pattern approved. *These estimates are indicative only and are subject to the limitations of available data.*

# 11 Appendix 4: When changes would occur

Those changes which provide flexibility for the framework to adjust over time enable the regulator to respond to emerging trends in a way that provides greatest benefit to the regulated community.

Table A4- 1: When changes would occur

Changes Area	Reform option 1: Streamline and simplify		Reform option 2: Flexible and fit for purpose		Reform option 3: Flexible with power to regulate and support policy owners	
	Change from day 1	Further consultation/RIS process for:	Change from day 1	Further consultation/RIS process for:	Change from day 1	Further consultation/RIS process for:
<b>Traceability</b>	<p>Improved legislative clarity about the role of NMI and set criteria for acceptance of traceability pathway/mechanisms.</p> <p>Chemical and biological measurements:</p> <ul style="list-style-type: none"> <li>Recognition of a broader suite of measurement types (including additional ALUMs)</li> <li>Greater international alignment</li> </ul> <p>Expansion of traceability mechanisms to include:</p> <ul style="list-style-type: none"> <li>measurement methods</li> <li>method-dependent measurements</li> <li>reference methods for material properties</li> <li>potentially recognising some KCDB database entries as Australian Certified Reference Materials (ACRMs)</li> <li>Greater international alignment</li> </ul>	<p>Reviewing processes for certification of standards and reference materials.</p>	<p>As in option 1 plus:</p> <p>Ability for head of power to recognize additional traceability frameworks:</p> <ul style="list-style-type: none"> <li>Flexibility to accommodate other pathways over time</li> <li>Facilitate adoption of new technology</li> <li>Provide oversight of Commonwealth government measurement needs</li> </ul> <p>Increased powers for Chief Metrologist to:</p> <ul style="list-style-type: none"> <li>Determine additional traceability points, independent standards, methods, systems, instruments</li> <li>Revoke and revalidate traceability points</li> <li>Recognise traceability paths other than SI units</li> <li>Determine additional ALUMs to support method dependent measurement</li> </ul>	<p>Recognition of additional:</p> <ul style="list-style-type: none"> <li>Traceability frameworks</li> <li>ALUMs</li> <li>Introduction of optional or permissive activities in Section 10 of the Act.</li> </ul> <p>Determination, recognition or revocation of traceability pathways.</p>	<p>As in option 2 with broader coverage to include measurement used for regulatory purposes.</p> <p>Legislation provides NMI with a reserve power to compel a certain traceability path for particular area or application that is outside its current scope.</p>	<p>Assessment of measurement needs with policy owners to ensure appropriate capability support via ATPs in areas of expanded scope.</p>
<b>Measuring Instruments</b>	<p>Single control pathway for measuring instruments used for trade to be retained (pattern approval and verification), with the ability to provide exemptions.</p> <p>Electronic and physical verification marks permitted.</p> <p>Provision to apply conditions to certificates – to be on a case-by-case basis.</p>	<p>Exemptions for instruments from requirements and appropriate trial periods and review.</p> <p>Suitability of existing exemptions.</p>	<p>Retain existing arrangements (pattern approval and verification) as default but introduce alternative flexible control pathways for instruments used for trade.</p> <p>Provision for other regulators to adopt instrument pathways for their purposes.</p> <p>Electronic and physical verification marks permitted.</p>	<p>Implementation of flexible control pathways for instruments used for trade to replace default arrangements following data collection, risk assessment and consultation.</p>	<p>As in option 2.</p> <p>Broad powers to directly regulate measurement-based activity, including measuring instruments relied on by other regulators.</p>	<p>Determination of appropriate application of power to non-trade measurement-based activity with other regulators.</p> <p>Accommodation of certificates with a broader application</p>
<b>Measurement-Based Transactions</b>	<p>Prohibition on false or misleading measurement statements for sale and purchase of goods.</p> <p>Principles-based marking requirements for packaged products. Ability to exempt packaged products from marking requirements (cosmetics from day 1).</p> <p>Streamlined approach to unit of measurement requirements for packaged products.</p> <p>Streamlined approach to requirements for use of measuring instruments for trade. Measuring</p>	<p>Further exemptions for:</p> <p>Categories of products from measurement marking presentational requirements, beyond those introduced on day 1.</p> <p>The need for, and scope of, requirements to sell particular products by reference to measurement. (e.g. meat and certain types of alcohol).</p>	<p>As in option 1.</p> <p>Principles-based approach for:</p> <p>Correct use of measuring instruments for trade</p> <p>Presentational requirements for measurement mark on packaged products</p> <p>Appropriate measurement unit to be used to make packaged products</p>	<p>As in option 1.</p> <p>Additional presentational requirements for the measurement mark for particular categories of products.</p>	<p>As in option 2.</p>	<p>As in option 2.</p> <p>Development of expectations and guidance to distinguish NMI's specialist regulatory role for trade from its generalist role.</p>

Changes Area	Reform option 1: Streamline and simplify		Reform option 2: Flexible and fit for purpose		Reform option 3: Flexible with power to regulate and support policy owners	
	Change from day 1	Further consultation/RIS process for:	Change from day 1	Further consultation/RIS process for:	Change from day 1	Further consultation/RIS process for:
	instruments used to pack random weight products to be approved.					
<b>Third Parties</b>	<p>Transitional arrangement for existing appointments.</p> <p>Six types of ATP that may be appointed to be condensed to four types.</p> <p>New appointments streamlined based on role and services provided, rather than instrument class. Flexibility regarding competency requirements.</p>	<p>Transition arrangements for existing appointments that will eventually shift to the new system.</p> <p>Establishment of processes and systems enabling additional reporting requirements for U MVs.</p>	<p>As in option 1 (except ATP transition to single appointment type).</p> <p>New appointments: Single type of ATP with detail of appointment specified in appointment document.</p> <p>Provision to enable the use of general licences for certain measurement functions and activities.</p>	<p>Transition arrangements for existing appointments.</p> <p>Establishment of processes, systems and supporting material for introduction of general licences.</p> <p>Transition of Public Weighbridge Licences to general licence.</p> <p>Establishment of processes and systems enabling additional reporting requirements for U MVs and LMAs.</p>	As in option 2.	<p>As in option 2.</p> <p>Determination and review of the extent of the ability of ATPs to provide measurement services more broadly.</p>
<b>Compliance and Enforcement</b>	<p>Contemporary and flexible compliance and enforcement options in addition to existing arrangements.</p> <p>Retention of current inspector's powers or adoption of standardised powers.</p>	None.	<p>As in option 1.</p> <p>Mechanisms to accommodate enforceable Industry Codes of Conduct.</p> <p>Ability to issue recalls on measuring instruments and packaged products</p>	<p>Development of Industry-based solutions, such as enforceable codes of conduct.</p>	As in option 2. Ability to switch on regulation of measurement-based activities outside the trade context, where needed.	As in option 2. Development of expectations and guidance to distinguish NMI's specialist regulatory role for trade from its generalist role.

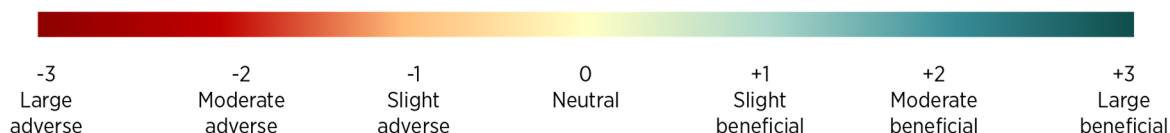
# 12 Appendix 5: Impacts on consumers

## 12.1 Key impacts on consumers

Table A5- 1: Key impacts on consumers

Impact	Reform Option			Explanation
	1	2	3	
Consumer confidence	+1	+2	+2	<b>Greater coverage of trade measurement provisions:</b> Expansion of coverage for false or misleading measurement to include purchase of goods under option 1, and services under options 2 and 3. Includes mechanism to cover non-trade measurement applications under option 3.
Easy to compare products	0	0	0	<b>Products able to be sold by different measurements:</b> Ability to compare value of like products where sold by different measurements (e.g. number vs. weight) is expected to be similar in practice to the status quo for all options. Some flexibility is provided under option 2 and 3 for industry, but the quantity provided must still provide adequate information to the purchaser. Risk of misuse is further mitigated by NMI being able to specify a particular unit.
Getting what you pay for	+2	+2	+2	<b>Compliance and enforcement:</b> Ability for government to achieve fairer and more effective compliance outcomes through the use of tailored and strengthened compliance and enforcement tools.
Time burden	0	-1	-1	<b>Packaging:</b> Potential time burden to locate the measurement mark if not presented on the front of packaged products. Impacts limited where Unit Pricing Code in effect.
<b>Average</b>	+0.75	+0.75	+0.75	All reform options will provide a slight benefit to this stakeholder group. Options 2 and 3 provide greater coverage of measurement transactions. Adverse impacts of changes to labelling requirements are increased slightly under options 2 and 3, compared with option 1.

### Impact Rating Scale



## 12.1.1 Consumer Confidence

Impact	Reform Option			Explanation
	1	2	3	
Consumer confidence	+1	+2	+2	<b>Greater coverage of trade measurement provisions:</b> Expansion of coverage for false or misleading measurement to include purchase of goods under option 1, and services under options 2 and 3. Includes mechanism to cover non-trade measurement applications under option 3.

Measurement legislation currently prohibits measurement shortfalls (i.e. where the actual measurement of a product is less than the stated amount) in the sale of goods. This leaves transactions such as the purchase of goods by a trader (e.g. gold buying) and the sale and purchase of services (e.g. freight) without similar protections. Under **all reform options**, provisions would cover false or misleading measurement representations, rather than “shortfalls”, adopting a more principles-based approach. Under **option 1** the purchase of goods would be covered, providing the same assurances for consumers whether they are buying or selling (e.g. purchasing gold from a trader as well as selling unwanted gold to a gold buyer). Under **options 2 and 3** the sale and purchase of measurement-based goods and services would be covered, providing assurance to consumers against false or misleading measurements statements when they are buying and selling goods and services (e.g. where freight is charged based on measurement). **Option 3** also benefits from the ability to cover false or misleading measurement statements, where needed, for non-trade measurement applications.

There is a net benefit to consumer confidence under **all options**, providing broader assurances that consumers can shop with confidence knowing there is an expectation that the measurements they are getting are correct. This benefit is slightly greater under **options 2 and 3** than **option 1** due to the inclusion of services.

## 12.1.2 Easy to compare products

Impact	Reform Option			Explanation
	1	2	3	
Easy to compare products	0	0	0	<b>Products able to be sold by different measurements:</b> Ability to compare value of like products where sold by different measurements (e.g. number vs. weight) is expected to be similar in practice to the status quo for all options. Some flexibility is provided under option 2 and 3 for industry, but the quantity provided must still provide adequate information to the purchaser. Risk of misuse is further mitigated by NMI being able to specify a particular unit.

Where non-packaged products are sold by measurement, the **status quo** will apply across **all reform options** regarding requirements relating to the unit of measurement. A power will be included to prescribe a particular unit of measurement be used in relation to certain products where there is a need to address an issue in the market to ensure consumers have access to suitable measurement information. Existing requirements to sell certain products by reference to measurement (e.g. meat, certain types of alcohol, LPG and wholesale fuel from a terminal according to volume at 15°C, etc.) will be retained and reviewed at a later date.

Packaged products must currently be sold by either weight or volume, depending on whether they are a solid or liquid. These requirements generally mean that the price of like products are determined by reference to the same measurement, making them easier to compare and determine value for money. Approval can be granted (the 'Secretary's list') for products to be sold by an alternative unit of measurement (e.g. number, linear measurement or area measurement) where a significant portion of businesses in Australia sell the product by that unit of measurement. However, where products have been approved to be sold by alternative methods this can result in a situation where like products may be sold by different units of measurement (e.g. weight or number). Currently the process associated with the approval of alternative methods (the 'Secretary's list') is burdensome and confusing for industry and this can also lead to products being sold without a proper measurement representation, creating confusion for consumers.

**Option 1** will streamline the 'Secretary's list' process for allowing packaged products to be sold by alternative units of measurement, increasing transparency and removing some of the confusion identified in the current process. For **options 2 and 3**, rather than maintaining the approval approach (the 'Secretary's list') under the **status quo** and **option 1**, the requirements for the units of measurement for packaged products would align with those set out in OIML Recommendation 79.<sup>80</sup> This would include default units such as volume for liquid and mass for solid, but also allow for *"quantities based firmly on established general consumer usage and trade custom if such quantities provide adequate information to the purchaser (for example, linear measurement, semi-solid or viscous product by volume, or number, may be used where it meets this requirement)."* NMI would issue guidance material to help explain this requirement, however it would leave much of the determination to industry, unlike the **status quo** and **option 1** where the alternative method has to be approved before it can be used. Under **option 2 and 3** a power will be included enabling the introduction of requirements, where a need is identified, for certain packaged products to be sold by a particular unit of measurement. This will provide confidence that when a unit of measurement being used by industry creates an issue in the market, is impractical to quantify, or disproportionately disadvantages consumers an appropriate unit can be prescribed to address the issue.

The introduction of the Unit Pricing Code (UPC)<sup>81</sup> has helped to make products easier to compare for consumers by providing information regarding the price per unit of measurement (e.g. per 100g or 100mL). However, the UPC is only voluntary for smaller stores and only applies to certain types of retailers so this information is not always available (e.g. hardware stores, pharmacies, service station grocery items). Some consumers, particularly those in rural and remote communities, may not benefit from this additional information. The UPC also does not help to compare like products when they are sold by different units of measurement (e.g. a 200g pack of sweet corn will have a unit price "per 100g", however a 4 pack of sweet corn will have a unit price "per each" cob of corn).

While the proposed approaches under **all reform options**, in particular for **options 2 and 3**, differ to the **status quo**, they not expected to result in a significant change to how the requirements operate in practice. It is recognised that allowing industry the flexibility to use alternative units of measurement can result in like products being sold by different units of measurement, which then impacts consumers' ability to compare products to determine value for money. This flexibility under options 2 and 3 is not expected to result in a material change for consumers. If it did become a problem then the risk of misuse is mitigated by NMI being able to specify a particular unit that needs to be used.

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<sup>80</sup> [OIML R79](#) includes recommendations at 5.5 regarding the method of measurement that should be used for packaged products.

<sup>81</sup> Further information on the UPC can be found at: <https://www.accc.gov.au/business/industry-codes/unit-pricing-code>.

The impact for **all reform options** has been assessed as neutral as the new requirements for the unit of measurement will operate similarly to existing requirements.

### 12.1.3 Getting what you pay for

Impact	Reform Option			Explanation
	1	2	3	
Getting what you pay for	+2	+2	+2	<b>Compliance and enforcement:</b> Ability for government to achieve fairer and more effective compliance outcomes through the use of tailored and strengthened compliance and enforcement tools.

The framework currently provides NMI with a limited suite of compliance and enforcement tools. This, at times, can impact the effectiveness of NMI’s compliance and enforcement action as the right tool is not always available to maximise the likelihood of achieving the desired compliance outcome.

Under **all reform options** the suite of compliance and enforcement tools available to NMI would be expanded to support a more tailored and collaborative approach. Compliance tools that enable NMI to work with industry to correct non-compliances and influence broader industry behavioural change will help achieve better compliance outcomes for consumers. Fines will be more appropriately tailored to the seriousness of the contravention and whether the person is an individual, a small business or a large corporation. The inclusion of strengthened enforcement tools provide continued assurance to consumers that serious contraventions and systemic non-compliance will be met with appropriate action.

Under **options 2 and 3** enforceable industry codes of conduct and recall powers are also included to further round out the compliance and enforcement tools available. Industry codes of conduct will give NMI the ability to better target compliance issues in particular sectors where broader industry issues are identified. The inclusion of recall powers will provide additional post-market assurances for packages and measuring instruments where large scale issues are identified (e.g. to support the inclusion of more flexible pre-market controls of measuring instruments, this could be balanced by recall powers to remove non-compliant instruments from the market). The inclusion of these additional tools under **options 2 and 3** are not thought to significantly change the overall benefit described for **option 1**.

Across **all reform options**, compliance and enforcement activities will benefit from the removal of the secrecy provision contained in s 19H of the *National Measurement Act 1960*. This provision currently prohibits NMI from sharing information, as well as communicating the outcomes of investigations and releasing details of enforcement actions taken. Removing this provision will enable NMI to share this information more easily, where appropriate, and clearly signal where it is taking corrective action. This will encourage greater compliance with requirements and provide confidence to consumers that they are getting what they pay for.

Across **all reform options**, the change in the overall benefit to consumers from NMI having of enhanced compliance and enforcement tools is considered to be moderately beneficial.



## 12.1.4 Time Burden (packaged products)

Impact	Reform Option			Explanation
	1	2	3	
Time burden	0	-1	-1	<b>Packaging:</b> Potential time burden to locate the measurement mark if not presented on the front of packaged products. Impacts limited where Unit Pricing Code in effect.

Relaxing the current presentational requirements for the measurement mark on pre-packaged products may result in a time burden for consumers to locate the measurement mark. The current measurement marking regulations are highly prescriptive, requiring front of pack labelling and specific font characteristics, size and placement.

**All reform options** will introduce a more principles-based approach for the prominent and legible display of the measurement mark on pre-packaged goods.

Consumers need to be able to access measurement information on packaged products in order to compare products and inform their purchasing decisions. **Option 1** requires the prominent and legible display of the measurement mark, but also retains prescriptive requirements for front of pack marking (in line with OIML R79), minimum height (font size) and a distinct contrast with background colour. A power to exempt particular types of products will be included under **option 1**, which will initially include an exemption for cosmetic products and retain existing exemptions (e.g. for packaged automotive parts<sup>82</sup>, wine bottles<sup>83</sup> and prescription therapeutic goods<sup>84</sup>). This means for exempted products the measurement mark can be placed anywhere on the package, provided the placement of the measurement mark is prominent and legible<sup>85</sup>. A mechanism will also be introduced to enable deemed compliance pathways where certain types of packaged products satisfy other specified labelling requirements (e.g. non-prescription therapeutic goods). This means non-prescription therapeutic goods would be deemed to comply with the measurement labelling requirements provided they comply with relevant TGA labelling requirements<sup>86</sup>.

**Options 2 and 3** remove the prescriptive front of pack requirement for all products, requiring the marking to be prominent and legible. In addition, the measurement mark must still comply with minimum font height and contrast requirements. Under **options 2 and 3** it would be possible to introduce additional requirements for certain types of products to address market failures. **Options 2 and 3** would also include the exemptions in **option 1** (including for cosmetic products) and ability to exempt other products. As well as proposed mechanisms to introduce deemed compliance pathways (including for non-prescription therapeutic goods).

While it is recognised that having the measurement mark on the front of the package may make it easy to identify with minimal effort, market research conducted by ORIMA Research<sup>87</sup> as part of the

<sup>82</sup> Currently exempt under paragraph 4.10(3)(a) of the *National Trade Measurement Regulations 2009*.

<sup>83</sup> Currently exempt under paragraph 4.10(3)(b) of the *National Trade Measurement Regulations 2009*.

<sup>84</sup> Clause 3.1 of Schedule 4 *National Trade Measurement Regulations 2009*.

<sup>85</sup> Placement of the measurement mark on wine bottles would continue to be subject to regulation 4.

<sup>86</sup> *Therapeutic Goods Order No. 92 – Standard for labels of non-prescription medicines*, particularly order 7.

<sup>87</sup> [https://consult.industry.gov.au/packaging-review-team/measurement-mark/supporting\\_documents/ORIMASurveyResults.docx](https://consult.industry.gov.au/packaging-review-team/measurement-mark/supporting_documents/ORIMASurveyResults.docx).

Packaging Review<sup>88</sup> demonstrated consumers do not consider the measurement mark among the most useful type of information on the front of packages:

- For non-food products:
  - The measurement mark ranked equal sixth out of eight different types of information that could be placed on the front of package (9 per cent of respondents)
  - a safety claim (20 per cent of respondents) ranked the highest, followed closely by allergen information (16 per cent of respondents), both of which are not required to be on the front of package.
- For food products:
  - The measurement mark ranked fifth out of eight different types of information that could be placed on the front of package (11 per cent of respondents)
  - Country of Origin (21 per cent of respondents) ranked the highest, closely followed by expiry date (16 per cent of respondents), ingredient claims (15 per cent of respondents) and nutrition claims (14 per cent of respondents). None of these are required to be on the front of package.

Even with the option of increased flexibility, businesses may decide not to alter their labelling as any package labelling compliant with current requirements will continue to be compliant under new arrangements. Given the measurement mark will remain on product packages, it is assumed that consumers wanting to access this information will still do so, at the cost of their own additional time. However, the relatively widespread use of unit pricing by grocery retailers raises questions about the importance of the measurement mark for consumers to make informed choices about value for money. Unit pricing is the display of a price of goods per unit of measure (i.e. per 100 grams, per kilogram, per litre or per item). Unit pricing has been mandatory since 2009 for larger store-based grocery retailers and online grocery retailers, though other grocery retailers can voluntarily opt-in to the scheme. Unit pricing offers a better method for determining the value for money compared with using the measurement mark and is mandated for stores 1000 m<sup>2</sup> or greater in size.<sup>89</sup>

If there is no unit price available there may be a small increased time burden for consumers to locate the measurement mark and compare products to obtain value for money. This time burden may be increased for **options 2 and 3**, in comparison to **option 1** that only exempts certain products (e.g. cosmetics) from the front of pack requirement. The time burden would not be applicable to online sales.

#### 12.1.4.1 Consumer Costs

To calculate the consumer time burden cost, a similar process was used to calculate the consumer impact in the post-implementation review of unit pricing<sup>90</sup> and in the Country of Origin (CoOL) regulation impact statement.<sup>91</sup> This analysis is contained in [Appendix 10](#), and outlines how the cost to consumers under each option is estimated to be:

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<sup>88</sup> <https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging>.

<sup>89</sup> Information on the Unit Pricing Code (UPC) can be found at: <https://www.accc.gov.au/business/industry-codes/unit-pricing-code>.

<sup>90</sup> The Treasury 2012, *Post Implementation Review of the Unit Pricing Code of Conduct*, October.

<sup>91</sup> The Department of Industry, Innovation and Science 2016, *Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*, March.

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<b>Impact</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
Consumer Costs	+\$0.1 m	+\$0.9 m	+\$0.9 m

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### 12.1.5 Questions

For both general and specific questions regarding consumers, please refer to section [6.3.3.1.5](#) or the full list of questions provided in Appendix 15: List of questions, at the end of this document.

# 13 Appendix 6: Impacts on measuring instrument manufacturers

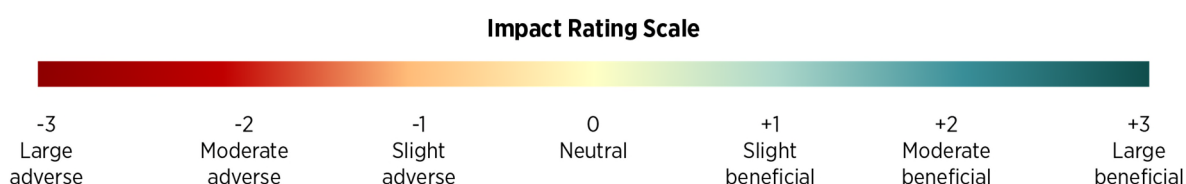
## 13.1 Key impacts on industry – measuring instrument<sup>92</sup> manufacturers

Table A6- 1: Key impacts on industry – measuring instrument manufacturers

Impact	Reform Option			Explanation
	1	2	3	
<b>Flexible controls result in fit for purpose regulation rather than a ‘one-size-fits-all’ approach and reduced regulatory burden</b>	+1	+3	+2	<b>Targeted Instrument Controls:</b> Manufacturers will benefit from exemptions, determinations and a flexible approach to regulating measuring instruments. Exemptions from controls provide some flexibility in option 1. A risk-based approach is used in option 2 to determine the appropriate level of regulation of measuring instrument types and applications (detail to be settled following future consultation). Option 3 provides the flexibility of option 2 but with increased scope to support other regulators and may present manufacturers with additional cost and burden in some sectors.
<b>Uncertainty arising from the flexibility</b>	0	-1	-1	<b>Flexibility provides less certainty and requires increased engagement:</b> If a flexible approach to regulating is not well transitioned or managed this may create uncertainty for manufacturers regarding the regulatory requirements they will need to meet in future. While the default instrument controls under all options remain for pattern approval and verification, considerations of alternatives will require increased engagement from instrument manufacturers.
<b>Faster entry to market reduces regulatory burden</b>	+1	+2	+1	<b>International alignment of instrument controls:</b> Option 1 will enable streamlining (e.g. exemptions); options 2 and 3 will also enable recognition of overseas approvals (e.g. recognising overseas test results). Option 3 may introduce additional requirements to be met for certain non-trade instruments.
<b>Tailored compliance</b>	+1	+1	+1	<b>Compliance and Enforcement:</b> Ability for government to take tailored and collaborative approach to compliance and enforcement provides better outcomes. Greater confidence to instrument manufacturers that they are competing on an even playing field.
<b>Reduced technical barriers for new and innovative</b>	0	+3	+2	<b>A framework for supporting new measurement technologies:</b> Options 2 and 3 both provide a pathway to integrate new and innovative measurement instruments

<sup>92</sup> A measuring instrument is a device used to make measurements. Measurement law regulates measuring instruments used for trade purposes and some specific instruments used by law enforcement. Instruments are called ‘trade measuring instruments’ or ‘measuring instruments for trade purposes’ when instruments are used at the point of sale or calculation of the price to be paid or calculation of tax to be collected (e.g. weighing scales used at supermarkets, fuel dispensers).

Impact	Reform Option			Explanation
	1	2	3	
measuring instruments				into the measurement framework. Supports investment by instrument manufacturers in instruments integrating new measurement technologies. Option 3 may introduce additional requirements to be met for certain non-trade instruments.
Average	+0.60	+1.60	+1.00	Options 1 and 3 provide slight benefit. Option 2 provides greater benefits for the manufacturers of measuring instruments and support for innovation



### 13.1.1 Flexible controls result in fit for purpose regulation

Impact	Reform Option			Explanation
	1	2	3	
Flexible controls result in fit for purpose regulation rather than a 'one-size-fits-all' approach and reduced regulatory burden	+1	+3	+2	<b>Targeted Instrument Controls:</b> Manufacturers will benefit from exemptions, determinations and a flexible approach to regulating measuring instruments. Exemptions from controls provide some flexibility in option 1. A risk-based approach is used in option 2 to determine the appropriate level of regulation of measuring instrument types and applications (detail to be settled following future consultation). Option 3 provides the flexibility of option 2 but with increased scope to support other regulators and may present manufacturers with additional cost and burden in some sectors.

The current framework requires pattern approval and initial verification for measuring instruments used for trade purposes with no express power to exempt particular instruments from these controls. This one-size-fits-all approach does not necessarily align with the associated risk of the instrument type or application. For example, the same type of instrument may be used in different applications with different levels of risk. The lack of flexibility also creates barriers and technology assumptions that slows the adoption of instruments using innovative technology and results in regulatory burden for manufacturers.

Under the options, there are two approaches to increase flexibility in how measuring instruments are regulated:

Under **option 1**, the Chief Metrologist will have the power to exempt instruments and components from the pattern approval or verification requirements; noting that components are not verified separately. An exemption represents a reduction in regulatory burden for manufacturers.

Under **options 2 and 3** a new legislative framework for measuring instruments will introduce powers to apply a range of metrological controls over measuring instruments used for trade and legal purposes. The framework will establish the controls (both new and existing) and allow for their evolution over time. Pattern approval and initial verification will remain the default controls and will likely stay as key controls for many types of measuring instruments. Where appropriate, alternative or supplementary controls may be used. This replaces a one-size-fits-all approach with a fit for purpose approach to regulating measuring instruments. Under this new approach:

- Instruments would still need to be sufficiently accurate in use.
- The particular level of intervention will depend on the instrument type, industry sector, need, market failure and risk.
- Stakeholder consultation (with manufacturers, traders, consumers and other regulators), data collection, analysis and risk assessment will form the basis of any changes to the controls applied to instrument types.
- Any future changes to controls will need to demonstrate a net benefit to the measurement system as a whole, and be implemented to minimise regulatory burden to manufacturers.

#### 13.1.1.1 Changes to regulatory burden

While pattern approval and verification will remain the main mechanisms of control across all options, a change in regulatory burden may occur under **option 1** based on exemptions or determinations by the Chief Metrologist and under **options 2 and 3** where alternative requirements are established based on a risk assessment of instrument types and other factors.

Where **pattern approval and verification requirements continue** to apply and no other controls are imposed there would be no change in burden.

Where **an exemption from pattern approval requirements is granted** or where pattern approval is no longer required, there would be a reduction in the regulatory burden for instrument manufacturers resulting from:

- reduced cost and time associated with making an application seeking a pattern approval
- reduced time required to review the pattern approval certificate

Where **an exemption from verification is determined or no longer required**, there would be a reduction in the regulatory burden for trading businesses and ATPs resulting from:

- reduced cost of verification for trading businesses
- reduced cost to the ATP associated with providing the verification service, recordkeeping, affixing verification marks and reporting the verification to the NMI

#### Regulatory burden estimate reduction based on pattern approval

The status quo cost of pattern approval of measuring instruments to the manufacturing sector is estimated to be **\$0.18m**. The status quo cost of verification to trading businesses is approximately **\$7.06m**. Reductions to regulatory burden would be dependent on the number of measuring instruments that are exempt from pattern approval and/or verification (all options) or for which alternative mechanisms of control other than pattern approval or verification are established (options 2 and 3).

Refer to [Appendix 12: Costing the regulatory burden from pattern approval](#).

Refer to [Appendix 14: Costing the regulatory burden of mandatory verification](#)

Where **alternative control mechanisms are established** for particular measuring instruments following risk assessment, the change in burden would depend on the new requirements imposed for those instruments. Prior to changing the instrument controls to a particular instrument type or its usage, further consultation would be undertaken, along with an assessment of the regulatory impacts that a particular change may have. It is not possible to quantify the change in regulatory burden (other than provide a status quo estimate for pattern approval) for the purposes of this consultation RIS as the change in cost would depend on future data collection, future assessments and consultations.

### 13.1.2 Uncertainty and increased engagement from the risk-based approach

Impact	Reform Option			Explanation
	1	2	3	
Uncertainty arising from the flexibility	0	-1	-1	<b>Flexibility provides less certainty and requires increased engagement:</b> If a flexible approach to regulating is not well transitioned or managed this may create uncertainty for manufacturers regarding the regulatory requirements they will need to meet in future. While the default instrument controls under all options remain for pattern approval and verification, considerations of alternatives will require increased engagement from instrument manufacturers.

As outlined above, all reform options introduce additional flexibility regarding the control mechanisms used for instruments:

- **Option 1** involves pattern approval and verification as the core control mechanisms but enables exemptions to be granted.
- **Options 2 and 3** have pattern approval and verification as the default mechanisms, but alternative control mechanisms can be established where appropriate and following consultations.

One consequence of this flexibility is that it may introduce uncertainty for manufacturers of instruments used in trade. In particular, whether:

- an instrument they produce may be granted an exemption from pattern approval or verification requirements (**option 1**); or whether
- a different configuration of controls may be established in due course for instruments that they produce (**options 2 and 3**).

Under **option 1**, the impact of potentially being granted an exemption has been considered to have neutral impact on manufacturer uncertainty. This uncertainty can be mitigated through clear communication regarding the basis of exemptions from controls and when provisional approval certificates would be granted.

Under **options 2 and 3**, while pattern approval and verification remain the default instrument controls, uncertainty may arise due to the possibility that alternative control pathways may be

introduced for certain measuring instruments used for trade. This impact has been assessed as slightly adverse on the basis that:

- the default controls will remain in place until data collection, risk assessment and consultations identify that other controls are more appropriate;
- even if an alternative control pathway is established, an appropriate transition period would be used prior to phasing in the changes; and
- the consultation process regarding alternative control mechanisms would require increased engagement from instrument manufacturers.

### 13.1.3 Faster entry to market for instruments reduces regulatory burden

Impact	Reform Option			Explanation
	1	2	3	
Faster entry to market reduces regulatory burden	+1	+2	+1	<b>International alignment of instrument controls:</b> Option 1 will enable streamlining (e.g. exemptions); options 2 and 3 will also enable recognition of overseas approvals (e.g. recognising overseas test results). Option 3 may introduce additional requirements to be met for certain non-trade instruments.

Currently, a measuring instrument must be of an approved pattern before it can be supplied, sold or used for trade purposes<sup>93</sup>. There are two approaches to speed up entry to market and both provide reductions to regulatory burden:

**Option 1** provides manufacturers with reductions in regulatory burden through some streamlining of approvals by the Chief Metrologist. For example:

- Exempting an entire category of instruments where the risk assessment and cost/benefits justified doing so, e.g. exempting certain simple measures verification or batch testing requirements;
- Expressly enabling pattern approval certificates to have specific conditions which can operate in different ways; and
- Approving components of instruments.

**Options 2 and 3** would, on the basis of a case-by-case risk assessment, allow for recognition of overseas approvals, utilising overseas evaluations; and utilising overseas test results. To increase international/mutual recognition, this has potential to be broader than pattern approval specifications aligned with OIML and includes recognizing verification and conformance assessments performed overseas.

#### 13.1.3.1 Changes to regulatory burden

The change in regulatory burden is difficult to quantify as it would be contingent upon further consultation and analysis.

<sup>93</sup> Section 18GC of the National Measurement Act 1960 - Supplying measuring instruments not of an approved pattern.



The regulatory burden would likely decrease to some degree under **Option 1** through for example, exemptions, which would remove the cost of application for pattern approval, time to review the approval certificate. Other requirements would still apply.

The change in regulatory burden in **Options 2 and 3** would depend on the controls for particular instrument types based on a risk assessment and consultation.

Example: NMI, on the basis of a specific risk assessment, determines that particular overseas test results should be accepted. The manufacturer still requires certification in Australia but can use the test result from the overseas laboratory. There would be a reduction in testing costs in Australia.

### Regulatory Burden Estimate reduction based on pattern approval

The status quo cost of pattern approval of measuring instruments to the manufacturing sector is estimated to be \$0.18m. Reductions to regulatory burden would be dependent on the number of measuring instruments that are exempt from pattern approval (option 1) or for which an overseas pattern approval is recognised; pattern approval is not required based on a risk assessment (option 2). Refer to [Appendix 12: Costing the regulatory burden from pattern approval](#).

## 13.1.4 Tailored compliance

Impact	Reform Option			Explanation
	1	2	3	
Tailored compliance	+1	+1	+1	<b>Compliance and Enforcement:</b> Ability for government to take tailored and collaborative approach to compliance and enforcement provides better outcomes. Greater confidence to instrument manufacturers that they are competing on an even playing field.

Under **all reform options** there will be a range of different controls regarding measuring instruments used for trade and regulatory purposes, a number of which will have an impact on the requirements that measuring instrument manufacturers need to meet. The framework currently provides NMI with a limited suite of compliance and enforcement tools. This limits the effectiveness of compliance and enforcement action, impacting NMI’s ability to achieve positive compliance outcomes. Under **all reform options** the suite of compliance and enforcement tools available to NMI would be expanded to support a more tailored and collaborative approach for measuring instrument manufacturers. Relevant monitoring powers would be included to enable post-market examination and testing of individual measuring instruments to ensure they continue to comply with relevant requirements. This will provide greater confidence to measuring instrument manufacturers that they are competing on an even playing field.

Under **options 2 and 3** enforceable Industry Codes of Conduct and recall powers are also included. Industry Codes of Conduct would be accommodated under **options 2 and 3** and could be either voluntary or mandatory. The legislation will also include mechanisms to make these Industry Codes of Conduct enforceable, meaning compliance and enforcement action could be taken in relation to a breach of an Industry Code of Conduct. Being able to accommodate Industry Codes of Conduct will enable NMI to target compliance issues in particular sectors and provide a more collaborative approach to risk-based compliance, potentially freeing up NMI resources to take compliance action in higher risk areas. The inclusion of recall powers will provide greater post-market assurances for measuring instruments where large scale issues are identified (e.g. to support the inclusion of more

flexible pre-market controls of measuring instruments, recall powers can be utilised to remove faulty instruments from the market). Where a recall is required for an instrument, the compliance cost of the recall will largely be borne by the instrument manufacturer or supplier, although this may depend upon the contractual terms of the supply of the instruments, and the location of the manufacturer themselves. Importantly, NMI would take a risk-based approach to assessing whether to issue a recall that would include an assessment of the potential harm to consumers and businesses, as well as any flow on costs to businesses not party to the contravention.

### 13.1.5 Reduced technical barriers for new and innovative measuring instruments

Impact	Reform Option			Explanation
	1	2	3	
Reduced technical barriers for new and innovative measuring instruments	0	+3	+2	<b>A framework for supporting new measurement technologies:</b> Options 2 and 3 both provide a pathway to integrate new and innovative measurement instruments into the measurement framework. Supports investment by instrument manufacturers in instruments integrating new measurement technologies. Option 3 may introduce additional requirements to be met for certain non-trade instruments.

New and innovative measuring instruments may be used for trade purposes and often lack a clear approval path under the measurement framework to enter the market. The existing presence in the market of these measuring instruments highlights the need to establish a legislated pathway that will be responsive to novel and emerging measuring instrument types.<sup>94</sup>

**Option 1** is likely to apply an administrative solution to such challenges, e.g. an exemption or taking a regulatory posture to not compel an approval. This is an inefficient approach over time as it does not remove the technical barrier.

**Option 2** would provide a legislated pathway to engage with new and innovative measuring instruments used in trade and for legal purposes. This recognition within the legal metrology system will be provided under the regulations and enabled by increased powers for the Chief Metrologist.

**Option 2** will reduce regulatory burden (and/or red tape) over time as the legislation is enabled to engage with new measurement technologies and techniques as they come into use.

Improvements from **option 2** will also apply to **option 3** for new and innovative measuring instruments that are applied for regulatory purposes. While this may be an opportunity for manufacturers, additional requirements may be imposed by other regulators and the NMI which may result in additional cost or burden upon manufacturers.

To reduce technical barriers for new and innovative measuring instruments in trade and legal applications, **option 2 and 3** will introduce greater support for these instruments to include:<sup>95</sup>

1. a clearer pathway for either seeking approval and verification, or using alternative control mechanisms for instruments containing new technologies

<sup>94</sup> Some of these instruments may be legitimately used for non-trade purposes (where approval is not required), and others may be used in trade (where approval is required and even though not approved).

<sup>95</sup> Further detail regarding what these arrangements would look like is outlined above in response to RIS Question 3.

2. providing increased support for traceability points related to new and innovative measuring instruments
3. regulations to support confidence, security and integrity of measurement process in new and innovative measuring instruments.

This will create a stronger pathway for the legal assurance of measurement results from innovative measuring instruments. This impact is considered to be strongly beneficial for measuring instrument manufacturers as it:

1. creates market certainty and access for manufacturers of trade/legal measuring instruments applying new technologies and techniques
2. supports investment in emerging innovative measurement technologies and applications through clear pathways for entry to market and compliance requirements
3. encourages the entry of innovative measuring instruments into Australia
4. identifies mechanisms of control appropriate for instruments using new technologies and techniques.

### 13.1.5.1 Changes to regulatory burden

Instruments incorporating novel instrument technologies will have different delays for approval and entry to market depending on the nature of the current barrier in the approval path. As such it is not possible to reliably cost the changes in regulatory burden:

- Under **option 1**, an administrative solution would look to reduce pre-market regulatory burden and delays in time-to-market for innovative measuring instruments.
- The status quo cost of pattern approval of measuring instruments to the manufacturing sector is estimated to be \$0.18m. For an estimate of reduction in burden, Refer to [Appendix 12: Costing the regulatory burden from pattern approval](#).
- Under **option 2**, the change in regulatory burden would be determined over time as innovative measuring instruments come into use. The regulatory burden on manufacturers would involve controls commensurate to risk associated with the use of new technologies and techniques. For those instruments where there is a barrier to obtaining pattern approval under the status quo due to an incomplete pathway, this may result in significant decrease in time for novel instruments to get to market.
- **Option 3** is as for option 2 and also introduce the potential for additional regulatory requirements to be imposed to support other regulators. This may result in additional cost or burden upon manufacturers for measuring instruments used for other regulatory purposes.

### 13.1.6 Questions

For both general and specific questions regarding measuring instrument manufacturers, please refer to section 6.3.3.2.4, or the full list of questions provided in Appendix 15: List of questions, at the end of this document.

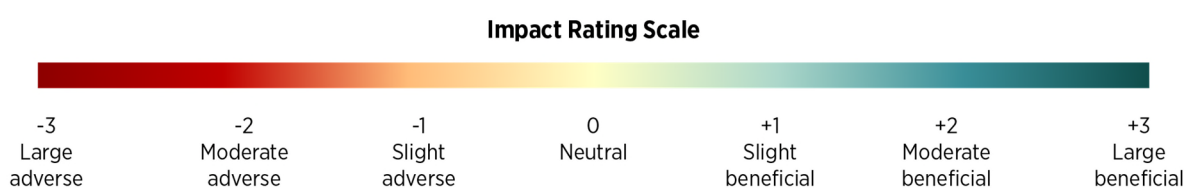
# 14 Appendix 7: Impacts on Authorised Third Parties

## 14.1 Key impacts on industry – Authorised Third Parties (ATPs)

Table A7- 1: Key impacts on industry – Authorised Third Parties (ATPs)

Impact	Reform Option			Explanation
	1	2	3	
Appointment types are streamlined and more flexible	+1	+2	+2*	<b>Simplification and merger of appointment types:</b> Under <b>option 1</b> , Certifying Authorities and Verifying Authorities are merged, while UMVs are merged with Servicing Licensees. This will align appointment types with similar functions, reducing administrative costs and simplifying arrangements for some ATPs. Under <b>options 2 and 3</b> there is a single appointment type with details such as scope of appointment and conditions specified in the appointment documents. This provides greater flexibility in appointment type, enables appointment based on skillset, and would support emerging measurement needs and innovative instrument types.
Fit for purpose competency pathways for ATPs	+1	+1	+1*	<b>Fit for purpose competency pathways for ATPs:</b> Across <b>all options</b> ATPs will continue to be appointed on the basis of competency or fitness to perform the task expected of them. NMI will have the flexibility to set the competency framework that is most appropriate to the role that a particular type of ATP will perform. In some instances this may reduce the cost and time burden associated with maintaining multiple qualifications or accreditations in order to demonstrate competency.
Flexibility where formal ATP appointment not appropriate	0	+1	+1	<b>General Licences:</b> In future under <b>options 2 and 3</b> , a general licence could provide flexibility provide a mechanism offering a lower level of regulatory oversight than ATP appointment. This more accessible approach may be applied to certain activities and functions where formal appointment is not appropriate. Where this is an activity already covered by an ATP appointment, this would lead to reduced regulatory burden. Where this is an activity not already covered by an ATP appointment this may increase regulatory burden.
Additional reporting requirements for UMVs and LMAs leading to increased	-1	-1	-1*	<b>Common reporting requirements:</b> UMVs (under <b>all options</b> ) and LMAs ( <b>options 2 and 3</b> ) will be required to report to NMI after providing measurement services. There would be some level of administrative cost in doing so, however, this is not expected to be significant as UMVs and LMAs already have the information that

Impact	Reform Option			Explanation
	1	2	3	
measurement confidence				would need to be reported. These changes would follow a transition period and development of an appropriate reporting framework.
<b>Average</b>	+0.25	+0.75	+0.75	Options 2 and 3 provide for ATPs to have a more flexible and innovative approach in their regulated activities and to reduce regulatory compliance costs. Regulation of ATPs will be streamlined in all three options and will reduce regulatory burden.



**\*Note:** Under **option 3** the regulatory requirements for ATPs may expand in to non-trade areas. Where this occurs this may result in additional regulatory burden as compared with **option 2**.

## 14.2 Appointment types are streamlined and more flexible

Impact	Reform Option			Explanation
	1	2	3	
Appointment types are streamlined and more flexible	+1	+2	+2*	<b>Simplification and merger of appointment types:</b> Under <b>option 1</b> , Certifying Authorities and Verifying Authorities are merged, while U MVs are merged with Servicing Licensees. This will align appointment types with similar functions, reducing administrative costs and simplifying arrangements for some ATPs. Under <b>options 2 and 3</b> there is a single appointment type with details such as scope of appointment and conditions specified in the appointment documents. This provides greater flexibility in appointment type, enables appointment based on skillset, and would support emerging measurement needs and innovative instrument types.

**All options** include degrees of increased flexibility and reduced prescription regarding how ATP appointments are established. The scope of existing appointments and licences will be maintained on transition to the new appointment framework, with transitional arrangements established to enable a smooth transition to new appointment types over a period of time.

Under **all options** arrangements will be maintained that require key measurement services to be obtained from ATPs.

## 14.2.1 Public weighbridges

Under **option 1**, the requirements on Public Weighbridge Licensees and operators would be streamlined and made more principles-based with administrative guidance provided by NMI to assist operation.

Under **options 2 and 3**, the functions and activities currently performed under a Public Weighbridge Licence may in future be supported by general licences. If so, instead of applying for a licence to operate a public weighbridge, any weighbridge would be able to conduct a public weighing provided they comply with the specific requirements of the general licence. These requirements may be similar to some of the conditions currently imposed on public weighbridges but would be subject to further consultation in the future.

Streamlined requirements for public weighbridge operation and licencing arrangements would slightly reduce administrative burden associated with running a public weighbridge under **option 1**. If Public Weighbridge Licences were to transition to a general licence under **options 2 and 3** this could potentially see a further reduction in regulatory burden as licence fees and the associated administrative burden of applying for and renewing a Public Weighbridge Licence would likely be removed.

## 14.2.2 Streamlining and flexible appointment types

Under **all options**, there will be a greater emphasis on describing appointments by reference to competency categories and test method,<sup>96</sup> rather than instrument classes based on particular instrument types and products. This would provide administrative and cost savings to Servicing Licensees over time by combining some current licence classes and sub-classes.

Under **option 1** similar appointment types will be merged to provide consistency in the requirements to be met and reduce duplication.

### 14.2.2.1 Making Utility Meter Verifiers a class of Servicing Licence

UMVs and Servicing Licensees are currently regulated separately, although their functions are similar. Under **option 1** UMVs will become a class of Servicing Licensee, aligning these appointments.

The alignment of appointment requirements would reduce costs for ATPs considering expanding their activities, potentially increasing the scope of services they can provide to clients due to less administrative and cost overhead associated with applying for a separate appointment.

This change also delivers greater regulatory oversight of UMVs by NMI as the current requirements and inspection powers under the Act do not have the same flexibility or established procedures as for Servicing Licensees. NMI has limited awareness and oversight of activities undertaken by UMVs and is concerned whether there is a level of inconsistency in the UMV industry. Providing regulatory treatment for UMVs that is better aligned with compliance and enforcement programs for Servicing Licensees will provide greater monitoring of performance outside the NATA accreditation framework than currently occurs. Options for demonstrating competency and additional reporting requirements are outlined below.

### 14.2.2.2 Merging Certifying Authorities and Verifying Authorities

Certifying Authorities and Verifying Authorities are currently regulated under separate types of appointments, although their functions as appointed calibration or testing laboratories are

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<sup>96</sup> The test method being used to test and verify measuring instruments is typically formalised as an NITP.

considered to be similar – i.e. the provision of calibration/traceability services throughout the economy.

Under **option 1** merging Certifying Authorities and Verifying Authorities will align similar functions under the legislation that are not sufficiently distinct to warrant separate categories of appointment. Administrative saving for those entities wanting to provide both certifying and verifying services.

### 14.2.2.3 Flexible appointment types

Under **options 2 and 3**, there will be greater flexibility in the types of ATPs that can be appointed, with a single mechanism to appoint ATPs and the details of the appointment specified in the appointment documents. This will enable the appointment of ATPs to be defined in ways that better suit the associated risk and purpose of the proposed measurement activity. Appropriate controls can be specified and allow for the introduction of additional controls if needed.

Under this approach:

- The specific nature of the appointment will depend upon the proposed measurement activity and the level of risk.
- The legislation will include general conditions applying to all appointments types (including reporting and other general conditions). Appointment documents would include more specific details, such things as the scope of appointment, specific conditions to be imposed, and any bespoke reporting requirements.
- There will be a number of common categories of measurement services which will have common conditions applying to all appointments who offer those services.
- Where newer types of measurement services could be provided under an appointment, then the conditions are expected to be bespoke initially, but likely to be settled over time.
- The level of regulatory oversight will be better aligned with the risk associated with a particular measurement service.

This will enable measurement services to be authorised in a way that is able to respond to changes in measurement needs and practice, as well as trends in innovation and technology. This includes method dependent and other complex measurements used for legal/regulatory purposes. These types of ‘hybrid’ classes and authorisations will be introduced gradually and in consultation with stakeholders. Under **all options**, existing appointments and licences will be maintained on transition to the new appointment framework, with transitional arrangements established.

The transition to these arrangements will likely involve consultation with industry, in particular existing ATPs and prospective ATPs. Where flexible appointment types are introduced for a class of ATPs, there may be a transition period of up to three years. A risk-based approach will be used in **options 2 and 3** to determine the suitability and nature of flexible appointment types following consultation with industry.

### 14.2.2.4 Change to regulatory burden

Across **all options** a slight reduction in regulatory burden is expected as a result of reduced application processes and fees. This benefit will primarily impact ATPs who hold multiple licence classes or who hold multiple appointment types, as each licence or appointment requires a separate application, renewal and competency. The current estimated cost of licences and appointments is \$1.2m for a total number of 617 ATPs. Refer to [Appendix 13: Costing the regulatory burden on Authorised Third Parties](#) for further information.

For **option 1**, where similar ATP types are merged, reducing six appointment types to four, and the number of Servicing Licence classes and sub classes is reduced the number of ATPs impacted by this change is estimated to be 244.

In **options 2 and 3**, where ATP appointments are consolidated into a single appointment type, the number of ATPs impacted by the change is estimated to be 259, but this could potentially extend to all 617 ATPs depending on the efficiency gains through flexible competency requirements and reduced costs for appointments to be amended, rather than applying for new separate appointments.

## 14.3 Fit for purpose competency pathways for ATPs

Impact	Reform Option			Explanation
	1	2	3	
Fit for purpose competency pathways for ATPs	+1	+1	+1*	<b>Fit for purpose competency pathways for ATPs:</b> Across all options ATPs will continue to be appointed on the basis of competency or fitness to perform the task expected of them. NMI will have the flexibility to set the competency framework that is most appropriate to the role that a particular type of ATP will perform. In some instances this may reduce the cost and time burden associated with maintaining multiple qualifications or accreditations in order to demonstrate competency.

Currently, where ATPs hold multiple appointments, there is additional time and cost burden to them to both obtain and maintain the required qualifications or accreditations to demonstrate competency.

Under **all options** there will be flexibility as to how competency can be demonstrated, with NMI to release guidance identifying the different acceptable pathways to demonstrate competency. This flexibility will enable NMI to set the competency framework that is most appropriate to the role that a particular type of ATP will perform and will support hybrid and emerging roles that ATPs may perform over time. For example, some types of ATP may be able to obtain a statement of attainment issued by a registered training organisation (RTO) whereas for other types of ATP, demonstration of competency may be via another method.<sup>97</sup> Competency for some ATP roles may naturally suit one competency pathway rather than another.

This flexibility in appointment pathways will particularly benefit those ATPs who currently hold multiple appointment types. In these situations, competency requirements can be considered by NMI in light of what is required to achieve confidence in measurement performance. This may reduce the need to hold certain qualifications or accreditations where there is an alternative way to demonstrate competency. For example, depending on the scope of appointment, where an organisation holds NATA accreditation, this may be sufficient to demonstrate capability rather than also requiring staff to hold statements of attainment prior to performing verification services.

<sup>97</sup> This would be considered on a case by case basis following a risk assessment and may include such things as accreditation through any ILAC accreditation body, peer assessment or an NMI review of capability.



In some instances this may reduce the cost and time burden associated with maintaining a combination of qualifications and accreditations in order to demonstrate competency. There is therefore a slight net benefit for all options under this change.

### 14.3.1 Change to regulatory burden

There may be a small reduction in regulatory burden for ATPs as result of reduced external assessment fees for accreditation and/or statements of attainment. The benefit will mostly be realised for organisations that currently hold multiple ATP appointment types and maintain both NATA accreditation and statements of attainment for their staff. Streamlining and reducing the licence classes and subclasses for activities currently performed by Servicing Licensees will also reduce the regulatory burden associated with competency requirements for these activities.

Regulatory burden will be reduced under **all reform options** as compared with the status quo.

**Option 2** is slightly more beneficial than **option 1**, with the reduction in regulatory burden likely to be the greatest under **option 3**. Currently the total estimated cost per year for competency requirements are around \$295,726 for the various types of ATPs:

- Servicing Licensees: \$106,397
- U MVs: \$70,000
- LMAs: \$102,500
- Public Weighbridge Licensees: \$16,829

## 14.4 General licences offer flexibility where formal appointment is not appropriate

Impact	Reform Option			Explanation
	1	2	3	
Flexibility where formal ATP appointment not appropriate	0	+1	+1	<b>General Licences:</b> In future under <b>options 2 and 3</b> , a general licence could provide flexibility provide a mechanism offering a lower level of regulatory oversight than ATP appointment. This more accessible approach may be applied to certain activities and functions where formal appointment is not appropriate. Where this is an activity already covered by an ATP appointment, this would lead to reduced regulatory burden. Where this is an activity not already covered by an ATP appointment this may increase regulatory burden.

At present individuals and businesses become an ATP through an administrative system requiring a formal application supported by various documentation. This requires ATPs to make individual licence, U MV or LMA applications with specific documentation requirements and conditions imposed. However, this approach does not reflect the range of complexity and risk associated with the provision of measurement activities and functions. The performance of certain measurement activities and functions may instead be better suited to a level of regulatory oversight that does not necessarily align with that in place for the appointment of ATPs.

Under **options 2 and 3**, general licences can be established setting out regulatory responsibilities that apply automatically when a certain function or activity is performed, subject to satisfaction of

prescribed conditions. This approach can be used to provide for a lower level of regulatory oversight compared to other types of licences or appointment with no licence fee and reduced administrative costs. For example, the use of bulk flow metering systems for the sale/supply of ship bunkering<sup>98</sup>, performing a ship draft survey<sup>99</sup>, operating a public weighbridge or utilising the Average Quantity System for determining packaged product quantity. The mechanism to create general licences would enable them to potentially be applied to certain suitable functions and activities currently performed by ATPs, but could also be applied to other functions and activities as well. In future this will provide the flexibility to introduce a lower regulatory burden alternative to authorised appointments for the performance of certain measurement functions and activities.

The introduction and use of general licences over time would reduce the regulatory burden otherwise associated with obtaining a licence or appointment to undertake certain measurement functions and activities, along with associated application and ongoing fees. This means that if certain functions and activities currently subject to ATP appointments (e.g. Public Weighbridge Licences) were to transition to a general licence arrangement in future, there would be an associated reduction in burden for those already performing these functions and activities. However, the regulatory burden associated with performing the function or activity would likely remain similar.

When performing functions or activities under a general licence it would still be necessary to ensure compliance with the requirements of the general licence. These requirements would likely be similar to some existing ATP compliance requirements, such as competency and traceability of measurement outcomes, with the nature of the particular requirements for general licences subject to further consultation in the future. This means that for certain measurement functions and activities not currently subject to ATP appointments, there may be an increase in the regulatory burden associated with these activities where a general licence imposes requirements that previously did not exist for that function or activity.

As the use of general licences will be phased in over time, the potential scope and usage of general licences (and therefore regulatory burden cost or saving) would be settled following further analysis and future public consultations.

## 14.5 Additional reporting requirements for Utility Meter Verifiers and Legal Metrology Authorities

Impact	Reform Option			Explanation
	1	2	3	
Additional reporting requirements for UMVs and LMAs leading to increased measurement confidence	-1	-1	-1*	<b>Common reporting requirements:</b> UMVs (under <b>all options</b> ) and LMAs ( <b>options 2 and 3</b> ) will be required to report to NMI after providing measurement services. There would be some level of administrative cost in doing so, however, this is not expected to be significant as UMVs and LMAs already have the information that would need to be reported. These changes would follow a transition period and development of an appropriate reporting framework.

<sup>98</sup> "Bunkering" is a term used to refer to the supplying of fuel for use by a ship and includes the logistics of loading fuel onto the ship and distributing it among the ship's available bunker tanks.

<sup>99</sup> A "draft survey" refers to a calculation of the weight of cargo loaded onto, or unloaded from a ship based on measurements of changes in the ship's displacement.

### 14.5.1 Aligning reporting requirements

The changes to reporting requirements would require UMVs (under **all options**) and LMAs (**options 2 and 3**) to routinely submit data after performing measurement activities. Under **option 1** UMVs would be expected to report on services provided (e.g. every batch of utility meters verified) within timeframes closely aligned with those for Servicing Licensees (i.e. fortnightly reporting). For **options 2 and 3** UMV reporting would align with expectation under **option 1**. Routine reporting on services provided (e.g. regulation certificates issued) is also required for LMAs under **options 2 and 3**, however the timeframes for this reporting would likely be less frequent than that for Servicing Licensees and UMVs (i.e. potentially monthly but at least several times a year).

This routine reporting would involve reporting data that UMVs and LMAs would already have. There is expected to be some level of administrative cost in doing so, but this is not anticipated to be significant. Proposed changes under the different options would be implemented following a transition period and development of an appropriate reporting framework. The level of burden for UMVs and LMAs associated with routine reporting is likely to be dependent on the efficiency of the reporting framework developed. During the transition period UMVs and LMAs would continue to be required to report ad hoc at NMI's request.

Following the transition period, data received from UMVs or LMAs can then be analysed by NMI to identify whether they are delivering the quality of services expected of them. This reporting requirement is important to maintain a level playing field for all types of ATP to compete on and also to support confidence in the measurement services that ATPs provide and which underpin broader economic activity.

### 14.5.2 Changes to regulatory burden

There is expected to be slight negative impact on UMVs for **all options** and LMAs for **options 2 and 3**, due to administrative reporting costs. There will be an initial transition period, during which UMVs (under **all options**) and LMAs (under **options 2 and 3**) would continue to be required to report on an ad hoc basis at NMI's request. The introduction of an appropriate reporting solution prior to applying routine reporting requirements to UMVs and/or LMAs would likely limit the increase in administrative reporting costs. For example, reporting efficiencies could be gained if a reporting solution was able to accommodate digital interfaces and mobile apps to support direct entry by ATPs, and in future could be integrated with QR codes or other scannable marks on instruments.

The current regulatory burden for reporting requirements for different types of ATPs are estimated below. Once introduced, routine reporting requirements would likely see an increase in the status quo estimate for UMVs (under **all reform options**) and LMAs (under **options 2 and 3**)

Current total cost of reporting and informing for different ATPs:

- Servicing Licensees: \$3,086,862
- Public Weighbridge Licensees: \$16,829
- UMVs: \$4,887
- LMAs: \$4,543

### 14.5.3 Questions

For both general and specific questions regarding ATPs, please refer to section 6.3.3.3.4, or the full list of questions provided in Appendix 15: List of questions, at the end of this document.

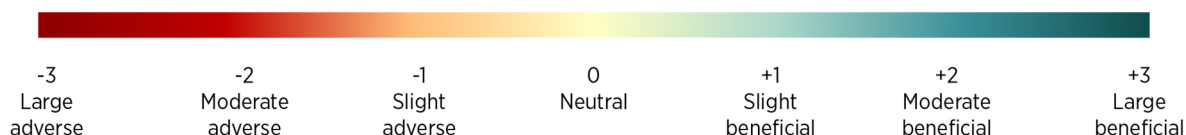
# 15 Appendix 8: Impacts on wholesalers, retailers, importers, and packers

## 15.1 Key impacts on industry – wholesalers / retailers / importers / packers

Table A8- 1: Key impacts on industry – wholesalers / retailers / importers / packers

Impact	Reform Option			Explanation
	1	2	3	
Increased business confidence	+1	+2	+2	<b>Greater coverage of trade measurement provisions:</b> Expansion of coverage for false or misleading measurement to include purchase of goods under option 1, and services under options 2 and 3. Includes mechanism to cover non-trade measurement applications under option 3.
Cost burden for packing instruments	-1	-1	-1	<b>Packing Instrument Requirements:</b> Alignment of requirements for over the counter measuring instruments and those used for random measurement packaged products, could result in a small cost increase for some packaged product manufacturers.
Increased compliance reinforces a level playing field for businesses	+2	+2	+2	<b>Tailored compliance:</b> Ability for government to achieve fairer and more effective compliance outcomes through the use of more tailored and collaborative compliance and enforcement tools
Cost savings – measurement marking placement	+1	+1	+1	<b>Packaged Products:</b> Relabelling costs reduced for some imported pre-packaged products.
Ease of doing business	+2	+3	+3	<b>Greater flexibility for business:</b> Less prescriptive / streamlined and flexible requirements for: <ul style="list-style-type: none"> <li>• how goods and services are sold by measurement</li> <li>• how measuring instruments in trade are used</li> <li>• the presentation of the measurement mark on pre-packaged products</li> </ul> However, flexibility may provide uncertainty for some businesses, particularly SMEs.
Certainty for business	+1	+1	+1	<b>Packaged Products:</b> A power to exempt products provides long term certainty for the presentational requirements of the measurement mark on packaged products.
<b>Average</b>	+1.00	+1.33	+1.33	All reform options will benefit this stakeholder group. Options 2 and 3 provide the greatest net benefit.

### Impact Rating Scale



## 15.1.1 Increased business confidence

Impact	Reform Option			Explanation
	1	2	3	
Increased business confidence	+1	+2	+2	<b>Greater coverage of trade measurement provisions:</b> Expansion of coverage for false or misleading measurement to include purchase of goods under option 1, and services under options 2 and 3. Includes mechanism to cover non-trade measurement applications under option 3.

Measurement legislation currently prohibits measurement shortfalls (i.e. where the actual measurement of a product is less than the stated amount) in the sale of goods. This means transactions such as the purchase of goods by a trader (e.g. scrap metal recycling) and the sale and purchase of services (e.g. freight) are not subject to the same offences. Under **all reform options**, provisions would instead cover false or misleading measurement representations, rather than “shortfalls”, adopting a more principles-based approach.

Under **option 1** the purchase of goods would be covered, contributing to a level playing field for industry whether they are buying (e.g. a farmer buying livestock feed from a supply store where the store is in control of the measurement process used to calculate the price) or selling (e.g. when a farmer sells grain to a processing facility, where the processing facility is in control of the measurement process used to calculate the price).

Under **option 2 and 3** the sale and purchase of measurement-based goods and services would be covered, further contributing to a level playing field for industry in the sale and purchase of goods and services (e.g. a farmer paying for a grain drying service, in order to reduce moisture levels to meet the relevant standard, where that service is charged on a per tonne basis). **Option 3** also benefits from the ability to cover false or misleading measurement statements, where needed, for non-trade measurement applications.

There is a net benefit to industry confidence under **all options**, providing broader assurances that industry can trade with confidence on the basis of measurement and they are able to operate on a level playing field. This benefit is slightly greater under **options 2 and 3** than **option 1** due to the inclusion of services.

## 15.1.2 Cost burden for packing instruments

Impact	Reform Option			Explanation
	1	2	3	
Cost burden for packing instruments	-1	-1	-1	<b>Packing Instrument Requirements:</b> Alignment of requirements for over the counter measuring instruments and those used for random measurement packaged products, could result in a small cost increase for some packaged product manufacturers.

The legislation currently requires measuring instruments used for trade<sup>100</sup> to be pattern approved and verified, however NMI has traditionally not enforced this requirement for packing instruments. However, where measuring instruments are used to determine the quantity of a product, where the quantity is a random measurement, there is a greater need to ensure the accuracy of these instruments as the actual measurement of the product is determined by the instrument (e.g. a 0.648 kg pack of chicken breast compared with a line of chicken breast packages packed to a target weight of 600 g). Requiring control mechanisms such as pattern approval and verification provides confidence that the individual measurements being made by these instruments are correct.

As there is no practical difference between an over the counter sale based on random measurement and a prepacked product based on a random measurement (e.g. buying 0.648 kg of chicken breast at the butcher versus buying a 0.648 kg pack of chicken breast at the supermarket). **All reform options** will therefore align requirements for measuring instruments used in these situation.

This will clarify the application of control mechanisms for measuring instruments used for trade, where random measurement is used for packaged products. For products packed to a target measurement, an exemption from pattern approval and verification will be established.

### 15.1.2.1 Changes to regulatory burden

It has been assessed that the overall impact of this clarification to industry across **all options** will be minimal. The number of businesses this is likely to impact is difficult to calculate, however observations during trade measurement monitoring activities indicate a large number of businesses already use pattern approved and verified instruments to pack random measurement packaged products. Based on these observations the impact to industry is thought to be minimal. Where a business is not currently using pattern approved and verified instruments for this purpose there will be an additional cost to invest in measuring instruments that meet these requirements. An appropriate transitional period will be put in place to give these businesses time to ensure their measuring instruments are compliant.

### 15.1.3 Increased compliance reinforces a level playing field for business

Impact	Reform Option			Explanation
	1	2	3	
Increased compliance reinforces a level playing field for businesses	+2	+2	+2	<b>Tailored compliance:</b> Ability for government to achieve fairer and more effective compliance outcomes through the use of more tailored and collaborative compliance and enforcement tools

The legislation currently provides NMI with a limited suite of compliance and enforcement tools. In particular some tools and penalties currently available are considered too harsh for less serious contraventions and, in some instances, don't go far enough regarding more serious or systemic contraventions. This, at times, can impact the effectiveness of NMI's compliance and enforcement

<sup>100</sup> There is an exemption in section 4B of the *National Measurement Act 1960* for automated packing machines. These are defined as "a machine that follows a pre-determined program for automatically measuring articles in pre-determined quantities as part of the packing process". Currently these instruments (which include OIML R76 "Automatic gravimetric filling instruments", such as filling heads for filling liquids like milk, beer, oil, etc.) are not subject to pattern approval and verification requirements. These instruments would not be impacted by changes applied to measuring instruments used to pack random weight packaged products.

actions, as the right tool isn't always available to maximise the likelihood of achieving the desired compliance outcome.

Under **all reform options** the suite of compliance and enforcement tools available to NMI would be expanded to support a more tailored and collaborative approach for industry. Compliance tools that better enable NMI to work with industry to correct non-compliances and facilitate cultural change, will help achieve longer term positive compliance outcomes. Monetary penalties (fines) associated with the issuing of infringement notices will be tailored to better reflect the seriousness of the conduct connected with each provision and more appropriate to the size of the business (e.g. fines may be lower for failing to mark a measurement statement on a packaged product, but may be higher for false or misleading measurement statements, particularly for a large corporation). The inclusion of strengthened enforcement tools provide continued deterrence and assurance to industry that serious contraventions and systemic non-compliance will be met with appropriate action.

Under **options 2 and 3** enforceable industry codes of conduct and recall powers are also included. Industry Codes of Conduct would be accommodated under **options 2 and 3** and could be either voluntary or mandatory. The legislation will also include mechanisms to make these Industry Codes of Conduct enforceable, meaning compliance and enforcement action could be taken in relation to a breach of an Industry Code of Conduct. Being able to accommodate Industry Codes of Conduct will enable NMI to target compliance issues in particular sectors and provide a more collaborative approach to risk-based compliance, potentially freeing up NMI resources to take compliance action in higher risk areas. The inclusion of recall powers will provide greater post-market assurances for packages and measuring instruments where large scale issues are identified (e.g. to support the inclusion of more flexible pre-market controls of measuring instruments, recall powers can be utilised to remove faulty instruments from the market). The inclusion of these additional tools under **options 2 and 3** are not thought to significantly impact the overall benefit to industry of enhanced compliance and enforcement tools under **option 1**, but rather provide the ability to engage in a more collaborative approach with industry and support the inclusion of more flexible requirements in the future.

Across **all reform options**, compliance and enforcement activities will benefit from the removal of the secrecy provision contained in section 19H of the *National Measurement Act 1960*. This provision currently prohibits NMI from sharing information, as well as communicating the outcomes of investigations and releasing details of enforcement actions taken. Removing this provision will enable NMI to share this information more easily, where appropriate, and clearly signal where it is taking corrective action including potentially publishing details of enforcement outcomes. This will encourage greater compliance with requirements and provide confidence to industry that they are operating on a level playing field.

#### 15.1.4 Placement of the measurement mark on packaged products

Impact	Reform Option			Explanation
	1	2	3	
Cost savings – measurement marking placement	+1	+1	+1	<b>Packaged Products:</b> Relabelling costs reduced for some imported pre-packaged products.

**Note:** for **all options** any package labelling that is compliant with current measurement labelling requirements will continue to be compliant under new arrangements.

Greater flexibility is needed for the placement of the measurement mark on packaged products to accommodate change and differing approaches in other economies. Current requirements are prescriptive and in some instances inconsistent with other related domestic regulations and international trading partners. **All reform options** introduce less prescriptive requirements for the placement of the measurement mark on pre-packaged products.

**Option 1** would require the measurement mark to be on the principal display panel, as well as meet contrast and minimum font height requirements. However, it provides the ability to exempt products from these requirements. It would include an exemption for cosmetic products (as well as preserving existing exemptions such as those for wine bottles, automotive parts and prescription therapeutic goods), which means the measurement mark can be placed anywhere on the packaged product but must remain prominent and legible. Flexibility in the placement of the measurement mark for exempt products enables some businesses to sell products they previously would have had to repackage or relabel. This is particularly relevant to imported cosmetic products, where industry have indicated a cost burden exists to relabel products for the Australian market. A mechanism will also be introduced to enable deemed compliance pathways where certain types of packaged products satisfy other specified labelling requirements. For example, non-prescription therapeutic goods could be deemed to comply with the measurement labelling requirements provided they comply with relevant TGA labelling requirements.<sup>101</sup> This will help in removing labelling regulatory duplication for some products, where appropriate.

**Options 2 and 3** remove the prescriptive front of pack requirement for all products, requiring the marking to be prominent and legible and comply with minimum font height and contrast requirements. Businesses will have greater freedom to place the measurement mark in a position that better meets their needs, allowing them to prioritise the display of other information. The exemptions in **option 1** would also apply under **options 2 and 3**, along with the ability to exempt other products. In addition, requirements can be introduced for certain products in order to address market failures. Proposed mechanisms to introduce deemed to comply arrangements under **option 1** also apply (including for non-prescription therapeutic goods). Greater flexibility for all packaged products, with exemptions and deemed to comply mechanisms providing further flexibility where needed, is balanced by the inclusion of mechanisms to address market failures. Industry will benefit from the additional flexibility where it suits, with NMI able to introduce additional requirements for the placement of the measurement mark where it is needed to address issues in the market, or where there are significant impacts to consumers.

#### 15.1.4.1 Industry cost savings

Business compliance costs will decrease due to cost savings for those imported pre-packaged products that will no longer require relabelling. These cost savings are expected to be most impactful for cosmetic products imported from the EU, exempt under **all options**. There may be additional savings for other sectors under **options 2 and 3** e.g. alcoholic beverages and food products, but the impact is not expected to be as significant as for cosmetic products.

To estimate the relabelling cost savings for industry, it is necessary to make some assumptions relating to the units imported, the cost of relabelling and the percentage of units relabelled to get a

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<sup>101</sup> [Therapeutic Goods Order No. 92 – Standard for labels of non-prescription medicines](#), particularly order 7.



realistic estimate of the three variables. This analysis is contained in [Appendix 10](#), and outlines how the cost savings to industry under each option is estimated to be:

*Table A8- 2: Cost savings to industry under each option*

Impact	Option 1	Option 2	Option 3
Industry Savings	-\$5.7 m	-\$6.4 m	-\$6.4 m

### 15.1.5 Ease of doing business

Impact	Reform Option			Explanation
	1	2	3	
Ease of doing business	+2	+3	+3	<p><b>Greater flexibility for business:</b> Less prescriptive / streamlined and flexible requirements for:</p> <ul style="list-style-type: none"> <li>• how goods and services are sold by measurement</li> <li>• how measuring instruments in trade are used</li> <li>• the presentation of the measurement mark on pre-packaged products</li> </ul> <p>However, flexibility may provide uncertainty for some businesses, particularly SMEs.</p>

A number of areas of the current legislation have been identified as prescriptive and unnecessarily complex and in some cases do not represent minimum effective regulation. **All reform options** will seek to introduce less prescriptive regulatory requirements for trade measurement activities. A more principles-based approach to trade measurement requirements will make it easier for businesses to identify the key outcome they are trying to achieve and provide flexibility regarding how they achieve it. Detailed information to support business understanding of their obligations will be provided in guidance material, or in a single location in a legislative instrument, rather than having to navigate complex and confusing prescriptive legislative requirements. This will contribute towards industry saving time and money as legislative requirements will be more streamlined and flexible.

Some of the areas that will see a decrease in prescription in favour of a more principles-based approach are discussed in more detail below.

#### 15.1.5.1 How goods and services are sold by measurement

Where non-packaged products are sold by measurement, the **status quo** will apply across **all reform options** regarding requirements relating to the unit of measurement. Existing requirements to sell certain products by reference to measurement (e.g. meat, certain types of alcohol, LPG and wholesale fuel from a terminal according to volume at 15°C, etc.) will be retained and reviewed at a later date. The legislation will continue to include a power to introduce requirements for particular products to be sold by reference to measurement. This power would be used where there is a need to address an issue in the market to ensure consumers have access to suitable measurement information.

Packaged products must currently be sold by either weight or volume, depending on whether they are a solid or liquid. Approval can be granted (the 'Secretary's list') for products to be sold by an

alternative unit of measurement (e.g. number, linear measurement or area measurement) where a significant portion of businesses in Australia sell the product by that unit of measurement. Currently the process associated with the approval of alternative methods (the 'Secretary's list') is burdensome and confusing for industry and can lead to products being sold without a proper measurement representation.

**Option 1** will streamline the 'Secretary's list' process for allowing packaged products to be sold by alternative units of measurement, increasing transparency and removing some of the confusion identified in the current process. For **options 2 and 3**, rather than maintaining the approval approach (the 'Secretary's list') under the **status quo** and **option 1**, the requirements for the units of measurement for packaged products would align with those set out in OIML Recommendation 79<sup>102</sup>. This would include default units such as volume for liquid and mass for solid, but also allow for *"quantities based firmly on established general consumer usage and trade custom if such quantities provide adequate information to the purchaser"* (for example, linear measurement, semi-solid or viscous product by volume, or number, may be used where it meets this requirement). NMI would issue guidance material to help explain this requirement, however it would leave much of the determination to industry, unlike the **status quo** and **option 1** where the alternative method has to be approved before it can be used. Under **option 2 and 3** a power will be included enabling the introduction of requirements, where a need is identified, for certain packaged products to be sold by a particular unit of measurement. This will provide confidence that when a unit of measurement being used by industry creates an issue in the market or disproportionately disadvantages consumers an appropriate unit can be prescribed to address the issue.

While the proposed approaches under **all reform options**, in particular for **options 2 and 3**, differ to the **status quo**, they are not thought to result in a significant change to how the requirements operate in practice. While it is recognised that allowing flexibility to use alternative units of measurement can result in like products being sold by different units of measurement, it provides benefits to industry through the ability to use units of measurement that best suits their purposes. For example, shredded paper for cat litter is sold by volume as it is a bulky product, whereas crystal cat litter (including bentonite) is sold by weight as it is a dense product. However, it is unclear what the extent of this benefit is.

The impact for **all reform options** has been assessed as neutral because new requirements for the unit of measurement will operate similarly to existing requirements. However industry are invited to inform us of any impacts, positive or negative, that you may identify in these options.

### 15.1.5.2 How measuring instruments in trade are used

Removing a number of prescriptive offences relating to how measuring instruments are used for trade will reduce the compliance burden for industry to understand which provisions apply to them. Under **all reform options** there will be a small number of principles-based provisions that prohibit the incorrect use of measuring instruments that result in the instrument giving an inaccurate measurement or providing other incorrect information. For example, if a person uses a scale without ensuring that it is free from obstructions, an object, such as a stapler, could be resting on the scale and result in the displayed weight being more than it should be. Necessary prescription will be retained in the regulations for a small number of supplementary provisions, including:

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<sup>102</sup> [OIML R79](#) includes recommendations at 5.5 regarding the method of measurement that should be used for packaged products.

- Where necessary to restrict the use of certain classes of instruments (e.g. class 4 instruments can only be used for certain purposes such as baggage weighing or for weighing garbage)
- Accuracy requirements for particular purposes/uses (e.g. measuring diamonds or precious metals)

This approach will make it easier for industry to understand their obligations when it comes to the manner in which they use measuring instruments for trade. The compliance burden associated with navigating current prescriptive provisions would be reduced, while fundamentally still requiring industry to ensure measuring instruments are accurate and used correctly. As removing prescriptive requirements can cause uncertainty for some businesses, particularly small to medium enterprise (SME), guidance material will accompany the legislation to help industry understand their obligations.

### 15.1.5.3 Simpler requirements for packaged products

Industry stakeholders contend that current requirements for packaged products are unnecessarily complex and do not represent minimum effective regulation. **All options** introduce less prescriptive requirements, reduce complexity and make it easier for businesses to understand and use the correct presentational requirements.

**Option 1** reduces the current prescriptive requirements down to broad principles with limited prescriptive requirements (front of pack, font size and colour contrast with background). Other prescriptive requirements, where needed, would be moved to legislative instruments or guidance material. This reduces complexity for business and saves time, while also enabling them to have greater assurance that their packages comply.

**Options 2 and 3**, in addition to the flexibility afforded in **option 1**, includes further flexibility for businesses by removing the prescriptive front of pack marking requirement for all products, instead requiring the marking be prominent and legible (also font size and colour contrast with background). As with **option 1** this reduces complexity and saves time.

#### 15.1.5.3.1 Changes to regulatory burden

Across **all options**, it is anticipated that there would be a slight decrease in time for manufacturers and importers of packaged products to understand regulatory obligations. While the flexibility from having simple principles can create uncertainty for some businesses, NMI will produce guidance material to help industry understand the requirements and potentially create deemed to comply pathways<sup>103</sup> to offer additional certainty. Costing estimates indicate that the current status quo cost is around **\$8.1m** for the regulatory obligations (estimated 1.5hrs reporting time per business) based on an all business impacted in the manufacturing and import sectors. It is expected that under all options, the annual time cost would be reduced to 1 hour or less, resulting in an annual industry saving of at least **\$2.7m**. [Appendix 10](#) provides the detailed calculations including methodology and assumptions.

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<sup>103</sup> For example, a deemed to comply pathway could set out in guidance material what NMI would consider to be a measurement mark that is “prominent and legible”. Typically it would set out a list of criteria that, if met would ensure the measurement mark is compliant. Failing to meet the criteria would not necessarily mean that the marking is non-compliant but it would not automatically be considered to be compliant.

## 15.1.6 Certainty for business (packaged products)

Impact	Reform Option			Explanation
	1	2	3	
Certainty for business	+1	+1	+1	<b>Packaged Products:</b> A power to exempt products provides long term certainty for the presentational requirements of the measurement mark on packaged products.

The current process uses permits (limited to 6 months), or administrative permissions, to excuse packaged products from complying with the presentational requirements of the measurement mark, enabling products subject to a permit to continue to be sold for a period of time. Permits are useful to allow businesses to sell non-compliant products for a short period of time where the end goal is to transition to compliant packaging. However, they do not provide long term certainty for businesses, particularly where there is a case for a permanent exception to be made for broad categories of products.

**All reform options** provide the ability to grant exemptions for particular types of goods under the regulations. This will provide certainty for industry that exemptions granted are for the long term.

A permit system would be retained across **all reform options**, but with the flexibility to apply suitable time limits, up to a maximum amount. For example, permits are currently limited to 6 months but a business may have a 12 month supply of non-compliant packaging they wish to be able to sell through before replacing it with new compliant packaging. Currently they would have to apply to NMI to renew their permit after 6 months, or move up the time frame to introduce new packaging. Under a more flexible system NMI could grant a permit for 12 months, giving certainty to the business that they can sell through their old packaging. This could potentially save time applying for additional permits or costs associated with the wastage of packaging due to old packaging having to be disposed of early.

**Options 2 and 3** provide further flexibility and include a power to introduce additional requirements where there is a need e.g. a market failure for particular types of goods under the regulations. Where such requirements are brought in, these will be clear and simple to ensure uncertainty and complexity are not introduced. For example, under **options 2 and 3** a requirement for the measurement mark to be on the front of the package could be introduced immediately in the new legislation, or in the future, for a particular category of products. Where additional requirements are considered for certain products in the future, these would be subject to further consultation and RIS processes to provide certainty to industry that requirements will not be introduced without consultation.

As flexibility can create some uncertainty for businesses, particularly under **options 2 and 3**, the NMI will produce guidance material to help industry understand the requirements and potentially create deemed to comply pathways to offer additional certainty.

## 15.1.7 Questions

For both general and specific questions regarding consumers, please refer to section 6.3.3.4.4, or the full list of questions provided in Appendix 15: List of questions, at the end of this document.

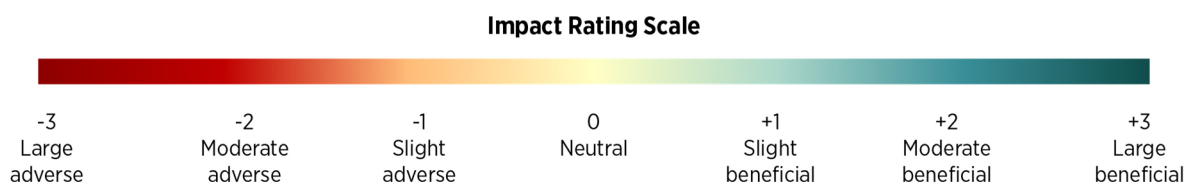
# 16 Appendix 9: Impacts on government regulators

## 16.1 Key impacts on government regulators

Table A9- 1: Key impacts on government regulators

Impact	Reform Option			Explanation
	1	2	3	
Greater support to help regulators address measurement issues and access services	+1	+1	+1	<b>Supporting measurement needs of regulators: Option 1</b> provides regulators with greater access to verifiers. <b>Options 2 and 3</b> make available a more flexible ATP option to service regulators.
Better regulatory collaboration on measurement issues	+1	+1	+1	<b>Collaborative regulatory action:</b> Under <b>all reform options</b> it will be easier for NMI to share relevant regulatory information with other regulators. Under <b>option 3</b> NMI would be able to help regulate measurements that regulators rely on and to take targeted action in partnership with or on behalf of regulators.
Greater assurance regarding international instruments	+1	+2	+2	<b>Greater acceptance of international instruments increases access:</b> Regulators leverage off enhanced assurance pathways under the measurement legislation for overseas measuring instruments to meet their measurement needs.
Uncertainty based on flexible approach to measuring instruments and NMI role	0	0	-1	<b>Which controls apply and when does NMI step in:</b> Increased flexibility and powers for NMI to regulate the measurements that other regulators rely on may create uncertainty for regulators under <b>Option 3</b> . However, these powers would be expected to be used cooperatively and following consultation with the relevant regulator.
Improved confidence in chemical, biological and other complex measurements used for legal purposes	+2	+3	+3	<b>Updating the legislative framework and accuracy for chemical, biological and other complex measurements:</b> New provisions will be introduced to support consistency and accuracy of chemical and biological measurement. Complex measurements can more confidently be used for compliance purposes by regulators where these are needed for a legal purpose.
Greater access to and confidence in innovative measuring instruments	0	+2	+2	<b>Innovative measuring instruments: Options 2 and 3</b> provide broad support for confidence and legal standing where new measurement technology and techniques are applied by innovative measuring instruments used by regulators.
Greater support for use of independent standards	0	+1	+1	<b>Traceability of independent primary standards: Options 2 and 3</b> provide a new legislative pathway to recognise independent primary standards which regulators can rely on.
Greater support for use of overseas	+1	+2	+2	<b>Legal assurance for the use of overseas standards and CRMs:</b> All options will facilitate the identification and use

Impact	Reform Option			Explanation
	1	2	3	
reference standards and CRMs				of overseas reference materials and standards of measurement by regulators for legal purposes.
<b>Average</b>	+0.75	+1.50	+1.38	All reform options will benefit regulators slightly.



### 16.1.1 Greater support to help regulators address measurement issues

Impact	Reform Option			Explanation
	1	2	3	
Greater support to help regulators address measurement issues and access services	+1	+1	+1	<b>Supporting measurement needs of regulators: Option 1</b> provides regulators with greater access to verifiers. <b>Options 2 and 3</b> make available a more flexible ATP option to service regulators.

Under the current measurement legislation, regulators are able to access appropriately vetted measurement service providers appointed under the measurement legislation, e.g. LMAs.<sup>104</sup> These Authorities help to provide legal coverage and certainty regarding the accuracy of standards of measurement, artefacts, reference materials and measuring instruments.

However, some ATPs providing verification services for measuring instruments (specifically Servicing Licensees and UMs) have a limited scope of appointment. These appointments are associated with verifying measuring instruments used for trade, and not with the more general service of checking the accuracy of measuring instruments for other legal purposes. In addition, the appointments are tightly defined in terms of classes of servicing licensee that may not meet the needs of emerging types of measuring instruments.

The options provide increasing levels of support for regulators:

Across **all reform options**, regulators can continue to access the services of LMAs to provide legal certainty regarding the measurements they rely on. The appointment of Servicing Licensees and UMs would be broadened to provide for the verification of measuring instruments used for trade and other legal purposes.

In **option 2**, regulators would have access to general ATP appointment types (rather than appointment based on the four current types of ATP). This could include appointments for

<sup>104</sup> These include Certifying Authorities, Verifying Authorities and Approving Authorities.

determining recognised value standards, supporting method based measurement, and providing future functions related to new instrument control mechanisms (for example, auditing). This flexibility enables NMI to tailor services for different regulatory regimes through its ATPs. Regulators would benefit from broader ATP options for them to use, as authorised under measurement law.

Under **option 3**, in addition to option 2, NMI could establish specific ATP appointments to support the needs of specialist regulators and NMI would also have powers to help regulate the measurements which a regulator relies on where appropriate to do so.

## 16.1.2 Better regulatory collaboration on measurement issues

Impact	Reform Option			Explanation
	1	2	3	
Better regulatory collaboration on measurement issues	+1	+1	+1	<b>Collaborative regulatory action:</b> Under <b>all reform options</b> it will be easier for NMI to share relevant regulatory information with other regulators. Under <b>option 3</b> NMI would be able to help regulate measurements that regulators rely on and to take targeted action in partnership with or on behalf of regulators.

The legislation currently enables NMI to undertake regulatory monitoring activities and compliance and enforcement action only in relation to measurements and instruments used in trade. This limits NMI's ability to work with other regulators to support confidence in the measurements those regulators rely on, to respond to a measurement issue identified in other sectors.

NMI currently supports accurate, reliable measurements and provides measurement services and general advice to other regulators. However, there is currently a secrecy provision contained in the measurement legislation which prohibits NMI from disclosing protected information<sup>105</sup> that may be of a benefit for other regulators. Under **all reform options**, this secrecy provision would be removed and NMI will be able to share relevant information, enhancing the services and advice that NMI can provide.

Across **all reform options**, compliance and enforcement activities will benefit from the removal of the secrecy provision which will allow for greater sharing of information to support other regulators.

Under **option 3**, NMI would be able to extend its regulation of measurement, including compliance and enforcement activities, beyond trade measurement to support other regulators. This would enable NMI to help address measurement issues encountered by other government agencies not just through service provision and advice (as it does currently), but with regulatory power as well.

This would primarily be done in collaboration with other regulators and may be appropriate:

- to help provide baseline regulatory support for new and emerging measurement applications;
- in response to significant, high-risk measurement issues or crisis;
- where other regulators have incomplete jurisdiction or lack sufficient powers to address a particular issue; or

<sup>105</sup> Protected information is information collected under or for the purposes of the *National Measurement Act 1960* which is either personal information or information that relates to the personal or business affairs (s 19H).

- where other regulators lack capability to address particular measurement failures.
- Regulatory collaboration would require prioritisation and additional resourcing for NMI and may require NMI to develop additional technical capabilities.

### 16.1.3 Greater assurance regarding international instruments

Impact	Reform Option			Explanation
	1	2	3	
Greater assurance regarding international instruments	+1	+2	+2	<b>Greater acceptance of international instruments increases access:</b> Regulators leverage off enhanced assurance pathways under the measurement legislation for overseas measuring instruments to meet their measurement needs.

Where regulators rely on the accuracy of measurement to achieve their regulatory outcomes, they may specify certain requirements regarding instruments in their legislation to ensure that these instruments are fit for purpose. For example, by requiring that instruments be pattern approved<sup>106</sup> under the measurement law. By linking to the measurement legislation, those regulators are able to leverage off NMI's pattern approval process which provides assurance that measuring instruments meet international requirements and if they are overseas measuring instruments, that they are suitable for Australian conditions.

All options provide efficiencies for regulators relying on overseas measuring instruments to meet their needs by expanding the scope of assurance mechanisms for international instruments:

- Under **option 1**, there is the flexibility to recognise overseas test results (e.g. OIML-CS107). This streamlining identifies reliable instruments suitable for Australian conditions that may be used for regulatory purposes.
- Under **option 2**, in addition to recognising overseas test results, there will be greater recognition of overseas approvals (e.g. an MID<sup>108</sup> approval) for instruments used in trade which could also be relied on for other regulatory purposes. There is also potential for recognition of overseas verifications and conformance assessments.
- **Option 3** is as for option 2, but NMI may assist by directly imposing measuring instrument requirements (where appropriate) to support measurements relied on by regulators.

### 16.1.4 Uncertainty arising from additional NMI powers

Impact	Reform Option			Explanation
	1	2	3	
Uncertainty based on flexible approach to measuring	0	0	-1	<b>Which controls apply and when does NMI step in:</b> Increased flexibility and powers for NMI to regulate the measurements that other regulators rely on may create uncertainty for regulators under <b>Option 3</b> . However, these

<sup>106</sup> Pattern approval involves assessing an instrument's design and testing of the instrument for performance under Australian conditions. Under **all options**, pattern approval will remain a key control mechanism for measuring instruments used in trade to support reliable performance over time (as an ongoing requirement under **option 1** and as a default requirement under **options 2 and 3**).

<sup>107</sup> These are issued under the OIML-Certification System (OIML CS).

<sup>108</sup> The Measuring Instruments Directive (MID) by the European Union seeks to harmonise many aspects of legal metrology across all member states of the European Union.



Impact	Reform Option			Explanation
	1	2	3	
instruments and NMI role				powers would be expected to be used cooperatively and following consultation with the relevant regulator.

The measurement legislation provides control mechanisms to support the accurate performance of measuring instruments. This includes pattern approval and verification requirements for instruments used in trade and separate certificates that may be issued by Certifying Authorities to confirm the accuracy of measuring instruments.

Regulators may specify their requirements over measuring instruments via their own legislation or other means. Where they link to those instrument control mechanisms provided for in the measurement legislation, then any change to how these mechanisms are operated has the potential to impact on regulators.

In **option 1**, there will be no change to the status quo for measuring instruments used for legal purposes. Regulators could continue to refer to the pattern approval pathway for even though it is designed for instruments being used in trade, or utilise the broader certification arrangements for measuring instruments.

Under **option 2**, new instrument control mechanisms in addition to pattern approval and certification would become available and all controls would be drafted in a more neutral way to make them increasingly accessible for regulators to adopt. A degree of uncertainty would be introduced as some of the alternative control pathways for instruments would be activated over time following appropriate data collection, risk assessment and consultation.

In **option 3**, NMI could impose controls that may be applied for instruments that other regulators rely on. The Chief Metrologist would have the power to determine specific controls that would be applied on legal measuring instruments that provide the measurements which other regulators depend on.

- While the existence of these powers under **option 3** may initially create uncertainty for regulators, the purpose for these powers would be to help regulate measurements and take targeted action in partnership with or on behalf of regulators. That is, these powers would be expected to be used cooperatively and following consultation with the relevant regulator.
- These powers are not expected to be frequently exercised on mature frameworks that other regulators already may have in place.
- These powers would primarily be used where there is insufficient existing coverage of the measurements a regulator relies on thus to provide coverage before a more bespoke framework is developed by the responsible regulator. This may be the case where there is incomplete jurisdiction, in response to a crisis or a new or emerging measurement application that is not yet regulated.

## 16.1.5 Improved confidence for chemical, biological and other complex measurements

Impact	Reform Option			Explanation
	1	2	3	
Improved confidence in chemical, biological and other complex measurements used for legal purposes	+2	+3	+3	<b>Updating the legislative framework and accuracy for chemical, biological and other complex measurements:</b> New provisions will be introduced to support consistency and accuracy of chemical and biological measurement. Complex measurements can more confidently be used for compliance purposes by regulators where these are needed for a legal purpose.

Certain regulators place a heavy reliance on complex measurement in order to impose requirements that protect life, health and safety – such as requirements regarding food contaminants, environmental protections, emissions, road safety, and radiation doses.

Examples of complex measurements include chemical, biological, materials properties, such as measurements of nanomaterials, and method-dependent measurements, for example, for some food parameters.<sup>109</sup> Complex measurements may present challenges to regulators who need to check compliance, monitor and/or enforce their regulations. This is because complex measurements:

- may involve relying on a combination of references and sometimes a combination of both domestic and international references; and
- may not be comparable to each other because they are impacted by: inherent variability in material, issues of accuracy or bias, methods used or where there are no agreed international standards.

Under **option 1** new provisions in the legislation aim to bring the measurement framework up to date with current international chemical and biological measurement practice and provide support to the confidence of chemical and biological measurements. For example, the measurement legislation will be expanded to include measurement methods and provide the Chief Metrologist with the power to recognise internationally accepted chemical and biological standards routinely used for chemical and biological measurements.

**Options 2 and 3** will build on option 1 and also introduce powers for the Chief Metrologist to:

- Determine additional traceability<sup>110</sup> pathways (determining whether these are sufficiently strong, open, comparable, transparent, technically sound and auditable);

<sup>109</sup> Method-dependent measurements are measurements where the result will depend on the particular testing method used, rather than having an independent true value outside the testing method.

<sup>110</sup> Measurement traceability is defined in the International Vocabulary of Metrology (VIM) item 2.41 (6.10) as: *property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.*

- *NOTE 1 For this definition, a 'reference' can be a definition of a measurement unit through its practical realization, or a measurement procedure including the measurement unit for a non-ordinal quantity, or a measurement standard.*
- *NOTE 5 Metrological traceability of a measurement result does not ensure that the measurement uncertainty is adequate for a given purpose or that there is an absence of mistakes.*

- Recognise paths other than to the SI, particularly for chemical or biological measurement;<sup>111</sup> and other complex measurements; and
- Determine additional ALUMs, e.g. to support method dependent measurements, and to make these changes more easily.

These improvements aim to particularly benefit regulators who rely on chemical or biological measurements and/or use measuring instruments that are calibrated with chemical or biological reference materials.

**Across all options**, the Chief Metrologist will have the power to determine the appropriate method to apply in order to resolve a conflict in results of method-dependent measurements. This enables an increase in consistency (e.g. calibration methods) for specific tasks which may be prescribed.

**Across all options**, the increase in traceability of complex measurements is beneficial for regulators who rely on complex measurement as a basis for setting the requirements they impose.

### 16.1.6 Greater access to and confidence in innovative measuring instruments

Impact	Reform Option			Explanation
	1	2	3	
Greater access to and confidence in innovative measuring instruments	0	+2	+2	<b>Innovative measuring instruments: Options 2 and 3</b> provide broad support for confidence and legal standing where new measurement technology and techniques are applied by innovative measuring instruments used by regulators.

Regulators that rely on measurement will usually rely on some sort of measuring instruments as the basis for those measurements. These instruments may include innovative technologies such as artificial intelligence (AI) systems or incorporating self-calibration. Innovative measuring instruments such as these present challenges as to how they fit within the current measurement legislation.

Under **option 1**, regulators could generally look to adopt the pattern approval pathway to help provide confidence in the instruments they rely on, however, innovative measurement instruments may have difficulty obtaining pattern approval due to lack of testing methods or inherent lack of transparency in the way the measurements they produce are calculated. Administrative solutions to such challenges, such as exemptions or a time-based provisional approvals may reduce hindrances for regulators relying on these instruments. However this may mean that there is limited assurance regarding the performance of these types of instruments without some sort of other control mechanism.

**Options 2 and 3** provide additional mechanisms for providing assurance regarding measuring instruments which are more adaptable to emerging technologies. While regulators are not bound by the measurement legislation, they can leverage off these enhancements to provide a more flexible way to manage the risks associated with instruments incorporating new technologies.

<sup>111</sup> For example traceability back to World Health Organisation standards, or international food standards adopted by the Codex Alimentarius Commission.

**Option 2 and 3** would reduce technical barriers for innovative measuring instruments in regulatory applications, by providing for:

1. Flexibility in the controls<sup>112</sup> applied to measuring instruments, that are internationally aligned and better targeted to specific applications and regulatory frameworks;
2. Flexibility in the recognition of traceable pathways for all types of measurement; and
3. Appropriate requirements, powers and oversight mechanisms to support confidence in statements of measurement traceability, accuracy and instrument compliance.<sup>113</sup>

This impact is beneficial for regulators as it:

1. creates greater confidence in measuring instruments applying new technologies and techniques;
2. supports investment in new and emerging innovative measurement technologies and applications through clear pathways for compliance requirements;
3. provides mechanisms of control appropriate for measuring instruments using new technologies and techniques to guide regulators;
4. enables more measuring instruments to be available for use by regulators.

### 16.1.7 Greater support for use of independent primary standards

Impact	Reform Option			Explanation
	1	2	3	
Greater support for use of independent standards	0	+1	+1	<b>Traceability of independent primary standards: Options 2 and 3</b> provide a new legislative pathway to recognise independent primary standards which regulators can rely on.

The SI (International System of Units, also referred to as the modern metric system) was redefined in May 2019, so that all of the base units of measure became defined in terms of natural constants. Technological developments flowing from this may allow for the realisation of ‘primary standards’<sup>114</sup> and their propagation by private sector organisations independently of the Australian national hierarchy or that of any other country.

<sup>112</sup> The controls applied would depend on risks associated with use of the instrument. The controls may include: Accurate operation, appropriate use, Pattern approval, Conformity to Type with respect to the equivalence of pattern and type, Quality System Assessment and Auditing, Verification, Re-verification, In service Inspection, Instrument suitability requirements and ranges. Also cited in Appendix 6: Impacts on measuring instrument manufacturers. In determining the appropriate level of controls for innovative measuring instruments, the following would be considered: the accuracy of the reported value, traceability to Australian Legal Units of Measurements, measurement uncertainties flowing from the references and method used and how the instrument was calibrated. Examples of potential controls are outlined in Appendix 6: Impacts on measuring instrument manufacturers.

<sup>113</sup> This would involve increased powers for the Chief Metrologist, to be specified under measurement regulations, that would include: determining additional appropriate traceability points, independent standards, methods, systems, instruments; recognising international arrangements, references, outputs from NMIs, databases; revoking recognition of traceability points (e.g. to enable superseded methods to be revoked); and revalidating approved traceability points to reflect change in algorithms.

<sup>114</sup> The Australian ‘primary standards’ refer to standards of measurement of the highest accuracy which have been internationally compared and accepted. For example, the Australian primary standard for the kilogram has been compared against the International Prototype of the Kilogram against which all national standards of the kilogram are compared to. With the redefinition of the SI, any organisation with a kibble balance can realise the kilogram. Knowing the accuracy of that independent standard becomes important to ensure that it is accurate enough to calibrate a reference weight used to verify a weighing instrument.

Regulators may require measuring instruments to be calibrated or certified under measurement legislation to ensure results are sufficiently accurate to meet their needs. If so, calibration would use references traceable to the Australian national hierarchy of standards of measurement.<sup>115</sup>

The use of independent primary standards could support advances in measurement techniques and reduce the costs associated with accessing high accuracy calibrations. However, without appropriate comparability or controls, they could threaten consistency and confidence in the accuracy of measurements that regulators rely on.

Under **options 2 and 3**, independent primary standards (developed by the private sector) that are disconnected from the Australian national hierarchy (and potentially from any other national hierarchy) may be recognised by the Chief Metrologist. The legislation will empower the Chief Metrologist to provide for the use of independent primary standards, as technology allows, while maintaining requirements on their confidence and in the inter-comparability of those standards. This will integrate independent primary standards as additional traceability points that may be used for regulatory purposes. This improvement will provide a traceability pathway for independent primary standards and ensure the comparability of their measurement results

This change protects regulators and ensures that their measurements are consistent with the national hierarchy and is comparable internationally with other governments.

### 16.1.8 Legal standing for international standards and reference materials

Impact	Reform Option			Explanation
	1	2	3	
Greater support for use of overseas reference standards and CRMs	+1	+2	+2	<b>Legal assurance for the use of overseas standards and CRMs:</b> All options will facilitate the identification and use of overseas reference materials and standards of measurement by regulators for legal purposes.

Regulators rely on international references and overseas sources of CRMs for their regulatory purposes if these are not available in Australia. Australia is a high user of international, commercially sourced CRMs, making the economy dependent on the quality of overseas accreditation processes.

The recognised supplier base for traceable measurement with legal standing under measurement law is currently limited with certification only accessed from NMI or its ATPs.

Currently where regulators depend on overseas reference materials<sup>116</sup> or reference standards of measurement<sup>117</sup> the NMI can provide legal assurance to support these references when used for

<sup>115</sup> The legal framework for traceability is enabled by a national hierarchy of realised standards of measurement. In this hierarchy, the traceability pathways rely on: Australian primary standards (e.g. the Australian primary standard for a kilogram), ACRMs, certified measuring instruments, recognised standard values, reference standards of measurement and other standards of measurement, or a combination thereof.

<sup>116</sup> *National Measurement Regulations 1999*, regulation 53, recognition of foreign reference materials. Under this regulation overseas CRMs may be recognised as being ACRMs. A written notice is issued and taken to be a certificate issued under regulation 48 Certification of reference materials.

<sup>117</sup> *National Measurement Regulations 1999*, regulation 21, recognition of foreign reference standards of measurement. Under this regulation an overseas reference standard of measurement that is verified in a foreign country is issued a written notice equivalent to a regulation 19 certificate of verification of reference standards of measurement.

legal purposes. NMI does this by individual recognising international standards or CRMs under the regulations. To access support for regulators, NMI can recognise trusted overseas sources rather than requiring the recognition of individual overseas sources before their use.

- **Option 1** would reduce technical barriers by potentially recognising entries in the international metrological database maintained by the BIPM, e.g. currently the KCDB<sup>118</sup>
- **Option 2** would build on option 1 and also introduce power for the Chief Metrologist to recognise other international arrangements, references and outputs from other national metrology institutes. This would be broad enough as to accept databases once risk assessment is undertaken, and have power to revoke recognitions when entries or databases change or are updated.
- **Option 3** would enable the NMI to compel a certain traceability path for particular regulatory areas or applications to cover legal measurement using the improvements from options 1 and 2.

### 16.1.9 Questions

For both general and specific questions regarding government regulators, please refer to section 6.3.3.5.4, or the full list of questions provided in Appendix 15: List of questions, at the end of this document.

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<sup>118</sup> This database supports the CIPM MRA.

# 17 Appendix 10: Costing the regulatory burden of changes to measurement marking requirements on packaged products

This section attempts to quantify the impacts of the proposed options on Australians overall, above the baseline scenario represented by the status quo. The impact on Australians will be estimated by summing up the impact on Australian consumers and the impact on Industry.

## 17.1 Consumer impact

The primary cost to the consumer is the extra time taken to find the measurement mark and this will be used as a proxy for the total cost to Australian consumers.

In order to calculate this figure, a similar approach to calculate the consumer impact in the post-implementation review of unit pricing<sup>119</sup> and in the Country of Origin (CoOL) regulation impact statement<sup>120</sup> is used.

The cost to consumer is dependent on the time taken to seek out information, multiplied by the number of consumers who are interested in that information:

**Consumer cost = (No. of ‘interested household shoppers’) x (time impact)**

For the purpose of this consumer cost calculation an ‘interested household shopper’ is a consumer who will take additional time to find the measurement mark for every product purchased in a weekly household shop. The number of ‘interested household shoppers’ is the sum of the occasional interest in the measurement mark most shoppers actually exhibit into an equivalent number of shoppers who are interested in the mark for every purchase.

### 17.1.1 Number of ‘interested household shoppers’

#### 17.1.1.1 Number of consumers doing a household shop per week

There are over 24 million Australians and they all consume in some form. However, not all of these Australians will be responsible for purchasing decisions because households tend to combine their shopping effort. For this RIS, 9.8 million is used for the total number of household shoppers. This is sourced from Australian Bureau of Statistics (ABS) data which estimates there were close to 9.8 million households in Australia in 2020.<sup>121</sup>

#### 17.1.1.2 Shopper’s use of the measurement mark

Shoppers are divided into four categories, those who refer to the measurement mark *often* (10 per cent), *sometimes* (30 per cent), *rarely* (30 per cent) or *never* (30 per cent).

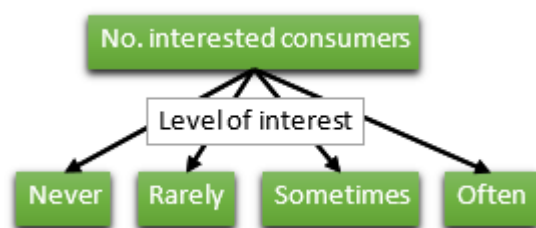
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<sup>119</sup> The Treasury 2012, [Post Implementation Review of the Unit Pricing Code of Conduct](#), October.

<sup>120</sup> The Department of Industry, Innovation and Science 2016, [Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand](#), March.

<sup>121</sup> [Household and Family Projections, Australia, 2016 to 2041](#) (cat. no. 3236.0) released 14/03/2019. The survey estimates a total of 9,802,786, projected Australian households in 2020.

Figure A10- 1: Shopper's use of the measurement mark



This breakdown is based on the ORIMA survey<sup>122</sup> and a UK study.<sup>123</sup> As noted in the packaging review<sup>124</sup> consultation process:

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*“74% of over 3,000 consumers who participated in an independent national survey<sup>125</sup> undertaken for Choice in 2014, said it was ‘very’ or ‘somewhat important’ that the quantity information be shown on the front of the pack.”*

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In the ORIMA work:

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*“When directly asked, the MM is considered at least moderately useful as a way of determining value for money when choosing between product options by 78% of respondents”*

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*“A majority of respondents thought it was at least moderately important that the MM remain on the front of packs (67%)”*

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In the UK paper<sup>126</sup> assessing why consumers underuse food quantity information they found:

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*“When asked if they would look at weight or volume information if they had time, over a third of the sample stated that they could not be bothered (35%).”*

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In addition, both the ORIMA survey<sup>127</sup> and the UK study<sup>128</sup> found approximately 10 per cent of shoppers use the measurement mark often. For the purposes of this RIS, it was decided in addition

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<sup>122</sup> ORIMA Research 2015, [Understanding Consumer Preferences towards Measurement Markings on Fast Moving Consumer Goods Product Packages](#), research conducted on behalf of the department, formerly known as the Department of Industry, Innovation and Science.

<sup>123</sup> MORI 1997, *Indications of Quantity on Pre-packaged Food: Drained Net Weight*, Department of Trade and Industry.

<sup>124</sup> <https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging>.

<sup>125</sup> Choice 2014, Media article: [CHOICE unwraps industry push to hide shrinking packs](#), September.

<sup>126</sup> Lennard et. al. 2001, *Why consumers under-use food quantity indicators*, *The International Review of Retail, Distribution and Consumer Research*, 11:2, 177-199.

<sup>127</sup> ORIMA Research 2015, [Understanding Consumer Preferences towards Measurement Markings on Fast Moving Consumer Goods Product Packages](#), research conducted on behalf of the former Department of Industry, Innovation and Science.

<sup>128</sup> MORI 1997, *Indications of Quantity on Pre-packaged Food: Drained Net Weight*, Department of Trade and Industry.



to the 10 per cent who use the mark often, roughly 30 per cent of the shopping population could be classified as not using the measurement mark. The remaining 60 per cent was divided into two groups, rarely and sometimes. This method of calculation is likely to give a value at the upper bound. The UK study suggested that it would be valid to use just the 10% 'often' number to calculate the number of interested household shoppers.

The level of use of the measurement mark each week corresponding to each category was estimated at 0.5 per cent for rarely, 2 per cent for sometimes and 5 per cent for often. The percentages of use are approximately equal to a shopper using the measurement mark for two products a week for *often* households, for around one product a week for *sometimes* and for around one product every four weeks for *rarely*.<sup>129</sup>

Table A10- 1 shows the calculation of **122,535** 'interested household shoppers'. There is measurement mark use equivalent to **122,535** shoppers using the measurement mark for every purchase in the weekly shop.

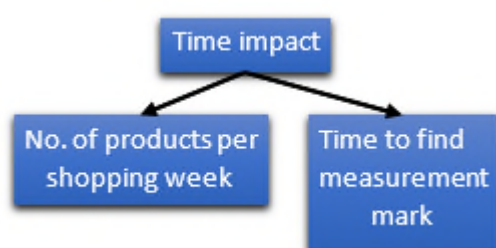
Table A10- 1: Estimated use of measurement mark

% of Household shoppers	No. of shoppers <sup>130</sup>	Use	% Use per week	No. of shoppers using the measurement mark per week
30	2,940,836	never	0	0
30	2,940,836	rarely	0.5	14,704
30	2,940,836	sometimes	2	58,817
10	980,279	often	5	49,014
				<b>122,535</b>

## 17.1.2 Time impact

For the purposes of this RIS the time impact per week can be expressed as follows:

Figure A10- 2: Time impact



<sup>129</sup> Assumes a household purchases 51 products per week.

<sup>130</sup> [Household and Family Projections, Australia, 2016 to 2041](#) (cat. no. 3236.0) released 14/03/2019. The survey estimates a total of 9,802,786, projected Australian households in 2020.

**Time impact = (Additional Time)(No. of impacted products purchased per week)**

The total time impact is converted to a consumer cost per year using a consumer's time value of \$32/hr.<sup>131</sup>

### 17.1.2.1 Additional time to find measurement mark

The time to find the measurement mark is estimated at an average of 20 seconds. This is estimated as the time it takes to pick up a product and search for information on the label.

### 17.1.2.2 Number of impacted products purchased per week

The number of products purchased in a week is estimated to be 51 products based on ABS Household Expenditure data<sup>132</sup> and CHOICE shopping basket data.<sup>133</sup> The figure was obtained by summing the average weekly household spend (\$263)<sup>134</sup> and then dividing it by the average product price of \$5.15<sup>135</sup> = 51 products.

The three options analysed are differentiated by the number of weekly products which could be impacted and cause a time cost to the consumer. ABS data is used to evaluate the different options, detailed in [Section 17.4.2 Option differentiation estimates](#). An estimate of \$263.00 is used for the overall expenses related to FMCGs.

For **option 1**, the total expenditure for cosmetics; and medicines and pharmaceuticals (excluding prescription medicine) is calculated at \$26.98 or 10.3 per cent of the weekly shop total. This suggests that around **6 items per weekly shop** would be toiletries and health products.

For **options 2 and 3**, some products were excluded similar to the previous assessment (meat products, fresh fruit and vegetables, wine) although within these categories certain products were not excluded. The total expenditure for options 2 and 3 is calculated at \$200.68 or 76.3 per cent. This results in **40 products per week per household**.

This data is corroborated by IBISWorld data<sup>136</sup> which indicates cosmetics (referred to as toiletries and health products) make up approximately 10.7 per cent of the grocery market ([Figure A10 -3](#)). For options 2 and 3, IBISWorld data<sup>137</sup> indicates that roughly 25 per cent of products would either not have or not move the label (fresh fruit and vegetables, meat products, bread and bakery products).

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<sup>131</sup> Office of Best Practice Regulation March 2020, [Guidance note: Regulatory Impact Statement](#).

<sup>132</sup> ABS 2011, [6530.0- 2009-10 Household Expenditure Survey](#), September. This was revised from 50 products used in options paper. The calculated average weekly household expenditure (2009) was adjusted to take into consideration inflation to 2016/17.

<sup>133</sup> CHOICE 2017, [Want to spend less at the checkout?](#), Media article, updated 5 June 2017.

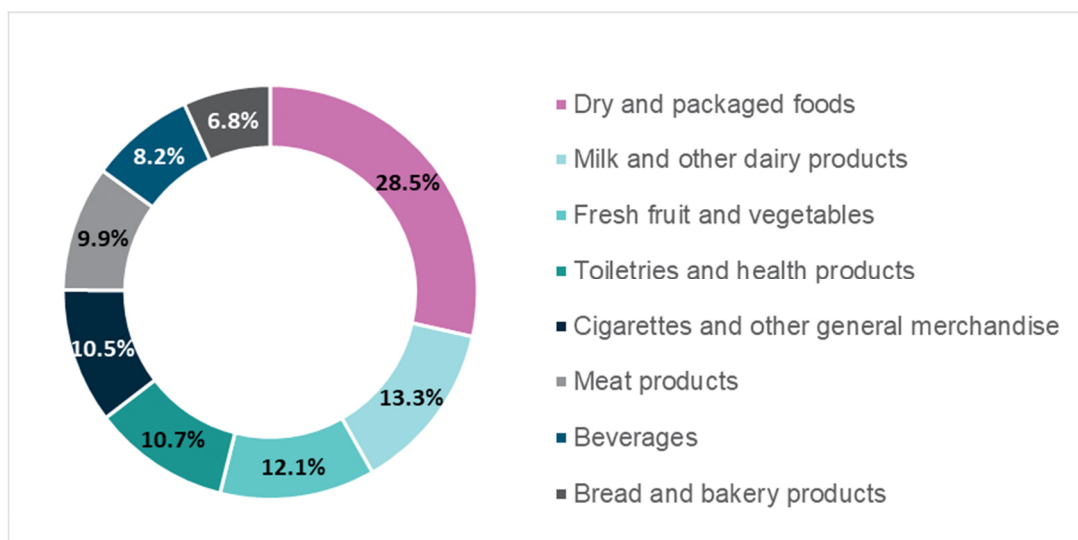
<sup>134</sup> ABS 2011, [6530.0- 2009-10 Household Expenditure Survey](#), September. This was revised from 50 products used in options paper. The calculated average weekly household expenditure (2009) was adjusted to take into consideration inflation to 2016/17.

<sup>135</sup> Calculated from CHOICE survey data which determined the average shopping basket contained 33 items and cost \$170. CHOICE 2017, [Want to spend less at the checkout?](#), Media article, updated 5 June 2017.

<sup>136</sup> IBISWorld 2017, *Industry Reports G4111 – Supermarkets and Grocery Stores in Australia*, October.

<sup>137</sup> IBISWorld 2017, *Industry Reports G4111 – Supermarkets and Grocery Stores in Australia*, October.

Figure A10- 3: Product and services segmentation for Australian Supermarket and Grocery Stores 2017-18 (Total \$101.1bn)



### 17.1.2.3 Estimate of the percentage of products which would have their label position changed

To estimate the consumer cost it is important to consider the percentage of products in scope which would actually have their measurement mark moved from the front of the package. Sensitivity analysis of the four main variables expressed in the sensitivity calculation (see section 17.4) found the percentage of products that change their label position is the most sensitive variable. Thus, a selection of the percentages of the product line which may have the measurement mark changed is presented in the calculations of the consumer cost below (1-10 per cent).

### 17.1.3 Consumer cost for each option

The annual cost to consumers for each option is shown in Table A10- 2 below. There are a few conversions used in the calculations to convert the cost to a per year figure. For example, for options 2 and 3 if 2% of labels are changed:

#### Time cost

- 40 products in a week is equivalent to **2,080** products a year (40×52) ×
- 20 seconds time taken per product is equivalent to **0.0056** hours (20 seconds×1/3600 hours) ×
- consumers time value is **\$32/hr.**<sup>138</sup>

This value is then adjusted for the “number of interested household shoppers” (**122,535**) and the percentage of products relabelled.<sup>139</sup>

<sup>138</sup> Office of Best Practice Regulation March 2020, [Guidance note: Regulatory Impact Statement](#).

<sup>139</sup> For example, for options 2 and 3 when 2% of products are changed the cost is calculated as follows: consumer cost = 122,535 consumers x 40 products per week x 52 weeks per year x 20 seconds x 1/3600 hours / second x \$32 / hour x 2% = \$906 214. 6 products are used for the option 1 calculations.

*Table A10- 2: Annual cost for a range of products changed under the options*

% of Product label change	Consumer cost	
	Option 1	Options 2 and 3
1	\$67,966	\$453,107
2	\$135,932	\$906,214
5	\$339,830	\$2,265,536
10	\$679,661	\$4,531,072

To calculate net benefit, it is estimated that 2 per cent of labels would change. Thus, the estimated cost to consumers for option 1 is approximately \$100,000 and for options 2 and 3 is \$900,000.

As discussed in [Section 17.4](#) Sensitivity calculation, four variables are given a range which may be plausible i.e. the number of interested consumers (50,000 – 140,000), time taken (10 – 30 seconds), percentage of products changed (1 – 10 per cent) and the number of products per week (30 – 60) (Table A10- 3).

*Table A10- 3: Possible variance in cost to consumers for different options*

Option	Minimum estimate	Maximum estimate	Estimated consumer cost
<b>Option 1 – cosmetics</b>	\$6,933	\$1,164,800	\$100,000
<b>Options 2 and 3 – no restrictions</b>	\$53,156	\$8,830,133	\$900,000

## 17.2 Industry impact

Fast moving consumer goods (FMCGs) such as cosmetics and alcoholic beverages sometimes need relabelling. This is mainly for products imported from the EU (and the UK).<sup>140</sup> In 2018/19, \$1.14 billion and \$1.00 billion of alcoholic beverages, and perfumery and cosmetics (excluding soap), respectively were imported from the EU.<sup>141</sup> Imports in these sectors had increased by 19.7% and 30.0% respectively over the last two years.<sup>142</sup>

The cost savings to industry is dependent on the number of units relabelled (i.e. the total number of units imported to Australia multiplied by the percentage relabelled) and the cost to relabel one unit.

$$\text{Relabelling cost} = \frac{(\text{units imported}) (\text{cost of relabelling})}{(\text{percentage units relabelled})}$$

### 17.2.1 Units imported

Data for cosmetics and alcoholic beverages is sourced from the departmental Trade Information System<sup>143</sup> and combined with the Harmonised System codes.<sup>144</sup> In each 4-digit code, a proxy product is selected to get an indicative cost and quantity of a type example of a unit (Section 17.4.6 Proxy products for each cosmetic class and Section 17.4.10 Proxy products for each beverage class). The proxy product is then used to estimate the number of units imported, based on value and on quantity.

Using the proxy samples, estimates were made of the number of units imported, based on value and on quantity. The number of units calculated by price was generally smaller than by volume. This was attributed to proxy using a retail cost, whereas the trade data is based on wholesale cost.

Additionally, the proxy product may not accurately represent the average product, and so the proxy price and volume is adjusted to ensure the unit import volume is similar for both product value and product volume. The adjusted values are included in the tables at Section 17.4.5 Cosmetics import costs and volumes from the EU and Section 17.4.9 Beverage import costs and volumes from the EU. As data is not complete for the volume imported, estimates of the unit import number only use the product value data.

#### 17.2.1.1 Cost of relabelling

This RIS acknowledges the varying cost of relabelling estimates submitted during consultations. For example, industry groups estimate the cost to relabel is 25 cents to \$1 per unit for cosmetic goods, and this results in an overall cost of \$10,000 to \$75,000 for a product run.<sup>145</sup> For this RIS, a range of labelling costs is assumed to be between 30c and 70c per unit for cosmetic and beverage imports.

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<sup>140</sup> Please note all import data for the EU in the following calculations for industry impact includes the UK.

<sup>141</sup> Department of Foreign Affairs and Trade, [Composition of Trade Australia 2018-19](#), p 109.

<sup>142</sup> Department of Foreign Affairs and Trade, [Composition of Trade Australia 2018-19](#), p 109.

<sup>143</sup> Data sourced from the Trade Information System (TIS) that collates information on imports and exports of merchandise goods. The data is collected by the Department of Home Affairs, provided by the ABS.

<sup>144</sup> <https://www.foreign-trade.com/reference/hscod.htm>.

<sup>145</sup> Personal Communications - ACCORD, Op. Cit. during the [packaging review](#).

### 17.2.1.2 Percentage of Units relabelled

This Review estimates between 5 per cent and 30 per cent of units require relabelling. This is based on Accord estimates that around five per cent of EU imported products have no unit measure on the principal display panel and 24 per cent who do comply with the principle display panel requirement are below the font height required.

This RIS also includes an estimate of the potential cost to relabel imported foods, which would represent a savings for industry under options 2 and 3. The CoOL consultations<sup>146</sup> estimates there are 78,800 stock keeping units (SKUs) in Australia with imported food products (packaged and unpackaged) accounting for four per cent of all products i.e. 3,152 SKUs. As SKUs are a product's identification code, it is anticipated the level of savings is likely to be larger if savings were calculated per unit.

### 17.2.2 Option 1 – exemption for cosmetics

There is no additional cost to industry from the amendments. The only effect of is a possible savings to the cosmetic sector.

From the 2019/20 trade data ([Section 17.4.7](#) Estimated costs to industry for each cosmetic class – boundary cases) the number of units imported from the EU per year based on value was estimated to be 226 million. Accord estimates across all categories, around five per cent of products have no unit measure on the principal display panel. Setting the proxy product costs as fixed, the estimate for the cost to relabel has two variables; the percentage of products needing relabelling (estimated to be between 5 per cent and 30 per cent) and the cost of relabelling (30c to 70c).

The value for the cost for relabelling is shown below in Table A10- 4. Using these estimates, the cost of relabelling to industry could be from \$3.4 million to \$47.5 million. This equates to between 11.3 million and 67.8 million units being relabelled (see [Section 17.4.7](#) Estimated costs to industry for each cosmetic class – boundary cases).

*Table A10- 4: Varying cost estimates for the relabelling of cosmetics*

% of Products needing relabelling	Cost to relabel	
	\$0.30 per unit	\$0.70 per unit
5	\$3.4m	\$7.9m
30	\$20.3m	\$47.5m

Although the upper end of the estimated values is substantial, the expectation is that the number of product lines that currently are being relabelled is towards the lower end of these estimates.

For the current purposes, in evaluating the savings from option 1, the assumptions of 5 per cent of products needing relabelling, and 50c per unit results in \$5.7 million in savings to industry (Table A10- 30 – [Section 17.4.8](#) Estimated costs to for each cosmetic class: final estimated value). This value will be used in assessing the overall impact of the change.

<sup>146</sup> The Department of Industry, Innovation and Science 2016, [Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand](#), March.

### 17.2.3 Options 2 and 3 – principles-based approach

For options 2 and 3, there is no cost to industry for the amendments. The only change is to extend potential savings to all businesses currently required to relabel their products. The expanded use of a principles-based approach has potential application in the grocery and beverage retail environments and considerably widens the applicability of the change in comparison to option 1, particularly for the food and alcoholic and non-alcoholic beverage sectors.

The need to relabel imported product lines has been raised by the alcoholic beverage sector (noting that wine is already exempt these labelling requirements). This is currently addressed by importing many product lines with Australian specific face labels, as well as Australian specific back labels covering the mandatory inclusions.

This RIS assumes imported EU products needing relabelling across the sector is between 0.1 per cent and 1 per cent. Using the cost proxy values for products, between 141,000 units and 1.4 million units would be relabelled (see Table A10- 5 below). An estimate of the possible costs to industry using is represented in Table A10- 33 (see [Section 17.4.11](#) Estimated costs to industry for each beverage class – boundary cases)

*Table A10- 5: Varying cost estimates for the relabelling of alcoholic beverages*

% of Products needing relabelling	Cost to relabel	
	\$0.3 per unit	\$0.70 per unit
0.1	\$0.04m	\$0.10m
1	\$0.4m	\$1.0m

Enquiries to the beverage sector resulted in a more targeted relabelling requirements for product categories, HS2204 (4 per cent)<sup>147</sup> and HS2208 (12 per cent).<sup>148</sup> However, due to limited engagement by industry, these are deemed upper estimates of the savings.

Assuming this relabelling applied to 20 per cent of the sector, then approximately 910 000 units would be relabelled. The relabelling cost is assumed to be at 50c per unit. This results in additional savings of approximately \$395 000 ([Section 17.4.12](#) Estimated costs to for specific beverage classes - final estimated value) to those calculated for option 1 (\$5.7 million).

The savings for options 2 and 3 will also include imported food and non-alcoholic beverages that require relabelling. Data collected from the CoOL consultations<sup>149</sup> estimated there are 3 152 SKUs in Australia of imported food products (packaged and unpackaged). Importer re-stickering costs are estimated to be 20 per cent of the cost of the text only labelling changes for domestic products (\$2515), that is \$503 and \$1.6 million for 3,152 SKUs. Assuming that relabelling applies to 20 per cent of the sector this results in additional savings of at least \$317,019 noting that savings to relabelling non-alcoholic beverages may apply.

Therefore the total saving for industry under options 2 and 3 is at least \$6.4 million.

<sup>147</sup> HS2204 - Wine of fresh grapes, including fortified wines; grape must other than that of heading no. 2009.

<sup>148</sup> HS 2208 - Ethyl alcohol, undenatured; of an alcoholic strength by volume of less than 80% volume; spirits, liqueurs and other spirituous beverages.

<sup>149</sup> The Department of Industry, Innovation and Science 2016, [Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand](#), March.

## 17.3 Summary of impacts

Table A10- 6 below summarises the key quantified impacts on industry and consumers. Given the uncertainty associated with the data used to calculate these impacts, the difference between the reform options are not considered material. Each of the proposed changes deliver benefits to industry, with options 2 and 3 delivering the greatest benefit to industry.

*Table A10- 6: Total benefits and costs for industry and consumers*

Impact Category	Option 1	Option 2	Option 3
<b>Total Benefits</b>	-\$5.7 m	-\$6.4 m	-\$6.4 m
<b>Industry Savings</b>			
<b>Total Costs</b>	+\$0.1 m	+\$0.9 m	+\$0.9 m
<b>Consumer Costs</b>			
<b>Change in regulatory burden</b>	-\$5.6 m	-\$5.5 m	-\$5.5 m



## 17.4 Sensitivity calculation

In recognition of the limitations of the data, sensitivity calculations have been undertaken to determine how much change in each of the variables impacts the final consumer cost and which of the four variables are the most sensitive. The variables under consideration are the number of interested consumers (50 000 – 140 000), time taken (10 – 30 seconds), number of products in scope for each option and percentage of products in scope changed (1 – 10 per cent). Tables are attached showing the different variations<sup>150</sup>, but the extremes are included in Table A10- 7 below.

*Table A10- 7: An estimate of the uncertainty in the options*

Option	Minimum Estimate	Maximum Estimate
<b>Option 1: cosmetics</b>	\$6,933	\$1,164,800
<b>Options 2 / 3: no restrictions</b>	\$53,156	\$8,930,133

For the purposes of comparison, the most likely values have been nominated. These are the number of interested consumers (122,535), the time taken (20 seconds), the percentage of products changed (2 per cent), and the number of products purchased per week at 51 (Table A10- 8).

*Table A10- 8: The estimated likely cost impact on consumers for the different options*

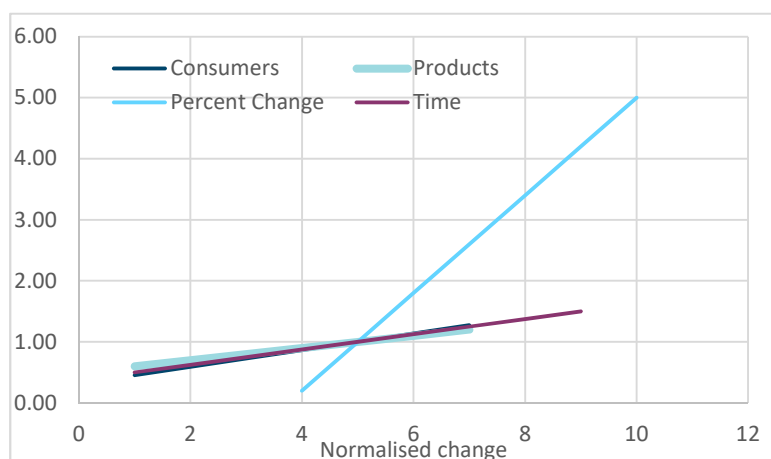
Option	Estimate	Rounded Value
<b>Option 1: cosmetics</b>	\$135,932	\$100,000
<b>Options 2 / 3: no restrictions</b>	\$906,214	\$900,000

Acknowledging the variability in these calculations, it is not expected that the calculations are accurate to much more than the nearest \$100,000.

An observation about the four variables discussed above is, the percentage of products changed is the most sensitive variable (see Figure A10- 4). For each variable, the range discussed above is normalised with reference to the fixed values. For example, the number of products has a range of 30-60 products per week, and the fixed value used was 51 products per week. The normalised value is the range value divided by the fixed value, and then spread across 10 data points. The effect is to show the relative sensitivity of the different variables. The steeper the slope, the more sensitive. The most notable observation is the percentage change is the most sensitive variable. Beyond that, changes in time and consumers have a very similar outcome, and are slightly more important than the number of products.

<sup>150</sup> Section 17.4.3 Sensitivity tables.

Figure A10- 4: Relative sensitivity of the main variables of consumer cost



However, the reason for the percentage change to have such an exaggerated effect is due to the small value assumed to have changed. Because of this, it is quite easy to change the estimate by a moderate amount 5-10 per cent and multiply the effect by several times.

### 17.4.1 Combined costs for each option

The overall impact for all of the options is in the tables below.

Table A10- 9: Summary of impacts

Impact Category	Option 1	Option 2	Option 3
Total Benefits			
Industry Savings	-\$5.7 m	-\$6.4 m	-\$6.4 m
Total Costs			
Consumer Costs	+\$0.1 m	+\$0.9 m	+\$0.9 m
<b>Change in regulatory burden</b>	<b>-\$5.6 m</b>	<b>-\$5.5 m</b>	<b>-\$5.5 m</b>

Further, the uncertainty calculated for each option is presented in the next two tables.

Table A10- 10: Option 1 estimated costs and benefits alongside the range of calculated uncertainties

	Low	Estimate	High
Total Benefits: Industry Savings	\$3.4 m	\$5.7 m	\$47.5 m
Total Costs: Consumer Costs	\$0.0 m	\$0.1 m	\$1.2 m

*Table A10- 11: Options 2 and 3 estimated costs and benefits alongside the range of calculated uncertainties*

Impact Category	Low	Estimate	High
Total Benefits: Industry Savings	\$3.4 m	\$6.4 m	\$48.5 m
Total Costs: Consumer Costs	\$0.0 m	\$0.9 m	\$9.0 m

In considering the data it is worth noting:

- It is not necessary for the upper and lower estimates to match up for costs and savings.
- Assuming the consumer cost is close to the low estimate, there is an industry benefit, but very little to separate the options from a savings perspective.
- Assuming the consumer cost is close to the upper estimate, there could be a net loss to society based on the calculations for options 2 and 3, if the benefit to industry is moderate.

## 17.4.2 Option differentiation estimates

Table A10- 12 is extracted from the 2009-10 Household Expenditure Survey (ABS 6530): Detail Expenditure Items.<sup>151</sup> The categories which could represent FMCG were identified (marked with an 'x' in the FMCG column). Those which would be within scope for options 1-3 are marked with an 'x' in the respective columns. The totals at the bottom of each column is the sum of the expenditures. The percentages listed in the row below the totals, is the percentage of that column total relative to the average weekly spend from the FMCG column.

*Table A10- 12: Data from ABS 6530 Household Expenditure Survey, 2009-10*

	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
<b>0101 Current housing costs (selected dwelling)</b>		<b>10.48</b>			
010106 Repairs and maintenance (materials only)	10.48				
0101060101 Repairs and maintenance – paint	1.00		x		x
0101060199 Repairs and maintenance (materials only) nec	9.48		x		x
<b>03 Food and non-alcoholic beverages</b>	<b>204.20</b>				
<b>0300 Food and non-alcoholic beverages nfd</b>	<b>7.68</b>	<b>7.68</b>	x		x
<b>0301 Bakery products, flour and cereals</b>		<b>20.42</b>			
030101 Bread	6.99		x		x
030102 Flour	0.34		x		x

<sup>151</sup> ABS 2011, [6530.0- 2009-10 Household Expenditure Survey](#), September.

	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
030103 Cakes, biscuits, puddings and related products	8.43		x		x
030104 Cereals and pasta	4.67		x		x
<b>0302 Meat (excluding fish and seafood)</b>		<b>24.86</b>			
030200 Meat (excluding fish and seafood) nfd	2.13		x		
030201 Processed meat (including ham, bacon and sausages)	8.58				
0302010101 Ham (including canned)	1.69		x		
0302010201 Bacon (including canned)	1.08		x		
0302010301 Sausages (not continental)	1.16		x		
0302010401 Canned meat (other than bacon and ham)	0.08		x		x
0302010501 Frozen processed meat	0.22		x		x
0302019901 Mince	2.18		x		
0302019902 Smallgoods	1.52		x		x
0302019999 Processed meat nec	0.66		x		x
030202 Beef and veal	4.86		x		

	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
030203 Mutton and lamb	2.47		x		
030204 Pork (excluding bacon and ham)	1.34		x		
030205 Poultry	5.11		x		
030206 Game	*0.02		x		
030207 Offal	0.21		x		
030299 Other meat (excluding fish and seafood)	0.13		x		
<b>0303 Fish and seafood</b>		<b>4.89</b>			
030300 Fish and seafood nfd	0.11		x		
030301 Fish and seafood	4.78				
0303010101 Fresh fish and seafood	2.10		x		
0303010201 Frozen fish and seafood	1.06		x		x
0303010301 Canned and bottled fish and seafood	1.41		x		x
0303019999 Fish and seafood nec	0.21		x		
<b>0304 Eggs and egg products</b>		<b>1.41</b>			

	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
0304010101 Fresh eggs	1.40		x		
0304019999 Eggs and egg products nec	*0.01		x		x
<b>0305 Dairy products</b>	<b>15.07</b>	<b>15.07</b>	x		x
<b>0306 Edible oils and fats</b>	<b>1.71</b>	<b>1.71</b>	x		x
<b>0307 Fruit and nuts</b>	<b>12.46</b>	<b>12.45</b>			
030700 Fruit and nuts nfd	0.11		x		
030701 Fresh fruit	9.60		x		
030702 Canned, frozen and bottled fruit	0.76		x		x
030703 Dried fruit and nuts	1.98		x		x
<b>0308 Vegetables</b>	<b>13.70</b>	<b>13.71</b>			
030800 Vegetables nfd	0.11		x		
030801 Fresh vegetables	10.79		x		
030802 Frozen vegetables	1.28		x		x
030899 Other vegetables	1.53		x		x

	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
<b>0309 Condiments, confectionery, food additives and prepared meals</b>	<b>22.71</b>	<b>22.71</b>	X		X
<b>0310 Non-alcoholic beverages</b>	<b>16.00</b>	<b>16.00</b>	X		X
<b>0399 Other food and non-alcoholic beverages</b>	<b>0.33</b>	<b>0.33</b>	X		X
<b>0401 Alcoholic beverages</b>		<b>19.84</b>			
0401000101 Alcoholic beverages nfd for consumption off licensed premises	1.05		X		X
0401010101 Beer for consumption off licensed premises	7.82		X		X
0401020101 Wine for consumption off licensed premises	6.78		X		
0401030101 Spirits for consumption off licensed premises	3.92		X		X
0401040101 Other alcoholic beverages for consumption off licensed premises	0.27		X		X
<b>05 Tobacco products</b>	<b>12.57</b>	<b>12.57</b>	X		X
<b>0801 Household services and operation</b>		<b>14.05</b>			
0801010000 Household non-durables nfd	0.86		X		X
0801010101 Nails, screws and other fasteners	0.38		X		X
0801010201 Household soaps and detergents	2.31		X		X



	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
0801010301 Household polishes	0.09		X		X
0801010401 Other household cleaning agents	1.21		X		X
0801010501 Household paper products (excluding stationery)	2.93		X		X
0801010701 Other gardening products	2.00		X		X
0801010801 Swimming pool chemicals	*0.78		X		X
0801010901 Foodwraps (excluding paper)	0.36		X		X
0801019999 Household non-durables nec	3.13		X		X
<b>0903 Medicines, pharmaceutical products and therapeutic appliances</b>		<b>10.18</b>			
090300 Medicines, pharmaceutical products and therapeutic appliances nfd	**1.62		X	X	X
0903010000 Medicines and pharmaceutical products nfd	1.58		X	X	X
0903010201 Non-prescribed pain relievers	0.84		X	X	X
0903010301 Sunscreens	0.16		X	X	X
0903010399 Non-prescribed ointments and lotions nec	0.94		X	X	X
0903019999 Medicines and pharmaceutical products nec	4.77		X	X	X

	Average Weekly Exp. (\$)	Est.	FMCG	Option 1	Options 2/3
0903020101 Surgical dressings	0.27		x	x	x
<b>1104 Animal expenses</b>		<b>4.87</b>			
1104010200 Animal food nfd	0.21		x		x
1104010201 Prepared dog and cat food	3.96		x		x
1104010202 Bird seed and other seeds	0.25		x		x
1104010299 Animal food nec	0.45		x		x
<b>1201 Personal care</b>		<b>13.03</b>			
120101 Toiletries and cosmetics	13.03		x	x	x
	<b>2009-10 cost</b>		\$226.26	\$23.21	\$172.67
	<b>Adjusted for inflation<sup>152</sup> to 2016/17 cost</b>		\$262.97	\$26.98	\$200.68
	<b>Market share</b>			10.3%	76.3%

<sup>152</sup> Reserve bank of Australia 2018, [Inflation Calculator](#), accessed February 2018.

### 17.4.3 Sensitivity tables

The series of tables below (Table A10-14 to Table A10-22) show possible variations in the consumer costs as four key variables are varied (time, interested consumers, different options number of product in scope, percentage of products changed). Table A10-13 provides a summary of these results below. Tables A10-14 to A10-22 provides the ranges for the sensitivity calculations.

*Table A10- 13: The variability of products purchased per week for different options*

Option	Range of products per week
Status quo	-
Option 1 – cosmetics excluded from MM	3-6
Option 2 / 3 – no restrictions	23-46

#### 17.4.3.1 A presentation of the different options by number of products under an array of varying assumptions

*Table A10- 14: Scenario 1 - Interested Consumers = 50,000 | Time taken = 10 Seconds*

		Option 1		Options 2 and 3	
		3	6	23	46
% prod change	1%	\$6,933	\$13,867	\$53,156	\$106,311
	2%	\$13,867	\$27,733	\$106,311	\$212,622
	5%	\$34,667	\$69,333	\$265,778	\$531,556
	10%	\$69,333	\$138,667	\$531,556	\$1,063,111

*Table A10- 15: Scenario 2 - Interested Consumers = 50,000 | Time taken = 20 Seconds*

		Option 1		Options 2 and 3	
		3	6	23	46
% prod change	1%	\$13,867	\$27,733	\$106,311	\$212,622
	2%	\$27,733	\$55,467	\$212,622	\$425,244
	5%	\$69,333	\$138,667	\$531,556	\$1,063,111
	10%	\$138,667	\$277,333	\$1,063,111	\$2,126,222

Table A10- 16: Scenario 3 - Interested Consumers = 50,000 | Time taken = 30 Seconds

		Option 1		Options 2 and 3	
% prod change		3	6	23	46
	1%	\$20,800	\$41,600	\$159,467	\$318,933
	2%	\$41,600	\$83,200	\$318,933	\$637,867
	5%	\$104,000	\$208,000	\$797,333	\$1,594,667
	10%	\$208,000	\$416,000	\$1,594,667	\$3,189,333

Table A10- 17: Scenario 4 - Interested Consumers = 110,000 | Time taken = 10 Seconds

		Option 1		Options 2 and 3	
% prod change		3	6	23	46
	1%	\$15,253	\$30,507	\$116,942	\$233,884
	2%	\$30,507	\$61,013	\$233,884	\$467,769
	5%	\$76,267	\$152,533	\$584,711	\$1,169,422
	10%	\$152,533	\$305,067	\$1,169,422	\$2,338,844

Table A10- 18: Scenario 5 - Interested Consumers = 110,000 | Time taken = 20 Seconds

		Option 1		Options 2 and 3	
% prod change		3	6	23	46
	1%	\$40,676	\$315,236	\$122,027	\$101,689
	2%	\$81,351	\$630,471	\$244,053	\$203,378
	5%	\$203,378	\$1,576,178	\$610,133	\$508,444
	10%	\$406,756	\$3,152,356	\$1,220,267	\$1,016,889

Table A10- 19: Scenario 6 - Interested Consumers = 110,000 | Time taken = 30 Seconds

		Option 1		Options 2 and 3	
		3	6	23	46
% prod change	1%	\$45,760	\$91,520	\$350,827	\$701,653
	2%	\$91,520	\$183,040	\$701,653	\$1,403,307
	5%	\$228,800	\$457,600	\$1,754,133	\$3,508,267
	10%	\$457,600	\$915,200	\$3,508,267	\$7,016,533

Table A10- 20: Scenario 7 - Interested Consumers = 140,000 | Time taken = 10 Seconds

		Option 1		Options 2 and 3	
		3	6	23	46
% prod change	1%	\$19,413	\$38,827	\$148,836	\$297,671
	2%	\$38,827	\$77,653	\$297,671	\$595,342
	5%	\$97,067	\$194,133	\$744,178	\$1,488,356
	10%	\$194,133	\$388,267	\$1,488,356	\$2,976,711

Table A10- 21: Scenario 8 - Interested Consumers = 140,000 | Time taken = 20 Seconds

		Option 1		Options 2 and 3	
		3	6	23	46
% prod change	1%	\$38,827	\$77,653	\$297,671	\$595,342
	2%	\$77,653	\$155,307	\$595,342	\$1,190,684
	5%	\$194,133	\$388,267	\$1,488,356	\$2,976,711
	10%	\$388,267	\$776,533	\$2,976,711	\$5,953,422

Table A10- 22: Scenario 9 - Interested Consumers = 140,000 | Time taken = 30 Seconds

		Option 1		Options 2 and 3	
% prod change		3	6	23	46
	1%	\$58,240	\$116,480	\$446,507	\$893,013
	2%	\$116,480	\$232,960	\$893,013	\$1,786,027
	5%	\$291,200	\$582,400	\$2,232,533	\$4,465,067
	10%	\$582,400	\$1,164,800	\$4,465,067	\$8,930,133

## 17.4.4 Impact analysis assumptions

Table A10- 23: Consumer data/assumptions

Assumption item	Data source used	How assumption(s) is derived
Number of consumers (number of household shoppers)	2020 Australian Demographic Statistics [ABS data 3236.0] <sup>153</sup>	Data is a projection for Australian households in 2020. Data is based on the 2011 Census –Household and Family Projections, Australia, 2011 to 2036 [ABS data 3236.0].
Estimated use of measurement mark (categorised)	ORIMA research <sup>154</sup> , UK Study <sup>155</sup> and estimated	Estimated percentage breakdown categorised based on level of consumer interest [never, rarely sometimes, often] i.e. assumes 10 per cent of shoppers use the measurement mark often and roughly 30 per cent of the shopping population could be classified as not using the measurement mark. The remaining 60 per cent are divided into two groups, rarely and sometimes.
Actual no. shoppers by category using the measurement mark	Calculation	Multiplies the number of consumers by the estimated use of measure mark.
Per cent use of measurement mark <u>each week</u> (estimated use)	Estimated	The level of use of the measurement mark each week corresponding to each category was estimated at 0.5 per cent for rarely, 2 per cent for sometimes and 5 per cent for often. The percentages of use are approximately equal to a shopper using the measurement mark for two products a week for often households, for around one product a week for sometimes and for around one product every four weeks for rarely.

<sup>153</sup> Household and Family Projections, Australia, 2016 to 2041 (cat. no. 3236.0) released 14/03/2019. The survey estimates a total of 9,802,786, projected Australian households in 2020.

<sup>154</sup> ORIMA Research 2015, [Understanding Consumer Preferences towards Measurement Markings on Fast Moving Consumer Goods Product Packages](#), research conducted on behalf of the Department of Industry, Innovation and Science.

<sup>155</sup> MORI 1997, *Indications of Quantity on Pre-packaged Food: Drained Net Weight*, Department of Trade and Industry.

Assumption item	Data source used	How assumption(s) is derived
Number of shoppers using measurement mark each week	Calculation	Multiplies the 'actual no. of shoppers by category using the measurement mark' (previously calculated) by the 'per cent of use of measurement mark each week' (estimated use)
Consumer hourly cost (\$/hr)	Office of Best Practice Regulation <sup>156</sup>	This figure is \$32/hr.
Consumer time to find measurement mark	Estimated	Assumes the time to find the measurement mark is 20 seconds.
Average household expenditure	Calculation. Calculated average weekly household expenditure using 2009-10 Household Expenditure Survey [ABS 6530.0] <sup>157</sup>	Calculated average weekly household spend is \$263. The 2009-10 household expenditure value was adjusted to 2016/17 cost using the Reserve Bank of Australia inflation calculator. <sup>158</sup>
Average grocery product price, per item.	Sourced from 2017 CHOICE shopping basket data <sup>159</sup>	Calculated average product price, each week. \$170 single shop spend / 33 items in shop = \$5.15 per item.
Number of products purchased each week (by the average household).	Calculated by dividing average weekly household shop expenditure by average price per grocery product.	The number of products (51) purchased in a week is based on 2009-10 Household Expenditure Survey [ABS 6530.0] and CHOICE shopping basket data.
Consumer market share	Extracted from 2009-10 Household Expenditure Survey [ABS 6530.0]: Detail Expenditure Items.	The categories which could represent FMCG were identified (marked with an 'x' in the FMCG column – please refer to <a href="#">Section 17.4.4</a> Option differentiation estimates). Those which would be within scope for options 2-4 are marked with an 'x' in the respective columns. Data has been adjusted for inflation to 2016/17. The totals at the bottom of each column is the sum of the expenditures. The percentages listed in the row below the totals, is the percentage of that column total relative to the average weekly spend from the FMCG column.
Number of products affected each week	Calculation	Multiplies the 'number of products purchased each week' by the 'consumer market share'.

<sup>156</sup> Office of Best Practice Regulation March 2020, [Guidance note: Regulatory Impact Statement](#).

<sup>157</sup> ABS 2011, [6530.0- 2009-10 Household Expenditure Survey](#), September.

<sup>158</sup> Reserve bank of Australia 2018, [Inflation Calculator](#), accessed February 2018.

<sup>159</sup> CHOICE 2017, [Want to spend less at the checkout?](#), Media article, updated 5 June 2017.

Assumption item	Data source used	How assumption(s) is derived
Per cent of products where measurement mark may be changed	Calculation	Possible percentage of the product line which may have the measurement mark changed (1 -10 per cent)
Total Consumer Cost	Calculation	Consumer cost for each option calculated as = number of shoppers using measurement mark each week x number of products affected each week x 52 weeks per year x 20 seconds x 1/3600 hours / second x \$32 / hour x percentage of products

Table A10- 24: Industry Data/Assumptions

Assumption item	Data source used	How assumption(s) is derived
Cosmetic import costs and volumes from the EU	Departmental Trade Information System <sup>160</sup>	Data shows EU imports to Australia in 2019/20 for Harmonised System codes 33 and 34 for product value, product volume and unit.
Proxy products for each cosmetic class	Estimation	For each cosmetic import class, a proxy product was selected to get an indicative cost and quantity of a type example of a unit. Using the proxy samples, estimates are made of the number of units imported, based on value and on quantity. The number of units calculated by price is generally smaller than by volume. This is attributed to proxy using a retail cost, whereas the trade date is based on wholesale cost. Additionally, the proxy product may not accurately represent the average product, and so the proxy price and volume is adjusted to ensure the unit import volume is similar for both product value and product volume. As data is not complete for the volume imported, estimates of the unit import number only use the product value data.
Relabelling cost	Calculation	Units imported per year multiplied by the percentage of units relabelled multiplied by the relabelling cost per unit. This RIS acknowledges the varying costs of relabelling estimates submitted during consultations. For this RIS, a range of labelling costs is assumed to be between 30c and 70c per unit.
Cost to industry – option 1 – exemption for cosmetics	Calculation	For option 1, there is no additional cost to industry from the amendments. The only effect is a possible savings to the cosmetic sector. Setting the proxy product costs as fixed, the estimate for the cost to relabel has two variables, the percentage of products needing relabelling (estimated to be between 5 per cent and 30 per cent), and the cost

<sup>160</sup> FMCGs are defined using the [Harmonised System \(HS\) codes](#), and for the purposes of this report include vegetable products (HS06-15), foodstuffs (HS16-24) and cosmetics (HS2712 and HS33-34).



Assumption item	Data source used	How assumption(s) is derived
		of relabelling (30c to 70c). In evaluating the savings from option 1 in this RIS, the assumptions of 5 per cent of products needing relabelling, and 50c per unit results in \$5.7 million in savings to industry.
Cost to industry – Options 2 / 3 – Principles-based approach	Calculation	<p>For options 2 / 3, there is no cost to industry for the amendments. The only change is likely savings to the sectors currently required to relabel their products.</p> <p>The alcoholic beverage sector notes a need to relabel some products. For example many product lines are imported with Australian specific labels or are re-stickered with Australian specific back labels covering the mandatory inclusions. This RIS assumes imported EU beverage products needing relabelling across the sector is between 0.1 per cent and 1 per cent.</p> <p>A savings for imported foods which in some instances require relabelling is also included in options 2 / 3. DIIS' imported food figures is derived from imported food stock keeping units (SKUs) and therefore the levels of savings to imported foods is likely to be more than estimated as each SKU could contain thousands/millions of individual items. Total savings to industry for options 2 and 3 is \$6.4 million.</p>
Estimated costs for specific beverage classes	Estimation	Estimated costs for relabelling of beverage products imported from the EU calculated from proxy cost, assumes 4 per cent of units from HS2204 and 12 per cent of units from HS2208 are relabelled at a cost of \$0.5/unit. Additionally, it is assumed that only 20 per cent of sector will be impacted by relabelling.
Estimated cost for packaged food and non-alcoholic beverages	Estimation	Estimated costs for relabelling of imported food and non-alcoholic beverage products is from data collected from the CoOL consultations. <sup>161</sup> It was estimated that there are 3, 152 SKUs in Australia of imported food products (packaged and unpackaged). Importer stickering costs are estimated to be 20 per cent of the cost of the text only labelling changes for domestic products (\$2515), that is \$503.

<sup>161</sup> The Department of Industry, Innovation and Science 2016, [Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand](#), March.

## 17.4.5 Cosmetics import costs and volumes from the EU

Table A10- 25: EU imports to Australia in 2019/20 HS Code 33 and 2712

HS Code	Description	Product Value \$	Product Volume	Unit
<b>33 ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS</b>				
2712	Petroleum jelly; paraffin wax, micro-crystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, similar products obtained by synthesis, other processes; coloured or not	\$2,407,255	553,776	Kg
3301	Oils; essential (concretes, absolutes); concentrates thereof in fats, fixed oils, waxes or the like (obtained by enfleurage or maceration); aqueous distillates, solutions and terpenic by-products thereof; resinoids; extracted oleoresins	\$16,884,245	344,522	Kg
3302	Odoriferous substances and mixtures (including alcoholic solutions) with a basis of one or more of these substances, of a kind used as raw materials in industry; other preparations based on odoriferous substances, of a kind used for beverage manufacture	\$28,041,312 \$320,278	1,208,429 4,111	Kg Litres Alcohol
3303	Perfumes and toilet waters	\$406,615,119	4,856,338	Kg
3304	Cosmetic and toilet preparations; beauty, make-up and skin care preparations (excluding medicaments, including sunscreen or sun tan preparations), manicure or pedicure preparations	\$78,389,298 \$294,518,933	1,311,128 0	Kg Not Recorded
3305	Hair preparations; for use on the hair	\$114,863,766	0	Not Recorded
3306	Oral or dental hygiene preparations; including fixative pastes and powders; yarn used to clean between the teeth (dental floss), in individual retail packages	\$46,916,440 \$4,856,878	2,909,502 206,190,940	Kg Metres
3307	Perfumery, cosmetic or toilet preparations; pre-shave, shaving, after-shave, bath preparations; personal deodorants and depilatories; room deodorisers, perfumed or not with disinfectant properties or not	\$40,071,786	4,370,741	Kg

Table A10- 26: EU imports to Australia in 2019/20, HS Code 34

HS Code	Description	Product Value \$	Product Volume	Unit
<b>34 SOAP, ORGANIC SURFACE-ACTIVE AGENTS; WASHING, LUBRICATING, POLISHING OR SCOURING PREPARATIONS; ARTIFICIAL OR PREPARED WAXES, CANDLES AND SIMILAR ARTICLES, MODELLING PASTES, DENTAL WAXES AND DENTAL PREPARATIONS WITH A BASIS OF PLASTER</b>				
3401	Soap; organic surface-active preparations used as soap, skin washing, in bars, cakes, moulded pieces, shapes, liquid or cream, containing soap or not; for retail, paper, wadding, felt and nonwovens, impregnated, coated or covered with soap or detergent	\$17,513,095	4,306,279	Kg
		\$24,384,623	4,569,680	Litres
		\$59,977,630	0	Not Recorded
3402	Organic surface-active agents (not soap); surface-active, washing (including auxiliary washing) and cleaning preparations, containing soap or not, excluding those of heading no. 3401	\$113,928,335	26,920,529	Kg
		\$53,525,758	18,391,505	Litres
3403	Lubricating preparations and those used in oil or grease treatment of textile and similar materials; excluding preparations containing 70% or more (by weight) of petroleum or bituminous mineral oils	\$7,639,603	1,299,821	Kg
		\$27,871,335	3,667,787	Litres
3404	Waxes; artificial, prepared	\$4,481,063	843,640	Kg
3405	Polishes, creams, scouring pastes, powders and similar; in any form, (including articles impregnated, coated or covered with such), for furniture, footwear, floors, coachwork, glass or metal	\$7,986,445	1,073,087	Kg
3406	Candles, tapers and the like	\$0	0	Kg
3407	Modelling pastes, including those for children; dental wax, impression compounds, in sets or packings for retail sale or in plates and similar forms; dentistry preparations with plaster base	\$6,816,068	573,685	Kg

## 17.4.6 Proxy products for each cosmetic class

Table A10- 27: Proxy products for each cosmetic class

HS Code	Description	Proxy Product	Source	Price	Volume
2712	Petroleum jelly; paraffin wax, micro-crystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, similar products obtained by synthesis, other processes; coloured or not	Vaseline	<a href="https://shop.coles.com.au/a/a-vic-metro-coburg/product/vaseline-petroleum-jelly-102190p">https://shop.coles.com.au/a/a-vic-metro-coburg/product/vaseline-petroleum-jelly-102190p</a>	\$4.00	100g
<b>33 ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS</b>					
3301	Oils; essential (concretes, absolutes); concentrates thereof in fats, fixed oils, waxes or the like (obtained by enfleurage or maceration); aqueous distillates, solutions and terpenic by-products thereof; resinoids; extracted oleoresins	Lavender Premium Essential Oils	<a href="http://www.ebay.com.au/itm/Lavender-Premium-Essential-Oils-100-Pure-Aromatherapy-Grade-10ml-50ml-100ml-/201574586268?_trksid=p2385738.m2548.l4275">http://www.ebay.com.au/itm/Lavender-Premium-Essential-Oils-100-Pure-Aromatherapy-Grade-10ml-50ml-100ml-/201574586268?_trksid=p2385738.m2548.l4275</a>	\$7.95	100ml
3302	Odoriferous substances and mixtures (including alcoholic solutions) with a basis of one or more of these substances, of a kind used as raw materials in industry; other preparations based on odoriferous substances, of a kind used for beverage manufacture	Bitters - Angostura	<a href="https://www.woolworths.com.au/shop/productdetails/73862/angostura-bitters-mixer">https://www.woolworths.com.au/shop/productdetails/73862/angostura-bitters-mixer</a>	\$24.00	200ml
3303	Perfumes and toilet waters	Calvin Klein One Shock for Him	<a href="http://www.chemistwarehouse.com.au/buy/65216/Calvin-Klein-One-Shock-for-Him-200ml?source=GS&amp;gclid=CJq6t_XS1NICFVUDvAodN1YE0A">http://www.chemistwarehouse.com.au/buy/65216/Calvin-Klein-One-Shock-for-Him-200ml?source=GS&amp;gclid=CJq6t_XS1NICFVUDvAodN1YE0A</a>	\$32.99	200ml
3304	Cosmetic and toilet preparations; beauty, make-up and skin care preparations (excluding medicaments, including sunscreen or sun tan preparations), manicure or pedicure preparations	L'Oréal Color Riche Lipstick 357 Red Carpet	<a href="https://www.cosmeticcapital.com.au/loreal-color-riche-lipstick-357-red-carpet">https://www.cosmeticcapital.com.au/loreal-color-riche-lipstick-357-red-carpet</a>	\$6.95	5g
		Opi Pedicure	<a href="https://www.chemistbeauty.com.au/shop/uncategorised/opi-pedicure-scrub-250ml/">https://www.chemistbeauty.com.au/shop/uncategorised/opi-pedicure-scrub-250ml/</a>	\$47.19	250ml

HS Code	Description	Proxy Product	Source	Price	Volume
3305	Hair preparations; for use on the hair	Rework Putty Wax - V05	<a href="https://www.woolworths.com.au/shop/productdetails/708654/v05-texture-putty-rework">https://www.woolworths.com.au/shop/productdetails/708654/v05-texture-putty-rework</a>	\$7.50	150ml
3306	Oral or dental hygiene preparations; including fixative pastes and powders; yarn used to clean between the teeth (dental floss), in individual retail packages	Sensitive Pro Relief Whitening Toothpaste – Colgate	<a href="https://shop.coles.com.au/a/a-national/product/colgate-pro-relief-toothpaste-sensitive-whitening">https://shop.coles.com.au/a/a-national/product/colgate-pro-relief-toothpaste-sensitive-whitening</a>	\$10.00	110g
		Waxed Dental Floss Mint Flavour - Oral B	<a href="https://www.priceline.com.au/oral-b-essential-waxed-dental-floss-mint-flavour-50-metres">https://www.priceline.com.au/oral-b-essential-waxed-dental-floss-mint-flavour-50-metres</a>	\$3.49	50m
3307	Perfumery, cosmetic or toilet preparations; pre-shave, shaving, after-shave, bath preparations; personal deodorants and depilatories; room deodorisers, perfumed or not with disinfectant properties or not	Refresh Aftershave Lotion – Brut	<a href="https://shop.coles.com.au/a/a-national/product/brut-aftershave-lotion-refresh">https://shop.coles.com.au/a/a-national/product/brut-aftershave-lotion-refresh</a>	\$10.50	100ml
<b>34 SOAP, ORGANIC SURFACE-ACTIVE AGENTS; WASHING, LUBRICATING, POLISHING OR SCOURING PREPARATIONS; ARTIFICIAL OR PREPARED WAXES, CANDLES AND SIMILAR ARTICLES, MODELLING PASTES, DENTAL WAXES AND DENTAL PREPARATIONS WITH A BASIS OF PLASTER</b>					
3401	Soap; organic surface-active preparations used as soap, skin washing, in bars, cakes, moulded pieces, shapes, liquid or cream, containing soap or not; for retail, paper, wadding, felt and nonwovens, impregnated, coated or covered with soap or detergent	Regular Beauty Cream Bar 4pk - Dove	<a href="https://shop.coles.com.au/a/a-national/product/dove-soap-beauty-creme-bar-regular">https://shop.coles.com.au/a/a-national/product/dove-soap-beauty-creme-bar-regular</a>	\$6.80	400g
		Evenly Gorgeous Bodywash - Lux	<a href="https://www.priceline.com.au/lux-body-wash-evenly-gorgeous-400-ml">https://www.priceline.com.au/lux-body-wash-evenly-gorgeous-400-ml</a>	\$5.99	400ml
3402	Organic surface-active agents (not soap); surface-active, washing (including auxiliary washing) and cleaning preparations, containing soap or not, excluding those of heading no. 3401	Ultimate Front and Top Loader Laundry Detergent Washing Powder - OMO	<a href="https://www.woolworths.com.au/shop/productdetails/430629/omo-ultimate-laundry-detergent-powder-front-top-loader">https://www.woolworths.com.au/shop/productdetails/430629/omo-ultimate-laundry-detergent-powder-front-top-loader</a>	\$30.00	2000g
		Super Strength Dishwashing Liquid - Morning Fresh	<a href="https://shop.coles.com.au/a/a-national/product/morning-fresh-dishwashing-liquid-super-concentrate-lemon-fresh">https://shop.coles.com.au/a/a-national/product/morning-fresh-dishwashing-liquid-super-concentrate-lemon-fresh</a>	\$7.50)	900ml
3403		Dubbin - Joseph Lyddy		\$13.95	125g

HS Code	Description	Proxy Product	Source	Price	Volume
	Lubricating preparations and those used in oil or grease treatment of textile and similar materials; excluding preparations containing 70% or more (by weight) of petroleum or bituminous mineral oils		<a href="https://www.rsea.com.au/work-boots/accessories/waproo-polish-dubbin-waterproofing-neutral-125g-jl0970125">https://www.rsea.com.au/work-boots/accessories/waproo-polish-dubbin-waterproofing-neutral-125g-jl0970125</a>		
		Neatsfoot Oil - Joseph Lyddy	<a href="https://www.simonmartinwhips.com.au/product/neatsfoot-oil-joseph-lyddy/">https://www.simonmartinwhips.com.au/product/neatsfoot-oil-joseph-lyddy/</a>	\$32.95	1000ml
3404	Waxes; artificial, prepared	Paraffin Container Wax	<a href="https://candlemaking.com.au/collections/paraffin-wax/products/paraffin-slabs-60-62?variant=10806924541995">https://candlemaking.com.au/collections/paraffin-wax/products/paraffin-slabs-60-62?variant=10806924541995</a>	\$39.65	4.5kg
3405	Polishes, creams, scouring pastes, powders and similar; in any form, (including articles impregnated, coated or covered with such), for furniture, footwear, floors, coachwork, glass or metal	Liquid Furniture Polish - O' Cedar	<a href="https://shop.coles.com.au/a/a-national/product/o-cedar-liquid-furniture-polish">https://shop.coles.com.au/a/a-national/product/o-cedar-liquid-furniture-polish</a>	\$8.00	300ml
3406	Candles, tapers and the like	2 in 1 Vanilla Passionfruit and Hawaiian Breeze Candle - Johnson	<a href="https://www.amazon.com.au/Glade-Freshener-Hawaiian-Vanilla-Passion/dp/B01B2H68UU">https://www.amazon.com.au/Glade-Freshener-Hawaiian-Vanilla-Passion/dp/B01B2H68UU</a>	\$11.28	96.3g
3407	Modelling pastes, including those for children; dental wax, impression compounds, in sets or packings for retail sale or in plates and similar forms; dentistry preparations with plaster base	Piksters Orthodontic Wax	<a href="https://www.chemistwarehouse.com.au/buy/90581/piksters-orthodontic-wax-value-pack">https://www.chemistwarehouse.com.au/buy/90581/piksters-orthodontic-wax-value-pack</a>	\$3.99	40g

## 17.4.7 Estimated costs to industry for each cosmetic class – boundary cases

Table A10- 28: Upper and lower estimates for relabelling of cosmetic products imported from the EU calculated from proxy costs

HS Code	Product value	Est. price per unit	Unit import no. per year	5 % relabelled	\$0.3 Re-labelling cost per unit	\$0.7 Re-labelling cost per unit	30% relabelled	\$0.3 Re-labelling cost per unit	\$0.7 Re-labelling cost per unit
2712	\$2,407,255	\$4.00	601,814	30,091	\$9,027	\$21,063	180,544	\$54,163	\$126,381
3301	\$16,884,245	\$7.00	2,412,035	120,602	\$36,181	\$84,421	723,611	\$217,083	\$506,527
3302	\$28,041,312	\$7.00	4,005,902	200,295	\$60,089	\$140,207	1,201,771	\$360,531	\$841,239
	\$320,278	\$7.00	45,754	2,288	\$686	\$1,601	13,726	\$4,118	\$9,608
3303	\$406,615,119	\$15.00	27,107,675	1,355,384	\$406,615	\$948,769	8,132,302	\$2,439,691	\$5,692,612
3304	\$78,389,298	\$5.00	15,677,860	783,893	\$235,168	\$548,725	4,703,358	\$1,411,007	\$3,292,351
	\$294,518,933	\$5.00	58,903,787	2,945,189	\$883,557	\$2,061,633	17,671,136	\$5,301,341	\$12,369,795
3305	\$114,863,766	\$6.50	17,671,349	883,567	\$265,070	\$618,497	5,301,405	\$1,590,421	\$3,710,983
3306	\$46,916,440	\$2.50	18,766,576	938,329	\$281,499	\$656,830	5,629,973	\$1,688,992	\$3,940,981
	\$4,856,878	\$0.65	7,472,120	373,606	\$112,082	\$261,524	2,241,636	\$672,491	\$1,569,145
3307	\$40,071,786	\$4.00	10,017,947	500,897	\$150,269	\$350,628	3,005,384	\$901,615	\$2,103,769
3401	\$17,513,095	\$4.00	4,378,274	218,914	\$65,674	\$153,240	1,313,482	\$394,045	\$919,437
	\$24,384,623	\$4.00	6,096,156	304,808	\$91,442	\$213,365	1,828,847	\$548,654	\$1,280,193
	\$59,977,630	\$4.00	14,994,408	749,720	\$224,916	\$524,804	4,498,322	\$1,349,497	\$3,148,826
3402	\$113,928,335	\$8.00	14,241,042	712,052	\$213,616	\$498,436	4,272,313	\$1,281,694	\$2,990,619
	\$53,525,758	\$3.50	15,293,074	764,654	\$229,396	\$535,258	4,587,922	\$1,376,377	\$3,211,545
3403	\$7,639,603	\$5.00	1,527,921	76,396	\$22,919	\$53,477	458,376	\$137,513	\$320,863
	\$27,871,335	\$10.00	2,787,134	139,357	\$41,807	\$97,550	836,140	\$250,842	\$585,298
3404	\$4,481,063	\$20.00	224,053	11,203	\$3,361	\$7,842	67,216	\$20,165	\$47,051
3405	\$7,986,445	\$5.00	1,597,289	79,864	\$23,959	\$55,905	479,187	\$143,756	\$335,431
3406	\$0	\$3.50	0	0	\$0	\$0	0	\$0	\$0
3407	\$6,816,068	\$3.00	2,272,023	113,601	\$34,080	\$79,521	681,607	\$204,482	\$477,125
<b>Total</b>			<b>226,094,188</b>	<b>11,304,709</b>	<b>\$3,391,413</b>	<b>\$7,913,297</b>	<b>67,828,256</b>	<b>\$20,348,477</b>	<b>\$47,479,779</b>

Table A10- 29: Upper and lower estimates for relabelling of cosmetic products imported from the EU calculated from proxy volume

HS Code	Product vol.	Est vol. per unit	Unit import no. per year based on vol.	5 % relabelled	\$0.3 Re-labelling cost per unit	\$0.7 Re-labelling cost per unit	30% relabelled	\$0.3 Re-labelling cost per unit	\$0.7 Re-labelling cost per unit
2712	553,776	0.1	5,537,760	276,888	\$83,066	\$193,822	1,661,328	\$498,398	\$1,162,930
3301	344,522	0.1	3,445,220	172,261	\$51,678	\$120,583	1,033,566	\$310,070	\$723,496
3302	1,208,429	0.3	4,028,095	201,405	\$60,421	\$140,983	1,208,429	\$362,529	\$845,900
	4,111	0.3	13,705	685	\$206	\$480	4,111	\$1,233	\$2,878
3303	4,856,338	0.2	24,281,690	1,214,085	\$364,225	\$849,859	7,284,507	\$2,185,352	\$5,099,155
3304	1,311,128	0.15	8,740,851	437,043	\$131,113	\$305,930	2,622,255	\$786,677	\$1,835,579
	0	0.15	n/a						
3305	0	0	n/a						
3306	2,909,502	0.19	15,313,170	765,659	\$229,698	\$535,961	4,593,951	\$1,378,185	\$3,215,766
	206,190,940	50	4,123,819	206,191	\$61,857	\$144,334	1,237,146	\$371,144	\$866,002
3307	4,370,741	0.5	8,741,483	437,074	\$131,122	\$305,952	2,622,445	\$786,733	\$1,835,711
3401	4,306,279	0.6	7,177,132	358,857	\$107,657	\$251,200	2,153,140	\$645,942	\$1,507,198
	4,569,680	0.8	5,712,100	285,605	\$85,682	\$199,924	1,713,630	\$514,089	\$1,199,541
	0	0.8						\$0	\$0
3402	26,920,529	2	13,460,264	673,013	\$201,904	\$471,109	4,038,079	\$1,211,424	\$2,826,656
	18,391,505	1.2	15,326,255	766,313	\$229,894	\$536,419	4,597,876	\$1,379,363	\$3,218,513
3403	1,299,821	0.7	1,856,887	92,844	\$27,853	\$64,991	557,066	\$167,120	\$389,946
	3,667,787	1.5	2,445,191	122,260	\$36,678	\$85,582	733,557	\$220,067	\$513,490
3404	843,640	4.5	187,476	9,374	\$2,812	\$6,562	56,243	\$16,873	\$39,370
3405	1,073,087	0.4	2,682,717	134,136	\$40,241	\$93,895	804,815	\$241,445	\$563,371
3406	0	0.25	0	0	\$0	\$0	0	\$0	\$0
3407	573,685	0.4	1,434,213	71,711	\$21,513	\$50,197	430,264	\$129,079	\$301,185
<b>Total</b>			<b>124,508,027</b>	<b>6,225,401</b>	<b>\$1,867,620</b>	<b>\$4,357,781</b>	<b>37,352,408</b>	<b>\$11,205,722</b>	<b>\$26,146,686</b>



## 17.4.8 Estimated costs to for each cosmetic class: final estimated value

Table A10- 30: Estimated cost for relabelling of cosmetic products imported from the EU calculated from proxy cost (assuming 5% of units are relabelled at a cost of \$0.5/unit)

HS Code	Product value	Est. Price per unit	Unit import no. per year	5% relabelled	Re-labelling cost \$0.5 per unit
2712	\$2,407,255	\$4.00	601,814	30,091	\$15,045
3301	\$16,884,245	\$7.00	2,412,035	120,602	\$60,301
3302	\$28,041,312	\$7.00	4,005,902	200,295	\$100,148
	\$320,278	\$7.00	45,754	2,288	\$1,144
3303	\$406,615,119	\$15.00	27,107,675	1,355,384	\$677,692
3304	\$78,389,298	\$5.00	15,677,860	783,893	\$391,946
	\$294,518,933	\$5.00	58,903,787	2,945,189	\$1,472,595
3305	\$114,863,766	\$6.50	17,671,349	883,567	\$441,784
3306	\$46,916,440	\$2.50	18,766,576	938,329	\$469,164
	\$4,856,878	\$0.65	7,472,120	373,606	\$186,803
3307	\$40,071,786	\$4.00	10,017,947	500,897	\$250,449
3401	\$17,513,095	\$4.00	4,378,274	218,914	\$109,457
	\$24,384,623	\$4.00	6,096,156	304,808	\$152,404
	\$59,977,630	\$4.00	14,994,408	749,720	\$374,860
3402	\$113,928,335	\$8.00	14,241,042	712,052	\$356,026
	\$53,525,758	\$3.50	15,293,074	764,654	\$382,327
3403	\$7,639,603	\$5.00	1,527,921	76,396	\$38,198
	\$27,871,335	\$10.00	2,787,134	139,357	\$69,678
3404	\$4,481,063	\$20.00	224,053	11,203	\$5,601
3405	\$7,986,445	\$5.00	1,597,289	79,864	\$39,932
3406	\$0	\$3.50	0	0	\$0
3407	\$6,816,068	\$3.00	2,272,023	113,601	\$56,801
<b>2019-20</b>			<b>226,094,188</b>	<b>11,304,709</b>	<b>\$5,652,355</b>

## 17.4.9 Beverage import costs and volumes from the EU

Table A10- 31: EU imports to Australia in 2019/20, HS Code 22 (excluding 2201 and 2202)

HS Code	Description	Product Value \$	Product Volume	Unit
2203	Beer made from malt	\$1,737,413	93,505,421	Litres
		\$125,566,450	3,187,686	Litres Alcohol
2204	Wine of fresh grapes, including fortified wines; grape must other than that of heading no. 2009	\$457,164,427	40,814,169	Litres
		\$132,244	872	Litres Alcohol
2205	Vermouth and other wine of fresh grapes, flavoured with plants or aromatic substances	\$2,559,962	646,429	Litres
		\$577,573	8,087	Litres Alcohol
2206	Fermented beverages, n.e.c. in chapter 22; (e.g. cider, perry, mead)	\$6,343,499	6,787,557	Litres
		\$10,926,049	219,494	Litres Alcohol
2207	Ethyl alcohol, undenatured; of an alcoholic strength by volume of 80% vol. or higher; ethyl alcohol and other spirits, denatured, of any strength	\$3,220	20	Litres
		\$252,133	80,379	Litres Alcohol
2208	Ethyl alcohol, undenatured; of an alcoholic strength by volume of less than 80% volume; spirits, liqueurs and other spirituous beverages	\$399,600,495	14,849,128	Litres Alcohol
2209	Vinegar and substitutes for vinegar obtained from acetic acid	\$17,494,353	5,621,164	Litres

## 17.4.10 Proxy products for each beverage class

Table A10- 32: Proxy products for selected beverage classes

HS Code	Description	Proxy Product	Proxy Product Source	Proxy Product Indicative Price	Proxy Product Vol. per unit
2203	Beer made from malt	Stella Artois (one bottle)	<a href="https://www.danmurphys.com.au/product/DM_72869/stella-artois-bottles">https://www.danmurphys.com.au/product/DM_72869/stella-artois-bottles</a>	\$4.49	330ml
2204	Wine of fresh grapes, including fortified wines; grape must other than that of heading no. 2009	Cabernet Sauvignon - Rawson's Retreat - Penfolds	<a href="https://www.danmurphys.com.au/product/DM_902300/rawson-s-retreat-cabernet-sauvignon">https://www.danmurphys.com.au/product/DM_902300/rawson-s-retreat-cabernet-sauvignon</a>	\$7.99	750ml
2205	Vermouth and other wine of fresh grapes, flavoured with plants or aromatic substances	Original French Dry Vermouth - Noilly Prat	<a href="https://www.danmurphys.com.au/product/DM_2025/noilly-prat-original-french-dry-vermouth">https://www.danmurphys.com.au/product/DM_2025/noilly-prat-original-french-dry-vermouth</a>	\$32.95	750ml
2206	Fermented beverages, n.e.c. in chapter 22; (e.g. cider, perry, mead)	Vietnamese Street Food Series Cider - Cheeky Rascal	<a href="https://www.danmurphys.com.au/product/DM_ER_1000005192_CR5SFVIET/cheeky-rascal-vietnamese-street-food-series-cider-500ml">https://www.danmurphys.com.au/product/DM_ER_1000005192_CR5SFVIET/cheeky-rascal-vietnamese-street-food-series-cider-500ml</a>	\$7.00	500ml
2207	Ethyl alcohol, undenatured; of an alcoholic strength by volume of 80% vol. or higher; ethyl alcohol and other spirits, denatured, of any strength	Methylated Spirits - Coles	<a href="https://shop.coles.com.au/a/a-national/product/coles-smart-buy-methylated-spirits">https://shop.coles.com.au/a/a-national/product/coles-smart-buy-methylated-spirits</a>	\$5.50	1000ml
2208	Ethyl alcohol, undenatured; of an alcoholic strength by volume of less than 80% volume; spirits, liqueurs and other spirituous beverages	Vodka - Smirnoff	<a href="https://www.danmurphys.com.au/product/DM_19252/smirnof-f-red-label-vodka-700ml">https://www.danmurphys.com.au/product/DM_19252/smirnof-f-red-label-vodka-700ml</a>	\$36.95	750ml
2209	Vinegar and substitutes for vinegar obtained from acetic acid	White Vinegar - Cornwells	<a href="https://shop.coles.com.au/a/a-national/product/cornwells-vinegar-white-156768p">https://shop.coles.com.au/a/a-national/product/cornwells-vinegar-white-156768p</a>	\$3.10	750ml

## 17.4.11 Estimated costs to industry for each beverage class – boundary cases

Table A10- 33: Upper and lower estimates for relabelling of beverage products imported from the EU calculated from proxy costs

HS Code	Product value	Est. Price per unit	Unit import no. per year	Units affected when 0.1% relabelled	Re-labelling cost \$0.3 per unit	Re-labelling cost \$0.7 per unit	Units affected when 1% relabelled	Re-labelling cost \$0.3 per unit	Re-labelling cost \$0.7 per unit
2203	\$1,737,413	\$3.00	579,138	579	\$174	\$405	5,791	\$1,737	\$4,054
	\$125,566,450	\$3.00	41,855,483	41855	\$12,557	\$29,299	418,555	\$125,566	\$292,988
2204	\$457,164,427	\$8.50	53,784,050	53784	\$16,135	\$37,649	537,841	\$161,352	\$376,488
	\$132,244	\$8.50	15,558	16	\$5	\$11	156	\$47	\$109
2205	\$2,559,962	\$6.50	393,840	394	\$118	\$276	3,938	\$1,182	\$2,757
	\$577,573	\$6.50	88,857	89	\$27	\$62	889	\$267	\$622
2206	\$6,343,499	\$1.00	6,343,499	6343	\$1,903	\$4,440	63,435	\$19,030	\$44,404
	\$10,926,049	\$1.00	10,926,049	10926	\$3,278	\$7,648	109,260	\$32,778	\$76,482
2207	\$3,220	\$3.00	1,073	1	\$0	\$1	11	\$3	\$8
	\$252,133	\$3.00	84,044	84	\$25	\$59	840	\$252	\$588
2208	\$399,600,495	\$20.00	19,980,025	19980	\$5,994	\$13,986	199,800	\$59,940	\$139,860
2209	\$17,494,353	\$2.50	6,997,741	6998	\$2,099	\$4,898	69,977	\$20,993	\$48,984
<b>Total</b>			<b>141,049,359</b>	<b>141,049</b>	<b>\$42,315</b>	<b>\$98,735</b>	<b>1,410,494</b>	<b>\$423,148</b>	<b>\$987,346</b>

Table A10- 34: Upper and lower estimates for relabelling of beverage products imported from the EU calculated from proxy volume

HS Code	Product vol.	Est. vol. per unit	Unit import no. per year	Units affected when 0.1% relabelled	Re-labelling cost \$0.3 per unit	Re-labelling cost \$0.7 per unit	Units affected when 1% relabelled	Re-labelling cost \$0.3 per unit	Re-labelling cost \$0.7 per unit
2203	93,505,421	0.33	283,349,761	283350	\$85,005	\$198,345	2,833,498	\$850,049	\$1,983,448
	3,187,686	0.33	9,659,655	9660	\$2,898	\$6,762	96,597	\$28,979	\$67,618
2204	40,814,169	0.75	54,418,892	54419	\$16,326	\$38,093	544,189	\$163,257	\$380,932
	872	0.75	1,163	1	\$0	\$1	12	\$3	\$8
2205	646,429	2	323,214	323	\$97	\$226	3,232	\$970	\$2,263
	8,087	2	4,044	4	\$1	\$3	40	\$12	\$28
2206	6,787,557	1	6,787,557	6788	\$2,036	\$4,751	67,876	\$20,363	\$47,513
	219,494	1	219,494	219	\$66	\$154	2,195	\$658	\$1,536
2207	20	1	20	0	\$0	\$0	0	\$0	\$0
	80,379	1	80,379	80	\$24	\$56	804	\$241	\$563
2208	14,849,128	0.85	17,469,563	17470	\$5,241	\$12,229	174,696	\$52,409	\$122,287
2209	5,621,164	1	5,621,164	5621	\$1,686	\$3,935	56,212	\$16,863	\$39,348
<b>Total</b>			<b>377,934,906</b>	<b>377,935</b>	<b>\$113,380</b>	<b>\$264,554</b>	<b>3,779,349</b>	<b>\$1,133,805</b>	<b>\$2,645,544</b>

Note: Assuming the proxy product values (cost and volume/weight) are feasible, then the number of units imported calculated by either cost or volume should be the same. However, there are some discrepancies between Tables 33 and 34, particularly with HS Code 2203 and to a lesser extent 2206.

## 17.4.12 Estimated costs to for specific beverage classes - final estimated value

*Table A10- 35: Estimated cost for relabelling of beverage products imported from the EU calculated from proxy cost, assuming 4% of units from HS 2204 and 12% of units from HS 2208 are relabelled at a cost of \$0.5/unit. Additionally, it is assumed that only 20% of sector impacted by relabelling*

HS Code	Product value	Proxy product indicative price (\$)	Unit import no. per year based on value	% Relabelled	No. relabelled	20% Sector impacted	Re-labelling cost \$0.5 per unit
2204	\$457,164,427	\$8.50	53,784,050	4%	2,151,362	430,272	\$215,136
	\$132,244	\$8.50	15,558	4%	622	124	\$111
2208	\$399,600,495	\$20.00	19,980,025	12%	2,397,603	479,521	\$179,923
<b>2019-20 Total</b>			<b>73,779,633</b>		<b>4,549,587</b>	<b>909,917</b>	<b>\$395,170</b>

# 18 Appendix 11: Costing the regulatory burden for businesses to understand requirements for packaged products

## 18.1 Overview

This appendix estimates the regulatory burden currently imposed on manufacturers and importers to understand the requirements they need to meet when labelling packaged products. These costs are estimated below. It is not possible to estimate the actual time saving of proposed reform for each business to comply with less onerous requirements. Instead we have developed scenarios based on time savings to complete the activity under simplified requirements to illustrate potential savings.

### 18.1.1 The estimated number of business that produce packaged products

Based on NMI data the following sectors were considered to be affected by current packaging requirements. ABS Cat. 8155.0 Australian Industry, 2018-19<sup>162</sup> only provides the total number of employees per ANZSIC sector but not a breakdown of the number of businesses. We estimated the number of businesses in each sector based on an average of 8 employees per establishment (8)<sup>163</sup> based on the IBIS World Report<sup>164</sup>). The number of importers is based on NMI data.

*Table A11- 1: Number of businesses that produce packaged products*

Selected manufacturing sectors and importers	Number of Businesses
Food product manufacturing	26,962
Beverage and tobacco product manufacturing	3,916
Pulp, paper and converted paper product manufacturing	2,004
Basic chemical and chemical product manufacturing	38,509
Importers (NMI Data) <sup>165</sup>	3,229
<b>Total number of businesses that produce packaged products</b>	<b>74,620</b>

<sup>162</sup> ABS Cat. 8155.0 Australian Industry, 2018-19 released May 2020.

<sup>163</sup> Calculated as total number of employees in the affected ANZSIC sectors = 308,072 divided by average number of employees per establishment 8 = 71,391 businesses in the selected sectors.

<sup>164</sup> IBISWorld Industry Report C2419 on Measurement and Other Scientific Equipment Manufacturing, Industry Market Research, Reports, and Statistics, June 2020 pg12 [www.ibisworld.com](http://www.ibisworld.com).

<sup>165</sup> There could be businesses that have been included here that may also be manufacturers but difficult to isolate these in the ABS statistics.

## 18.2 Status quo regulatory burden costing

Manufacturers and importers of packaged products are required ensure that the measurement mark on their products complies with requirements in Part 4 of the *National Trade Measurement Regulations 2009*. When assessing how to correctly mark their products, manufacturers and importers need to navigate numerous regulatory provisions, refer to several different Schedules and check the ‘Secretary’s list’. Navigating these requirements takes time and often needs to be done when new product lines are introduced or changes are made to packaging designs.

The status quo cost is estimated at **\$8.1m** based on the estimated 74,620 businesses that are assumed to spend 1.5 hours to understand the current regulations.

*Table A11- 2: Cost to regulatory burden for packaged products under the status quo*

Status Quo: Cost to regulatory burden for packaged products			
Activity	Variable		Data Assumptions and Sources
Packaging requirements	No. of businesses affected	74,620	Number of businesses with packaged products calculated based ABS Cat. 8155.0 Australian Industry, 2018-19 <sup>166</sup> selected ANZIC codes and NMI data
	Number of staff performing the activity at each packer	1	Assumed 1 compliance persons responsible for reporting spending half their time on the activity
	Number of times activity performed per year	1	Average number times the business will report when there is new product line or change in product line (less for small business and more for larger business).
	Avg. time of each staff to do activity (in hours)	1.5	Assumed 1 compliance persons responsible for reporting spending half their time on the activity
	Labour cost (\$/hr) (wage + non-wage labour costs)	\$72.63	Based on the ABS Cat 6306.0 <sup>167</sup> average weekly earnings for manufacturers wage including 1.75 multiplier for on-costs
	<b>Cost of Activity =</b>	<b>\$8,128,889</b>	

## 18.3 Reductions in regulatory burden

The scenarios below illustrate potential savings of time savings from simplifications of regulatory requirements based on assumed time savings of 30min and one hour.

*Table A11- 3: Reform savings scenarios for the manufacturing sector*

Reform savings scenarios for the manufacturing sector	Status Quo	Scenario 1	Scenario 2
Time taken to understand requirements	1.5hrs	1hr	0.5hr
Regulatory burden to manufacturing industry	\$8,128,889	\$5,419,259	\$2,709,630
<b>Savings from reform</b>		<b>\$2,709,630</b>	<b>\$5,419,259</b>

<sup>166</sup> ABS Cat. 8155.0 Australian Industry, 2018-19 released May 2020.

<sup>167</sup> Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0.



An annual 30min reduction per business would be estimated to save \$2.7m from the status quo and a one hour reduction would be estimated to save \$5.4m for the total industry.

Across **all options**, it is expected that the annual time cost in understanding obligations would reduce by at least 30 minutes per business resulting in an annual regulatory burden saving for industry of \$2.7m.

**Note:** for **all options** any package labelling that is compliant with current measurement labelling requirements will continue to be compliant under new arrangements. This means that businesses which are already compliant with packaging requirements would remain compliant under all reform options.

# 19 Appendix 12: Costing the regulatory burden from pattern approval

## 19.1 Overview

This appendix provides details on how the introduction of increased flexibility will affect measuring instrument manufacturers particularly for pattern approval (PA). This section includes:

- A brief description of some key restrictions and limitations to applying pattern approval to measuring instrument manufacturers under the status quo
- An estimation of the current cost of pattern approval to manufacturers of measuring instruments
- A description of how flexibility will be introduced under each reform option and how it may change regulatory burden for measuring instruments used for trade and/or regulatory purposes
- An estimation or description of the potential savings that may occur due to changes in the requirement for pattern approval.

Not all manufactured measuring instruments used in the economy need to be of an approved pattern because not all are used for trade purposes<sup>168</sup>. A measuring instrument for trade purposes must be of an approved pattern before it is sold, leased or supplied to the market.

Pattern approval<sup>169</sup> provides confidence and an independent assessment that ensures measuring instruments perform to the required standard and are fit for purpose.

## 19.2 Pattern approval and the manufacturer

The following assumptions underpin the analysis of the regulatory burden associated with requiring instruments used in trade to be pattern approved:

1. It is prohibited under the current legislation for a manufacturer to sell lease or supply to market of a measuring instrument for trade purposes when approval has not been received and that includes while the pattern approval process is occurring.
2. It is assumed that pattern approval is a parallel process for manufacturers who would be setting up the manufacturing process and their marketing programs while the pattern approval process is occurring.
3. NMI's experience has been that not all instrument designs have an easy fit with the current measurement framework. Where this occurs, the NMI does not compel a measuring instrument to be approved if there is no supporting infrastructure (e.g. standards, testing procedures) by which the instrument can be approved.
4. When appropriate and in the case that a measuring instrument requires field testing for a period of time, a provisional approval may be granted subject to conditions that need to be

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<sup>168</sup> Based on a measuring instrument survey held in 2019, there are around 771 manufacturers of measuring instruments with an estimated combined income of over \$800m. The industry survey showed that there are 124 million measuring instruments across all ANZSIC sectors with 54% being of an approved pattern.

<sup>169</sup> Under s 18GC of the *National Measurement Act 1960*, it is an offence to supply instruments for trade use which are not of an approved pattern.

complied. Where the measuring instrument is a low risk, the NMI supports industry through a provisional approval that removes any unnecessary delays for the manufacturer.

- A manufacturer meets additional costs to rectify a provisional design if it is established that the instrument needs modifications.
  - A provisional approval also requires an internal administrative process within the NMI to include a risk assessment, administrative time to produce a provisional certificate.
5. Over a period of 10 years (2008/09-2018/19), there were 1,392 pattern approval applications (an average of 139 applications per year).

## 19.3 Estimated cost of Pattern Approval application process (status quo)

### What is excluded and included in estimating regulatory burden?

The costs of fees and other direct costs payable to government which the regulations may impose are excluded from the definition of regulatory burden. The cost of instrument testing required by standards are considered part of the manufacturer's R&D costs. The pattern approval requirements are largely international standards which have been adopted into Australia.

The primary costs associated with pattern approval are labour or time-based. The estimated annual cost imposed on measuring instrument manufacturers by the pattern approval application process is estimated at **\$180,573**.

*Table A12- 1: Costs of pattern approval application process*

Costs of Pattern Approval application process	
1. Understanding pattern approval requirements	\$77,024
2. Understanding process	\$30,810
3. Application form	\$15,405
4. Logistics	\$11,120
5. Review the draft certificate	\$30,810
6. Cost instrument redesign	\$15,405
<b>Total Regulatory Burden of pattern approval <sup>170</sup></b>	<b>\$180,573</b>

The estimation of cost is based on the requirements imposed for the pattern approval application process under regulations 58 and 63<sup>171</sup> comprised of:

- **Time cost to understand pattern approval requirements:** This is the time that a business needs to understand the relevant standard and testing required in preparation for application. The calculation discounts the time required by 50 per cent as efficiencies and learning are gained as the firm makes subsequent applications. Companies develop an understanding of approval requirements and applicable international standards to benefit their global operations. In this case, the adoption of international standards clearly enables industry efficiency.

<sup>170</sup> Totals may not match calculation tables below due to rounding errors.

<sup>171</sup> *National Measurement Regulations 1999*, regulation 58 – Application for approval of patterns of measuring instruments; regulation 63 – Certificates of approval.

- **Application preparation:** This includes costing the burden of time and labour to understand the requirements for a specific NMI M or NMI R<sup>172</sup> document in the process of preparation for application.
- **Application form completion:** Time taken for the business to complete the pattern approval application
- **Logistical costs:** Cost to business to transport the prototype measuring instrument to the pattern approval laboratories (where this is needed; noting that not all applications provide a prototype).
- **Cost of redesigning the measuring instrument:** Cost to the business to provide a technical solution required by the approval process. This would account for the time spent by a technical person, e.g. an engineer, and would assume a high rate of efficiency given the applicability of the changes at an international level, e.g. OIML R requirements apply internationally.
- **Review the draft approval certificate:** The manufacturer reviews the draft certificate prior to NMI issuing the final certificate of approval.

### Methodology, assumptions and data sources

The burden for each of the five expense items above is calculated based on estimation of the following variables:

1. Average Number of applications
2. Number of staff per business performing activity?
3. Number of times activity performed per year per staff?
4. Labour cost (\$/hr) (wage + non-wage labour costs)
5. Average cost of transporting prototype

Each of the five cost items have been estimated on the basis of the following assumptions and data sources outlined in the tables below.

*Table A12- 2: Assumptions for understanding pattern approval requirements*

Activity	Requirement	Variable		Assumptions
1. Understanding pattern approval requirements : This includes costing the burden of time and labour to understand the requirements for a specific M or R document in the process of preparation for application	Not legislated but assumed to occur	Average Number of applications	139	Average annual number of applications = (average total number of applications over 10 years) 2008/09-2018/19 data pattern approval provides 1,392 applications 1,392 received/10 years = 139 per year
		Number of staff per business performing activity	1	NMI estimates one person allocated to the task
		Number of times activity performed per year per staff?	1	Once a year based on annual applications
		Avg. time of each staff to do activity (in hours)	5	NMI estimate of time in hours to complete the activity including assumed efficiency

<sup>172</sup> NMI M and R documents specify the metrological and technical requirements for the pattern approval of specific measuring instruments. NMI R are based on an International Organization of Legal Metrology (OIML) recommendation of the same name and number. NMI M have been prepared by the NMI.

Activity	Requirement	Variable		Assumptions
				gains from learning from previous applications
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>173</sup> average weekly earnings for various engineering and technical wage categories including 1.75 multiplier <sup>174</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$77,026</b>	

Table A12- 3: Assumptions for time cost to understand the pattern approval application process

Activity	Requirement	Variable		Assumptions
2. Understanding Process: Burden on business to understand the Application process	reg 58	Average Number of applications	139	Average annual number of applications = (average total number of applications over 10 years) 2008/09-2018/19 data pattern approval provides 1,392 applications 1,392 received/10 years = 139 per year
		Number of staff per business performing activity	1	Assumes one person allocated to the task (NMI Est.)
		Number of times activity performed per year per staff	1	Once a year based on annual applications
		Avg. time of each staff to do activity (in hours)	2	NMI estimate of time in hours to complete the activity
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>175</sup> average weekly earnings for various engineering and technical wage categories including 1.75 multiplier <sup>176</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$30,811</b>	

Table A12- 4: Assumptions for application form completion

Activity	Requirement	Variable		Assumptions
3. Application Form: Time taken for the business to	reg 58	Average Number of applications	139	Average annual number of applications = (average total number of applications over 10 years) 2008/09-2018/19 data

<sup>173</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>174</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>175</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>176</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

Activity	Requirement	Variable		Assumptions
complete the Pattern Approval application				pattern approval provides 1,392 applications 1,392 received/10 years = 139 per year
		Number of staff per business performing activity?	1	Assumes one person allocated to the task (NMI Est.)
		Number of times activity performed per year per staff?	1	Once a year, based on annual applications
		Average number of hours required to complete the application	1	NMI estimate of time in hours to complete the activity
		Avg. number of staff to do activity (in hours)	1	NMI estimate of time to complete the activity
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>177</sup> average weekly earnings for various engineering and technical wage categories including 1.75 multiplier <sup>178</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$15,405</b>	

Table A12- 5: Assumptions for logistical costs

Activity	Requirement	Variable		Assumptions
4 Logistics: Cost to business to transport the prototype measuring instrument to the pattern approval lab	reg 58	Average Number of applications	139	Average annual number of applications = (average total number of applications over 10 years) 2008/09-2018/19 data pattern approval provides 1,392 applications 1,392 received/10 years = 139 per year
		Proportion of instruments tested	20%	NMI estimates that around 80% of all pattern approval applications do not require a laboratory test. Only about 20% of instruments are received
		Average cost of transporting prototype	\$400	NMI estimates \$200 delivery and \$200 return
		<b>Cost of Activity =</b>	<b>\$11,120</b>	

<sup>177</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>178</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

Table A12- 6: Assumptions for instrument redesign

Activity	Requirement	Variable		Assumptions
6. Cost of instrument redesign to meet pattern approval requirements		Number of measuring instruments verified / reverified per year	139	Average annual number of applications = (average total number of applications over 10 years) 2008/09-2018/19 data pattern approval provides 1,392 applications 1,392 received/10 years = 139 per year
		Percentage of instruments affected	25%	NMI estimates
		Number staff to perform the activity	1	One staff member
		Avg. time of each staff to do activity (in hours)	40	NMI estimate, on average it takes one week to complete the redesign
		Discount factors for international standards	10%	NMI estimates that compliance with international requirements accounts for around 90% of the redesign requirements
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>179</sup> average weekly earnings for various engineering and technical wage categories including 1.75 multiplier <sup>180</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$ 15,405</b>	

Table A12- 7: Assumptions for reviewing the draft certificate

Activity	Requirement	Variable		Assumptions
5. Burden on business to review the draft certificate	reg 63	Average Number of certificates	139	Average annual number of applications = (average total number of applications over 10 years) 2008/09-2018/19 data pattern approval provides 1,392 applications 1,392 received/10 years = 139 per year
		Number of staff per business performing activity?	1	Assumes one person allocated to the task (NMI Est.)
		Number of times activity performed per year per staff?	1	Once a year, based on annual applications
		Avg. time staff need to do activity (in hours)	2	NMI estimate of time in hours to complete the activity
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>181</sup> average weekly earnings for various engineering

<sup>179</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>180</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>181</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

Activity	Requirement	Variable		Assumptions
				and technical wage categories including 1.75 multiplier <sup>182</sup> for on-costs
		Cost of Activity =	\$30,811	

## 19.4 Changes in regulatory burden

An increase in flexibility is proposed under the new legislation, and under each option, the approach for increasing flexibility is slightly different.

Under **option 1**, increased flexibility would be supported through legislative provisions that would enable the NMI to:

- Make a determination by way of an administrative document that is made public indicating that instruments of a specific category need not apply for pattern approval,
- Specify that instruments of a specific category are exempt from pattern approval.

A change in regulatory burden is possible if the Chief Metrologist determines that instruments of a specific category do not need to apply for pattern approval. The savings would be the cost of pattern approval application that a manufacturer would no longer need to do.

Under **option 2**, increased flexibility would be supported through legislative provisions that would enable the NMI to:

- select appropriate instrument control mechanisms from a range of alternatives and to establish their use following data collection, risk assessment and consultation with the measuring instrument sector;
- reconsider risks over time as circumstances change; and
- retain pattern approval as a default mechanism of control for trade measuring instruments, unless determined otherwise through a determination by the Chief Metrologist or an alternative method.

Under this options there are two possible changes in regulatory burden which may occur:

- If pattern approval is not required to be applied to an instrument used for trade: there will be a reduction caused by removing costs associated with the whole pattern approval process.
- If pattern approval is replaced by another mechanism of control or by a set of other controls: The measuring instruments are regulated in a fit for purpose approach. Where pattern approval is replaced, the change in burden is a reduction in the costs associated with the pattern approval process. However, these may be replaced by other costs associated with other mechanisms of control which are still to be determined.

Under **option 3**, increased flexibility extends the application of a range of mechanisms of control to measuring instruments used for regulatory purposes. This would be supported through legislative

<sup>182</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).



provisions (as for option 2) in view of extending NMI’s role with respect to measurement used for regulatory purposes.

Industry compliance with measuring instrument requirements stipulated by NMI to support other regulators would be considered a regulatory burden. Under option 3, the nature of the regulatory burden is contingent on whether the NMI exercises the additional power to compel certain mechanisms of control (to include pattern approval) over measuring instruments used for regulatory purposes. As such, the NMI may impose additional regulatory burden on the other regulator’s framework, with the detail of the particular requirement to be determined collaboratively in the future.

The change in burden may include:

- an increase in regulatory burden where greater confidence in the reliable performance of measuring instruments requires pattern approval; and / or
- an increase in regulatory burden where other appropriate control mechanisms (not being pattern approval) are applied under measurement law and which have not previously been used by regulators in their regulations and/or compliance programs.

While it is possible to reduce regulatory burden for trade measuring instruments, there would be an unquantifiable increase in regulatory burden for measuring instruments used for regulatory purposes in option 3.

## 19.5 Potential savings

The extent of savings is not possible to quantify precisely. Below are scenarios that estimate the reduction in regulatory burden if the requirement for pattern approval were reduced by a percentage under any of the options. It is anticipated that there will be no change on day one of the new legislation. The scenarios show potential savings per option, with implementation or transition across for example a 5 to 10 year timeframe per option.

*Table A12- 8: Regulatory burden savings scenarios if requirements for pattern approval were reduced*

Potential savings scenarios	Status Quo	Option 1	Option 2	Option 3
% reduction in burden		5%	20%	Cannot be determined
Regulatory burden to industry	<b>\$180,573</b>	\$171,544	\$114,458	<b>Increase</b>
<b>Savings from options</b>		<b>-\$9,029</b>	<b>-\$36,115</b>	-

Table A12- 9: Summary of potential savings for the sector in relation to status quo

Status Quo cost of PA	Option 1 potential savings	Option 2 potential savings	Option 3 potential savings
Approximately <b>\$0.18m</b> cost for pattern approval application	Potential savings of approximately <b>\$0.01m</b> if 5% reduction in pattern approval over 5-10 years for specific instrument categories	Potential savings of approximately <b>\$0.04m</b> if 20% reduction in pattern approval over 5-10 years  Unquantifiable potential change ( <b>increase or decrease</b> ) in burden from flexible controls on measuring instruments used for trade	As for option 2 plus <b>Additional regulatory burden</b> for measuring instruments used for regulatory purposes

# 20 Appendix 13: Costing the regulatory burden on Authorised Third Parties

## 20.1 Overview

This appendix provides details on how proposed changes would affect Authorised Third Parties (ATPs), including:

- details on the current number of ATPs providing measurement services under the measurement legislation
- the estimated status quo cost for appointments (including application, renewal, competency) and reporting requirements on ATPs
- details on proposed changes to appointment and reporting arrangements
- potential changes to regulatory burden on ATPs based on changing requirements.

This RIS seeks to test the estimated costs to ATPs so as to provide firmer estimates in the final RIS.

Broadly, the changes relate to the application, renewal and reporting requirements that ATPs need to meet under the measurement legislation.

### 20.1.1 Current number of ATPs

ATPs provide measurement services under the measurement legislation and are authorised under the following categories:

- Licensees
  - Servicing Licensees (SL)
  - Public Weighbridge Licensees (PWBL)
- Authorities
  - Certifying Authorities (CA)
  - Verifying Authorities (VA)
  - Approving Authorities (AA)
- Appointments
  - Utility Meter Verifiers (UMV)

There are currently 617 ATPs implementing the measurement framework in Australia. Below is the breakdown of licensees, authorities and appointments as of March 2021.

*Table A13- 1: Breakdown of Authorised Third Parties*

ATPs	Current number of entities
SL	334
PWBL	228
UMV	14
CA	13
VA	25
AA	3
<b>Total</b>	<b>617</b>

## 20.2 Estimated status quo regulatory burden cost

This estimate is limited to application, renewal and reporting costs across all ATPs. Costs associated with other requirements of the appointment are not included here.

*Table A13- 2: Estimated regulatory burden cost of the status quo*

ATP	Cost of Application (includes cost of competency) and Renewal	Cost of Reporting and Informing	Total Annual APT Costs (application, renewal cost, competence and reporting)
SL	\$235,071	\$3,024,834	\$3,259,905
PWBL	\$84,230	\$16,678	\$100,908
UMV	\$75,896	\$4,887	\$80,783
LMA	\$118,480	\$4,499	\$122,979
<b>Total All ATPs<sup>183</sup></b>	<b>\$513,677</b>	<b>\$3,050,898</b>	<b>\$3,564,575</b>

These calculations are based on an average number of ATPs that apply, renew and report each year and an estimated cost of applying, renewing and reporting each year (provided in tables below). The costs of application include the cost of competency requirements.

The calculations do not include other activities that may apply to their role. For example, in the case of SL, the cost of ongoing record keeping, maintaining appropriate standards or affixing verification marks have not been included.

### 20.2.1 Methodology, assumptions and data sources

*Table A13- 3: Assumptions regarding the number of applications, renewals and reporting for ATPs*

ATP	Average yearly applications	Average yearly renewals	ATPs reporting yearly
SL	21	150	334
PWBL	10	228	228
UMV	1	14	14
LMA	3	41	41
<b>Total</b>	<b>35</b>	<b>433</b>	<b>617</b>

Data sources across all ATP costing sheets:

- Labour cost source: Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0
- Other data: NMI Data.

<sup>183</sup> Totals may not match calculation tables below due to rounding errors.

## 20.2.1.1 Servicing Licensee

Table A13- 4: Assumptions for Servicing Licensee calculations

1. APPLICATION			Assumptions	ESTIMATE OF APPLICATIONS FOR LICENCE EACH YEAR
Understanding the process for licence application	(s18NA, reg2.41)	Number of SL applications expected yearly	21	There were 334 SL licensees in 2020. Estimated average number of new licences per year, based on 2 year average numbers 2019 and 2020 $(25+18)/2=21$
		Number of persons required to do this activity	1	One 1 staff member
		Number of times activity performed per year per staff?	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	6	NMI estimates
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>184</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>185</sup> for on-costs
-	-	<b>Cost of Activity a =</b>	<b>\$13,965</b>	Annual cost of SL understanding the process to apply
Supplying the relevant information and documents with application	(s18NA, s18ND, s18NHf, reg2.41)	Number of SL applications expected yearly	21	There were 334 SL licensees in 2020. Estimated average number of new licences per year, based on 2 year average numbers 2019 and 2020 $(25+18)/2=21$
		Number of persons required to do this activity	1	Minimum requirement of 1 staff member
		Number of times activity performed per year per staff	1	Based on annual number of actual applications
		Avg. time of each staff to do activity (in hours)	15	NMI estimates
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>186</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>187</sup> for on-costs
-	-	<b>Cost of Activity b =</b>	<b>\$34,911</b>	Time for SL to put together all information required to accompany application including details of the required equipment
<b>Total cost of application</b>			<b>\$48,876</b>	
2. RENEWAL				ESTIMATE NUMBER TO RENEW EACH YEAR
Understanding the process for licence renewal	(s18NK-NL)	Number of SL renewals expected yearly	120	120 licences are renewed annually

<sup>184</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0

<sup>185</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf)

<sup>186</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0

<sup>187</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf)

		Number of persons required to do this activity	1	One staff member
		Number of times activity performed per year per staff	1	Based on annual number of actual applications
		Avg. time of each staff to do activity (in hours)	1	NMI estimates including discounting for efficiency gains from learning from prior applications
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>188</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>189</sup> for on-costs
	-	Cost of Activity a =	<b>\$13,300</b>	
Supplying the relevant information and documents	(s18NK-NL)	Number of SL renewals expected yearly	120	120 licences are renewed annually
		Number of persons required to do this activity	1	Minimum requirement of 1 staff member
		Number of persons required to do this activity	1	Based on annual number of actual applications
		Avg. time of each staff to do activity (in hours)	5	NMI estimates including discounting for efficiency gains from learning from prior applications
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>190</sup> average weekly earnings for various engineering and technical wage
	-	Cost of Activity b =	<b>\$66,498</b>	
<b>Total cost of renewal</b>			<b>\$79,798</b>	
<b>3. COMPETENCY: STATEMENT OF ATTAINMENT</b>				STATEMENT OF ATTAINMENT OF A VERIFIER
Time required for assessment to obtain the Statement of Attainment	(s18NH 9(a)-(c), reg 2.43 9A)	<b>Number of SL expected to apply / renew annually</b>	120	120 licences are renewed annually
		Number of persons required to do this activity	1	minimum requirement of 1 verifier per SL
		Number of times activity performed per year per staff	1	Based on annual number of actual applications
		Average time of each staff to do activity (in hours)	8	Assessment takes a maximum of 1 day

<sup>188</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0

<sup>189</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>190</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>191</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>192</sup> for on-costs
<b>Total cost of competency =</b>			<b>\$106,397</b>	
<b>4. REPORTING TO THE SECRETARY ON VERIFICATIONS</b>				REPORTING EACH YEAR
Form 6	(s18NH d, e, h, g, reg 2.43 10-16)	number of measuring instruments verified and reverified per year	78,198	Based on 3 year average number of reported measuring instruments verified and reverified <sup>193</sup>
		Time required to report the verification in hrs	0.25	15 minutes to report, on each verification on Form 6
		Number of persons required to do this activity	1	Minimum requirement of 1 verifier per SL
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>194</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>195</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$2,166,671</b>	
<b>Informing on changes in eligibility to verify MI</b>				
Changes in eligibility to verify MI	(reg 2.43(6))	Number of reports	200	NMI estimate
		Number of staff per business performing activity	1	Minimum requirement of 1 staff member
		How many times activity happens	1	Estimate of once that verifiers might inform SL of a change in eligibility as verifiers
		Avg. time of verifier to notify SL (in hours)	0.33	NMI estimates its takes 20 minutes per report
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>196</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>197</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$7,315</b>	

<sup>191</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>192</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>193</sup> All verifications including instruments verified as part of other Instruments 3-year average (2016/17-2018/19)

<sup>194</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>195</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf)

<sup>196</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>197</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<b>SL NOTIFICATION TO MEASURING INSTRUMENT CONTROLLER OF CHANGE IN CONDITIONS Informing on grounds for disciplinary action</b>				
informing measuring instruments controller about NITP if measuring instrument not approved pattern, outside MPE etc.	(reg 2.43(14))	number of measuring instruments verified and reverified per year	78,198	Based on 3 year average number of reported measuring instruments verified and reverified <sup>198</sup>
		Number of staff required to notify the measuring instrument controller	1	One verifier per business
		How many times activity happens	1%	This estimate is an average notifications to the measuring instruments controller happens for around 1% of all verified instruments
		Avg. time of each staff to do activity (in hours)	0.33	NMI estimate 20 minutes to inform the controller
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>199</sup> average weekly earnings for various engineering and technical wage
-	<b>Cost of Activity =</b>	<b>\$28,600</b>		
<b>time for SL to provide Test Report / histogram to Secretary if required to</b>				
time SL to provide test report if directed to; re 2.39(3) - batch testing histogram use of NITP reported to secretary/manufacturer/importer	(NTMR 2.43(25); reg 2.39 (3); 3.19 )	Average annual number of complex measuring instruments verified and reverified each year	7,419	NMI estimates based on 3 year average number of reported complex instruments measuring instruments verified and reverified
		Number of persons required to do this activity?	1	One staff member
		Time required to do this activity	1	Estimated time to prepare and send a report to the Secretary and if applicable to the manufacturer/importer
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>200</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>201</sup> for on-costs
-	<b>Cost of Activity =</b>	<b>\$822,248</b>		
<b>Total Reporting costs</b>			<b>\$3,024,834</b>	
<b>Total Annual SL Costs (Application, renewal cost, competence and reporting)</b>			<b>\$3,259,905</b>	

<sup>198</sup> All verifications including instruments verified as part of other Instruments 3-year average (2016/17-2018/19).

<sup>199</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>200</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>201</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).



## 20.2.1.2 Utility Meter Verifiers

Table A13- 5: Assumptions for Utility Meter Verifiers calculations

1. APPLICATION				
Understanding the appointment process	(s18R)	Number of UMVs	1	UMVs numbers are stable estimate only 1 new applicant annually
		Number of staff per business performing activity	1	One staff member
		Number of times activity performed per year per staff	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	6	NMI estimates
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>202</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>203</sup> for on-costs
	-	Cost of Activity =	<b>\$665</b>	Burden to understand the application process
Supplying the relevant information and documents with application	(s18R)	Number of UMVs	1	14 current number of UMVs. Numbers are stable estimate only 1 new applicant annually
		Number of staff per business performing activity	1	as a minimum one staff is involved
		Number of times activity performed per year per staff	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	1	NMI estimates
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>204</sup> average weekly earnings for various engineering and technical wage
	-	Cost of Activity =	<b>\$111</b>	
<b>Total cost of application</b>			<b>\$776</b>	
2. Renewal process				
Understanding the process for Renewal		Number of LMA	14	14 current UMV licences. Administratively good for 3 years. Total 41 annual renewals average applications.
		Number of staff per business performing activity	1	One staff member

<sup>202</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>203</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>204</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

		Number of times activity performed per year per staff?	0.3	14 current UMV licences. The appointment generally is good for 3 years generally hence 1/3 = 0.33
		Avg. time of each staff to do activity (in hours)	6	NMI estimate
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>205</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>206</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$2,793</b>	
Supplying the relevant information and documents		Number of UMV	14	14 current UMV licences. Administratively good for 3 years. Total 41 annual renewals average applications.
		Number of staff per business performing activity	1	One staff member
		Number of times activity performed per year per staff	0.3	14 current UMV licences. The appointment generally is good for 3 years generally hence 1/3 = 0.33
		Avg. time of each staff to do activity (in hours)	5	NMI estimate
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>207</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>208</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$2,327</b>	
<b>Total cost of renewal</b>			<b>\$5,120</b>	
<b>3.COMPETENCE</b>				
Time required for to obtain accreditation	(s18RB a -aa, s18RCA)	Number of UMVs	14	14 current UMV appointments which are for 3 years.
		Percentage of business activity dependent on measurement activity = percentage NATA accreditation value for measurement activity	50%	UMV depend on the accreditation for their business. The value of the accreditation to the business is high at 100%.
		Annual cost of accreditation	\$10,000	Estimate NATA accreditation cost for 17025
<b>Total cost of competence</b>			<b>\$70,000</b>	

<sup>205</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>206</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>207</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>208</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<b>4.COST OF REPORTING TO THE CHIEF METROLOGIST WHEN ASKED TO (s18RBg)</b>				
Report to the Chief Metrologist if asked to	s18RBg	Number of UMVs	14	Current number of UMVs
		Number of staff per business performing activity?	1	One staff member
		Avg. time of each staff to do activity (in hours)	3	Time to write the report and submit by email.
		Number of times activity performed per year per staff?	1	Estimate one request made once every year
		Labour cost (\$/hr) (wage + non-wage labour costs) time of assessment	\$110.83	Based on the ABS Cat 6306.0 <sup>209</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>210</sup> for on-costs
-	<b>Cost of activity =</b>	<b>\$4,655</b>	Annual cost	
<b>COST OF PROVIDING LIST OF EMPLOYEES (VERIFIERS) TO THE SECRETARY(s18RBb)</b>				
Provide a list of verifiers to the Secretary	(s18RBb)	Number of UMVs	14	Current number of UMVs
		Number of staff per business performing activity?	1	One staff member
		Avg. time of each staff to do activity (in hours)	0.5	NMI estimate
		Number of times activity performed per year per staff?	0.3	Estimated that it will once every three years
		Labour cost (\$/hr) (wage + non-wage labour costs) time of assessment	\$110.83	Based on the ABS Cat 6306.0 <sup>211</sup> average weekly earnings for various engineering and technical wage
-	<b>Cost of activity =</b>	<b>\$233</b>	Annual cost	
<b>Total cost of reporting</b>			<b>\$4,887</b>	
<b>Total Annual UMV Costs (Application, renewal cost, competence and reporting)</b>			<b>\$80,784</b>	

<sup>209</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>210</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>211</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

### 20.2.1.3 Legal Metrology Authorities (CA, VA, AA)

Table A13- 6: Assumptions for Legal Metrology Authority calculations

1. Application for appointment of verifying or certifying authority (Administrative cost)			ESTIMATE NUMBER THAT APPLY EACH YEAR	
Understanding the process for appointment application	(reg 70-72))	Number of LMA	3	Average number of current LMA appointments (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25). The number of LMA is fairly stable over time
		Number of staff per business performing activity	1	One staff member
		Number of times activity performed per year per staff	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	6	NMI estimate
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>212</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>213</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$1,995</b>	
Supplying the relevant information and documents with application	(reg72)	Number of LMA	3	Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25). The number of LMA is fairly stable over time
		Number of staff per business performing activity?	1	One staff member
		Number of times activity performed per year per staff?	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	15	Assuming a large number of documents need to be compiled (worst case)

<sup>212</sup> Ibid.

<sup>213</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>214</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>215</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$4,987</b>	
<b>Total cost of application</b>			<b>\$6,982</b>	
<b>2. Renewal process</b>				
<b>2. Renewal process</b>		<b>Costs relating to Renewal process</b>		ESTIMATE NUMBER TO RENEW EACH YEAR
Understanding the process for Renewal	(reg72)	Number of LMA	41	Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25).
		Number of staff per business performing activity?	1	One staff member
		Number of times activity performed per year per staff?	0.3	The appointment generally is good for 3 years generally hence 1/3 = <b>0.33</b>
		Avg. time of each staff to do activity (in hours)	1	Average time over 32 standards (NMI Est.) estimate accounts for an assumed 50% efficiency gains from learning in subsequent applications
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>216</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>217</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$1,500</b>	
Supplying the relevant information and documents	(reg72)	Number of LMA	41	Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25).
		Number of staff per business performing activity?	1	One staff member
		Number of times activity performed per year per staff?	0.3	The appointment generally is good for 3 years generally hence 1/3 = <b>0.33</b>

<sup>214</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>215</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>216</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>217</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

		Avg. time of each staff to do activity (in hours)	5	NMI estimate
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>218</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>219</sup> for on-costs
	-	Cost of Activity =	<b>\$7,498</b>	
<b>Total cost of renewal</b>			<b>\$8,998</b>	
<b>3. Competence</b>				
Cost of NATA accreditation	(reg 73)	Number of LMA	41	Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25).
		Percentage of business activity dependent on measurement activity = percentage NATA accreditation value for measurement activity	25%	The value of the accreditation is used for other business activities besides for the measurement requirements. The value of measurement activities to the LMA business is anywhere between 1% to 50%. For the purposes of calculation, a median point will be used (25%).
		Nata accreditation	\$ 10,000	Estimate NATA accreditation cost for 17025
<b>Total cost of competence</b>			<b>\$102,500</b>	
<b>4. Report to the Chief Metrologist if asked to (reg 77 1 c )</b>				
Report to the Chief Metrologist	(reg 77 1 c )	Number of LMAs	41	Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25).
		Number of staff per business performing activity?	1	One staff member
		Avg. time of each staff to do activity (in hours)	3	Estimated time to write the report and submit by email. Note this is an estimate as this has never been required, although provision is made for this in the legislation.
		Number of times activity performed per year per staff?	0.3	The appointment generally is good for 3 years generally hence 1/3 = <b>0.33</b>

<sup>218</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>219</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

		Labour cost (\$/hr) (wage + non-wage labour costs) time of assessment	\$110.83	Based on the ABS Cat 6306.0 <sup>220</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>221</sup> for on-costs
<b>Total cost of reporting</b>			<b>\$4,499</b>	
<b>Total Annual LMA Costs (Application, renewal cost, competence and reporting)</b>			<b>\$122,979</b>	

## 20.2.1.4 Public Weighbridge Licensee

Table A13- 7: Assumptions for public weighbridge licensee calculations

1. APPLICATION				
Understanding the process for licence application	(s18PA, PD, PE, PH1a-b, ; NTMR 3.12-3.16	Number of PWBL applications expected yearly	10	Annual average number of new PWBLs = 228 total number NMI estimate not more than 10 new licences processed annually
		Number of staff per business performing activity?	1	One staff member
		Number of times activity performed per year per staff?	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	4	NMI estimate
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>222</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>223</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$4,433</b>	Annual cost
Supplying the relevant information and documents with application	(s18PA, PD, PE, PH1a-b, ; NTMR 3.12-3.16	Number of PWB applications expected yearly	10	Annual average number of new PWBL = 228 total number NMI estimate not more than 10 new licences processed annually
		Number of staff per business performing activity	1	Once based on number of annual applications
		Number of times activity performed per year per staff	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	8	NMI estimate

<sup>220</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>221</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>222</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>223</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>224</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>225</sup> for on-costs
	-	<b>Cost of Activity =</b>	<b>\$8,866</b>	Annual cost of PWB licensees completing application with relevant information
<b>Total cost of application</b>			<b>\$13,299</b>	Annual cost
<b>2. RENEWAL OF LICENCE</b>				
<b>Renewal process</b>		<b>Costs relating to Renewal process</b>		BASED ON ESTIMATE NUMBER TO RENEW EACH YEAR
Understanding the process for licence renewal	(s18PL-PM; NTMR 3.12-3.16)	Number of renewals expected yearly	80	Annual actual average
		Number of staff per business performing activity?	1	One staff member
		Number of times activity performed per year per staff?	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	1	Estimate accounts for an assumed 50% efficiency gains from learning in subsequent applications
		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>226</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>227</sup> for on-costs
		<b>Cost of Activity =</b>	<b>\$8,866</b>	Annual cost
Supplying the relevant information and documents	(s18PL-PM; NTMR 3.12-3.16)	<b>Number of renewals expected yearly</b>	80	Annual actual average
		Number of staff per business performing activity?	1	One staff member
		Number of times activity performed per year per staff?	1	Once based on number of annual applications
		Avg. time of each staff to do activity (in hours)	3	Assume at least one staff

<sup>224</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>225</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>226</sup>Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>227</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).



		Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>228</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>229</sup> for on-costs
	-	Cost of Activity =	<b>\$26,599</b>	Annual cost of burden on PWB applicant completing the renewal
<b>Total cost of renewal</b>			<b>\$35,465</b>	Annual cost
<b>3. Competence</b>				Cost of requirement to have a verifier with a Statement of Attainment
Time required for assessment to obtain the Statement of Attainment	(S18pc 18PH 1.c-d-e; NTMR reg 3.25)	Number PWB entities expected to apply / renew annually	80	Annual average number of actual applications
		Number of staff per business performing activity	1	Minimum requirement of 1 competent operation per PWBL
		Avg. time of each staff to do activity (in hours)	4	A written assessment takes ½ a day at most (est 4 hours). Operators provide additional information that is derived from the course of their work time.
		Labour cost (\$/hr) (wage + non-wage labour costs) time of assessment	\$110.83	Based on the ABS Cat 6306.0 <sup>230</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>231</sup> for on-costs
<b>Total cost of competency</b>			<b>\$35,466</b>	Annual cost
<b>4. PROVIDING INFORMATION</b>				A PWB provides information in writing <sup>232</sup>
compliance with Public Weighbridge regulations	NTMR reg 3.37	Number of PWBs	228	Annual average number of PWBLs to renew per year = 228 total licences Renewals for 1.2 and 3 year
		Number of staff per business present during activity	1	One staff member
		Avg. time of each staff (in hours)	2	Assumes 30 minutes per quarter on the assumption of a high change in operators in a year
		Number of times activity performed per year per staff	0.3	A call for information is made on average once every three years, 1/3 years = <b>0.33</b>

<sup>228</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>229</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>230</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>231</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

<sup>232</sup> A public weighbridge licensee must provide, in writing, the information included in each of the following paragraphs (a) a change in the address for service of notices on the public weighbridge licensee—within 14 days after the change in address; (b) the full name and residential address of each person employed by the public weighbridge licensee to operate the public weighbridge—within 14 days after the person's employment commences; (c) if an operator ceases to be employed by the public weighbridge operator, the last day the operator was employed to operate the public weighbridge—within 14 days after the final day of employment; (d) the full name and residential address of each person contracted by the public weighbridge licensee to operate the public weighbridge—within 14 days after the person's employment commences; (e) if an operator ceases to be contracted by the public weighbridge operator, the last day the operator was contracted to operate the public weighbridge—within 14 days after the final day of employment.

	Number of times activity performed per year per staff?	1	Assume at least one staff
	Labour cost (\$/hr) (wage + non-wage labour costs)	\$110.83	Based on the ABS Cat 6306.0 <sup>233</sup> average weekly earnings for various engineering and technical wage including 1.75 multiplier <sup>234</sup> for on-costs
<b>Total cost of providing information</b>		<b>\$16,678</b>	Cost of providing this information to the Secretary
<b>Total Annual PWBL Costs (Application, renewal cost, competence and reporting)</b>		<b>\$100,908</b>	

## 20.3 Proposed changes to regulatory burden

### 20.3.1 Overview

The regulations stipulate that ATPs go through a process of application and renewal to obtain their authorisation to provide measurement services under the measurement legislation. The regulations also indicate any reporting requirements imposed on them.

Some ATPs have multiple if not a mixture of licences, authorities and appointments. Each one requires a separate application and renewal. Streamlining the arrangements by which ATPs may provide measurement services under the measurement legislation would reduce regulatory burden costs associated with applications and renewals.

The following table shows that there are a number of ATPs that have multiple licences, authorities or appointments.

*Table A13- 8: Number of ATPs that hold multiple licenses*

ATPs	How many hold only a single licence, authority or appointment?	How many hold multiple subclass licences?	How many hold more than one type of authority or appointment?
SL	97	237	N/A
PWBL	228	0	N/A
UMV	13	1	N/A
CA	9	N/A	4
VA	23	N/A	2
AA	3	N/A	0
<b>Total</b>	<b>373</b>	<b>238</b>	<b>6</b>

The following table shows that there are a number of ATPs that combine licence, authority and appointment categories. This requires ATPs to submit multiple applications and renewals.

<sup>233</sup> Australian Bureau of Statistics (2018), "Employee Earnings and Hours, Australia, Cat. No. 6306.0.

<sup>234</sup> Multiplier of 1.75 for non-wage labour on-costs (for example, payroll tax and superannuation) and overhead costs (for example, rent, telephone, electricity and information technology equipment expenses). OBPR recommendation [https://www.pmc.gov.au/sites/default/files/publications/005\\_Regulatory\\_Burden\\_Measurement\\_Framework.pdf](https://www.pmc.gov.au/sites/default/files/publications/005_Regulatory_Burden_Measurement_Framework.pdf).

Table A13- 9: Number of ATPs with mixed licence, authority or appointments

How many ATPs have mixed licence, authority or appointments?	
SL - CA	3
SL - VA	7
CA - AA	1
VA - UMV	3
AA - UMV	1
<b>Total</b>	<b>15</b>

## 20.3.2 Streamlining the appointments system

The table below summarises the appointment arrangements proposed under each option.

Table A13- 10: Appointment arrangements proposed under options 1-3

ATP	Option 1	Option 2 and 3
SL	<b>1. Merged Licence</b>	<b>1. Appointed Authority: single authorising arrangement</b> General conditions to appointment will apply with scope specified in documents and able to be varied over time. Requirements for PWB will be simplified.
UMV		
CA	<b>2. Merged Authority</b>	
VA		
AA	<b>3. Approving Authority</b>	
PWBL	<b>4. PWBL</b>	<b>2. General licence: PWB</b> Functions and activities currently performed under PWBL may in future be supported by general licences
General licences	N/A	<b>3. General licences</b> General Licences may be introduced to enable the provision of measurement services.
How many ATPs benefit?	244 ATPs	<b>259 ATPs (potentially all 617 ATPs)</b>

Under **option 1**, there would be potential savings from streamlining appointments for ATPs:

- Servicing Licences could be consolidated into fewer classes and subclasses with the number of classes to be determined after further consultation in the future, potentially reducing the number of licence applications and renewals. In addition, merging SL and UMV will streamline some licence applications and renewals.
- ATPs who currently hold CA and VA appointments will be able to combine these into one appointment, which will streamline some authority applications and renewals.
- Where ATPs hold multiple authorities of the same type, these can be merged to reduce the cost of application and renewal and can combine a broad scope of services under one merged authority.
- A comparative value of savings from reduced licence classes, merged licences, and merged authorities cannot be estimated for the purposes of this RIS.

Under **option 2**, potential savings can be achieved by unifying appointments under one system:

- All ATPs, other than PWBLs, would be appointed under a single appointment type. This would reduce the regulatory burden associated with the cost of applications and renewals, particularly where ATPs hold multiple appointments or wish to expand the scope of their appointment.
- The value of the reduction cannot be estimated.

Under **option 3**, the number of ATPs may increase due to possible expansion of regulatory requirements for ATPs into non-trade areas. For example, in the event that the NMI needs to create bespoke services for regulators in other sectors. This may also create benefits for ATPs where they are able to expand their services into new markets. In spite of the simplification of appointment arrangements, the regulatory burden has the potential to increase based on the possible increase in ATPs who may be required to provide measurement services.

- Possible increase in number of ATPs, leads to a potential increase in regulatory burden associated with applications and renewals. The value of the increase in regulatory burden cannot be quantified for the purposes of this RIS.

The change in the regulatory burden per option is described in the below table.

*Table A13- 11: Changes in regulatory burden for appointments of ATPs under each option*

Status Quo	Option 1	Option2	Option 3
\$ 0.5m	<b>Savings</b> through merged licence and authorities that would apply to some ATPs	<b>Greater savings</b> from streamlined appointment arrangements that could apply to all ATPs	<b>Savings</b> described under <b>option 2</b> , plus an <b>unquantifiable increase in regulatory burden</b> based on a potential rise in the number of ATPs providing measurement services due to the possible introduction of requirements for other regulatory purposes (non-trade): Increased applications, renewal,

### 20.3.3 Changes to reporting requirements or provision of information

ATPs have reporting requirements under the regulations, but these requirements vary based on the nature of their activities and appointment type. There is expected to be an increase in regulatory burden associated with increased reporting requirements for UMs (under **all options**) and LMAs (under **options 2 and 3**). There will be no change in reporting requirements for SL<sup>235</sup> and PWBLs<sup>236</sup>.

Currently, UMs<sup>237</sup> and LMAs (CAs, VAs, and AAs)<sup>238</sup> provide information at the request of NMI, rather than routine reporting. UMs (under **all options**) and LMAs (under **options 2 and 3**) will see an increase in reporting requirements, subject to the establishment of an appropriate reporting framework to help reduce the reporting burden increase.

- UM reporting requirements (under **all options**) would increase, with routine reporting on services provided (e.g. every batch of utility meters verified) aligning with timeframes for

<sup>235</sup> SL are granted a licence on application under section 18N of the *National Measurement Act 1960*. Reporting requirements are specified under section 18NH e Conditions on all servicing licensees.

<sup>236</sup> PWBLs are granted a licence under s 18P of the *National Measurement Act 1960*, with specific requirements made under *National Trade Measurement Regulations 2009*, regulations 3.12 to 3.64. For example providing an inspection report to the Secretary under regulation 3.18; providing certain information to the Secretary under regulation 3.37.

<sup>237</sup> UM appointments are granted under section 18R *National Measurement Act 1960* and under s 18RB g Conditions on appointment of UMs, they report as required in writing by the Secretary.

<sup>238</sup> Authorities are appointed under *National Measurement Regulations 1999*, regulation 72 "Application for appointment of verifying or certifying authority" and regulation 76 "Approving authorities". Regulation 77 (1)(c) "General conditions of appointment of authorities" includes that the authority report, as required by the Chief Metrologist, about its performance of those duties.

Servicing Licensees (i.e. fortnightly reporting). It is difficult to quantify the increased regulatory burden on U MVs.

- LMA reporting requirements (under **options 2 and 3**) would increase, with routine reporting on services provided (e.g. regulation certificates issued with respect to standards of measurement, artefacts, instruments and reference materials). However, the timeframes for this reporting would likely be less frequent than that for Servicing Licensees and U MVs (i.e. potentially monthly but at least several times a year).
- Reporting framework updates may also realise reporting savings for SLs.

The change in the regulatory burden per option is described below:

*Table A13- 12: Changes in regulatory burden for reporting requirements of ATPs under each option*

Status Quo	Option 1	Option2	Option 3
\$3.1m (with SL reporting estimated at \$3m)	<b>Increased cost of reporting</b> for U MVs, subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs.	<b>Increased cost of reporting</b> for U MVs and LMAs subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs.	<b>Potential unquantifiable increase in regulatory burden</b> based on a possible rise in the number of ATPs providing measurement services for other regulatory purposes (non-trade).

# 21 Appendix 14: Costing the regulatory burden of mandatory verification

## 21.1 Overview

The costs provided in this appendix are an estimation of regulatory burden costs associated with industry needing to have measuring instruments used for trade verified by servicing licensees.

This section includes:

- An estimation of costs of verification of measuring instruments used for trade.
- A description of how flexibility will be introduced under each reform option and how it may change regulatory burden for measuring instruments used for trade and/or regulatory purposes

*This section does not include an estimation of burden in relation to the verification of utility meters in Australia due to a lack of data.*

## 21.2 Verification

Measuring instruments used for trade purposes must be verified<sup>239</sup> by an authorised verifier<sup>240</sup> prior to first use. Section 18GG of the NM Act defines when a measuring instrument is verified which includes testing the instrument according to the national instrument test procedures (NITP) and affixing a mark.

This RIS seeks to test the estimated costs of verification of measuring instruments used for trade purposes so as to provide firmer estimates in the final RIS.

## 21.3 Estimating the regulatory burden cost of the verification service

This subsection provides an estimation of the cost of the verification service provided by Servicing Licensees. This consultation RIS seeks confirmation on the cost of providing the verification service across all types of instrument categories verified in Australia. The NMI estimate of verification is based on the average number of submitted reports on verifications completed across 5 years (2015/16 - 2019/20).

The key variables in this costing are the estimated hourly rate charged by Servicing Licensees based on the \$170 verification fee provided by Trade Measurement Inspectors.

Assumptions used:

- **Time to verify** – NMI estimate of the time required for the verification of each measuring instrument according to the NITP (travel time is excluded)
- **Servicing Licensee Hourly rate:** NMI estimate for verification fee currently around \$170 (inclusive of non-wage costs).

<sup>239</sup> It is an offence for a person to use, loan or let for hire, an unverified measuring instrument for trade purposes. See sections 18GA, and 18GCA NM Act.

<sup>240</sup> Under Section 18GH of NM Act, Servicing Licensees or an employee of a competent Servicing Licensee may verify. Under section 18GI a Utility Meter Verifier may verify a utility meter.

- **5 year average number of instruments verified per year:** Average number of instruments verified over the last five year period (2015/16 - 2019/20)
- **Cost of verification service to business:** Time x hourly rate x number of instruments verified

Table A14- 1: Estimated cost of verification

Instrument Category	Time to verify (hours)	Servicing Licensee Hourly rate	5 year average number of instruments verified per year <sup>241</sup>	Cost of verification service to business:
1.1 - Measures of length not exceeding 2 metres	0.2	\$170	50	\$1,700
1.3 - Fabric measuring instruments	0.5	\$170	4	\$340
10.1 - LPG measuring instruments of the fuel dispenser type excluding cryogenic liquids	1.5	\$170	1,938	\$494,190
10.2 - LPG measuring instruments of the flow meter type excluding cryogenic liquids	3	\$170	210	\$107,100
13.1 - Multi-dimensional measuring instruments	1	\$170	174	\$29,580
3.1 - Masses not exceeding 20 kg excluding masses marked "A" and metric carat masses.	0.1	\$170	4	\$68
4.1 - Volume measures	0.3	\$170	1	\$51
4.2 - Beverage dispensers	0.2	\$170	3,067	\$104,278
4.3 - Alcoholic beverage measures (drinking and portable) <sup>242</sup>	8	\$170	1	\$1,360
4.5 - Pharmaceutical dispensing measures graduated measuring cylinders	1	\$170	1	\$170
4.6 - Brim measures for flowable solids	3	\$170	2	\$1,020
4.9 - Grain density measuring instruments	0.4	\$170	193	\$13,124
5.1 - Liquid measuring instruments of the fuel dispenser type used for petroleum products other than LPG	0.3	\$170	17,700	\$902,700
5.2 - Liquid measuring instruments of the flow meter type used for petroleum products	1	\$170	1,368	\$232,560
5.3 - Liquid measuring instruments of the flow meter type used for other than petroleum products	1	\$170	388	\$65,960
6.1 - Weighing instruments classes 1 and 2	0.3	\$170	56	\$2,856
6.2 - Weighing instruments of 30 kg capacity or less classes 3 and 4	0.3	\$170	38,179	\$1,947,129
6.3 - Weighing instruments of a capacity exceeding 30 kg but not exceeding 3 tonnes classes 3 and 4	0.6	\$170	5,015	\$511,530
6.4 - Weighing instruments of a capacity exceeding 3 tonnes classes 3 and 4	2.5	\$170	47	\$19,975
6.4.1 - Weighbridges	2.5	\$170	3,448	\$1,465,400
6.5 - Belt-conveyor weighing instruments	16	\$170	29	\$78,880
6.6 - Automatic rail weighbridges <sup>243</sup>	48	\$170	1	\$8,160
6.7 - Automatic packaging conveyor weighers	1	\$170	287	\$48,790

<sup>241</sup> Excluding instruments verified as part of other measuring instruments, 5-year average (2015/16 - 2019/20).

<sup>242</sup> This assumes batch testing of 10,000 measures.

<sup>243</sup> This does not include significant costs involved to verify an automatic rail weighbridge, such as the rolling stock required, establishing test wagons closing part of the rail network, delays in loading during testing, etc. However to ensure correct measurement these things would happen anyway regardless of a regulatory requirement for verification.

Instrument Category	Time to verify (hours)	Servicing Licensee Hourly rate	5 year average number of instruments verified per year <sup>241</sup>	Cost of verification service to business:
6.8 - Wheeled loaders.	1.5	\$170	574	\$146,370
6.9 - Totalising Hopper weighing instruments	8	\$170	28	\$38,080
9.1 - Vehicle tanks <sup>244</sup>	6	\$170	823	\$839,460
<b>Total</b>			<b>72,765</b>	<b>\$7,060,831</b>

The total regulatory burden for verification of measuring instruments is **\$7,060,831**.

## 21.4 Changes in regulatory burden<sup>245</sup>

An increase in legislated flexibility is proposed under the new legislation, and under each reform option, the approach for increasing flexibility is slightly different.

Under **option 1**, increased flexibility would be supported through legislative provisions that would enable the NMI to make a determination that instruments of a specific category need not be verified. This would reduce verification costs for businesses.

Under **option 2**, increased flexibility would be supported through legislative provisions that would enable the NMI to:

- Retain verification as a default mechanism of control for measuring instruments used for trade, unless determined otherwise through a determination by the Chief Metrologist (as for option 1).
- Establish alternative instrument controls:
  - Both pre market<sup>246</sup> and post market<sup>247</sup> controls would be available, including requirements regarding verification.
  - The control mechanism would be drafted to be accessible to other regulators who may wish to access them, rather than being specifically limited to trade use.
  - These controls would be established following data collection, risk assessment and consultation. As such, it is not possible to quantify the changes in regulatory impact that might result from these instrument control mechanisms for the purposes of this RIS.

A change in regulatory burden would occur:

- If verification is not required to be applied to a measuring instrument used for trade, savings would include a reduction as for Option 1.

<sup>244</sup> The assumption is that each vehicle tank will have 5 compartments each of which are considered to be a measuring instrument and verified at 1.2 hours each.

<sup>245</sup> The Australian Government places importance to avoid imposing unnecessary regulatory burden on businesses, individuals and community organisations. All new regulations or changes to existing regulations need to have the increase or decrease in regulatory costs imposed on businesses, community organisations and individuals quantified using the Regulatory Burden Measurement framework. Refer to <https://www.pmc.gov.au/regulation/guidance-policymakers/regulatory-burden-measurement>.

<sup>246</sup> Pre market is defined as before sale of a measuring instrument for trade use (e.g. pattern approval) and before its first use for trade purposes (e.g. initial verification).

<sup>247</sup> Post market is defined as after first use of a measuring instrument for trade purposes, for example periodic re-verification or in-service inspections.



- If verification is replaced by another mechanism of control or by a set of other controls the change in regulatory burden would be unquantifiable as the change would depend on the alternative mechanism of control and the burden it may impose, which would be determined in subsequent consultations.

Under **option 3**, increased flexibility extends the application of a range of mechanisms of control to measuring instruments used for regulatory purposes. This would be supported through legislative provisions (as for option 2) in view of extending NMI’s role with respect measurement used for regulatory purposes.

Industry compliance with measuring instrument requirements stipulated by NMI to other regulators would be considered a regulatory burden. Under option 3, the nature of the regulatory burden is contingent on whether the NMI exercises the additional power to compel certain mechanisms of control (to include verification) over measuring instruments used for regulatory purposes. The NMI may impose additional regulatory burden on other government agencies, businesses and individuals.

The change in burden may include:

- An increase in regulatory burden where measuring instruments used for regulatory purposes require verification.
- An increase in regulatory burden where other appropriate control mechanisms (not being verification specifically) are applied under measurement law and which have not previously been used by regulators in their regulations and/or compliance programs.

While it is possible to reduce regulatory burden for trade measuring instruments, there would be an unquantifiable increase in regulatory burden for measuring instruments used for regulatory purposes in option 3.

## 21.5 Potential savings

Verification remains a fundamental mechanism of control for measuring instruments. The extent of savings is not possible to quantify precisely in this consultation RIS and will be estimated based on stakeholder feedback for inclusion in the final RIS. It is anticipated that there will be no change on day one of the new legislation.

Below are scenarios that estimate the reduction in regulatory burden if the requirement for verification were removed for a percentage under any of the options. The scenarios also show the potential savings through changes, for example efficiency gains through improved systems<sup>248</sup>, with implementation or transition across for example a 5 to 10 year timeframe per scenario.

*Table A14- 2: Scenarios of potential savings*

Potential savings scenarios	Status Quo	Option 1	Option 2	Option 3
% reduction in burden		2%	4%	Cannot be determined
Regulatory burden to industry	\$7,060,831	\$6,919,614	\$6,778,398	Increase
<b>Savings from options</b>		\$141,217	\$282,433	-

<sup>248</sup> Refer to the sub-section on [changes in relation to the verification of measuring instruments](#).

The table below provides a summary of potential savings for the sector in relation to status quo:

*Table A14- 3: Summary of potential savings*

Status Quo cost of verification	Option 1	Option 2	Option 3
<p><b>\$ 7.06m</b></p> <p>Estimated cost for verification</p>	<p><b>Potential savings</b> approximately <b>\$0.14m</b> for measuring instruments used for trade</p>	<p><b>Potential savings</b> approximately <b>\$0.28m</b> for measuring instruments used for trade</p> <p>Unquantifiable potential change (<b>increase or decrease</b>) in burden from other flexible controls on measuring instruments used for trade</p>	<p>As for option 2 plus <b>Additional regulatory burden</b> for the verification of measuring instruments used for regulatory purposes</p>

## 22 Appendix 15: List of questions

### General Questions

1. Are there any other benefits and costs to you resulting from each of the three reform options that you think should be considered? Are there any notable impacts which have not been included?
2. Can you see any issues with the regulatory burden costings? Please describe any specific issues, including the assumptions used in estimating the regulatory burden.
3. Do you agree with the overall assessment that option 2 has the greatest net benefit? Why or why not?

### Specific questions regarding consumers:

4. What impacts, positive or negative, do you see for consumers in expanding the scope of shortfall to instead cover false or misleading measurement statements?
  - a) How do these impacts differ for consumers between **option 1** (where sale and purchase of goods is covered) and **options 2 and 3** (where sale and purchase of goods and services is covered)?
5. What impacts do you think the proposed options regarding acceptable units of measurement will have for consumers? (For example, allowing greater flexibility for products to be sold by alternative units of measurement such as count, linear and area measurement, rather than mass and volume)
6. Are there any particular types of packaged products where retaining any of the existing presentational requirements (such as front of pack measurement marking) is important? If so, why?

### Specific questions regarding measuring instrument manufacturers

7. In what other ways can the measurement framework increase flexibility regarding how it regulates measuring instruments? How can confidence in measuring instruments be maintained under a flexible approach?
8. What is the impact of the potential uncertainty regarding the control mechanisms applying to trade measuring instruments and the need for increased consultations?
9. Can you provide any examples of technical barriers to approval faced by innovative instruments? What impacts have these had on your business?

### Specific questions regarding Authorised Third Parties:

10. To what extent do you agree with the identified impacts and benefits of more streamlined (**option 1**) and flexible (**options 2 and 3**) appointment types?
  - a) What risks, costs and benefits do you see with the approaches under **option 1, 2 and 3**? How could these risks and costs be mitigated?
  - b) What would be an appropriate period of transition for the measurement services industry to move to flexible appointment types?

11. What types of measurement functions and activities might be appropriate for a **general licence**? Please explain why.
12. If the functions currently performed under a Public Weighbridge Licence were transitioned to a **general licence** in future, how would this impact you as a:
  - a) Public Weighbridge Licensee?
  - b) Business who relies on services provided by public weighbridges?
  - c) Operator of a non-public weighbridge who may consider providing services under a general licence arrangement, rather than a formal appointment?
13. What impact would routine reporting have on utility meter verifiers (under **all options**) and legal metrology authorities (under **options 2 and 3**)?
  - a) How could NMI minimise the impact of routine reporting?
  - b) What sort of transition period would be appropriate for the introduction of new reporting requirements or a change in reporting system?
  - c) What features would you like the reporting system to have?


**Specific questions regarding wholesalers, retailers, importers, and packers:**


14. If you are a business who packs random measurement packaged products:
  - a. How would the requirement to use pattern approved and verified measuring instruments impact your business?
  - b. Would you incur any additional costs to meet this requirement? (Note: pattern approved instruments typically cost more than non-pattern approved instruments).
  - c. What types of businesses do you think will be most affected by this change?
15. What burdens do you currently experience in understanding your current requirements under the measurement legislation? What can be done to reduce these?
16. Are there any particular types of packaged products where retaining any of the existing presentational requirements (e.g. front of pack measurement marking) is important? If so, why?

**Specific questions regarding government regulators**


17. What measurement services do you depend on most as a regulator in order to be able to trust the measurements you rely on?
  - a) Are these currently adequately supported by the measurement legislation? If not why not?
  - b) Are there any market gaps in the kinds of measurement services you anticipate you will need?
18. Could NMI have a role in helping to regulate the measurements that your agency relies on currently or may rely on in the future? Where would this be most helpful?
19. Are there any enhancements which could be made to the measurement legislation which would enable regulators to have greater confidence in the measurements they rely on?

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