Reforming Australia’s Measurement Legislation

Regulation Impact Statement

RIS ID: 23160

Date: 23 September 2021

Copyright

**© Commonwealth of Australia 2021**

**Ownership of intellectual property rights**

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

**Creative Commons licence**

****

**Attribution**

**CC BY**

All material in this publication is licensed under a Creative Commons Attribution 4.0 International Licence, save for content supplied by third parties, logos, any material protected by trademark or otherwise noted in this publication, and the Commonwealth Coat of Arms.

Creative Commons Attribution 4.0 International Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided you attribute the work. A summary of the licence terms is available from <https://creativecommons.org/licenses/by/4.0/>

The full licence terms are available from <https://creativecommons.org/licenses/by/4.0/legalcode>

Content contained herein should be attributed as *Report title, Australian Government Department of Industry, Science, Energy and Resources*.

Disclaimer

The Australian Government as represented by the Department of Industry, Science, Energy and Resources has exercised due care and skill in the preparation and compilation of the information and data in this publication. Notwithstanding, the Commonwealth of Australia, its officers, employees, or agents disclaim any liability, including liability for negligence, loss howsoever caused, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying upon any of the information or data in this publication to the maximum extent permitted by law. No representation expressed or implied is made as to the currency, accuracy, reliability or completeness of the information contained in this publication. The reader should rely on their own inquiries to independently confirm the information and comment on which they intend to act. This publication does not indicate commitment by the Australian Government to a particular course of action.

Contents

[1 Executive summary 4](#_Toc83293520)

[2 Background and context 14](#_Toc83293521)

[3 RIS Question 1: What is the policy problem to be solved? 16](#_Toc83293522)

[4 RIS Question 2: Why is government action needed? 21](#_Toc83293523)

[5 RIS Question 3: What policy options are being considered? 25](#_Toc83293524)

[6 RIS Question 4: What is the likely net benefit of each option? 66](#_Toc83293525)

[7 RIS Question 5: Who will you consult and how will you consult them? 81](#_Toc83293526)

[8 RIS Question 6: What is the best option from those you have considered? 93](#_Toc83293527)

[9 RIS Question 7: How will you implement and evaluate your chosen option? 95](#_Toc83293528)

[10 Appendix 1: Glossary 101](#_Toc83293529)

[11 Appendix 2: Further background and context for the review 104](#_Toc83293530)

[12 Appendix 3: When changes would occur 109](#_Toc83293531)

[13 Appendix 4: Impacts on consumers 111](#_Toc83293532)

[14 Appendix 5: Impacts on measuring instrument manufacturers, importers and distributors 118](#_Toc83293533)

[15 Appendix 6: Impacts on Authorised Third Parties 127](#_Toc83293534)

[16 Appendix 7: Impacts on wholesalers, retailers, importers, and packers 135](#_Toc83293535)

[17 Appendix 8: Impacts on government regulators 144](#_Toc83293536)

[18 Appendix 9: Costing the regulatory burden of changes to measurement marking requirements on packaged products 153](#_Toc83293537)

[19 Appendix 10: Costing the regulatory burden for businesses to understand requirements for packaged products 192](#_Toc83293538)

[20 Appendix 11: Costing the regulatory burden from pattern approval 195](#_Toc83293539)

[21 Appendix 12: Costing the regulatory burden on Authorised Third Parties 204](#_Toc83293540)

[22 Appendix 13: Costing the regulatory burden of mandatory verification 223](#_Toc83293541)

# Executive summary

This Regulation Impact Statement (RIS) sets out the reform options for Australia’s measurement law and nominates a preferred option. It follows the release of a Consultation RIS on 14 April 2021 which sought stakeholder feedback on proposed reform options endorsed by the Minister for Industry, Science and Technology. It has been developed under the Measurement Law Review (MLR) 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 RIS will be used to inform government to make a decision on reforming Australia's measurement laws.

This document covers 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?
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?

## 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 uniform units and measurement standards throughout Australia, from traditional weights and measures to advanced chemical and biological analysis, ensuring consistency and interchangeability of measurements nationally and internationally.

## 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;[[1]](#footnote-2)
* being too prescriptive, resulting in a lack of flexibility;
* a lack of consistency across measurement-based transactions and appointment of authorised third parties (ATPs);
* 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. Remaking the legislation will allow for a contemporary approach that minimises burden for industry and reduces risk, for example 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](#_RIS_Question_1:_1).

## Rationale for government involvement

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

* + 1. **Enable innovation** – by adjusting to emerging measurement technologies.
    2. **Be fit for purpose** – by regulation being appropriate and proportionate to measurement risk and usage.
    3. **Provide future flexibility** – to accommodate changing business practices and evolving measurement needs.

**Outcomes for stakeholders** including:

* + 1. **Industry investment** – by establishing an environment that encourages industry to invest in building and maintaining capability reliant on measurement.
    2. **Balancing market costs and benefits** – by minimising unnecessary regulatory burden and cost for industry while maintaining confidence in the measurement system.
    3. **Balancing cost to government** – delivering key capabilities and services that benefit Australian industry and the community at a reasonable cost.

## Overview of reform options

This RIS outlines three reform options.

Table 1: Reform options

| **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](#_RIS_Question_3:). The timing of potential changes is outlined in [Appendix 3](#_Appendix_4:_When).

### 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 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.

### 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 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 take advantage of technology, which are vital to Australia’s economic recovery and long term competitiveness.
* positioning Australia to respond to future measurement needs through clear authority to underpin accurate and reliable measurement in Australia, enabling a greater ability to provide expertise and confidence to industry and government.

### 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. The intention of option 3 is not to provide inspectors with additional powers, rather it would allow expansion of existing regulatory scope. Key enhancements under option 3 include:

* the flexibility gained under option 2, with an expansion of scope providing the additional power to directly regulate a wider range of 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.

## 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](#_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** | **Industry Efficiency**  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 measurement requirements for trade | Supports level playing field with flexibility to streamline broad measurement requirements |
| **Community Trust**  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 |
| **Government Reliance**  Enabling key government outcomes needing accurate and reliable measurement  (for example, food, energy 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, greater ability to underpin accurate and reliable measurement | Flexibility to regulate a wider range of measurement-based activity |
| **International Recognition**  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 alignment for trade and innovation | Flexibility to accommodate greater alignment across all measurement and practice |
| **Adaptability** | **Enables Innovation**  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 |
| **Fit for purpose**  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 |
| **Provides Future Flexibility**  Provides regulation that can accommodate changing business practices and evolving measurement needs | Limited flexibility | Some flexibility | Greater flexibility to support emerging practices with focus on trade | Significant flexibility to support all measurement outcomes |
| **Outcomes** | **Industry Investment**  Encourages industry to invest in building and maintaining capability reliant on measurement | Prescriptive framework for measurement services limits support for industry capability | Streamlined arrangements and greater access to measurement service capabilities | Flexibility to support evolving measurement services aids industry development | Greater principles-based regulatory engagement creates opportunity |
| **Balancing Market Costs and Benefits**  Minimises unnecessary regulatory burden and cost for industry while maintaining confidence in the measurement system  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 |
| **Balancing Cost to Government**  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 |

## Net benefits of reform options

In response to [RIS Question 4](#_RIS_Question_4:_1), 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.

### 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** |
| --- | --- | --- | --- | --- |
| **Measurement marking requirements on packaged products** | Industry | -$5.7m | -$6.4m | -$6.4m |
| Consumers | +$0.1m | +$0.9m | +$0.9m |
| **Understanding packaging requirements** | Manufacturers and Importers of packaged products | -$2.7m | -$2.7m | -$2.7m |
| **Pattern approval costs** | Instrument manufacturers | -$0.01m | -$0.04m | -$0.04m\* |
| **Verification costs** | Industry: ATPs and  trading businesses | -$0.1m | -$0.3m | -$0.3m\* |
|  | **TOTAL** | **-$ 8.4m** | **-$ 8.5m** | **-$ 8.5m** |

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

Detailed costings are given in Appendices 9 - 13.

### Stakeholder impacts

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

* **consumers**
* **industry** - represented by
  + **measuring instrument manufacturers, importers and distributors**
  + **authorised third parties**[[2]](#footnote-3)
  + **wholesalers, retailers, importers and packers**
* **government regulators**.

Impacts for these groups are considered in detail in Appendices 4 - 8.

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

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

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 – measuring instrument manufacturers / importers / distributors | +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 a more flexible approach to regulated activities in the future and reduce some regulatory compliance costs for ATPs. Regulation will be streamlined in all reform 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 | Options 1 and 3 provide a slight benefit to regulators, with option 3 impacting regulators to a greater extent than option 1. Option 2 provides the greatest net benefit to regulators as less regulatory overlap and ongoing engagement required as compared to Option 3. |
| 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:

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

### 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.

## Summary of Consultation

The department consulted extensively to form and refine the reform options presented in this RIS. Draft reform options were informed by the feedback received from six discussion papers on Australia’s measurement framework (see [section 11.2](#_The_Measurement_Law)). These options were presented in a Consultation RIS for stakeholder feedback and published online via the department’s consultation hub for comment between 15 April and 14 May 2021. Further information about the consultation on the draft reform options is available in [section 7](#_RIS_Question_5:).

There was support for option 2 from industry and other stakeholder groups due to its flexibility and future focus. Stakeholders generally agreed with the assessment that option 2 provided the greatest net benefit. Some stakeholders raised issues with discrete elements of option 2, including packaging and weighbridge licensing.

Option 1 did not receive much support. It was viewed as a stop gap with insufficient flexibility to meet future measurement needs for industry and government. There was also low support for option 3 due to a lack of demonstrated need for an extension of scope to regulate measurements relied upon by other policy owners.

The finalised options presented to government and described in this RIS were revised following feedback on the draft reform options. Some discrete changes were made but these did not substantially alter the options. Detailed information about stakeholder feedback and the changes made are available in [section 7.3](#_Incorporating_stakeholder_feedback).

## Recommended option

Analysis and consultation confirm that option 2 presents the greatest net benefit and is the recommended option as it:

* Provides the equal highest quantifiable reduction in annual regulatory burden of $8.5 million.
* Offers the greatest alignment with the policy objectives and principles that positions industry to develop and adopt new technologies through the flexibility of a largely principles-based approach.
* Balances flexibility for industry with ensuring continued confidence in the measurement system.
* Provides the greatest net benefit to stakeholders. There is support for this assessment from the majority of stakeholders.

See [section 8](#_RIS_Question_6:) for more detail.

## Implementation

Australia’s current measurement legislation will be repealed and the new legislation introduced before the current regulations sunset – currently on 1 April 2024. A three stage implementation plan (see [section 9.1](#_Implementation_Plan)) demonstrates how the new measurement legislation will be established and administered:

* The initial phase of implementation (2022-2024) commences the legislative drafting and may involve consultation on specific issues.
* In the second phase (2024-2026), education campaigns and transitional arrangements (such as grace periods) will help industry, consumers and other stakeholders transition to the new laws.
* The final stage of implementation (2026 onwards) will involve evaluation of the reforms and a review of the exemptions.

A public online policy register will be introduced during the second phase to support ongoing transparency in the evaluation and resolution of future policy issues.

# Background and context

## 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.[[3]](#footnote-4) 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[[4]](#footnote-5) system administered by 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](https://www.industry.gov.au/regulations-and-standards/measurement-standards/measurement-law-review) and the [Terms of Reference](https://www.industry.gov.au/sites/default/files/2019-07/measurement-law-review-terms-of-reference.pdf) are available on the department’s website.

## 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[[5]](#footnote-6) and reliable.[[6]](#footnote-7)

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.

## 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,[[7]](#footnote-8) and supports industry, trade, consumer confidence and effective regulation.

It does this by:

* establishing a national system of measurement units based on internationally recognised measurement standards and reference materials[[8]](#footnote-9)
* requiring the use of these measurement units for legal purposes
* creating the NMI and outlining its responsibilities
* establishing mechanisms for ensuring 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.

## 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.

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

## 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, including:

* 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 6 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.

## 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.[[9]](#footnote-10)

A key example cited is the current way that instruments are approved for trade use,[[10]](#footnote-11) with pattern approval[[11]](#footnote-12) and verification[[12]](#footnote-13) 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.

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

Australia’s measurement laws provide for measurements used for a legal purpose to be linked to one or more reference points, which are based on the International System of Units (the SI). For example, a reference point for mass could be a 1 kg weight that is verified as a reference standard of measurement and linked to Australia’s primary kilogram (and therefore traceable to the SI).

However, the international measurement system is evolving. Following on from the revision of the SI in May 2019, the international measurement system has been re-defined based on fundamental constants of nature. This means that, in principle, the Chief Metrologist could recognise a primary measurement standard[[13]](#footnote-14) for a base unit like the kilogram could be developed by anyone with sufficient resources and proficiency. These primary standards could be innovative in their design and operation (e.g. standards ‘on a chip’[[14]](#footnote-15)) and could be developed and maintained by the private sector.

This requires Australia’s measurement legislation to be sufficiently flexible to adapt to this evolving system over the coming decades. An example of this is to provide for the legal recognition of appropriate primary measurement standards that support new technologies and opportunities for Australian industry and consumers.

The opportunities that may arise from innovation also rely upon the maintenance of highly accurate and internationally recognised primary measurement standards. As such, the future Act must also maintain confidence in Australia’s primary measurement standards, the realisation of which will continue to be based upon internationally aligned best practice, criteria and systems.

## 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[[15]](#footnote-16) 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
  + 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.

## 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:

* **packaged vs non-packaged goods:** there is a disparity between the requirements for products when sold either packaged or loose.[[16]](#footnote-17)
* **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 and the UK). 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.

## 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. Consideration and review of exemptions will occur subject to future consultation. 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.

## 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.[[17]](#footnote-18) The *Regulatory Powers (Standard Provisions) Act 2014* also contains standard provisions relating to civil penalties that can be triggered by other Commonwealth Acts.[[18]](#footnote-19) 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.[[19]](#footnote-20)

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.

# RIS Question 2: Why is government action needed?

## 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.

## 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 international markets 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.

## 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 6 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 3 to 6 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 2 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 2 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).[[20]](#footnote-21) 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.
* **Under-investment:** measurement projects[[21]](#footnote-22) 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.

## 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.

## 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).[[22]](#footnote-23) Australia is also a member of the corresponding peak forums at a 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:

* 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[[23]](#footnote-24)
  + technical committees under the OIML Convention in areas of priority for Australian stakeholders
  + corresponding committees at regional level
* effectively participating in mutual recognition and acceptance 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.

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

## Overview

In response to the drivers for change outlined above, and consistent with national measurement policy objectives, the Measurement Law Review has developed 3 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 3](#_Appendix_4:_When). The impact of specific changes under each option on stakeholders is outlined in response to RIS Question 4 in the next chapter.

### Discussion by key fundamental elements of the legislation

Under all options presented, key fundamental elements of the legislative framework remain, including:

* the traceability of measurements
* the regulation of measuring instruments
* requirements for measurement-based transactions
* arrangements for appointment and use of ATPs[[24]](#footnote-25) to provide various measurement services
* tools to enable appropriate compliance and enforcement activities.

## Process of options development

| **Review Progress Diagram** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **2015** | **Packaging Review** |  | **Start of Packaging Review** | The Department undertook a review of 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. | | |
|  |
|  |  |  | The packaging review gathered stakeholder views through four key processes: | 1. Discussion paper for comment 2. One on one stakeholder meetings 3. Options paper for comment 4. ORIMA research/surveys | |
| **2017** | **Measurement Law Review (MLR)** | **Start of MLR** | Government agreed to undertake a thematic review of the measurement legislation and the Measurement Law Review (MLR) was established. The review team analysed the legislation and divided it into thematic areas for the purposes of public consultation (outlined below). | | |
|  |
| **2018** | | **Stakeholder Workshops** | Workshop discussions were undertaken across government (Commonwealth and states and territories), peak industry bodies and consumer groups to raise awareness of the review and advise on the key principles of the review. | | **In 2018 the packaging review was merged with the MLR.** |
|  |  |
| **2019** | | **Public Consultation** | Throughout 2018 and 2019 [six discussion papers](https://www.industry.gov.au/regulations-and-standards/measurement-standards/measurement-law-review) seeking feedback on Australia’s current measurement framework were released for public comment. | 1. Scope 2. Traceability 3. Measuring instruments 4. Measurement-based transactions 5. Third party arrangements 6. Compliance and enforcement arrangements | **A total of 103 submissions were received**. |
|  |  |
|  |  | **Economic Analysis & Industry Survey** | An independent report estimated the baseline value of the measurement framework and noted the benefits of measurement regulation are widespread and varied, ranging from reduced economic transaction costs to environmental benefits and improved healthcare outcomes. | | |
| **2020** | | **Third Party Industry Consultation** | The public consultation discussion papers were supplemented with a series of consultation forums with ATPs. These forums were in Melbourne, Adelaide, Sydney, Brisbane and Perth. A total of **123 participants** attended the forums. | | |
|  |  |
|  |  | **Publication of Consultation Summary** | An overview of the key feedback from the public consultations and third party forums was summarised and made available on the review’s Webpage ([link](https://www.industry.gov.au/sites/default/files/2020-10/measurement-law-review-overall-summary-of-public-consultations.pdf)). | | |
|  |  | **Internal Policy Analysis** | The MLR facilitated a number of policy development workshops to draw on the expertise and knowledge from across NMI and jointly develop a potential range of proposed options that incorporated feedback from stakeholders. | | |
| **2021** | | **Consultation RIS Drafting & Stakeholder Impact Analysis** | **The MLR drafted the initial Consultation RIS, focusing on four key questions:** | 1. What is the problem to be solved? 2. What is the rationale for Government Action? 3. What reform options are being considered? 4. What are the impacts of the reform options? | As a part of the RIS, the review considered how proposed changes would impact key stakeholder groups, and align with key policy objectives. |
|  |  |
|  | | **Public Consultation** | The Consultation RIS was open for comment from 15 April until 14 May 2021. | * **38** written submissions were received. * **5** virtual town hall discussions, with **81** participants, were conducted. * **22** targeted one-one-one discussions were held. | |
|  |  |
|  | | **Final RIS** | Prepared following feedback from stakeholders on the Consultation RIS. | | |
|  | |
| **2022** | | **Government Decision** | It is anticipated that Government will make a final decision on the options between the end of 2021 and the start of 2022. | | |
|  |  |

### Other options not progressed

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

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.

## The options being considered

### 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.

### 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 exemptions and deemed compliance pathways, or introduce additional requirements (where there is a need) 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 6 ATP appointment types into 4, 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 Licensees 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.

### 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:

* While pattern approval and verification requirements will remain the default approach for regulating instruments used in trade, the legislation will include mechanisms for the Chief Metrologist to introduce additional measuring instrument control mechanisms designed to provide support and confidence in innovation. These alternative controls may be applied in certain circumstances, for example where pattern approval is not be possible or where it may not be the most suitable approach, instead of applying a one-size-fits-all approach across all instrument types. This will allow the framework to evolve and remain fit for purpose over time.
* Current legislative exemptions will be maintained initially. These arrangements will be reviewed over time following data collection, risk assessment and appropriate consultation to ensure they remain the most suitable approach, or to determine whether alternative arrangements might be more appropriate.
* 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.
* The legislation will use a single mechanism to appoint an ATP, authorising them to perform certain distinct functions outlined in the regulations. Authorised functions will align with existing ATP categories and a new general category will be introduced to enable performance of “other metrological functions as determined by the Chief Metrologist” to accommodate future needs.
* Powers for the Chief Metrologist to approve 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 conduct and implement recalls on measuring instruments and packaged products.
* Provide clear authority for the role of Government in underpinning accurate and reliable measurement in Australia. Ability to make regulations or other legislative instruments to support this role enables greater oversight and coordination of measurement issues, particularly in response to crisis.

**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 greater flexibility to adapt to future needs.

### 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, outside of the trade measurement context, using a risk-based approach. The intention of option 3 is not to provide existing inspectors with additional powers, rather it would allow expansion of existing regulatory scope with 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.

### 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** |
| --- | --- | --- |
| **Status quo** | * **Industry**: Domestic business and industry continue to operate under a known legislative framework. * **Consumers**: Historically has helped to provide confidence that consumers are getting what they pay for. | * **Industry**: Prescriptive legislation applies a one-size-fits-all approach. Known issues remain unaddressed. * **Consumers**: Focus on regulating where consumers purchase goods. Does not cover services or consumer sales (e.g. bottle recycling). * **Innovation**: The legislation is not updated and remains disconnected from new technologies. Industry needs for technological innovation are not supported. * **Government**: Limited support for other policy outcomes. |
| **Option 1** | * **Industry**: Reduced red tape and regulatory burden through streamlining and simplifying the legislation. Provides some flexibility (including packaging) while maintaining certainty. * **Consumers**: Provides confidence for buyers and sellers of goods. * **Economy**: Increased consistency across different measurement transactions (including packaging requirements for some products). * **Innovation**: 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. | * **Industry**: Meets current needs but does not support future changes. * **Consumers**: Still no coverage of services. * **Innovation**: The framework still does not adjust to full impacts of emerging technologies. Short term support for innovation and business investment, which erodes over medium to long term. * **Government**: NMI has limited flexibility to assist government agencies other than through service based arrangements. |
| **Option 2** | * **Industry**: Increased flexibility for industry supports greater variety of valid measurement practices (including packaging). Regulation more fit for purpose and targeted based on risk.   + *For example, scope to recognise international requirements and approvals.* * **Consumers**: Provides confidence for buyers and sellers of goods and services where the value relies on measurement. * **Economy**: Increased responsiveness to significant economic shifts and practices. * **Innovation**: Flexibility to respond to industry innovation and technology changes. Ongoing support for innovation and investment. * **Government**: NMI has greater ability to assist with overseeing the use of accurate and reliable measurement in Australia. | * **Industry**: Increased flexibility may create less certainty for industry regarding future requirements and may affect investment in the short term. Mitigate through communication and consultation. * **Consumers**: Greater flexibility regarding packaging requirements may increase time to locate the measurement marking. |
| **Option 3** | As for option 2, plus:   * **Government**: Power to be a generalist regulator and directly take action to address measurement issues encountered by other government agencies. * **Innovation**: Applying NMI expertise supports adoption of new technologies and leverages capability to support government outcomes. | As for option 2, plus:   * **Industry**: Industry may need to deal with multiple regulators for differing requirements for the same activity. Perception of increased regulatory burden. Agency cooperation may reduce actual burden. * **Government**: Capacity and resourcing challenges. |

## Changes to the legislation under the options

The reform options introduce a number of changes to key legislative elements 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 3 reform options, discussed in further detail below, and include:

* shifting to a principles-based approach in legislation
* clarifying Government’s role to underpin accurate and reliable measurement and support other regulators
* changes to the traceability framework
* changing the way measuring instruments are regulated
* changes affecting ATPs
* expanding scope of coverage from shortfall to false or misleading measurement statements
* changes to requirements for use of alternative units of measurement and use of measuring instruments
* a principles-based approach to marking packaged products
* 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 behaviour that is currently acceptable 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 3.](#_Appendix_4:_When)

### 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.*

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.

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.

A shift to principles-based legislation does not mean that all detail and prescription will be removed. To aid simplification and streamlining in several areas, prescription will be retained and moved to regulations or other legislative instruments and guidance materials.

For example, the new legislation will simplify the prescriptive requirements for packaged products so that they are easier to understand for business and consumers. More detailed lists and requirements for packaged products may be simplified in the regulations or moved to other legislative instruments and guidance material.

Similarly, public weighbridge requirements relating to construction and operation will be simplified and easier to understand and navigate for public weighbridge licensees and operators. Technology neutral wording will enable flexibility to accommodate evolving technology while ensuring that confidence in public weighbridges is maintained. Without negatively impacting the intent of the requirements, some requirements will be combined or removed for simplification and substituted with guidance material.

### Clarifying Government’s role to underpin accurate and reliable measurement and support other regulators

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, agriculture, health and law enforcement None of the options would limit NMI’s ability to maintain this support.

Under **option 1** the measurement legislation continues to focus on regulating measurement for trade, while continuing to maintain ATP arrangements that provide support for legal measurement purposes outside trade. While regulators can partially leverage this framework to provide confidence in the measurements they rely on, the legislation would still be focused on achieving trade measurement outcomes.

**Option 2** establishes arrangements regarding measuring instruments that are broadly accessible for use by other regulators (rather than primarily covering 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. 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. NMI would have a greater ability to assist other regulators and agencies through the provision of appropriate measurement services.

Under **option 2** the objectives of the Act will further clarify the Government’s constitutional role to underpin accurate and reliable measurement in Australia. This will enable regulations and other legislative instruments to be made, where necessary, to support greater oversight and coordination of measurement in Australia beyond trade. This could include setting best practice test procedures or measurement methods, or introducing requirements in response to significant measurement issues or crisis.

**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. NMI would also be able to establish specific ATP appointments to support the needs of specialist regulators.

The increased flexibility and extended scope under **option 3** enables NMI to use its capability and international standing to provide more direct support for other regulators. For example, currently NMI adapts international documentary standards for the purposes of measuring instruments used for trade. Under this option, NMI could also adapt relevant international recommendations and documentary standards useful for other regulatory purposes.

### 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[[25]](#footnote-26) and that measurements are derived from realised units of primary measurement standards traceable to the SI or other trusted systems of measurement.

The legislation will continue to provide for pathways for legal traceability[[26]](#footnote-27) through the certification of measurement standards, 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 and accurate results in ALUMs. It will also include a mechanism to more easily specify new ALUMs.

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

**Option 1** includes existing traceability pathways but also provides mechanisms for the Chief Metrologist to identify additional trusted measurement reference points (traceability pathways), particularly in the areas of chemical and biological measurements.[[27]](#footnote-28) These expanded mechanisms for the Chief Metrologist would include the ability to determine:

* 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.[[28]](#footnote-29)

**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 and strategic outreach). This would be achieved through greater flexibility and mechanisms for the Chief Metrologist to:

* determine additional appropriate traceability pathways[[29]](#footnote-30)
* endorse/approve international arrangements or references, databases, and outputs from other NMIs and expert institutes that are internationally recognised
* recognise instruments as sources of traceability with structure expanded to encompass Artificial Intelligence (AI) systems, self-checking and self-learning instruments
* revoke recognition of traceability pathways (e.g. to enable superseded methods to be revoked)
* revalidate approved traceability pathways to reflect change in algorithms
* recognise additional traceability pathways (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.

**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 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.

### 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.[[30]](#footnote-31) 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.

#### 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[[31]](#footnote-32) by a Certifying Authority. This process results in instruments that can be directly trusted,[[32]](#footnote-33) 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.

#### Limitations of current approach

The current arrangements (**status quo**) apply a one-size-fits-all approach for all instruments when used for trade purposes by requiring the approval of the measuring instrument design (pattern approval) and the verification of the instrument prior to first use in the marketplace. Where there is an established framework for the approval and verification of measuring instruments the system functions well to ensure people can have a high degree of confidence in instruments being used for trade, for example weighing instruments. These controls are considered key components of the framework and will continue to remain the preferred control mechanisms for measuring instruments in these circumstances.

However, current controls are not fit for purpose for all measuring instruments in all circumstances. In order to accommodate evolving measuring instrument technology in the future and prevent the legislation from acting as a barrier to innovation, the options seek to strike a balance between continuing to support well-established measuring instrument controls and introducing a degree of flexibility.

##### New pattern approval pathways take time to build

For some measuring instruments the current framework acts as a technical barrier to trade, limiting innovation. Where a new or novel measuring instrument is seeking to enter the market and there is no existing national or international recommendation to approve the instrument, then one needs to be developed. This process can often take several years, creating a situation where the instrument cannot be sold or used for trade until the appropriate framework is developed. The following case study provides an example of the current limitations for the approval of measuring instruments.

Electric Vehicle Charger Stations (EVCSs) in Australia[[33]](#footnote-34)

In Australia EVCSs have needed to be approved as electricity meters in order to be used in trade. However, existing approval requirements for electricity meters may not be appropriate because the requirements were not developed for EVCSs.

A key difference between EVCSs and traditional electricity meters is that EVCSs are used for discrete transactions whereas traditional electricity meters are used to continuously accumulate energy. Additionally, traditional electricity meters generally operate on alternating current (AC), whereas EVCS may operate on either AC or direct current (DC) (e.g. DC Fast Chargers).

Australia’s electric vehicle industry has raised concerns about the appropriate requirements for EVCSs. Further, there are as yet no recognised international documentary standards for the accurate performance of EVCSs, and EVCSs on the global market may not comply with current NMI requirements for electricity meters. This has led to consultation to consider the appropriate framework.

To fully support AC and DC EVCSs, new requirements and infrastructure (e.g. testing capability) will be required, which can take considerable time to develop. Under the current legislation, these new requirements and infrastructure would be necessary to enable the use of these EVCSs, causing delay to the uptake of this technology.

##### Upfront pattern approval limits market testing

Pattern approval can also be costly and act as a barrier to businesses trialling new uses for measuring instruments. For example, a business may wish to test the viability of an idea or market demand prior to investing money in pattern approval, however the current system does not allow for this.

|  |
| --- |
| Liquid Laundry Detergent Dispensing Stations[[34]](#footnote-35)  Under the current legislation, some new and innovative instruments, or novel applications of measuring instruments, face technical barriers to market entry. An example is liquid laundry detergent dispensing stations that measure out an amount of laundry detergent for purchase. These dispensing stations may be used in-store by customers to refill used, empty laundry bottles, providing an environmentally friendly alternative to traditional options.  While these dispensing stations are measuring instruments that require pattern approval under the current legislation, and will continue to be subject to requirements under the reforms, the cost of the pattern approval application process can be significant. This can create a barrier to the introduction of new and novel instruments, such as these dispensing stations, as the existing legislation does not provide mechanisms to allow instruments to be trialled in the market in order to assess market demand or long term viability, prior to undergoing the pattern approval process. |

##### Reliance on non-enforcement and administrative solutions

Except for formal exemptions,[[35]](#footnote-36) the legislation currently requires all measuring instruments used for trade to be of an approved pattern and verified. However, ongoing innovation in technology and applications makes this impractical without imposing delays due to the need to establish the required quality infrastructure.[[36]](#footnote-37) This lack of legislative flexibility has resulted in these formal exemptions being supplemented via administrative and operational arrangements for the monitoring activities of in-service inspection and conformity to type (CTT).[[37]](#footnote-38)

There are further shortcomings in the current legislation with regards to CTT which have limited the development of CTT programs and frameworks. These shortcomings include a lack of supporting regulatory powers to facilitate the effective implementation and operation of CTT programs as well as very narrow options regarding penalties for non-compliances.

Changes across the options provide more legislative flexibility to implement appropriate requirements considering the associated risks with particular instruments and applications, while supporting new technology and innovation. This will provide greater certainty for industry.

#### Reform options for measuring instruments

The reform options progressively provide greater flexibility and scope for supporting confidence in measuring instruments and aim to address the identified limitations of the current approach. Key points include:

Under **all options**, the default control mechanisms for measuring instruments used for trade will remain pattern approval and verification.

**Option 1** introduces the potential to exempt certain instruments from these requirements where appropriate, particularly where there is no framework in place, or where it is not the most suitable approach.

**Option 2** provides the ability to introduce other mechanisms which could be used in place of pattern approval and/or verification if more appropriate, particularly where there is no existing approval framework in place for the particular instrument type or application. Use of alternative flexible mechanisms for particular instruments would be subject to further consultation with relevant stakeholders. It also introduces the ability to issue provisional certificates or permits that allow the use of measuring instruments for trade without pattern approval, subject to certain conditions. These mechanisms could potentially enable measuring instruments to be trialled in the market to assess economic viability, before undergoing a full pattern approval process.

**Option 3** builds on option 2 and enables requirements to be imposed on instruments used for legal purposes outside trade as well, where appropriate.

**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 will remain, with any revision of verification arrangements subject to further data collection, consultation and regulation impact analysis.

For **option 2** pattern approval and verification remain the default pathway, particularly where there is a framework to support it and it is working well. However, greater flexibility is introduced in areas where there may not be an appropriate framework or where greater flexibility is needed. Option 2 will enable different kinds of control mechanisms to be introduced in future depending on measuring instrument types, application and potential risk and harm, rather than the one-size-fits-all approach. Key features:

* 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.
* Introduction of alternative instrument controls over time where there is a need for a more fit for purpose approach, commensurate with the risk associated with a particular type of measuring instrument and/or application. Alternative instrument controls would be subject to additional data collection, risk assessment and consultation.
* Powers would be provided to the Chief Metrologist to establish these alternative instrument controls.
* Ability to grant permits or issue provisional certificates, allowing instruments to be trialled in the market, subject to imposed conditions.

Instrument control mechanisms could include both pre market[[38]](#footnote-39) and post market[[39]](#footnote-40) controls. Introduction of any mechanisms, other than default mechanisms for trade use would be subject to future consultation. Requirements could include:

* Accurate operation
* Appropriate use
* Pattern approval (default)
* Conformity of an instrument to the pattern approved[[40]](#footnote-41)
* Quality system assessment and auditing
* Verification (default)
* 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 introduction for trade use. This would also enable other regulators to more easily access ATPs to support these controls for their regulatory needs.

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.

#### 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. 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 businesses.

The ability to introduce mandatory reverification periods for instruments will be retained in the legislation. Any future consideration of adding or removing mandatory reverification 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.

### 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 UMVs)
* operation of public weighbridges
* certification of reference materials and measuring instruments (Certifying Authorities)
* verification of standards of measurement and artefacts (Verifying Authorities)
* examination of 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 aim to reduce some of the administrative burden associated with licensing and appointments to varying degrees by streamlining administrative requirements:

* For **all options** existing categories of appointment functions (e.g. Servicing Licensees, Public Weighbridge Licensees, UMVs, Certifying Authorities, Verifying Authorities and Approving Authorities) will continue to exist, however some of the legislative arrangements may change (e.g. the mechanism used to appoint ATPs).
  + There will be a greater emphasis on describing some functions by reference to competency categories and test method,[[41]](#footnote-42) rather than instrument classes. This will likely involve combining some of the current servicing licence classes and sub-classes,[[42]](#footnote-43) where appropriate.
* **Option 1** merges appointment types that perform similar functions to streamline arrangements, reducing six appointment types to four. UMVs 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 appointment types, with Public Weighbridge Licensee and operator requirements made more principles-based and streamlined.
* **Options 2 and 3** would use a single administrative mechanism provided in the legislation to appoint an ATP,[[43]](#footnote-44) authorising them to perform certain distinct functions outlined in the regulations. These authorised functions will align with existing ATP categories (e.g. Servicing Licensees, Public Weighbridge Licensees, UMVs, Verifying Authorities, Certifying Authorities and Approving Authorities). It will also be possible to authorise ATPs to perform functions outside of existing categories to enable performance of “other metrological functions as determined by the Chief Metrologist”. This will accommodate future functions that may not fit within existing categories.

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.
* UMVs and LMAs are typically required to demonstrate competency through National Association of Testing Authorities (NATA) laboratory accreditation.

Under **all options** these current competency pathways will be retained, but some flexibility as to how competency can be demonstrated will be introduced, through limited changes, to be able to accommodate future needs. These changes would maintain, not dilute, current industry competency levels with NMI releasing guidance material identifying the different acceptable pathways to demonstrate competency where these are introduced in future.[[44]](#footnote-45) This flexibility will allow NMI to accommodate future hybrid and emerging roles for ATPs and enable the evolution of competency requirements for existing ATPs to ensure competency frameworks remain suitable for ATP functions in the future.

#### 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 a legislative mechanism to introduce general licences in future, subject to further consultation, 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 to accommodate new types of measurement activities or services in the future. This approach could be used to provide for a lower level of regulatory oversight compared to other types of licences or appointment. There would be no associated licence fee and reduced administrative costs, but mandatory requirements would still apply to be able to perform functions under a general licence.

#### 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 ofpublic weighbridges will continue to be subject to a public weighbridge licence, with appointment and competency requirements remaining largely the same. Regulatory requirements for public weighbridges and operators will be simplified and made more principles-based, with supplementary guidance material provided by NMI to assist operation.

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

Currently, UMVs 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. New regular reporting requirements for some ATPs will provide greater transparency of ATP activities.

The changes to reporting requirements would require UMVs (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 UMVs (under **all options**) and LMAs (under **options 2 and 3**)would continue to be required to report ad hoc at NMI’s request.

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

The scope of coverage for shortfall[[45]](#footnote-46) 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 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** also 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 extension of regulatory coverage to other measurement applications.

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

Where goods are being sold by reference to measurement (e.g. 1 kg of apples, 2 L of milk, 2.5 metres of rope or 4 avocados) there is a tension that needs to be balanced, between providing consistency in the measurement units used for packaged and non-packaged products, and providing flexibility to enable businesses to adapt to changing industry practices and consumer preferences.

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. While this will cover transactions such as online and catalogue sales, it will not extend to advertising products. At this point in time, such an expansion is considered an unnecessary increase in scope and associated regulatory burden on industry, presenting no demonstrated benefit to consumers.[[46]](#footnote-47)

* **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.
* 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). The principle behind some existing requirements relating to the use of measurement units will be preserved, but the specific detail may be simplified so that requirements are easier to understand for business and consumers. This includes requirements for products to be sold by a particular unit price (e.g. per kg when sold by mass) and permissible units of measurement.

Example – Consumer preference

There are certain products, such as avocados and mangos that consumers would generally prefer to purchase by count rather than per kg when packaged. These are currently permitted to be sold by count through inclusion in the Secretary’s List. However in order for businesses to have products added to this list, the current legislation requires the majority of businesses to first be in breach of requirements. This limits the flexibility of business to respond to changing purchasing preferences.

**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**: Simplifying 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 process 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.[[47]](#footnote-48) This adopts a more principles-based approach to the unit of measurement used for packaged products, rather than relying on an approval process. 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. 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.

***Specific requirements for meat and alcohol***

Existing requirements to sell meat by weight and certain types of alcohol by volume will be retained but simplified under **all options** so that they are easier to understand for business and consumers. The power to introduce requirements for certain goods to be sold by reference to measurement will also be retained.

|  |
| --- |
| Meat and alcohol requirements are expected to be reviewed in detail in future, following implementation of the Measurement Law Review. Reviewing these requirements will be subject to a separate consultation process and may include things such as:   * Whether the sale of meat needs to be subject to specific requirements, and how meat is defined * Whether requirements for the sale of alcohol should be removed or expanded to include additional categories of alcohol |

***Specific requirements for how measuring instruments are used***

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 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).

### A principles-based approach to marking packaged 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.[[48]](#footnote-49) 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 the category of 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 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,[[49]](#footnote-50) and also a consideration of the impact of the Unit Pricing Code (UPC).[[50]](#footnote-51) 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.

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

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

**All reform options** will introduce a more principles-based approach to the display of the measurement mark on packaged products. The measurement mark will need to be “prominent and legible” with minimum font height and colour contrast requirements retained. **Option 1** also retains the front of pack requirement, meaning the measurement mark must be presented on the principal display panel. **Options 2 and 3** provide more flexibility by removing the front of pack requirement.

Under **all reform options** other prescriptive requirements will be streamlined and simplified, taking a largely principles-based approach. This includes the following requirements under the existing legislation that are replaced with the “prominent and legible” display of the measurement mark:

* the marking must be close to any name or brand of the product
* the marking must be read in the same direction to any name or brand of the product
* the marking must be a certain distance from the limits of the package.

**All reform options** will also:

* Introduce a power to exempt particular categories of products from some or all marking requirements and include:
  + Retaining existing marking exemptions (e.g. for packaged automotive parts,[[51]](#footnote-52) wine bottles[[52]](#footnote-53) and prescription therapeutic goods[[53]](#footnote-54)).
  + An exemption for imported and domestic cosmetic products. This may leave some other types of imported products non-compliant with the requirements, however additional exemptions may be introduced in future where justified.
* Provide a mechanism 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[[54]](#footnote-55).
* Introduce a mechanism to add requirements for products where needed (e.g. if there is a preference for a principal display panel requirement for certain types of products under options 2 and 3). In future, the introduction of additional requirements, exemptions for products or deemed to comply mechanisms would be subject to additional consultation processes.

#### Alignment 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[[55]](#footnote-56) general legibility requirements for a word, statement, expression or design to be contained, written or set out on a label must be:

1. legible
2. 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)].[[56]](#footnote-57)
* Under the Trade Practices (Industry Codes – Unit Pricing) Regulations 2009[[57]](#footnote-58) the UPC principles define that the display of the unit price for a grocery item [Part 2, 6(2)] is:
  1. displayed prominently and in close proximity to the selling price for the grocery item
  2. 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:

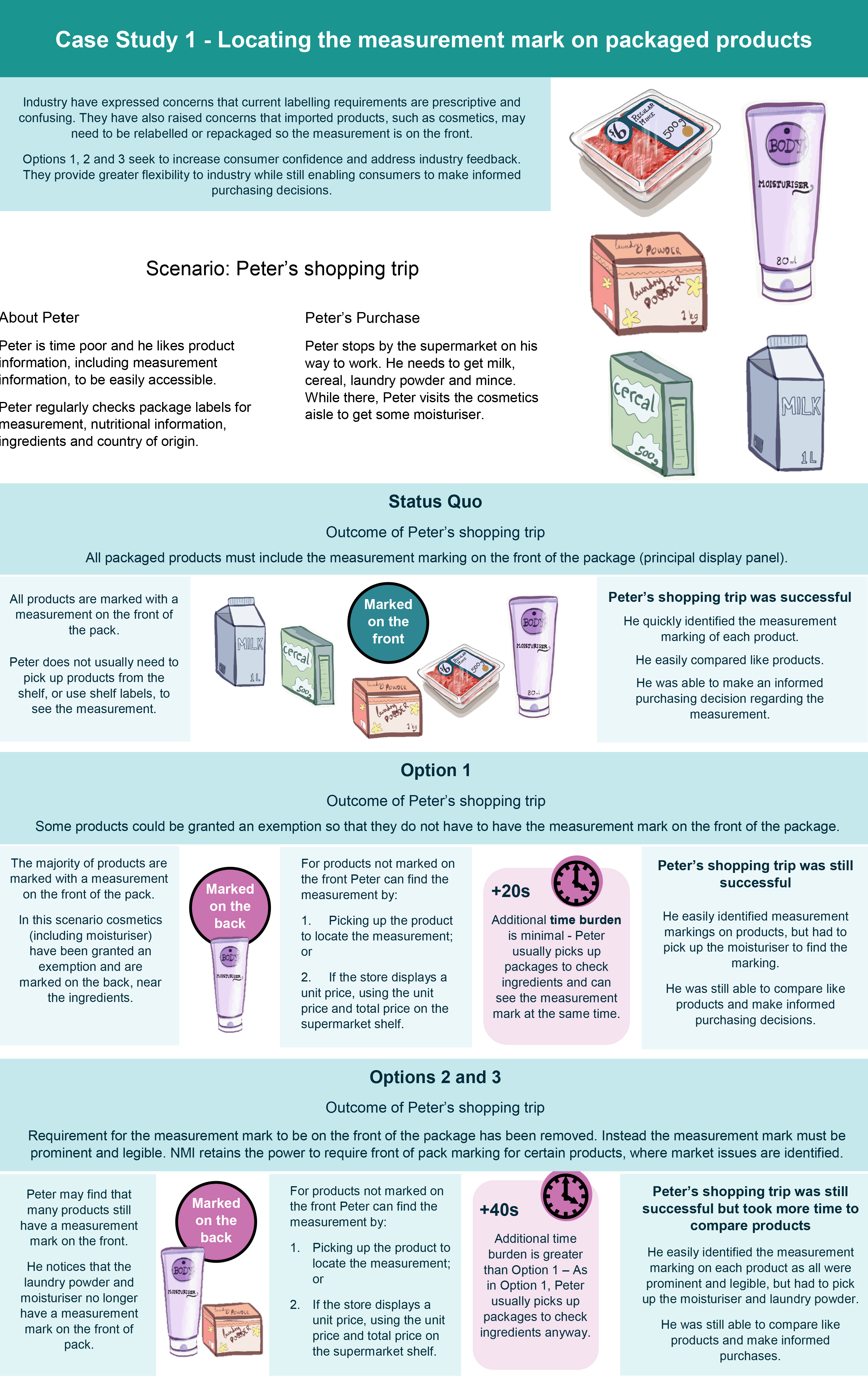
* **No specification for placement of measurement mark**: Hong Kong, Japan, Russia and Singapore do not appear to specify the location of the measurement mark on packaged products.
* **General front of pack for products**: a number of economies specify general requirements for principal display panel marking, or similar, for packaged products. Typically this means the measurement mark is located on the front of pack for these products.
  + The United States federal requirements are for the measurement mark to be on the “principal display panel”.[[58]](#footnote-59)
  + Canada[[59]](#footnote-60) and India[[60]](#footnote-61) require the measurement mark to be “on the side of the package that is visible to the purchaser” and “on the principal display panel – part of the package which is likely to be seen by the consumer” respectively.
  + The European Union (EU) has a general requirement for the marking of weight and volume on certain packaged products that markings are “affixed in such a manner as to be indelible, easily legible and visible on the package in normal conditions of presentation”.[[61]](#footnote-62)
  + The United Kingdom (UK) generally requires the measurement mark to be “indelible, easily legible and visible in normal conditions of presentation”.[[62]](#footnote-63)
* **Prominent but not necessarily front of pack**: 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”.[[63]](#footnote-64)
* **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”,[[64]](#footnote-65) which must be “in a prominent place” on the label.[[65]](#footnote-66)
  + 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”[[66]](#footnote-67) and be in the same field of vision as the name of the food”.[[67]](#footnote-68)
* **EU and UK marking requirements for cosmetics**: the EU has specific regulations that apply to cosmetic products[[68]](#footnote-69) 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”.[[69]](#footnote-70) It does not specify placement of the measurement mark.

**Trans-Tasman Mutual Recognition Arrangement (TTMRA)**

The *Trans-Tasman Mutual Recognition Act 1997*[[70]](#footnote-71) 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).

New Zealand was consulted on the proposed reform options, which are not anticipated to impact New Zealand under the TTMRA.



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.

### 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**[[71]](#footnote-72) 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).[[72]](#footnote-73)
* **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.

## 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.

Table 6: Key policy principles

| **Policy objective** | **Policy principle** |
| --- | --- |
| Measurement confidence | 1. Industry efficiency |
| 1. Community trust |
| 1. Government reliance |
| 1. International recognition |
| Adaptability of the legislation | 1. Enables innovation |
| 1. Fit for purpose |
| 1. Future flexibility |
| Outcomes for stakeholders | 1. Industry investment |
| 1. Balancing market costs and benefits |
| 1. 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 to a high degree.
* **Option 3** meets the policy principles to a high degree.

### How the options were assessed

The options were assessed against the key policy principlesto 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 key elements of the measurement law[[73]](#footnote-74)
  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.

### 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.

#### Measurement Confidence:

##### 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, to some extent, requirements for administration of ATPs, resulting in some administrative cost savings for measurement services industry. **Options 2 and 3** provide future flexibility through a single legislative appointment mechanism, accommodating future ATP functions to better support emerging measurement needs. **Option 3** would involve greater scope for regulators to seek measurement services from ATPs to support regulatory measurements, potentially 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 UMVs, 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.

##### 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 the 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 primary measurement 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.

##### Government reliance

Definition: Enables key government outcomes needing accurate and reliable measurement (for example, agriculture, energy, 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 havegreater 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.
* **Greater oversight and coordination of measurement in Australia:** Greater oversight and coordination of measurement issues enabled through clear role for Government in **option 2** to underpin accurate and reliable measurement, and broader regulatory scope in **option 3**. Provides greater support for the accuracy and reliability of measurements relied on by government and better facilitates a coordinated government response to significant measurement issues or crisis.

**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.

##### 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 Australia’s measurement system 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[[74]](#footnote-75) certificates) and references (e.g. calibration and measurement capabilities published in the CIPM MRA Key Comparison 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.
* **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.

#### Adaptability of the Legislation:

##### 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 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.
* **Future flexibility for ATP arrangements is 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**, arrangements are streamlined to expand service provision opportunities for ATPs outside trade measurement. **Options 2 and 3** enable future flexibility to accommodate new and hybrid ATP functions, 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.

##### 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 are 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** providea 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 appointment arrangements with future flexibility for ATPs**: Under the **status quo and option 1**, ATPs have tightly defined classes and requirements which limits the ability to accommodate evolving measurement needs. Under **options 2 and 3**, a single legislative appointment mechanism for ATP functions may reduce some administrative burden and the ability to appoint ATPs to perform new types of functions is better able to accommodate new and hybrid ATP functions in the future.
* **Future 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 in future 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** allows a fit for purpose approach to the regulation of instruments by introducing a range of control mechanisms that will provide flexibility to accommodate new and emerging technology. **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.

##### 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 in future, provide ATPs with greater flexibility to respond to changing industry practices and measurement needs. **All reform options** seek to better align competency requirements with test methods and ATP activities, rather than particular types of instruments. This will enable greater flexibility for ATPs to provide measurement services to meet evolving measurement needs, without diluting current competency standards.
* **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 pathways 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 measurement standards and reference materials (e.g. as recognised 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** could be applied before or after entry to market but would be subject to suitability and consultation. This approach offers flexibility to determine appropriate controls for measuring instruments where default controls are not suitable. **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 appropriate (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.

#### Outcomes for Stakeholders:

##### 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**: Changes to competency requirements will be limited and will be designed to ensure they are fit for purpose for future measurement activities while maintaining current standards. Under **option 1**, similar appointment types are merged, resulting in some administrative savings. For **options 2 and 3**,the ability to authorise ATPs to perform new functions outside existing categories is introduced in addition to existing functions, to accommodate a greater range of instrument types and measurement services in the future. Maintaining clear functions for existing ATP categories in the regulations, while accommodating future flexibility, provides certainty to ATPs so they can continue to invest in their business.
* **Integrating new and innovative measuring instruments**: Ability to integrate 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 primary measurement standards:** Across **all options**, legal recognition of appropriate and internationally aligned primary measurement standards 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.

##### 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 for industry: 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**, exemptions can be introduced for particular instruments from pattern approval or verification requirements. Under **options 2 and 3**, there is greater flexibility to accommodate alternative measuring instrument control mechanisms where default controls are not appropriate or suitable.
* **Additional reporting requirements for some ATPs:** Comprehensive ATP reporting enables improved NMI data analysis to ensure ATPs are delivering trustworthy measurement outcomes, supporting confidence in the measurement system. Regulatory burden for ATPs with existing routine reporting requirements is reduced through improved reporting systems. Routine reporting requirements extended to UMVs under **option 1** and LMAs under **options 2 and 3**, resulting in minimal additional regulatory burden for these ATPs.
* **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 targeted arrangements for trade, aligning burden with risk.
* **Option 3**: medium alignment as targeted arrangements for trade partially offset by potential for perceived regulatory duplication outside trade.

##### 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 principles-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.
* **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** certainmeasurement 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 potentially 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, measurement 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 opportunity for recognition of overseas reference materials, measurement standards, instruments and data sources. This will provide increased assurance for agencies who 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, measurement 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, measurement standards and instruments for legal purposes.
* **Option 3**: low alignment, as supporting agencies via infrequently used capability is expensive.

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

## 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](#_Effects_on_stakeholders)
* a preliminary net benefit assessment of each option.

This analysis indicates that option 2 provides the greatest net benefit for stakeholders. More detailed analysis of the impacts for each stakeholder group is provided in the appendices:

* [Appendix 4: Impacts on consumers](#_Appendix_4:_Impacts)
* [Appendix 5: Impacts on measuring instrument manufacturers, importers and distributors](#_Appendix_6:_Impacts)
* [Appendix 6: Impact on authorised third parties](#_Appendix_7:_Impacts)
* [Appendix 7: Impacts on wholesalers, retailers, importers and packers](#_Appendix_8:_Impacts)
* [Appendix 8: Impacts on government regulators](#_Appendix_9:_Impacts)

Detailed regulatory burden costings are included in the following appendices:

* [Appendix 9: Costing the regulatory burden of changes to measurement marking requirements on packaged products](#_Appendix_9:_Costing)
* [Appendix 10: Costing the regulatory burden for businesses to understand requirements for packaged products](#_Appendix_11:_Costing)
* [Appendix 11: Costing the regulatory burden from pattern approval](#_Appendix_12:_Costing)
* [Appendix 12: Costing the regulatory burden on authorised third parties](#_Appendix_13:_Costing)
* [Appendix 13: Costing the regulatory burden from verification by servicing licensees](#_Appendix_14:_Costing)

## Regulatory burden estimates

Where possible this RIS adopts the Australian Government’s [Regulatory Burden Measurement Framework](https://obpr.pmc.gov.au/resources/guidance-assessing-impacts/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.[[75]](#footnote-76)

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 following regulatory areas:

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

### Summary of regulatory burden changes

#### Labelling costs of packaged products

Table 7: Regulatory burden costing summary for labelling of 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 |
| **Overall Change** | **-$5.6m** | **-$5.5m** | **-$5.5m** |

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 (domestic and imported), resulting in a net regulatory saving of $5.6m per annum. Under **options 2 and 3**, the marking would not be limited to the principal display panel, 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.

#### 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 one hour or less saving at least $2.7m annually.

#### 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 | **Potential savings** from reduced volume of instruments to approve  **-$0.01m** | **Greater savings** from reduced volume of instruments to approve  **-$0.04m** | **Greater savings** from reduced volume of instruments to approve-  **-$0.04m**  Plus an unquantifiable contingent increasein regulatory burden on measuring instruments for regulatory purposes |
| Verification | ATP  Business traders | **Savings** from improved efficiencies:  **-$0.14m** | **Savings** from improved efficiencies:  **-$0.28m** | **Savings** from improved efficiencies:  **-$0.28m**  Plus an unquantifiable contingent increasein regulatory burden on measuring instruments for regulatory purposes |
| Other control mechanisms | Instrument Manufacturers | N/A | **Unquantifiable** – burden to be determined in future | **Unquantifiable increase** 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 all instruments used in trade, calculated as approximately $0.18m (combined annual application cost). The power to exempt instruments is anticipated to reduce the volume of instruments requiring approval under option 1 by 5%, with a combination of exemptions and future application of alternative instrument controls under option 2 anticipated to reduce the volume of instrument approvals by 20%. 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 to industry 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.

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

Table 10: Regulatory burden costing summary for changes to ATP arrangements

| **Area of regulatory burden** | **Stakeholder** | **Option 1** | **Option 2** | **Option 3** |
| --- | --- | --- | --- | --- |
| Appointment and reporting for ATPs | **ATPs** | **Savings** from streamlined appointment arrangements that could apply to some ATPs.  **Increased cost of reporting** for UMVs, subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs. | **Savings** from streamlined appointment arrangements that could apply to all ATPs.  **Increased cost of reporting** for UMVs and LMAs subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs. | **Savings** described under **option 2**,plus an **unquantifiable increase in regulatory burden** 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. |

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, there is expected to be some change to these regulatory burdens, but the amount of change is not able to be reliably costed. Changes to reporting requirements will apply to UMVs and LMAs and improved reporting frameworks to accommodate this may result in savings for SLs.

## Impact analysis on stakeholders

### Approach

#### Key stakeholders

This part provides an overall assessment of impacts on 5 key stakeholder groups:

* **Consumers**
* **Industry**, represented by:
  + **measuring instrument manufacturers, importers and distributors**
  + **authorise third parties**[[76]](#footnote-77)
  + **wholesalers, retailers, importers and packers**
* **Government regulators**.

#### 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.

#### 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:

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

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 4 - 8. 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.

#### Limitations and assumptions

Changes to regulatory burden under each reform option were identified for each stakeholder group but cannot be completely quantified as a dollar cost due to lack of data. Appendices 9 - 13 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.

### Summary of stakeholder impacts by reform option

Based on the assessment, option 2 provides 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.

(copy of) Table 4: Overall option impact 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, importers and distributors 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 – ATPs | +0.25 | +0.75 | +0.75 | Options 2 and 3 provide a more flexible approach to regulated activities in the future and reduce some regulatory compliance costs for ATPs. Regulation will be streamlined in all reform 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** | **Analysis of stakeholder impacts shows that option 2 provides the greatest benefit to stakeholders.** |

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

### Net impacts for stakeholders

The overall impacts for the different stakeholder groups are outlined below. Further detail can be found in Appendices 4 - 8.

#### Net impacts on consumers

##### 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.

##### 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.

##### 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 thatthe 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.

##### 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 tothe added benefits seenin **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.

#### Net impacts on measuring instrument manufacturers, importers and distributors

##### Positive impacts

**Fit for purpose regulation of measuring instruments:** While pattern approval and verification will remain the default requirements for instruments used in trade across **all options,** flexibility in how measuring instruments are regulated will provide a more accommodating framework than the current one-size-fits-all approach. In **option 1**, flexibility will be principally applied through a 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, and may also be subject to other requirements. **Options 2 and 3** would introduce the ability to apply alternative controls to pattern approval and/or verification, where needed, allowing flexibility to accommodate new and emerging technology in the future. Reduction in regulatory burden is dependent on exemptions and level of risk assessment for specific measuring instruments where flexible controls are introduced in future.

**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. **Option 1** provides for exemptions while **options 2 and 3** may accept overseas test results, evaluations, approvals and conformance assessments from recognised and appropriately vetted laboratories.

**Reduced barriers for innovative measuring instruments**: Integrating innovative instruments into the measurement framework can support investment 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**. Flexible control mechanisms based on a risk assessment, provisional certificates and permits in **option 2 and 3** may provide further reductions in regulatory burden.

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

##### Adverse impacts

**Uncertainty:** The introduction of principles-based legislation and future flexibility would need to be communicated, transitioned and managed well to mitigate any adverse impact of uncertainty on measuring instrument manufacturers, importers and distributors. Particularly in regard to the way measuring instruments will be regulated and when alternative measuring instrument control mechanisms may be introduced.

##### Overall net impact

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

#### Net impacts on ATPs

##### Positive impacts

**Simplification of appointment types:** For **all options** there will be greater emphasis on describing some functions by reference to competency categories and test method, rather than instrument classes. This will help simplify licensing subclasses and reduce some associated administrative costs. Existing appointments and licences will continue to be maintained for a period of time, with arrangements established to enable a smooth transition to appointment mechanisms under the new legislation.

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 UMVs 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 some flexibility and a small reduction in administrative costs through the use of a single legislative appointment mechanism to appoint ATPs. Under this single appointment mechanism ATPs will be authorised to perform certain distinct functions outlined in the regulations. These authorised functions will align with existing ATP categories. It will also be possible to authorise ATPs to perform functions outside of existing categories to enable performance of “other metrological functions as determined by the Chief Metrologist”, to accommodate future functions that may not fit within existing categories. This 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. Some flexibility as to how competency can be demonstrated will be introduced to accommodate hybrid and emerging roles that ATPs may perform over time. Changes to competency requirements will be limited and designed to maintain, not dilute, current standards. Flexibility to accommodate alternative ways to demonstrate competency in future will enable competency requirements to evolve over time with the needs of ATPs and industry. Where the number of licence subclasses is reduced by redefining them based on competency categories and test method, rather than instrument classes, this may reduce the cost and time burden associated with maintaining some of these qualifications by a small amount.

**General licences offer future flexibility where formal ATP appointment not appropriate:** Under **options 2 and 3**, general licences could be used in future 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. Being able to introduce general licences in future offers the flexibility to include lower burden alternatives to licences or appointments for the performance of certain types of new measurement functions or activities. Regulatory burden would be slightly reduced if any functions or activities currently subject to ATP appointments were to transition to a general licence in future, as there would be no associated appointment fee and reduced administrative costs. Some regulatory burden will still exist as the regulatory requirements of the general licence are likely to be similar to some existing regulatory requirements (e.g. competency and traceability of measurement outcomes). However, there may be certain measurement functions and activities not currently subject to ATP appointments that would see an increase in the regulatory burden associated with these activities, if a general licence was introduced for that function or activity.

##### Adverse impacts

**Additional reporting requirements for UMVs and LMAs:** Under **all options**, UMVs 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. There would be some level of administrative cost associated with routine reporting, however it is not expected to be significant as UMVs 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 UMVs 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.

##### Overall net impact

The changes described above will deliver a small benefit to ATPs across **all reform options**, mostly through some reduced administrative burden and costs associated with streamlining appointment types and restructuring licensing subclasses. Itis expected that **option 1** will only deliver marginal benefit to ATPs and routine reporting requirements are expected to only slightly adversely impact UMVs 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 in future from the flexibility to accommodate innovative technology and emerging measurement needs. ATPs will likely benefit to varying degrees from positive impacts associated with possible administrative savings from single legislative appointment mechanism and flexibility to accommodate new and hybrid functions. Future introduction of general licences offers additional flexibility and may also see reduced regulatory burden (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 UMVs 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.

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

##### 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 on 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 reducing prescriptive requirements and streamlining and simplifying 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). 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 by 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.

##### 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.

##### 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 tothe added benefits seenin **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.

#### Net impacts on regulators

##### 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 appointments will become more flexible in **option 2**, and in **option 3** NMI may establish specific appointments to support the needs of specialist regulators.

**Greater government collaboration on measurement:** Under **all options**, the secrecy provisions that limit the information that NMI can share would be removed. There is slight benefit for regulators across all reform options. Both **options 2 and 3** would enable regulations to be made to support oversight and coordination of accurate and reliable measurement in Australia. Under **option 3** NMI would be able to help directly 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 acceptance of overseas test results are streamlined. This is expanded under **options 2 and 3** to include acceptance 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 accommodate 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 primary measurement standards**: **Options 2 and 3** enable primary measurement standards to be integrated into the framework for traceable measurement. Regulators can access these primary measurement 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 reference standards and CRMs will facilitate the identification and use of overseas reference materials and measurement standards by regulators for legal purposes.

##### Adverse impacts

**Uncertainty:** Under **option 3**, NMI could apply regulatory 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 likely be exercised where there is a legislative gap, incomplete jurisdiction, crisis or market failure, or a new measurement application that is not yet regulated. NMI would also engage collaboratively with the relevant regulator to reduce potential regulatory overlap and uncertainty.

##### 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 primary measurement 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.

## 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 manufacturers, importers and distributors of measuring instruments and government regulators gaining moderate benefits from **option 2**.
* **Option 2** provides the greatest overall benefit across all stakeholder groups.

### 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. This option also has 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.

# RIS Question 5: Who will you consult and how will you consult them?

## Consultation process

The department has undergone an extensive consultation process and consulted the public via:

* A Consultation RIS that presented 3 draft reform options providing a discussion on the impacts and likely net benefit of each option:
* Thirty eight submissions were received. Non-confidential and anonymous submissions have been published on the department’s Consultation hub.[[77]](#footnote-78)
* Five virtual town hall discussions and 22 targeted one-on-one discussions supplemented the Consultation RIS.
* Six discussion papers published in 2018 and 2019 seeking feedback on Australia’s current measurement framework (see [Appendix 2](#_Appendix_2:_Further) for more information).[[78]](#footnote-79)

This consultation was important in shaping the reform options and understanding their impacts.

### Raising awareness: early outreach

The department followed the consultation plan presented in the Consultation RIS.[[79]](#footnote-80) The first phase raised awareness about the review and the upcoming public consultation via the following activities:

* Email distribution to over 3,000 recipients on the MLR mailing list[[80]](#footnote-81)
* Engagement with the NMI Consumer Industry Liaison Committee (CILC)[[81]](#footnote-82)
* Targeted engagement with:
  + rural, remote, regional and Indigenous organisations
  + numerous peak bodies

### Consultation period

The Consultation RIS was published online via the Australian Government Department of Industry, Science, Energy and Resources Consultation hub.[[82]](#footnote-83) The Consultation RIS was open for comment from 15 April until 14 May 2021. Extensions were provided to a number of stakeholders to allow additional time to make a written submission.

The department conducted digital promotional activities to inform stakeholders and the public about the consultation period, including:

* A media release to launch the public consultation
* Email updates to MLR mailing list
* Targeted emails to CILC members
* News articles on NMI and departmental channels
* Social media posts on NMI and departmental channels

The public consultation on the Consultation RIS received a total of 38 written submissions including from industry, peak industry bodies, consumer associations and government stakeholder groups.

*Figure 1: Distribution of written submissions by stakeholder group*

### Virtual town hall discussions

The department held a series of 5 virtual town hall discussions to inform and gather feedback on the proposed options. The sessions were targeted at key stakeholder groups including:

* Consumers
* Industry – wholesalers / retailers / importers / packers
* Industry – measuring instrument manufacturers, importers and distributors
* Industry – authorised third parties
* Regulators

The sessions aimed to inform these groups about how the proposed changes may affect them. Recordings of these discussions were distributed to attendees and over 3000 subscribers to the MLR mailing list. A total of 81 participants attended.

*Table 11: Town hall participant numbers*

| Town Hall Session | Measuring instrument manufacturers, importers and distributors | Authorised Third Parties | Consumers | Wholesalers, retailers, packers, importers | Regulators | Total |
| --- | --- | --- | --- | --- | --- | --- |
| Number of participants | 33 | 12 | 8 | 20 | 8 | **81** |

### Targeted discussions

The department held targeted discussions with 22 stakeholders, including peak bodies, consumer associations and major retailers. Twelve of these stakeholders also made written submissions.

*Figure 2: Participant data from targeted discussions*

*\*Industry includes measuring instrument manufacturers, importers and distributors and ATPs (one discussion); wholesalers / retailers / packers / importers (six discussions).*

The proposed reform options presented in this final RIS were updated based on stakeholder feedback on the draft options. See sections 7.2 and 7.3 below on what we heard and how the draft options were revised.

## What we heard

### Summary

The Consultation RIS presented 3 reform options for stakeholder consideration. Feedback received from stakeholders:

* engaged with specific changes with the greatest perceived impact for individual stakeholders
* indicated general support for option 2 as the option with the highest net benefit
* highlighted key areas of agreement and difference in relation to particular elements of the options.

### Key stakeholder views on the options

Not all stakeholders indicated a preferred option in their submission, some chose to focus instead on specific changes with the greatest perceived impact to them. The below summarises feedback from those who indicated a preference for, or an objection to, a particular option as well submissions where a preference could be inferred based on feedback relating to specific changes.

**Status quo**

Consumer associations and consumers who responded generally preferred the status quo approach to marking requirements for packaged products.

**Option 1**

Option 1 was not preferred across any of the stakeholders who provided a submission. One stakeholder likened option 1 to a stop gap with little advancement.

The weighing industry indicated a preference for the following areas in option 1 that align with elements of the status quo:

* Pattern approval and verification requirements for weighing instruments
* Appointment of ATPs
* Public weighbridge licences.

However, the weighing industry also noted advantages in future proofing the measurement framework and adopting new technologies, which aligns with the intent of option 2.

Consumer associations and consumers preferred mandatory requirements to mark the measurement on the front of packaged products, similar to the approach in option 1. They were not supportive of exempting cosmetic products from this requirement.

**Option 2**

Option 2 was presented in the RIS as the option with the greatest net benefit. While there were certain aspects of option 2 that some stakeholders did not fully support, the majority of stakeholders who stated a preferred option agreed with the assessment that option 2 provided the greatest overall benefit. There were also aspects of option 2 that were supported by stakeholders even if they did not state an overall preference for a particular option. These included recognition of the need to future proof the measurement framework.

Stakeholder views on option 2 included:

* If appropriately implemented it would be more flexible and durable than the current legislation or the approach under option 1.
* It appears to support the oversight required for industry and provides scope for the development of new processes to accommodate the arrival of new technologies.
* It is the best fit for both industry and consumers due to its flexibility and focus on the future.
* The principles-based approach underpins the key principle of minimum effective regulation.
* It will better align the regulatory environment for fast moving consumer goods and be less burdensome on imports, particularly those from the EU.

**Option 3**

A small number of stakeholders noted value in option 3, or certain elements of option 3.

* A measurement expert who responded suggested there was value in option 3, but raised concerns regarding the difficulties and costs of integrating NMI’s responsibilities with those of other regulators.
* Standards Australia, a member of the Technical Infrastructure Alliance, considered this review to be an opportunity for the government to future proof measurement in Australia and put in place a framework that allows the NMI to adapt in an increasingly dynamic environment. They observed that the national and international environment in which NMI operates is fluid and the agility needed, and demonstrated by NMI in its response to COVID‑19 should not be considered a ‘one-off’. They suggested a moderated approach to option 3, with appropriate governance arrangements to ensure:
  + The regulation of measurement in Australia remains current; and
  + NMI are able to respond to critical events in Australia that require a measurement response.
* The weighing industry suggested the ability to switch on the regulation of measurement-based activities outside the trade context should be adopted from option 3.

### Consideration of key themes across stakeholder feedback

There were a number of themes across stakeholder submissions that emerged as either areas of agreement, or areas of difference. The majority of these relate to specific changes presented under option 2.

#### Key areas of agreement between stakeholders

Key areas of agreement included:

* Expanding prohibitions on false or misleading measurement statements
* Maintaining current public weighbridge licensing structure
* General recognition of the need for flexibility in certain areas
* Education, communication and guidance material needed to support principles-based requirements
* Lack of support for streamlining of appointment types for ATPs

##### Expanding prohibitions on false or misleading measurement statements

Amongst stakeholders who commented, there was universal support for a prohibition on false or misleading measurement statements in relation to goods and services. Currently shortfall is prohibited in relation to the sale of goods but not services (see [Section 5.4.6](#_Expanding_scope_of) for further information). No opposition was received across any stakeholder groups or individual submissions. Consumers and consumer associations welcomed the change, observing that it provided increased consumer protection. Measuring instrument manufacturers, importers and distributors indicated that the expansion would help improve confidence in Australia’s measurement system.

##### Maintaining current public weighbridge licensing structure

A consumer association and members of the weighing industry expressed concerns regarding proposed changes that would see public weighbridges transition to a general licence system. The weighing industry felt that a transition to a general licence system under options 2 and 3 would negatively impact industry investment in this area and introduce rogue operators.

##### General recognition of the need for flexibility in certain areas

Across stakeholder groups there was an identified need for increased flexibility in certain areas of the measurement framework to enable Australia to adapt to the changing future of metrology. However, not all stakeholders agreed on the specific areas where this was required or should be applied.

##### Education, communication and guidance material needed to support principles-based requirements

Industry respondents expressed a desire for practical, clear and concise guidance material to underpin principles-based regulation. One government agency also noted that principles-based regulation would benefit from communication and information campaigns, flexible compliance options, and accessible guidance to provide support and certainty to help businesses understand and apply the changes.

##### Lack of support for streamlining of appointment types for ATPs

The weighing industry suggested that the merging of appointment types, particularly under options 2 and 3, would cause a lack of distinction between different functions and would cause confusion to businesses. They noted:

* Different appointment types currently require different processes and skillsets to perform the assigned functions. They implied that merging appointment types may cause confusion regarding appropriate competency requirements or result in a dilution of competency requirements.
* A more flexible and streamlined approach could lead to a weakening of technical competence and standards without adequate oversight and safeguards.

One ATP saw a benefit in the reduction in the number of applications/renewals required and the ability to simply update information rather than reproducing it each time.It was notedthat any changes would need to be compared against any increased reporting burden and appointments would need to be clear about what they covered.

#### Key areas of disagreement between stakeholders

Key areas of disagreement included:

* Measurement marking on packaged products
* Flexibility in acceptable units of measurement
* Flexibility in measuring instrument controls
* Principles-based regulation

The most divisive of these areas was proposed reforms to the measurement marking on packaged products.

##### Measurement mark on packaged products

Reforms to measurement marking requirements on packaged products, including the removal of the current front of pack requirement and a move to a principles-based ‘prominent and legible’ approach, were the most divisive of the changes presented under option 2.

* Consumer associations and individual consumers were opposed to any relaxation of marking requirements. They specifically emphasised the importance of maintaining current front of pack requirements and did not feel this caused an unnecessary burden on industry. Furthermore, consumers and consumer associations generally did not support exemptions from marking requirements.
* In contrast, responses received from industry and peak industry associations were supportive of the option 2 changes, which they felt would offer greater flexibility to business and reduce barriers to the importation of packaged products (e.g. cosmetics from EU).

Key points raised in **consumer submissions** in opposition to the measurement marking changes under option 2 include:

* **Maintaining international alignment:** Consumer associations noted that OIML R79 recommends front of pack measurement markings for packaged products.
* **Minimising product handling:** A number of consumer submissions felt this wasparticularly important due to the current COVID-19 pandemic with additional benefits proposed including maintaining shelf organisation, reducing refacing costs to businesses and reducing the impact on products that do not respond well to being handled (e.g. meat). Supermarkets were consulted on refacing costs, also outlined below.
* **Ensuring the accessibility of measurement information**: Key benefits of front of pack measurement markings and other prescriptive requirements included:
  + Enabling consumers with a range of disabilities to easily access measurement information.
  + Ensuring easy access to information to enable the assessment, comparison, and evaluation of products.

Key points raised in **industry submissions** supporting the measurement marking changes under option 2 include:

* **Flexibility for the measurement mark location**: Industry submissions considered that flexibility in the placement of the measurement mark would:
  + Align withother important information such as nutritional panels, ingredients and allergen statements on food products, which are permitted to be anywhere on the pack. Supermarkets noted that customers need to handle products to find this important product information.
  + Reduce relabelling costs to importers.
* **Impacts of labelling laws on supply chains:** The COVID-19 pandemic was used as a key example that highlighted the importance of flexibility in supply chains. Benefits of increased labelling flexibility included:
  + Reducing barriers to importation resulting in more innovative products being available that otherwise might have been discouraged under current prescriptive laws.
  + Enabling businesses to source products from a larger pool of international markets when traditional sources for supply are disrupted or overwhelmed by increased demand.

During one-on-one meetings supermarket stakeholders were asked whether they could foresee any significant increase in re-facing costs if front of pack requirements were removed. Supermarkets reported this impact would be minimal as staff have to tidy shelves as part of general store maintenance.

##### Flexibility in acceptable units of measurement

Stakeholders expressed mixed views on allowing greater flexibility for products to be sold by alternative units of measurement (e.g. count, linear and area measurement, instead of mass and volume).

* Generally industry were supportive of more flexible arrangements including as a way to enhance the current Secretary’s List approach, noting that this has not been updated for some time.
* The weighing industry felt that the increased flexibility would cause market confusion and be detrimental to consumers.
* Consumer associations provided conditional support for these changes, provided that the changes would reduce, or at least not increase, inconsistency in the way products are sold. The primary motivation of consumer associations was to promote a high level of consistency between packaged and non-packaged products.
* One individual noted that while some people may be confused by the extra flexibility, they saw the change as a positive one.

##### Flexibility in measuring instrument controls

Changes under option 2 that would introduce flexibility into measuring instrument controls to accommodate future measurement technology were not supported by all stakeholder groups. Industry submissions and peak industry associations supported a principles-based approach, however the weighing industry generally prefer current prescriptive requirements as they apply to measuring instruments, particularly weighing instruments.

Industry submissions, peak industry associations and a measuring instrument manufacturer recognised that the current regulatory framework was not always fit for purpose and supported:

* A move away from the current one size fits all approach to a more flexible arrangement.
* Changes that would allow for various other control mechanisms that may be more appropriate for a particular instrument type, application, and associated risks and harm.
* The ability to trial and adopt new technology and measurement standards developed overseas (e.g. public electric vehicle charging stations and weighing systems for trucks in motion).

Feedback from the weighing industry included:

* Recognition of the need for flexibility in certain areas, noting the need to prepare their industry for future developments. However, with a particular desire not to introduce flexibility in relation to the control of weighing instruments.
* A strong preference to maintain the current status quo approach requiring pattern approval for all measuring instruments in use for trade.
* A desire for flexibility to be introduced within the pattern approval system itself, rather than within the legislation.

One submission from an ATP focusing on simple measures expressed concerns around the recognition of test results from overseas manufacturers in Australia, including:

* Risks associated with the acceptance of measuring instruments from overseas without subsequent testing in Australia (e.g. inconsistent marking).
* Concerns about the availability and integrity of data that would be used to make risk assessments regarding appropriate instrument controls.

##### Principles-based regulation

Consumer associations and consumers were generally interested in maintaining the prescriptive nature of the current measurement legislation, particularly where it related to packaging requirements. One individual was accepting of a principles-based approach, providing that some key prescriptive aspects remained, such as front of pack, font height and text contrast requirements for packaged products.

The weighing industry saw value in maintaining the prescriptive nature of the current measurement legislation in key areas, such as the regulation of weighing instruments, and raised concerns that a flexible principles-based system would be open to interpretation.

Industry submissions and peak industry associations recognised the need for some relaxation of prescriptive requirements and were supportive of the move to a principles-based system, noting that principles-based regulation:

* underpins the key principle of minimum effective regulation
* introduces and enables greater flexibility into the measurement framework.

A measurement expert who responded supported the proposal to assign a range of powers to the Chief Metrologist, noting that doing so ensures the technical validity of measurement standards and instruments and provides appropriate technical oversight and guidance to principles-based legislation.

## Incorporating stakeholder feedback in the final options

### Key revisions to options

While the options did not require significant changes, some refinements have been made to the final options in response to stakeholder feedback. These changes include:

* **Clarifying the objective of the measurement legislation:** Under option 2 the objectives of the legislation will be updated to clarify the government’s role to underpin accurate and reliable measurement and provide for oversight and coordination of measurement in Australia. This will support the ability to make regulations, determinations or other legislative instruments to enable the Australian government some ability to respond to significant measurement failures or crisis outside trade.
* **Public weighbridges:** The proposed approach to public weighbridge licences under option 1 has been inserted into the recommended option 2. This change does not impact other aspects of option 2 as it is a discrete element in the RIS. Reasons for this change include:
  + Lack of support from relevant stakeholders for the general licence approach proposed under option 2.
  + Concerns regarding lowering of standards and impacts to significant financial and industry investment.
  + Support from relevant stakeholders to maintain the status quo for public weighbridge licensing.
* **Appointment of ATPs:** The proposed approach under option 2 has been changed slightly in response to stakeholder feedback.
  + Instead of merging all appointment types into a single appointment, the legislation will use a single mechanism to appoint an ATP, authorising them to perform certain distinct functions outlined in the regulations.
  + Authorised functions will align with existing ATP categories and a new general category will be introduced to enable performance of “other metrological functions as determined by the Chief Metrologist” to allow future flexibility.

### Other refinements to the RIS

In response to stakeholder feedback, amendments were made to the RIS to clarify, rather than substantially change, the proposed options. Further detail has been added to the RIS where stakeholder responses indicated a lack of clarity in relation to proposed changes. Issues raised included:

* Consumer associations raised concerns with the term “streamlined” and were unsure how this would impact certain prescriptive requirements in practice.
* Some industry associations were not supportive of “flexibility” in relation to particular aspects of the legislation, concerned this meant a loss of prescriptive instruction for industry.
* The weighing industry were concerned about the intended application of flexible measuring instrument controls.
* ATPs noted concerns regarding clarity of competency, reporting and auditing requirements.

### Feedback that has not been adopted

#### Maintaining status quo for measurement marking requirements on packaged products

As noted above, consumer associations and consumers raised concerns that moving to a principles-based approach will compromise the accessibility of measurement information. The reform options presented in the Packaging Review[[83]](#footnote-84) were refined for the Consultation RIS to help address these concerns, retaining minimum font height and colour contrast requirements across all options to provide certainty, and ensure the prominent and legible display of the measurement mark.

Other issues raised in response to the Consultation RIS included increased product handling, which relates to maintaining supermarket shelf organisation, and misalignment with OIML R79 if the measurement mark is not presented on the principal display panel:

* **Increased product handling:** Consultations with supermarkets reported this impact would be minimal as supermarket staff have to tidy shelves as part of general store maintenance. Furthermore, customers need to handle products to find other important product information e.g. to access ingredients, expiry date and allergen statements that do not have to be presented on the front of the pack.
* **Misalignment with OIML R79:** OIML R79 is the recommended approach to requirements for packaged products but adoption of this recommendation by member economies has not been consistent. This has led to different approaches to packaging requirements by member economies (see [Section 5.4.8.2](#_Alignment_with_other)). For example, Australia’s current regulations are an adaptation of OIML’s recommendation to ensure it meets the needs of Australian businesses and consumers. However, the current principal display panel requirement limits the range of products that can be imported cost effectively into the country, acknowledging that Australia is a small and open market.

For these reasons and those outlined in the previous section of this RIS, the approach to placement of the measurement mark in the recommended option has not been revised from that presented in the Consultation RIS.

### Other key issues raised by stakeholders

In addition to feedback that resulted in the changes made to the options and the RIS itself, there were a number of other issues and suggestions raised by stakeholders. These issues were considered either outside of the scope of the measurement law review, a matter for drafting or implementation, or will be the subject of future consultation before any changes are made. Key additional issues raised are identified in the table below:

| Table 12 – Additional stakeholder feedback | | |
| --- | --- | --- |
| **Topic of feedback** | **Stakeholder feedback** | **MLR response** |
| **Removal of existing exemptions** | There were suggestions within some submissions that existing exemptions be removed. | The review or removal of particular existing exemptions was identified as having broader impact than the scope of the consultation RIS. The operation of such exemptions will be subject to **future consultation**. |
| **Expansion of existing permissions to additional product types** | Some stakeholder submissions proposed specific products to be added to the list of products already provided with existing permissions, such as the allowance for a permissible tolerance for desiccation provided to soap and mushrooms. | The review of the application of certain existing permissions relevant to packaged products was identified as having a broader impact than the scope of the consultation RIS. The application of such permissions would need to be the subject of additional **future consultation**. |
| **Introduction of mandatory re-verification periods** | The weighing industry proposed that there should be an introduction of mandatory re-verification periods, beyond that already applied to public weighbridges that would be applied to all other measuring instruments used for trade. | There was insufficient evidence to support the introduction of general mandatory re-verification requirements in response to stakeholder feedback. The legislation will retain the ability to introduce mandatory re-verification periods. This issue will be considered through **future consultations** with relevant stakeholders in relation to specific instrument types or particular industry sectors **where the need for mandatory reverification is supported by sufficient evidence**. |
| **The definition of alcohol and meat** | Stakeholder feedback differed among industry and consumer associations regarding the scope of regulated alcohol and meat and their definitions. | It is intended that the review of requirements for the sale of alcohol and meat by measurement, along with their definitions will be a matter **for future consultation.** |
| **Measurement representation in advertising** | A consumer organisation advocated for extending the requirement to make a measurement representation at the time of sale to advertising. | This would be an additional expansion of scope that was not consulted on as a part of the consultation RIS. It would likely place additional regulatory burden on industry and so was not adopted as part of this review. It is a concept that could be revisited at a later point, subject to **future consultation, if and where a need is identified.** |
| **Reporting requirements and systems for ATPs** | Stakeholders expressed a desire for reporting requirements for ATPs to be clear and not impose unnecessary regulatory burden, and for reporting systems to be improved from existing systems. | Reporting requirements and systems for ATPs will be addressed as a part of the **implementation phase** of the review. There will be a transition period to accommodate the development of an appropriate reporting framework, which will be developed in consultation with impacted stakeholders to ensure it meets their needs as well as the needs of NMI. Reporting requirements for UMVs and LMAs will transition to a reporting model similar to that for Servicing Licensees once an appropriate reporting framework has been established. The aim will be to minimise any reporting burden associated with this change by making reporting as easy as possible and only requiring reporting of key information. |

# RIS Question 6: What is the best option from those you have considered?

## Recommendation

Option 2 is the recommended option. Stakeholder analysis (see [section 6.3](#_Impact_analysis_on)) indicates it has the greatest net benefit, with an overall reduction in annual regulatory burden of $8.5 million (see [section 6.4](#_Overall_net_benefit)). Option 2 also provides the greatest alignment with the policy objectives and principles (see [section 5.5](#_Understanding_how_the)) and positions industry to develop and adopt new technologies through a largely principles-based approach. Option 2 is also generally supported by key industry and other stakeholder groups due to its flexibility and ability to future proof the measurement framework (see [section 7.2](#_What_we_heard)).

Feedback and analysis confirmed that option 1 is insufficient for industry and government needs. If the legislation is not future proofed and only brought up-to-date with current needs it will continue to burden a growing number of industry sectors as technology and business practices evolve. There was also low support for option 3 due to a lack of demonstrated need for an extension of scope to regulate measurements relied upon by other policy owners.

Stakeholder feedback played an important role in refining option 2 and identifying areas of the proposal where further clarification was necessary. [Section 7.3](#_Incorporating_stakeholder_feedback) explores how feedback was incorporated into the preferred option and why some stakeholder proposals were not adopted in the recommended approach.

***Measurement confidence***

Option 2 will address known gaps in the measurement framework and ensure a level playing field for business. This option maintains key elements of the framework that provide confidence in measurement while introducing flexibility to accommodate evolving business practices and new and emerging technology (e.g. current global shifts towards digital metrology). Stakeholders support the expansion of prohibitions on false or misleading measurement statements to include all types of measurement transactions. The legislation will also enable legislative instruments (e.g. regulations, determinations) to be made to support the Government’s response to measurement failures or crises outside trade. This feature was added to the recommended option to address stakeholder feedback and further future proof the legislation.

The recommended reforms under option 2 will expand the current suite of compliance and enforcement tools to align the measurement legislation with modern Commonwealth regulatory frameworks and better support NMI’s current risk based approach to compliance and enforcement. This includes introducing civil penalties tailored to business size and severity of behaviour and enforceable industry codes of conduct to support industry led compliance solutions. These will enable NMI to better influence compliant behaviour in the market and improve outcomes for industry and the community.

Option 2 provides the right balance between option 1 that does not address all gaps and option 3 that extends regulatory powers without a currently demonstrated need.

***Flexible and adaptable legislation***

Option 2 delivers legislation which is flexible and adaptable, with enhancements including:

* Aligning the measurement framework with current international chemical and biological measurement practice and introducing flexibility to enable other traceability pathways. This includes the acceptance of international approaches to keep up-to-date with scientific developments. This allows the legislation to evolve over time to support the future needs of industry and government.
* Accommodating evolving measuring instrument technology into the future. This provides the necessary assurance to stakeholders that future flexibility will continue to maintain confidence in the measurement system, while benefiting industry through faster access to market for new technology and reducing barriers to trade. This strikes a balance for stakeholders between continuing to support well-established measuring instrument controls and introducing a degree of flexibility to drive innovation.

The principles-based approach under option 2 balances flexibility with necessary prescription. Option 1 has insufficient flexibility to meet future needs and option 3 imposes additional regulatory burden expanding to measuring instruments beyond trade.

***Outcomes for stakeholders***

Adopting a principles-based approach under option 2 will reduce unnecessary regulatory burden and provide $9.4 million in annual savings for industry. Industry savings include costs to relabel imported prepacked products ($6.4 million annually). A principles-based approach to measurement marking requirements on packaged products will ensure all current labels remain compliant without any change and provide access to a range of imported products, with greater flexibility for the labelling of domestic products. It ensures consumers still have access to prominent and legible measurement information, while reducing regulatory burden for industry and better facilitating international trade. There is a potential time burden for consumers to locate the measurement mark on packaged products that don’t display the measurement mark on the front of the package ($0.9 million). However, this impact is reduced in grocery stores that are subject to the Unit Pricing Code.

The costs to industry associated with transitioning to a new principles-based framework will be mitigated via appropriate transition periods. Government will work together with industry to educate and provide guidance material to facilitate compliance and maintain capability, including to continue to provide adequate and accessible information for consumers. Upgraded ICT systems will enable industry and government to better cooperate under a risk-based compliance model and reduce the reporting burden on ATPs appointed under the legislation. Licensing approvals and data collection will also be simplified. See [section 9](#_RIS_Question_7:) for more information on how the reforms will be implemented.

Establishing a modern risk-based regulation under option 2 will ultimately reduce costs for industry, support positive outcomes for consumers and deliver a reliable measurement framework for Australia. Modernisation will drive innovation and ensure relevance for future generations.

# RIS Question 7: How will you implement and evaluate your chosen option?

## Implementation Plan

Australia’s current measurement legislation will be repealed and the new legislation introduced before the current regulations sunset (currently due to sunset on 1 April 2024). Appropriate arrangements will be in place to help industry transition to the new laws, which will include grace periods. Detail on specific implementation activities are outlined below, including information and education campaigns to communicate the changes and how compliance will be enforced. Government will work together with industry for a successful transition to the new laws.

Implementation consists of 3 key phases, with the following estimated timeline:

### Re-making the legislation

Australia’s current measurement legislation (primary and secondary) will be repealed and remade. This includes the:

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

Technical guidance material will be drafted to help assist industry operate and comply in a principles-based environment. Stakeholder feedback will be sought on the draft guidance material and on specific issues which arise during the drafting process.

There are a number of references in Commonwealth, state and territory legislation to the current measurement legislation. With the Act and regulations being repealed and remade these references will need to be reviewed and amended. Communication strategies will include engaging with those departments and agencies who have responsibility for legislation that currently makes reference to existing measurement legislation, as well as broad communication advising of the introduction of new laws.

### Information and education campaign

An information and education campaign will help communicate the changes to Australia’s measurement framework to all stakeholders. Through this campaign NMI will help impacted stakeholders understand how the new framework applies to their circumstances and allow them to implement measures to meet their obligations before the new rules take effect. NMI will provide an understanding of what the changes means for particular stakeholder groups, what changes may be needed to their business processes, and what opportunities are provided in the new framework.

The information and education campaign will be delivered using 5 key methods including:

1. The production and distribution of **guidance material**
2. **Digital outreach** through a range of platforms at key phases of the implementation
3. Stakeholder outreach via **targeted consultation** throughout each phase
4. **On the ground outreach** utilising NMI’s trade measurement inspectors
5. Tracking of known and identified issues through an accessible **online policy register**

***Guidance material***

Responses to the Consultation RIS indicated a strong demand for guidance material to help stakeholders to understand the new legislation, particularly where a more principles-based framework is adopted. Phase one will include the development of general and tailored guidance materials across the majority of impacted stakeholder groups. This guidance material will be developed in consultation with stakeholders and help inform them of the key changes under the new legislation. It will also act as a refresher on pre-existing responsibilities that are carried over or that have not undergone significant reform. As much of the legislation will adopted a principles-based approach, this guidance material will also include information on how stakeholders can comply with the new legislation, as well as relevant contact information for NMI so stakeholders can seek clarification as required.

It is anticipated that guidance material will continue to be developed during the second and third phases, particularly where further clarification is needed or where further changes are implemented following future reviews, such as those for current exemptions and the sale of meat and alcohol.

Guidance material will be accessible online on the department’s website and will be available in both English and non-English formats, which will be of particular importance for small to medium enterprise and some consumer stakeholders. Where appropriate, some guidance material will be accompanied by educational videos demonstrating the changes.

***Digital outreach***

The department webpages will be updated to indicate the current phase of implementation and there will be a media release to prepare stakeholders and signal to business that changes are coming. It will announce the commencement dates of the new legislation, key changes and planned approach to education, guidance material and compliance and enforcement during the development phase.

Updates will be provided through NMI and departmental social media, and email distribution lists at key stages throughout the implementation plan. The NMI hotline will continue to be available for all stakeholders to seek further clarification and guidance on the reforms.

***Targeted consultations***

NMI will engage in targeted consultations with key stakeholders, including peak industry bodies, consumer groups and larger industry stakeholders during each phase, with extensive targeted consultations during phase 3 to evaluate the reforms and their impact. Additional targeted consultation will form a key part of future consultation, including the review of exemptions and requirements for the sale of meat and alcohol, some of which are currently expected to run alongside phase 2.

NMI will host open virtual town halls for key stakeholder groups explaining relevant changes. These town halls will be run during phase one and will also be available to access online during the implementation period.

In order to effectively reach small to medium enterprises, NMI will:

* Focus on-the-ground activities on small to medium enterprises.
* Engage with key organisations who have a strong outreach to small business.
* Allow a long transition period to allow sufficient time to reach a wide audience.

***On the ground outreach***

NMI’s trade measurement inspectors have a wide footprint across Australia, including metropolitan, regional, rural and remote communities. They are an important frontline resource for engaging with business. During the development and transition phases, and subject to COVID impacts, trade measurement inspectors will undertake an on the ground educational campaign across Australia. The primary target will be small to medium enterprises. In addition, NMI will conduct a desktop educational campaign, making phone calls and/or emailing a wide range of businesses to inform them of the updated legislation and answer any questions they might have.

Through these channels NMI will provide information and education to a range of businesses, helping them to understand new and existing requirements and how to comply, supplying either physical copies of appropriate guidance materials or information on how to access them. These activities will inform businesses not covered by the current measurement framework for shortfall but captured under the expanded false or misleading measurement provisions of the changes impacting them.

***Online policy register***

During phase one and in preparation for phase 2 and 3, NMI will set up an online policy register accessible to all stakeholders and the general public, to flag policy issues and ideas that arise. The register will be used to keep a comprehensive list of identified issues and relevant proposed action to assist in the resolution of identified issues, and to form part of the evaluation of the reforms. The NMI will ensure that the policy register, its purpose, and instructions on accessing it are included as a part of the educational campaign throughout the digital, targeted and on the ground outreach activities, and will make the register easy to find on the department’s website.

### Compliance and enforcement

Phase 2 consists of a 2 year transition period to the new laws for industry and other stakeholders. During the first year of this phase the primary focus will be an education campaign run by NMI relating to the changes under the reform options, as well as general education regarding existing, unchanged requirements.

Although a significant focus throughout the first year will be educational, there may be circumstances where non-compliance is identified either through complaints to the NMI hotline or during these educational visits. In the majority of cases and for minor breaches, it is expected that these will be addressed as a part of the educational campaign by making the stakeholder aware of their obligations and responsibilities under the new legislation. However, where the breach is significant other compliance action may be considered, including using new compliance and enforcement tools available under the new legislation. This would primarily occur in areas where there have been no substantial changes to pre-existing requirements (e.g. shortfall in the sale of goods).

During the second year of the transition phase the NMI will continue its educative work but will also be prepared to undertake compliance and enforcement action, where appropriate, to ensure compliance with the new framework. For some of the more significant changes, the focus on education activities will span the whole 2 year transition period. In all circumstances the NMI will address non-compliance using a transparent and proportional risk-based approach.

At the end of the transition period it is expected that education activities will be scaled down, with the NMI addressing identified non-compliance through new and existing compliance and enforcement options. These include criminal offences, civil penalties, tailored infringement notices, correction notices, other administrative compliance options and in future enforceable industry codes of conduct.

The majority of businesses who are compliant with current requirements will continue to be compliant with new requirements without having to make significant changes. For example, packaged products that are compliant with current marking requirements will continue to be compliant. Following further review of specific packaging exemptions and requirements,[[84]](#footnote-85) where changes impact stock that has already been produced, including warehoused stock and stock on retail shelves, then consideration will be given to whether this stock can remain on sale or be introduced for sale until the stock is sold or removed.

### Reporting requirements for industry

Existing reporting requirements for most ATPs will continue alongside changes to reporting requirements for UMVs and LMAs, which will require UMVs and LMAs to routinely submit data after performing measurement activities. As described in [Appendix 6](#_Appendix_7:_Impacts), UMVs will be expected to report on services provided within similar timeframes to those for Servicing Licensees. Routine reporting on services provided (e.g. regulation certificates issued) by LMAs will likely be less frequent.

During the transition period UMVs and LMAs will continue to be required to report on an ad hoc basis, at NMI’s request. Following development of an appropriate reporting framework UMVs and LMAs will be expected to transition to routine reporting arrangements. Data received from UMVs and LMAs through routine reporting can be analysed by NMI to help monitor the quality of services being delivered.

These reforms will be supported by updates to ICT systems to enable more efficient reporting, particularly for ATPs. This will enable improved NMI data analysis to ensure ATPs are delivering trustworthy measurement outcomes, supporting confidence in the measurement system while imposing limited regulatory burden.

## Evaluation

The impact of the new legislation will be reviewed following completion of the transition phase. This will allow for evaluation of the new reforms and their effectiveness in meeting their objectives, including any unintended outcomes. During phase 2 an evaluation framework will be developed to help prepare for phase 3. The evaluation phase will include several activities including:

* an assessment of the effectiveness of the information and education campaign
* an evaluation of the impact on industry
* a post implementation review on NMI’s compliance activities
* ongoing engagement with stakeholders on future measurement issues.

***Effectiveness of the information and education campaign***

The effectiveness of the information and education campaign will be assessed prior to the industry impact evaluation. This will inform any improvements needed in how to effectively communicate the changes to stakeholders.

***Industry impact evaluation***

This evaluation will consider the ease of doing business in a principles-based regulatory environment. This may include the following factors:

* flexibility to accelerate future technologies to market, helping to drive innovation
* business operations including ease of navigation of the regulatory environment
* reduced costs to business via reduced technical barriers to trade and investment

This evaluation will start approximately 2 years after commencement of the new legislation and will focus on addressing issues which have surfaced during the transition phase. A further evaluation is expected approximately 5 years after commencement to focus on the effectiveness of the reforms.

***Post implementation review of NMI’s compliance activities***

There will be a change in focus from traditional key performance indicators based on activities undertaken to an outcomes based compliance model. While the number of compliance activities will still be reported (such as annual business inspections), a greater emphasis will be placed on the impact of compliance activity in driving positive business change. Reporting will include sector focussed compliance outcomes, better communication of compliance trends and, where possible, examples of compliance and enforcement outcomes.

***Ongoing engagement with stakeholders on measurement issues***

As outlined above, NMI will set up a public online policy register to flag issues and ideas that arise during implementation. The policy register is expected to be retained beyond the transition and evaluation phases to support ongoing transparency in the evaluation and resolution of future policy issues.

The new regulations will be subject to the standard sunsetting arrangements applicable to legislative instruments.[[85]](#footnote-86) Instruments are reviewed every 10 years to ensure they are kept up to date and remain fit for purpose.

# Appendix 1: Glossary

***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 anorganisation 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. packaged goods); third parties appointed by the measurement framework; peak bodies representing industry groups; businesses in ANZSIC industry code groups.

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

***Legal Metrology Authorities (LMAs)*** are technical 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. 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*.

***Measurement standard*** includes measuring devices, instruments, systems and formulae. Currently referred to in the measurement legislation as a *standard of measurement*

***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](https://www.industry.gov.au/data-and-publications/certificates-of-approval) issued for that instrument.

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

***Primary measurement standards*** are standards of measurement of the highest accuracy which have been internationally compared and recognised.

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

***Public weighbridges*** areweighbridges 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 permitting them to operate a public weighbridge, subject to licence conditions and regulatory requirements

***Reference material*** isa 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***.***

***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 to Servicing Licensees but specifically in relation to utility meters.

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

***Standard of measurement*** see measurement standard.

***Thematic areas***are the 6 key elements that the measurement legislation covers, 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.

***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.

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

***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 to UMVs 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 or more 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.

# Appendix 2: Further background and context for the review

## 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.[[86]](#footnote-87)

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 UMVs).
* 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
* 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 particular 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.

## The Measurement Law Review journey

### Packaging review and consumer survey

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.[[87]](#footnote-88) 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 regulated. 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 during November and 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[[88]](#footnote-89) presenting a range of considerations and a proposed approach to make the regulations more flexible was also open for public comment during May and 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.[[89]](#footnote-90) ORIMA undertook two research stages:

1. A series of 25 in-store qualitative intercept interviews (15 minutes each) 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 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.

### MLR thematic review and public consultation

The former Assistant Minister for Industry, Innovation and Science, the Hon Craig Laundy MP launched the Measurement Law Review in November 2017.[[90]](#footnote-91) The review team analysed the legislation and divided it into the following 6 thematic areas for the purposes of public consultation: scope, traceability, measuring instruments, measurement-based transactions, third party arrangements and compliance and enforcement arrangements.

An initial workshop was held in November 2017 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 through:

* Six discussion papers released in 2018 and 2019 seeking feedback on Australia’s current measurement framework, focussing on:
  1. Scope of Australia’s Measurement Laws
  2. Traceable Measurement
  3. Measuring Instruments
  4. Measurement-Based Transactions
  5. Third Party Arrangements
  6. Compliance Arrangements
* A series of forums held with ATPs[[91]](#footnote-92) across Australia in November and December 2019. 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.[[92]](#footnote-93)

### Economic analysis and industry survey

An independent economic analysis conducted by Ernst & Young in 2019/2020 [[93]](#footnote-94) estimated the baseline value of the measurement framework to be significant, with the benefits far outweighing the costs of the system:

* This 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.[[94]](#footnote-95)
* The report found that measurement regulation supports economic output across all sectors of the economy.[[95]](#footnote-96) 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.
* The quantifiable benefits of the measurement system were considered large compared to the modest *average annual cost of around $200 million*. 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.
* Because of the significant benefits of the measurement system, regardless of the assumptions used in estimating burden, the analysis indicated that 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.

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 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.*

# Appendix 3: When changes would occur

Table A3- 1: When changes would occur

| **Changes   Area** | **Reform option 1: Streamline with minimal change** | | **Reform option 2: Flexible and future focused** | | **Reform option 3: Flexible with additional regulatory powers** | |
| --- | --- | --- | --- | --- | --- | --- |
| **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:** |
| **Traceability** | Improved legislative clarity about the role of NMI and set criteria for acceptance of traceability pathway/mechanisms.  Chemical and biological measurements:   * Recognition of a broader suite of measurement types (including additional ALUMs) * Greater international alignment   Expansion of traceability mechanisms to include:   * measurement methods * method-dependent measurements * reference methods for material properties * potentially recognising some Key Comparison Database (KCDB) entries as Australian Certified Reference Materials (ACRMs) * Greater international alignment | Reviewing processes for certification of reference standards and reference materials. | As in option 1 plus:  Ability for head of power to recognize additional traceability frameworks:   * Flexibility to accommodate other pathways over time * Facilitate adoption of new technology * Provide oversight of Commonwealth government measurement needs   Increased powers for Chief Metrologist to:   * Determine additional traceability pathways, primary measurement standards, methods, systems, instruments * Revoke and revalidate traceability pathways * Recognise traceability paths other than SI units * Determine additional ALUMs to support method dependent measurement | Recognition of additional:   * Traceability frameworks * ALUMs   Determination, recognition or revocation of traceability pathways. | As in option 2 with broader coverage to include measurement used for regulatory purposes.  Legislation provides NMI with a reserve power to compel a certain traceability path for a particular area or application that is outside its current scope. | Assessment of measurement needs with policy owners to ensure appropriate capability support via ATPs in areas of expanded scope. |
| **Measuring Instruments** | Retain existing arrangements (pattern approval and verification), with the ability to provide exemptions.  Electronic and physical verification marks permitted.  Provision to apply conditions to certificates, or issue permits – to be on a case-by-case basis. | Exemptions for instruments from requirements and appropriate trial periods and review.  Suitability of existing exemptions. | Retain existing arrangements (pattern approval and verification) as default but able to introduce alternative flexible control pathways for instruments used for trade in future.  Provision to issue permits and provisional certificates.  Provision for other regulators to adopt instrument pathways for their purposes.  Electronic and physical verification marks permitted. | Implementation of flexible control pathways for instruments used for trade to be introduced where appropriate following data collection, risk assessment and consultation. | As in option 2.  Broad powers to directly regulate measurement-based activity, including measuring instruments relied on by other regulators. | Determination of appropriate application of power to non-trade measurement-based activity with other regulators.  Accommodation of certificates with a broader application |
| **Measurement-Based Transactions** | Prohibition on false or misleading measurement statements for sale and purchase of goods.  Principles-based marking requirements for packaged products. Ability to exempt packaged products from marking requirements (cosmetics from day 1).  Streamlined approach to unit of measurement requirements for packaged products.  Streamlined approach to requirements for use of measuring instruments for trade. Measuring instruments used to pack random weight products to be pattern approved. | Further exemptions for categories of products from measurement marking presentational requirements, beyond those introduced on day 1.  Review the need for, and scope of, requirements to sell particular products by reference to measurement. (e.g. meat and certain types of alcohol).  Additional presentational requirements for the measurement mark for particular categories of products. | As in option 1.  Principles-based approach for:   * Correct use of measuring instruments for trade * Presentational requirements for measurement mark on packaged products * Appropriate measurement unit to be used to make packaged products | As in option 1. | As in option 2. | As in option 2.  Development of expectations and guidance to distinguish NMI’s specialist regulatory role for trade from its generalist role. |
| **Third Parties** | Transitional arrangement for existing appointments.  Six types of ATP that may be appointed to be condensed to 4 types.  Servicing Licensee subclasses streamlined based on competency categories and test method, rather than instrument class. | Transition arrangements for existing appointments that will eventually shift to the new system.  Establishment of processes and systems enabling additional reporting requirements for UMVs. | Transition arrangements for existing appointment documentation to move to new documentation for single appointment mechanism.  Single mechanism to appoint ATPs with detail of function specified in the regulations (will align with functions for current ATP types). Future flexibility to appoint ATPs to perform new types of functions.  Servicing Licensee subclasses streamlined and based on competency categories and test method.  Provision to enable the use of general licences for certain measurement functions and activities in future. | Establishment of processes for appointment of new types of ATP functions  Establishment of processes, systems and supporting material for introduction of general licences.  Establishment of processes and systems enabling additional reporting requirements for UMVs and LMAs. | As in option 2. | As in option 2.  Determination and review of the extent of the ability of ATPs to provide measurement services more broadly. |
| **Compliance and Enforcement** | Contemporary and flexible compliance and enforcement options in addition to existing arrangements.  Retention of current inspector’s powers or adoption of standardised powers. | None. | As in option 1.  Mechanisms to accommodate enforceable industry codes of conduct.  Ability to issue recalls on measuring instruments and packaged products | Development of industry-based solutions, such as enforceable codes of conduct. | As in option 2.  Ability for NMI to intervene in the 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. |

# Appendix 4: Impacts on consumers

## Key impacts on consumers

Table A4- 1: Summary of key impacts on consumers

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Consumer confidence | +1 | +2 | +2 | **Greater coverage of trade measurement provisions:** 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 | **Products able to be sold by different measurements:** 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 | **Compliance and enforcement**: 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 | **Packaging**: 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. |
| Average | +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. |

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

### Consumer Confidence

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Consumer confidence | +1 | +2 | +2 | **Greater coverage of trade measurement provisions:** 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.

### Easy to compare products

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Easy to compare  products | 0 | 0 | 0 | **Products able to be sold by different measurements:** 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 goods are being sold by reference to measurement (e.g. 1 kg of apples, 2 L of milk, 2.5 metres of rope or 4 avocados) there is a tension that needs to be balanced, between providing consistency in the measurement units used for packaged and non-packaged products, and providing flexibility to enable businesses to adapt to changing industry practices and consumer preferences.

Where **non-packaged products** are sold by measurement, the **status quo** approachwill apply across **all reform options** regarding requirements relating to the unit of measurement. The objective of these requirements will be preserved but the specific detail may be simplified so that requirements are easier to understand for business and consumers. This includes requirements for products to be sold by a particular unit price (e.g. per kg when sold by mass) and permissible units of measurement. The legislation will include the ability 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.

**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 for this requirement to be met a significant portion of businesses would need to be in breach of current requirements. Where products have been approved to be sold by alternative units this can result in a situation where like products may be sold by different units of measurement (e.g. weight or number), however flexibility to sell products by alternative units is needed to meet the changing needs of industry and consumers. The current process associated with the approval of alternative units (the ‘Secretary’s list’) is burdensome and confusing for industry and can 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.[[96]](#footnote-97) 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. **Option 2 and 3** will include the ability to introduce 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 disproportionally disadvantages consumers an appropriate unit can be prescribed to address the issue.

|  |
| --- |
| The introduction of the Unit Pricing Code (UPC)[[97]](#footnote-98) has helped to make products easier to compare for consumers by providing information regarding the price per unit of measurement (e.g. per 100 g or 100 mL). 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 200 g pack of sweet corn will have a unit price “per 100 g”, 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.

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

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) will be retained, but simplified so they are easier to understand. A detailed review of these requirements, in particular those for meat and alcohol, will occur at a later date through additional consultation.

### Getting what you pay for

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Getting what you pay for | +2 | +2 | +2 | **Compliance and enforcement**: 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 contravening 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 with be met with appropriate action.

Under **options 2** **and 3** enforceable industry codes of conduct and recall powers are also included to further supplement the compliance and enforcement tools available under **option 1**. 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 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. 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 enhanced compliance and enforcement tools is considered to be moderately beneficial.

### Time Burden (packaged products)

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Time burden | 0 | -1 | -1 | **Packaging**: 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 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 packaged goods.

Consumers need to be able to access measurement information on packaged products in order to compare products and inform their purchasing decisions. **All reform options** require the prominent and legible display of the measurement mark and retain minimum height (font size) and a distinct contrast with background colour. **Option 1** also retains the prescriptive requirements for front of pack marking (in line with OIML R79), however, **options 2 and 3** remove the prescriptive front of pack requirement for all products.

A power to exempt particular types of products will be included, which will initially include an exemption for cosmetic products and retain existing exemptions (e.g. for packaged automotive parts,[[98]](#footnote-99) wine bottles[[99]](#footnote-100) and prescription therapeutic goods[[100]](#footnote-101)). 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.[[101]](#footnote-102) 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.[[102]](#footnote-103) Under the reform options it is also possible to introduce requirements for certain types of products to address market failures.

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[[103]](#footnote-104) as part of the Packaging Review[[104]](#footnote-105) 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 m2 or greater in size.[[105]](#footnote-106)

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.

#### 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[[106]](#footnote-107) and in the Country of Origin (CoOL) regulation impact statement.[[107]](#footnote-108) This analysis is contained in [Appendix 9](#_Appendix_9:_Costing), and outlines how the cost to consumers under each option is estimated to be:

Table A4- 1: Cost to consumers under each option

|  |  |  |  |
| --- | --- | --- | --- |
| **Impact** | **Option 1** | **Option 2** | **Option 3** |
| Consumer Costs | +$0.1 m | +$0.9 m | +$0.9 m |

# Appendix 5: Impacts on measuring instrument manufacturers, importers and distributors

## Key impacts on industry – measuring instrument manufacturers, importers and distributors

Table A5- 1: Summary of key impacts on industry – measuring instrument manufacturers, importers and distributors

| 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 | **Targeted Instrument Controls:** While pattern approval and verification will remain the default pathway, in some circumstances manufacturers will benefit from exemptions, determinations and a flexible approach to regulating measuring instruments. Exemptions from controls provide some flexibility in option 1. Option 2 introduces alternative control mechanisms to allow future flexibility for measuring instrument types and applications (subject to 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. |
| Uncertainty and increased engagement arising from the flexibility | 0 | -1 | -1 | **Flexibility provides less certainty and requires increased engagement:** If a flexible approach to regulation is not well communicated, 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. |
| Faster entry to market reduces regulatory burden | +1 | +2 | +1 | **International alignment of instrument controls**: Option 1 will enable streamlining (e.g. exemptions); options 2 and 3 will also enable acceptance of overseas approvals (e.g. accepting overseas test results). Option 3 may introduce additional requirements for certain non-trade instruments. |
| Tailored compliance | +1 | +1 | +1 | **Compliance and Enforcement**: Ability for government to take a 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. |
| Reduced technical barriers for new and innovative measuring instruments | 0 | +3 | +2 | **A framework for supporting new measurement technologies**: Options 2 and 3 both provide a pathway to integrate new and innovative measurement instruments into the measurement framework. This supports investment by instrument manufacturers in instruments integrating new measurement technologies. Option 3 may introduce additional requirements 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 |

|  |
| --- |
| A colour scale demonstrating the magnitude of impact. -3, dark red, large adverse -2, red, moderate adverse -1, orange, slight adverse 0, yellow, neutral +1, light green, slight beneficial +2, green, moderate beneficial +3, dark green, large beneficial |

### 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 | **Targeted Instrument Controls:** While pattern approval and verification will remain the default pathway, in some circumstances manufacturers will benefit from exemptions, determinations and a flexible approach to regulating measuring instruments. Exemptions from controls provide some flexibility in option 1. Option 2 introduces alternative control mechanisms to allow future flexibility for measuring instrument types and applications (subject to 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[[108]](#footnote-109) used for trade purposes with no express power to exempt particular instruments from these controls. While pattern approval and verification will remain the default pathway under all options, this ‘one-size-fits-all’ approach is not always suitable for all measuring instruments or circumstances. This lack of flexibility creates barriers and assumptions that slows the adoption of instruments using innovative technology and results in regulatory burden for manufacturers. It also restricts the use of instruments in the market to those that already have approval, meaning businesses are unable to test the viability of an idea or market demand prior to investing money in pattern approval.

Two examples include:

* Electric Vehicle Charging (see [section 5.4.4.2.1](#_New_pattern_approval)): current measuring instrument controls limit the uptake of new and innovative technology.
* Liquid Detergent Dispensers (see [section 5.4.4.2.2](#_Upfront_pattern_approval)): current measuring instrument controls limit business ability to test the viability of new and innovative concepts.

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** the new legislation will introduce the ability to apply a range of metrological controls to measuring instruments used for trade and legal purposes. Pattern approval and initial verification will remain the default controls and will likely stay as key controls for many types of measuring instruments, particularly for well-established instruments types and sectors where this approach is working well. The legislation will establish alternative controls (both new and existing) that could be applied to measuring instruments, where appropriate. This replaces a ‘one-size-fits-all’ approach with a fit for purpose approach to regulating measuring instruments, accommodating new technologies and novel applications for measuring instruments now and in the future. Under this new approach:

* Pattern approval and verification remain the default controls.
* All instruments would still need to be sufficiently accurate when in use.
* The particular level of intervention will depend on the instrument type, industry sector, need, market failure and risk.
* Stakeholder consultation (with manufacturers, business, 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.

#### Changes to regulatory burden

Pattern approval and verification will remain the default mechanisms of control across all options. However, a change in regulatory burden may occur under **option 1** based on exemptions, permits or provisional certificates, 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 replaced with an alternative control**, 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 replaced with an alternative control**, 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 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** (combined annual application cost). 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 reform options) or for which alternative mechanisms of control (other than pattern approval or verification) are established (options 2 and 3).

Refer to [Appendix 11: Costing the regulatory burden from pattern approval.](#_Appendix_12:_Costing)

Refer to [Appendix 13: Costing the regulatory burden of mandatory verification](#_Appendix_14:_Costing)

Where **alternative control mechanisms are established** in future for particular measuring instruments, the change in burden would depend on the new requirements imposed for those instruments. Prior to changing the instrument controls for 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 RIS as the change in cost would depend on future data collection, assessment and consultation.

### Uncertainty and increased engagement arising from flexibility

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| **1** | **2** | **3** |
| Uncertainty and increased engagement arising from the flexibility | 0 | -1 | -1 | **Flexibility provides less certainty and requires increased engagement:** If a flexible approach to regulation is not well communicated, 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 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** uses 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, importers and distributors 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 could be established, where appropriate, 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 a neutral impact on 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:

* where alternative controls are considered, this will be based on data, risk assessment and consultation with relevant stakeholders
* where appropriate, a 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, importers and distributors.

### 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 | **International alignment of instrument controls**: Option 1 will enable streamlining (e.g. exemptions); options 2 and 3 will also enable acceptance of overseas approvals (e.g. accepting overseas test results). Option 3 may introduce additional requirements 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.[[109]](#footnote-110) There are two approaches to speed up entry to market and both provide reductions to regulatory burden:

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

* Exempting instruments where the risk assessment and cost / benefits justified doing so, e.g. exempting certain simple measures from verification 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 a case-by-case risk assessment, allow for the possibility of accepting overseas approvals, utilising overseas evaluations, and utilising overseas test results. To increase international / mutual acceptance, this has the potential to be broader than pattern approval specifications aligned with OIML and may include recognising verification and conformance assessments performed overseas.

#### Changes to regulatory burden

The change in regulatory burden is difficult to quantify as it would be contingent upon further consultation and analysis.

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 and 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 determines that overseas test results should be accepted from a particular and appropriately accredited institute or laboratory following a specific risk assessment. 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 applications for measuring instruments to the manufactures, importers and distributors of measuring instruments is estimated to be $0.18m (combined annual application cost). Reductions to regulatory burden would be dependent on the number of measuring instruments that are:

* exempt from pattern approval (**all reform options**)
* subject to an overseas pattern approval being recognised (**options 2 and 3**)
* not required to be pattern approved based on risk assessment and consultation (**options 2 and 3**).

Refer to [Appendix 11: Costing the regulatory burden from pattern approval](#_Appendix_12:_Costing).

### Tailored compliance

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| **1** | **2** | **3** |
| Tailored compliance | +1 | +1 | +1 | **Compliance and Enforcement**: Ability for government to take a 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, importers and distributors 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, importers and distributors. 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 industry 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 focus compliance action in other 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. Importantly, NMI would take a risk-based approach to issuing a recall. Such a decision 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.

### 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 | **A framework for supporting new measurement technologies**: Options 2 and 3 both provide a pathway to integrate new and innovative measurement instruments into the measurement framework. This supports investment by instrument manufacturers in instruments integrating new measurement technologies. Option 3 may introduce additional requirements for certain non-trade instruments. |

New and innovative measuring instruments used for trade purposes often lack a clear approval path under the measurement framework to enter the market. Their existing presence in the market highlights the need to establish a legislated pathway that will be responsive to novel and emerging measuring instrument types.[[110]](#footnote-111)

**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 legislated mechanisms to enable engagement 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 efficiently 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 measuring instrument manufacturers, importers and distributors, additional regulatory requirements may be imposed by other regulators and NMI that may result in an additional cost or burden**.**

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:[[111]](#footnote-112)

* a clearer pathway for either seeking pattern approval and verification, or using alternative control mechanisms for instruments containing new technologies
* providing increased support for traceability pathways relevant for new and innovative measuring instruments
* regulations to support confidence, security and integrity of measurement processes 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, importers and distributors as it:

* creates market certainty and access for manufacturers of trade/legal measuring instruments applying new technologies and techniques
* supports investment in emerging innovative measurement technologies and applications through clear pathways for entry to market and compliance requirements
* encourages the entry of innovative measuring instruments into Australia
* identifies mechanisms of control appropriate for instruments using new technologies and techniques.

#### 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 is estimated to be $0.18m (combined annual application cost). For an estimate of reduction in burden, Refer to [Appendix 11: Costing the regulatory burden from pattern approval](#_Appendix_12:_Costing).
* Under **option 2**, the change in regulatory burden would be determined over time as innovative measuring instruments come into use. The regulatory burden on measuring instrument manufacturers, importers and distributors would involve controls commensurate to the 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 andalso introduces the potential for additional regulatory requirements to be imposed to support other regulators. This may result in additional cost or burden upon manufacturers, importers and distributors for measuring instruments used for other regulatory purposes.

# Appendix 6: Impacts on Authorised Third Parties

## Key impacts on industry – Authorised Third Parties

Table A6- 1: Summary of key impacts on industry – Authorised Third Parties

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Appointment types are streamlined and offer future flexible | +1 | +2 | +2\* | **Simplification and merger of appointment types:** Under **option 1**, 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 **options 2 and 3** there is a single legislative mechanism to appoint ATPs to perform distinct functions specified in the regulations. Ability to appoint ATPs to perform “general functions” provides greater flexibility to accommodate future measurement functions and activities to support emerging measurement needs and innovative instrument types. |
| Fit for purpose competency pathways for ATPs | +1 | +1 | +1\* | **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. Some flexibility introduced as to how competency can be demonstrated to accommodate future needs. Simplification of appointments and reduction in the number of licensing subclass categories may reduce the cost and time burden associated with maintaining multiple qualifications. |
| General licences offer future flexibility where formal ATP appointment not appropriate | 0 | +1 | +1 | **General Licences**: In future under **options 2 and 3**, a general licence could 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 measurement confidence | -1 | -1 | -1\* | **Common reporting requirements**: UMVs (under **all options**) and LMAs (**options 2 and 3**) 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. |
| Average | +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. |

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

**\*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**.

### Appointment types are streamlined and offer future flexibility

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Appointment types are streamlined and offer future flexibility | +1 | +2 | +2\* | **Simplification and merger of appointment types:** Under **option 1**, 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 **options 2 and 3** there is a single legislative mechanism to appoint ATPs to perform distinct functions specified in the regulations. Ability to appoint ATPs to perform “general functions” provides greater flexibility to accommodate future measurement functions and activities to support emerging measurement needs and innovative instrument types. |

Under **all options** regulatory arrangements will be maintained that require key measurement services to be obtained from ATPs.

**All options** includedegrees ofincreased flexibility and some reduced prescription regarding how ATP appointments are established, with the scope of functions remaining the same. Current arrangements for existing appointments and licences will be maintained on introduction of the new legislation, with transitional arrangements established to enable a smooth transition to new appointment mechanisms over a period of time.

#### Public weighbridges

Under **all options** public weighbridges will continue as a separate licence class. Regulatory requirements on Public Weighbridge Licensees and operators would be streamlined, simplified and made more principles-based with administrative guidance provided by NMI to assist operation.

Streamlined requirements for public weighbridge operation and licensing arrangements would slightly reduce administrative burden associated with running a public weighbridge.

#### Simplifying and accommodating future flexibility for appointment types

Under **all options**, existing categories of appointment functions (e.g. Servicing Licensees, Public Weighbridge Licensees, UMVs, Certifying Authorities, Verifying Authorities and Approving Authorities) will continue to exist, however some of the legislative arrangements may change (e.g. the mechanism used to appoint ATPs). There will be a greater emphasis on describing some functions by reference to competency categories and test method,[[112]](#footnote-113) rather than instrument classes based on particular instrument types and products. This may provide some administrative and cost savings to Servicing Licensees over time by combining some of the 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.

#### 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.

#### 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 considered to be similar – i.e. the provision of calibration/traceability services throughout the economy.

Under **option 1** merging Certifying Authorities and Verifying Authorities under a single appointment mechanism will align similar functions under the legislation. There may be an administrative saving for those entities choosing to provide both certifying and verifying services.

#### Flexible appointment types

Under **options 2 and 3**, a single administrative mechanism in the legislation will be used to appoint an ATP, authorising them to perform certain distinct functions outlined in the regulations. These authorised functions will align with existing ATP categories (e.g. Servicing Licensees, Public Weighbridge Licensees, UMVs, Verifying Authorities, Certifying Authorities and Approving Authorities). It will also be possible to authorise ATPs to perform functions outside of existing categories to enable performance of “other metrological functions as determined by the Chief Metrologist”, to accommodate future functions that may not fit within existing categories.

Utilising a single legislative appointment mechanism will offer a small reduction in administrative costs for some ATPs and introducing a new “general” category will better support current and emerging measurement needs, innovative instrument types and potentially accommodate new types of ATP appointments in the future. Under **all options**, existing appointments and licences will be maintained on transition to the new appointment framework, with transitional arrangements established to eventually move all appointments to new arrangements.

A risk-based approach will be used in **options 2 and 3** to determine the suitability and nature of any new functions introduced under the “general” category following consultation with industry.

#### Change to regulatory burden

Across **all options** a slight reduction in regulatory burden is expected as a result of reduced administrative burden associated with application processes. 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 and renewal. The current estimated cost of licences and appointments is $1.2m for a total number of 617 ATPs. Refer to [Appendix 12: Costing the regulatory burden on Authorised Third Parties](#_Appendix_13:_Costing) 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 ATPs are appointed via a single appointment mechanism, and the number of Servicing Licence classes and sub classes is reduced, the number of ATPs impacted by the change is thought to be 259, but this could potentially extend to all 617 ATPs depending on potential efficiency gains through reduced costs for appointments to be amended, rather than applying for new separate appointments.

### Fit for purpose competency pathways for ATPs

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Fit for purpose competency pathways for ATPs | +1 | +1 | +1\* | **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. Some flexibility introduced as to how competency can be demonstrated to accommodate future needs. Simplification of appointments and reduction in the number of licensing subclass categories may reduce the cost and time burden associated with maintaining multiple qualifications. |

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 a greater emphasis on describing some functions by reference to competency categories and test method,[[113]](#footnote-114) rather than instrument classes based on particular instrument types and products. In particular this will benefit those ATPs who hold multiple servicing licence subclasses, as some existing subclasses may be combined. This may result in a reduction in the number of statements of attainment an individual may need to hold and the associated administrative burden.

Some flexibility as to how competency can be demonstrated will be introduced, through limited changes, to be able to accommodate future needs. For example, currently some types of ATP are required to obtain a statement of attainment issued by a registered training organisation (RTO), while others must hold appropriate NATA accreditation. In the future, where new ATP functions emerge other methods to demonstrate competency may be more suitable. These changes would maintain, not dilute, current standards, with NMI releasing guidance material identifying the different acceptable pathways to demonstrate competency where these are introduced in future.[[114]](#footnote-115) This flexibility will enable NMI to set the competency framework that is most appropriate for a particular ATP and will support hybrid and emerging ATP functions in the future. This enables the legislation to accommodate the evolution of ATP competency requirements to ensure competency frameworks remain suitable for ATP functions in the future.

There is expected to be minimal change to the regulatory burden associated with these changes. There is a slight net benefit for all options under this changes. Flexibility will largely benefit future ATP functions, with competency for existing ATP functions remaining largely unchanged. In some instances there may be small efficiency gains for ATPs through streamlining competency requirements and consolidating some servicing licence subclasses. This may slightly reduce the cost and time burden associated with maintaining multiple qualifications for a small number of ATPs.

### General licences offer future flexibility where formal appointment is not appropriate

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| General licences offer future flexibility where formal ATP appointment not appropriate | 0 | +1 | +1 | **General Licences**: In future under **options 2 and 3**, a general licence could 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 are appointed as an ATP through an administrative system requiring a formal application supported by various documentation. This requires ATPs to make individual licence, UMV 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**, a mechanism is provided that enables introduction of general licences 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 in future 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,[[115]](#footnote-116) performing a ship draft survey,[[116]](#footnote-117) 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, subject to future consultation, 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.

Where utilised and over time, general licences could reduce the regulatory burden associated with obtaining a licence or appointment to undertake certain measurement functions and activities, including associated application and ongoing fees. This means that if certain functions and activities currently subject to ATP appointments were to transition to a general licence arrangement in future, there would be an associated reduction in administrative and cost burden for those already performing these functions and activities. However, the regulatory burden associated with performing the function or activity would likely remain similar, as performing the function or activity would still be subject to a number of mandatory requirements.

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.

While the legislation will include the ability to introduce general licences, 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.

### 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\* | **Common reporting requirements**: UMVs (under **all options**) and LMAs (**options 2 and 3**) 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. |

#### 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 when necessary 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 ATPs and support confidence in the measurement services that ATPs provide, which underpin broader economic activity.

#### 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 as necessary 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**). Refer to [Appendix 12: Costing the regulatory burden on Authorised Third Parties](#_Appendix_13:_Costing) for further information.

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

# Appendix 7: Impacts on wholesalers, retailers, importers, and packers

## Key impacts on industry – wholesalers / retailers/ importers / packers

Table A7- 2: Summary of key impacts on industry – wholesalers / retailers / importers / packers

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Increased business confidence | +1 | +2 | +2 | **Greater coverage of trade measurement provisions:** 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 | **Packing Instrument Requirements**: 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 | **Tailored compliance:** 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 | **Packaged Products**: Relabelling costs reduced for some imported packaged products. |
| Ease of doing business | +2 | +3 | +3 | **Greater flexibility for business**: Less prescriptive / streamlined and flexible requirements for:   * how goods and services are sold by measurement * how measuring instruments in trade are used * the presentation of the measurement mark on packaged products   However, flexibility may provide uncertainty for some businesses, particularly SMEs. |
| Certainty for business | +1 | +1 | +1 | **Packaged Products**: A power to exempt products provides long term certainty for the presentational requirements of the measurement mark on packaged products. |
| Average | +1.00 | +1.33 | +1.33 | All reform options will benefit this stakeholder group. Options 2 and 3 provide the greatest net benefit. |

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

### Increased business confidence

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Increased business confidence | +1 | +2 | +2 | **Greater coverage of trade measurement provisions:** 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. This contributes 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 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.

### Cost burden for packing instruments

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Cost burden for packing instruments | -1 | -1 | -1 | **Packing Instrument Requirements**: 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[[117]](#footnote-118) 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 0.600 kg). 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.

#### Changes to regulatory burden

It has been assessed that the overall impact of this clarification to industry across **all reform 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 to meet these requirements. An appropriate transitional period will be put in place to give these businesses time to ensure their measuring instruments are compliant.

### 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 | **Tailored compliance:** 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 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 focus compliance action in other 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.

### Placement of the measurement mark on packaged products

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Cost savings – measurement marking placement | +1 | +1 | +1 | **Packaged Products**: Relabelling costs reduced for some imported 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 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.[[118]](#footnote-119) This will help in removing labelling regulatory duplication for some products, where appropriate. In addition, requirements can be introduced for certain products in order to address market failures.

**Options 2 and 3** include the features of option 1, but provide more flexibility by removing the prescriptive front of pack requirement for all products. 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. 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.

#### Industry cost savings

Business compliance costs will decrease due to cost savings for those imported packaged products that will no longer require relabelling. These cost savings are expected to be most impactful for cosmetic products imported from the EU and the UK, which will be 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 realistic estimate of the three variables. This analysis is contained in [Appendix 9](#_Appendix_9:_Costing), and outlines how the cost savings to industry under each option is estimated in table A7- 2 below:

Table A7- 3: 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 |

### Ease of doing business

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Ease of doing business | +2 | +3 | +3 | **Greater flexibility for business**: Less prescriptive / streamlined and flexible requirements for:   * how goods and services are sold by measurement * how measuring instruments in trade are used * the presentation of the measurement mark on packaged products   However, flexibility may provide uncertainty for some businesses, particularly SMEs. |

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.

#### 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) will be retained and reviewed at a later date. The legislation will continue to include an ability to introduce requirements for particular products to be sold by reference to measurement. This 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.[[119]](#footnote-120) 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. **Option 2 and 3** includethe ability introduce 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 disproportionally 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.

#### 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:

* 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 will 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 enterprises (SMEs), guidance material will accompany the legislation to help industry understand their obligations.

#### 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 to broad principles with limited prescriptive requirements (front of pack, font size and colour contrast with background). Other prescriptive requirements, where needed, will be moved to legislative instruments or guidance material. This reduces complexity for business and saves time, while also enabling them to have greater assurance 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.

##### Changes to regulatory burden

Across **all options**, it is anticipated that there would be a slight decrease in the time taken 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[[120]](#footnote-121) 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 one hour or less, resulting in an annual industry saving of at least **$2.7m**. [Appendix 10](#_Appendix_11:_Costing) provides the detailed calculations including methodology and assumptions.

### Certainty for business (packaged products)

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Certainty for business | +1 | +1 | +1 | **Packaged Products**: 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 decrease 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 disposal of the old packaging earlier than intended

**All reform options** 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 for a particular category of product. 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, NMI will produce guidance material to help industry understand the requirements and potentially create deemed to comply pathways to offer additional certainty.

# Appendix 8: Impacts on government regulators

## Key impacts on government regulators

Table A8- 1: Summary of 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 | **Supporting measurement needs of regulators: Option 1** provides regulators with greater access to verifiers. **Options 2 and 3** make available a more flexible ATP option to service regulators. |
| Better regulatory collaboration on measurement issues | +1 | +1 | +1 | **Collaborative regulatory action:** Under **all reform options** it will be easier for NMI to share relevant regulatory information with other regulators. Under **option 3** NMI would be able to help regulate measurements that regulators rely on, and take targeted action in partnership with or on behalf of regulators. |
| Greater assurance regarding international instruments | +1 | +2 | +2 | **Greater acceptance of international instruments increases access:** 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 | **Which controls apply and when does NMI step in**: Increased flexibility and powers for NMI to regulate the measurements that other regulators rely on may create uncertainty for regulators under **Option 3**. 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 | **Updating the legislative framework and accuracy for chemical, biological and other complex measurements:** 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 | **Innovative measuring instruments**: **Options 2 and 3** 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 primary measurement standards | 0 | +1 | +1 | **Traceability of primary measurement standards:** **Options 2 and 3** provide a new legislative pathway to recognise primary measurement standards which regulators can rely on. |
| Greater support for use of overseas reference standards and CRMs | +1 | +2 | +2 | **Legal assurance for the use of overseas measurement standards and CRMs:** All options will facilitate the identification and use of overseas reference materials and measurement standards by regulators for legal purposes. |
| Average | +0.75 | +1.50 | +1.38 | All reform options will benefit regulators slightly. |

A colour scale demonstrating the magnitude of impact.
-3, dark red, large adverse
-2, red, moderate adverse
-1, orange, slight adverse
0, yellow, neutral
+1, light green, slight beneficial
+2, green, moderate beneficial
+3, dark green, large beneficial

### 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 | **Supporting measurement needs of regulators: Option 1** provides regulators with greater access to verifiers. **Options 2 and 3** 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.[[121]](#footnote-122) 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 UMVs) 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 defined rigidly in terms of classes of Servicing Licensee, linked to specific instrument types, which 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 UMVs will be broadened to provide for the verification of measuring instruments used for trade and other legal purposes.

In **option 2**, regulators will have access to existing ATP services, in addition to new types of ATP functions that could be introduced in future. This could include appointments for determining recognised value standards, supporting method based measurement, and providing future functions related to new instrument control mechanisms (for example, auditing). This flexibility enables regulators to benefit from being able to access broader ATP functions for their regulatory purposes or to support their policy outcomes.

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.

### Better regulatory collaboration on measurement issues

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Better regulatory collaboration on measurement issues | +1 | +1 | +1 | **Collaborative regulatory action:** Under **all reform options** it will be easier for NMI to share relevant regulatory information with other regulators. Under **option 3** NMI would be able to help regulate measurements that regulators rely on, and 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 they rely on or to respond to measurement issues 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 legislationwhich prohibits NMI from disclosing protected information[[122]](#footnote-123). Under **all reform options**, this secrecy provision would be removed and NMI will be better 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
* 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.

### Greater assurance regarding international instruments

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Greater assurance regarding international instruments | +1 | +2 | +2 | **Greater acceptance of international instruments increases access:** 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 these instruments are fit for purpose. For example, requiring instruments are pattern approved[[123]](#footnote-124) under the measurement legislation. By linking to the measurement legislation, those regulators are able to leverage off NMI’s pattern approval process. This provides assurance that measuring instruments meet international requirements and 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:

* Under **option 1**, there is the flexibility to recognise overseas test results (e.g. OIML-CS[[124]](#footnote-125)). 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[[125]](#footnote-126) 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 measuring instruments relied on by regulators.

### Uncertainty arising from additional NMI powers

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Uncertainty based on flexible approach to measuring instruments and NMI role | 0 | 0 | -1 | **Which controls apply and when does NMI step in**: Increased flexibility and powers for NMI to regulate the measurements that other regulators rely on may create uncertainty for regulators under **Option 3**. However, these 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 requirements for measuring instruments via their own legislation or other means. Where they link to those instrument control mechanisms provided for in the measurement legislation, changes 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, even though it is designed for instruments being used in trade, or utilise the broader certification arrangements for measuring instruments.

Under **option 2** alternative instrument control mechanisms, in addition to pattern approval and certification, could be utilised in future. The measurement legislation will be drafted in a more neutral way to make these instrument controls increasingly accessible for regulators to adopt. A degree of uncertainty may be introduced due to some of the alternative control pathways for instruments being activated over time following appropriate data collection, risk assessment and consultation.

* In **option 3**,the Chief Metrologist would have the power to determine specific controls that could be applied to legal measuring instruments relied on by other regulators. 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. These powers would be expected to be used cooperatively and follow consultation with the relevant regulator.
* These powers are not expected to be frequently exercised on mature frameworks that other regulators already have in place.
* These powers would primarily be used where there is insufficient existing coverage of the measurements a regulator relies on, 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.

### 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 | **Updating the legislative framework and accuracy for chemical, biological and other complex measurements:** 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 (e.g. measurements of nanomaterials), and method-dependent measurements (e.g. for some food parameters[[126]](#footnote-127)). Complex measurements may present challenges to regulators who need to monitor compliance 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
* 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 endorse/approve internationally recognised chemical and biological measurement standards.

**Options 2 and 3** will build on option 1 and also introduce powers for the Chief Metrologist to:

* determine additional traceability[[127]](#footnote-128) pathways (determining whether these are sufficiently strong, open, comparable, transparent, technically sound and internationally recognised)
* recognise paths other than to the SI, particularly for chemical or biological measurement,[[128]](#footnote-129) and other complex measurements
* determine additional ALUMs, e.g. to support method dependent measurements, and to make these changes more easily.

These improvements aim to 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 reform 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 reform 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.

### 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 | **Innovative measuring instruments**: **Options 2 and 3** 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 measurements will often rely on measuring instruments as the basis for those measurements. These instruments may include innovative technologies such as artificial intelligence (AI) systems or incorporate self‑calibration, and could present challenges as to how they fit within the current measurement legislation.

Under **option 1,** regulators couldgenerally 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 an absence of test methods or inherent lack of transparency in the way the measurements they produce are calculated**.** Administrativesolutions to such challenges, such as exemptions or time-based provisional approvals, may reduce some technical barriers for regulators relying on these instruments. However, this may mean there is limited assurance regarding the performance of these types of instruments without some reliance on other control mechanisms.

**Options 2 and 3** introduce additional control mechanisms to provide assurance for measuring instruments that 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. **Options 2 and 3** would reduce technical barriers for innovative measuring instruments in regulatory applications, byproviding for:

Flexibility in the controls[[129]](#footnote-130) applied to measuring instruments that are internationally aligned and better targeted to specific applications and regulatory frameworks.

Flexibility in the recognition of traceable pathways for all types of measurement.

Appropriate requirements, powers and oversight mechanisms to support confidence in statements of measurement traceability, accuracy and instrument compliance.[[130]](#footnote-131)

This impact is beneficial for regulators as it:

creates greater confidence in measuring instruments applying new technologies and techniques

supports investment in new and emerging innovative measurement technologies and applications though clear pathways for compliance requirements

provides access to mechanisms of control appropriate for measuring instruments using new technologies and techniques

enables increased availability of measuring instruments for use by regulators.

### Greater support for use of primary measurement standards

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Greater support for use of primary measurement standards | 0 | +1 | +1 | **Traceability of primary measurement standards:** **Options 2 and 3** provide a new legislative pathway to recognise primary measurement standards which regulators can rely on. |

The international measurement system is evolving. Following on from the revision of the SI in May 2019, the international measurement system has been re-defined based on fundamental constants of nature (see [section 3.3](#_The_international_measurement) for more information). This provides opportunities for primary measurement standards to be realised independently from other measurement standards (at least for the base units like the kilogram). Further, this could result in the wider development and use of primary measurement standards in the private sector.

The wider development and use of primary measurement 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**, primary measurement standards that are not maintained, or caused to be maintained, by the Chief Metrologist may be recognised by the Chief Metrologist. The legislation will empower the Chief Metrologist to support advancing technology and innovation, while maintaining requirements to support confidence in their use and in the inter-comparability of those measurement standards.

This change supports regulators who may be seeking to permit measurements that are supported by innovative primary standards whilst ensuring confidence in the measurements that are traceable to them.

### Legal standing for international reference standards and reference materials

| Impact | Reform Option | | | Explanation |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 |
| Greater support for use of overseas reference standards and CRMs | +1 | +2 | +2 | **Legal assurance for the use of overseas reference standards and CRMs:** All options will facilitate the identification and use of overseas reference materials and measurement standards 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[[131]](#footnote-132) or reference standards of measurement[[132]](#footnote-133) the NMI can provide legal assurance to support these references when used for legal purposes. NMI does this by individually recognising international reference standards or CRMs under the regulations. To access support faster access for regulators to trusted reference materials, NMI can recognise trusted overseas sources rather than requiring the recognition of individual overseas references before their use.

* **Option 1** would reduce technical barriers by potentially recognising entries in the international metrology database maintained by the BIPM, e.g. currently the KCDB.[[133]](#footnote-134)
* **Option 2** would build on option 1 and also introduce powers for the Chief Metrologist to approve / endorse other international arrangements, references and outputs from other national metrology institutes or recognised expert institutes. This would be broad enough to accept databases once a risk assessment is undertaken, and would include the power to revoke recognitions when entries or databases change or are updated.
* **Option 3** would enable the NMI to compel certain traceability pathways for particular regulatory areas or applications to cover legal measurement using the improvements from options 1 and 2.

# Appendix 9: 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.

## 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[[134]](#footnote-135) and in the Country of Origin (CoOL) regulation impact statement[[135]](#footnote-136) 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 be interested in the mark for every purchase.

### Number of ‘interested household shoppers’

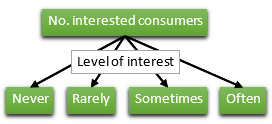
#### Number of consumers doing a household shop per week

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.[[136]](#footnote-137)

#### 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).

Figure A9- 1: Shopper’s use of the measurement mark



This breakdown is based on the ORIMA survey[[137]](#footnote-138) and a UK study.[[138]](#footnote-139) As noted in the packaging review[[139]](#footnote-140) consultation process:

*“74% of over 3,000 consumers who participated in an independent national survey[[140]](#footnote-141) undertaken for Choice in 2014, said it was ‘very’ or ‘somewhat important’ that the quantity information be shown on the front of the pack.”*

In the ORIMA work:

*“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”*

*“A majority of respondents thought it was at least moderately important that the MM remain on the front of packs (67%)”*

In the UK paper[[141]](#footnote-142) assessing why consumers underuse food quantity information they found:

*“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%).”*

In addition, both the ORIMA survey[[142]](#footnote-143) and the UK study[[143]](#footnote-144) found approximately 10 per cent of shoppers use the measurement mark often. For the purposes of this RIS, it was decided in addition 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.*[[144]](#footnote-145)

Table A9- 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.

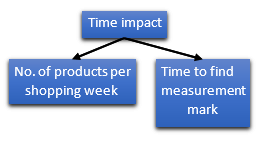
Table A9- 1: Estimated use of measurement mark

| **% of Household shoppers** | | **No. of shoppers[[145]](#footnote-146)** | | **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 |
|  |  | |  | | |  | | **122,535** |

### Time impact

For the purposes of this RIS the time impact per week can be expressed as follows:

Figure A9- 2: Time impact



| **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.[[146]](#footnote-147)

#### 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.

#### 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[[147]](#footnote-148) and CHOICE shopping basket data.[[148]](#footnote-149) The figure was obtained by summing the average weekly household spend ($263)[[149]](#footnote-150) and then dividing it by the average product price of $5.15[[150]](#footnote-151) = 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 18.4.2](#_Option_differentiation_estimates) (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 and 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[[151]](#footnote-152) which indicates cosmetics (referred to as toiletries and health products) make up approximately 10.7 per cent of the grocery market (Figure A9 -3). For options 2 and 3, IBISWorld data[[152]](#footnote-153) 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).

A pie chart that show the distribution of products and services for Australian supermarket and grocery stores.


Figure A9- 3: Product and services segmentation for Australian Supermarket and Grocery Stores 2017-18 (Total $101.1bn)

#### 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 18.4](#_Sensitivity_Calculation)) 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).

### Consumer cost for each option

The annual cost to consumers for each option is shown in Table A9- 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.[[153]](#footnote-154)

This value is then adjusted for the “number of interested household shoppers” (**122,535**) and the percentage of products relabelled.[[154]](#footnote-155)

Table A9- 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 18.4](#_Sensitivity_Calculation) (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 A9- 3).

Table A9- 3: Possible variance in cost to consumers for different options

| Option | Minimum estimate | Maximum estimate | Estimated  consumer cost |
| --- | --- | --- | --- |
| Option 1 – cosmetics | $6,933 | $1,164,800 | $100,000 |
| Options 2 and 3 – no restrictions | $53,156 | $8,830,133 | $900,000 |

## 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).[[155]](#footnote-156) 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.[[156]](#footnote-157) Imports in these sectors had increased by 19.7% and 30.0%, respectively over the last two years.[[157]](#footnote-158)

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.

| *Relabelling cost* | *=* | *(units imported) (cost of relabelling) (percentage units relabelled)* |
| --- | --- | --- |

### Units imported

Data for cosmetics and alcoholic beverages is sourced from the departmental Trade Information System[[158]](#footnote-159) and combined with the Harmonised System codes.[[159]](#footnote-160) 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 18.4.6](#_Proxy_products_for) Proxy products for each cosmetic class and [section 18.4.10](#_Proxy_products_for_1) 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 18.4.5](#_Cosmetics_import_costs) (Cosmetics import costs and volumes from the EU) and [section 18.4.9](#_Beverage_import_costs) (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.

#### 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.[[160]](#footnote-161) For this RIS, a range of labelling costs is assumed to be between 30c and 70c per unit for cosmetic and beverage imports.

#### Percentage of Units relabelled

This RIS estimates between 5 per cent and 30 per cent of units require relabelling. This is based on Accord estimates that around 5 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[[161]](#footnote-162) 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.

### 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 18.4.7](#_Estimated_costs_to) 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 units. Accord estimates across all categories, around 5 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 A9- 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 18.4.7](#_Estimated_costs_to) Estimated costs to industry for each cosmetic class – boundary cases).

Table A9- 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 A9- 30 – [section 18.4.8](#_Estimated_costs_to_1) Estimated costs to industry for each cosmetic class: final estimated value). This value will be used in assessing the overall impact of the change.

### 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 from 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 A9- 5 below). An estimate of the possible costs to industry using is represented in Table A9- 33 (see [section 18.4.11](#_Estimated_costs_to_2) Estimated costs to industry for each beverage class – boundary cases).

Table A9- 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 more targeted relabelling requirements for product categories, HS2204 (4 per cent) [[162]](#footnote-163) and HS2208 (12 per cent). [[163]](#footnote-164) 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 18.4.12](#_Estimated_costs_to_3) Estimated costs to industry 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[[164]](#footnote-165) 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 ($2,515), 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.

## Summary of impacts

Table A9- 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 A9- 6: Total benefits and costs for industry and consumers

| **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 |
| **Change in regulatory burden** | -$5.6 m | -$5.5 m | -$5.5 m |

## 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[[165]](#footnote-166), but the extremes are included in Table A9- 7 below.

Table A9- 7: An estimate of the uncertainty in the options

| Option | Minimum Estimate | Maximum Estimate |
| --- | --- | --- |
| Option 1: cosmetics | $6,933 | $1,164,800 |
| Options 2 / 3: no restrictions | $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 A9- 8).

Table A9- 8: The estimated likely cost impact on consumers for the different options

| Option | Estimate | Rounded Value |
| --- | --- | --- |
| Option 1: cosmetics | $135,932 | $100,000 |
| Options 2 / 3: no restrictions | $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 that the percentage of products changed is the most sensitive variable (see Figure A9- 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.

Figure A9- 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.

### Combined costs for each option

The overall impact for all of the options is in the tables below.

Table A9- 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 |
| **Change in regulatory burden** | **-$5.6 m** | **-$5.5 m** | **-$5.5 m** |

Further, the uncertainty calculated for each option is presented in the next two tables.

Table A9- 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 A9- 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.

### Option differentiation estimates

Table A9- 12 is extracted from the 2009-10 Household Expenditure Survey (ABS 6530): Detail Expenditure Items.[[166]](#footnote-167) 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’s total relative to the average weekly spend from the FMCG column.

Table A9- 12: Data from ABS 6530 Household Expenditure Survey, 2009-10

| **Average Weekly Exp. ($)** | | **Est.** | **FMCG** | **Option 1** | **Options 2/3** |
| --- | --- | --- | --- | --- | --- |
| **0101 Current housing costs (selected dwelling)** |  | **10.48** |  |  |  |
| 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 |
| **03 Food and non-alcoholic beverages** | **204.20** |  |  |  |  |
| **0300 Food and non-alcoholic beverages nfd** | **7.68** | **7.68** | x |  | x |
| **0301 Bakery products, flour and cereals** |  | **20.42** |  |  |  |
| 030101 Bread | 6.99 |  | x |  | x |
| 030102 Flour | 0.34 |  | x |  | x |
| 030103 Cakes, biscuits, puddings and related products | 8.43 |  | x |  | x |
| 030104 Cereals and pasta | 4.67 |  | x |  | x |
| **0302 Meat (excluding fish and seafood)** |  | **24.86** |  |  |  |
| 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 |  |  |
| 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 |  |  |
| **0303 Fish and seafood** |  | **4.89** |  |  |  |
| 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 |  |  |
| **0304 Eggs and egg products** |  | **1.41** |  |  |  |
| 0304010101 Fresh eggs | 1.40 |  | x |  |  |
| 0304019999 Eggs and egg products nec | \*0.01 |  | x |  | x |
| **0305 Dairy products** | **15.07** | **15.07** | x |  | x |
| **0306 Edible oils and fats** | **1.71** | **1.71** | x |  | x |
| **0307 Fruit and nuts** | **12.46** | **12.45** |  |  |  |
| 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 |
| **0308 Vegetables** | **13.70** | **13.71** |  |  |  |
| 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 |
| **0309 Condiments, confectionery, food additives and prepared meals** | **22.71** | **22.71** | x |  | x |
| **0310 Non-alcoholic beverages** | **16.00** | **16.00** | x |  | x |
| **0399 Other food and non-alcoholic beverages** | **0.33** | **0.33** | x |  | x |
| **0401 Alcoholic beverages** |  | **19.84** |  |  |  |
| 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 |
| **05 Tobacco products** | **12.57** | **12.57** | x |  | x |
| **0801 Household services and operation** |  | **14.05** |  |  |  |
| 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 |
| 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 |
| **0903 Medicines, pharmaceutical products and therapeutic appliances** |  | **10.18** |  |  |  |
| 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 |
| 0903020101 Surgical dressings | 0.27 |  | x | x | x |
| **1104 Animal expenses** |  | **4.87** |  |  |  |
| 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 |
| **1201 Personal care** |  | **13.03** |  |  |  |
| 120101 Toiletries and cosmetics | 13.03 |  | x | x | x |
| **2009-10 cost** |  |  | $226.26 | $23.21 | $172.67 |
| **Adjusted for inflation[[167]](#footnote-168) to 2016/17 cost** |  |  | $262.97 | $26.98 | $200.68 |
| **Market share** |  |  |  | 10.3% | 76.3% |

### Sensitivity tables

The series of tables below (Table A9-14 to Table A9-22) 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 A9-13 provides a summary of these results below. Tables A9-14 to A9-22 provides the ranges for the sensitivity calculations.

Table A9- 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 |

#### A presentation of the different options by number of products under an array of varying assumptions

Table A9- 14: Scenario 1 - Interested Consumers = 50,000 | Time taken = 10 Seconds

|  |  | **Option 1** | | **Options 2 and 3** | |
| --- | --- | --- | --- | --- | --- |
| **% prod change** |  | **3** | **6** | **23** | **46** |
| 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 A9- 15: Scenario 2 - Interested Consumers = 50,000 | Time taken = 20 Seconds

|  |  | **Option 1** | | **Options 2 and 3** | |
| --- | --- | --- | --- | --- | --- |
| **% prod change** |  | **3** | **6** | **23** | **46** |
| 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 A9- 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 A9- 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 A9- 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 A9- 19: Scenario 6 - Interested Consumers = 110,000 | Time taken = 30 Seconds

|  |  | **Option 1** | | **Options 2 and 3** | |
| --- | --- | --- | --- | --- | --- |
| **% prod change** |  | **3** | **6** | **23** | **46** |
| 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 A9- 20: Scenario 7 - Interested Consumers = 140,000 | Time taken = 10 Seconds

|  |  | **Option 1** | | **Options 2 and 3** | |
| --- | --- | --- | --- | --- | --- |
| **% prod change** |  | **3** | **6** | **23** | **46** |
| 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 A9- 21: Scenario 8 - Interested Consumers = 140,000 | Time taken = 20 Seconds

|  |  | **Option 1** | | **Options 2 and 3** | |
| --- | --- | --- | --- | --- | --- |
| **% prod change** |  | **3** | **6** | **23** | **46** |
| 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 A9- 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 |

### Impact analysis assumptions

Table A9- 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] [[168]](#footnote-169) | 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[[169]](#footnote-170), UK Study[[170]](#footnote-171) 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. of 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 each week (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 2 products a week for often households, for around one product a week for sometimes and for around one product every 4 weeks for rarely. |
| 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[[171]](#footnote-172) | 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] [[172]](#footnote-173) | 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.[[173]](#footnote-174) |
| Average grocery product price, per item. | Sourced from 2017 CHOICE shopping basket data[[174]](#footnote-175) | 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 [section 18.4.2](#_Option_differentiation_estimates) (Option differentiation estimates). Those which would be within scope for options 2-3 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’. |
| 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 A9- 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[[175]](#footnote-176) | 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 re-labelling 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 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 | 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.  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.  A savings for imported foods which in some instances require relabelling is also included in options 2 / 3. 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. |
| 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.[[176]](#footnote-177) 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 ($2,515), that is $503. |

### Cosmetics import costs and volumes from the EU

Table A9- 25: EU (and the UK) imports to Australia in 2019/20 HS Code 33 and 2712

| **HS Code** | **Description** | **Product Value $** | **Product Volume** | **Unit** |
| --- | --- | --- | --- | --- |
| 33 ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS | | | | |
| 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 | 1,208,429 | Kg |
| $320,278 | 4,111 | 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 | 1,311,128 | Kg |
| $294,518,933 | 0 | 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 | 2,909,502 | Kg |
| $4,856,878 | 206,190,940 | 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 A9- 26: EU (and the UK) imports to Australia in 2019/20, HS Code 34

| **HS Code** | **Description** | **Product Value $** | **Product Volume** | **Unit** |
| --- | --- | --- | --- | --- |
| **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** | | | | |
| 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 |

### Proxy products for each cosmetic class

Table A9- 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 | https://shop.coles.com.au/a/a-vic-metro-coburg/product/vaseline-petroleum-jelly-102190p | $4.00 | 100 g |
| **33 ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS** | | | | | |
| 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 | http://www.ebay.com.au/itm/Lavender-Premium-Essential-Oils-100-Pure-Aromatherapy-Grade-10ml-50ml-100ml-/201574586268?\_trksid=p2385738.m2548.l4275 | $7.95 | 100 ml |
| 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 | https://www.woolworths.com.au/shop/productdetails/73862/angostura-bitters-mixer | $24.00 | 200 ml |
| 3303 | Perfumes and toilet waters | Calvin Klein One Shock for Him | http://www.chemistwarehouse.com.au/buy/65216/Calvin-Klein-One-Shock-for-Him-200ml?source=GS&gclid=CJq6t\_XS1NICFVUDvAodN1YE0A | $32.99 | 200 ml |
| 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 | https://www.cosmeticcapital.com.au/loreal-color-riche-lipstick-357-red-carpet | $6.95 | 5 g |
| Opi Pedicure | https://www.chemistbeauty.com.au/shop/uncategorised/opi-pedicure-scrub-250ml/ | $47.19 | 250 ml |
| 3305 | Hair preparations; for use on the hair | Rework Putty Wax - V05 | https://www.woolworths.com.au/shop/productdetails/708654/vo5-texture-putty-rework | $7.50 | 150 ml |
| 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 | https://shop.coles.com.au/a/a-national/product/colgate-pro-relief-toothpaste-sensitive-whitening | $10.00 | 110 g |
| Waxed Dental Floss Mint Flavour - Oral B | https://www.priceline.com.au/oral-b-essential-waxed-dental-floss-mint-flavour-50-metres | $3.49 | 50 m |
| 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 | https://shop.coles.com.au/a/a-national/product/brut-aftershave-lotion-refresh | $10.50 | 100 ml |
| **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** | | | | | |
| 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 | https://shop.coles.com.au/a/a-national/product/dove-soap-beauty-creme-bar-regular | $6.80 | 400 g |
| Evenly Gorgeous Bodywash - Lux | https://www.priceline.com.au/lux-body-wash-evenly-gorgeous-400-ml | $5.99 | 400 ml |
|  |  |  |  |
| 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 | https://www.woolworths.com.au/shop/productdetails/430629/omo-ultimate-laundry-detergent-powder-front-top-loader | $30.00 | 2000 g |
| Super Strength Dishwashing Liquid - Morning Fresh | https://shop.coles.com.au/a/a-national/product/morning-fresh-dishwashing-liquid-super-concentrate-lemon-fresh | $7.50) | 900 ml |
| 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 | Dubbin - Joseph Lyddy | https://www.rsea.com.au/work-boots/accessories/waproo-polish-dubbin-waterproofing-neutral-125g-jl0970125 | $13.95 | 125 g |
| Neatsfoot Oil - Joseph Lyddy | https://www.simonmartinwhips.com.au/product/neatsfoot-oil-joseph-lyddy/ | $32.95 | 1000 ml |
| 3404 | Waxes; artificial, prepared | Paraffin Container Wax | https://candlemaking.com.au/collections/paraffin-wax/products/paraffin-slabs-60-62?variant=10806924541995 | $39.65 | 4.5 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 | Liquid Furniture Polish - O' Cedar | <https://shop.coles.com.au/a/a-national/product/o-cedar-liquid-furniture-polish> | $8.00 | 300 ml |
| 3406 | Candles, tapers and the like | 2 in 1 Vanilla Passionfruit and Hawaiian Breeze Candle - Johnson | https://www.amazon.com.au/Glade-Freshener-Hawaiian-Vanilla-Passion/dp/B01B2H68UU | $11.28 | 96.3 g |
| 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 | https://www.chemistwarehouse.com.au/buy/90581/piksters-orthodontic-wax-value-pack | $3.99 | 40 g |

### Estimated costs to industry for each cosmetic class – boundary cases

Table A9- 28: Upper and lower estimates for relabelling of cosmetic products imported from the EU (and the UK) 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 |
| **Total** |  |  | **226,094,188** | **11,304,709** | **$3,391,413** | **$7,913,297** | **67,828,256** | **$20,348,477** | **$47,479,779** |

Table A9- 29: Upper and lower estimates for relabelling of cosmetic products imported from the EU (and the UK) 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 |
| **Total** |  |  | **124,508,027** | **6,225,401** | **$1,867,620** | **$4,357,781** | **37,352,408** | **$11,205,722** | **$26,146,686** |

### Estimated costs to industry for each cosmetic class: final estimated value

Table A9- 30: Estimated cost for relabelling of cosmetic products imported from the EU (and the UK) 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 |
| **2019-20** | | | **226,094,188** | **11,304,709** | **$5,652,355** |

### Beverage import costs and volumes from the EU

Table A9- 31: EU (and the UK) 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 |

### Proxy products for each beverage class

Table A9- 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) | https://www.danmurphys.com.au/product/DM\_72869/stella-artois-bottles | $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 | https://www.danmurphys.com.au/product/DM\_902300/rawson-s-retreat-cabernet-sauvignon | $7.99 | 750ml |
| 2205 | Vermouth and other wine of fresh grapes, flavoured with plants or aromatic substances | Original French Dry Vermouth - Noilly Prat | https://www.danmurphys.com.au/product/DM\_2025/noilly-prat-original-french-dry-vermouth | $32.95 | 750ml |
| 2206 | Fermented beverages, n.e.c. in chapter 22; (e.g. cider, perry, mead) | Vietnamese Street Food Series Cider - Cheeky Rascal | https://www.danmurphys.com.au/product/DM\_ER\_1000005192\_CR5SFVIET/cheeky-rascal-vietnamese-street-food-series-cider-500ml | $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 | https://shop.coles.com.au/a/a-national/product/coles-smart-buy-methylated-spirits | $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 | https://www.danmurphys.com.au/product/DM\_19252/smirnoff-red-label-vodka-700ml | $36.95 | 750ml |
| 2209 | Vinegar and substitutes for vinegar obtained from acetic acid | White Vinegar - Cornwells | https://shop.coles.com.au/a/a-national/product/cornwells-vinegar-white-156768p | $3.10 | 750ml |

### Estimated costs to industry for each beverage class – boundary cases

Table A9- 33: Upper and lower estimates for relabelling of beverage products imported from the EU (and the UK) 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 |
| **Total** |  |  | **141,049,359** | **141,049** | **$42,315** | **$98,735** | **1,410,494** | **$423,148** | **$987,346** |

Table A9- 34: Upper and lower estimates for relabelling of beverage products imported from the EU (and the UK) 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 |
| **Total** |  |  | **377,934,906** | **377,935** | **$113,380** | **$264,554** | **3,779,349** | **$1,133,805** | **$2,645,544** |

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.

### Estimated costs to industry for specific beverage classes - final estimated value

Table A9- 35: Estimated cost for relabelling of beverage products imported from the EU (and the UK) 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 |
| **2019-20 Total** | |  | **73,779,633** |  | **4,549,587** | **909,917** | **$395,170** |

# Appendix 10: Costing the regulatory burden for businesses to understand requirements for packaged products

## Overview

This appendix estimates the regulatory burden currently imposed on manufacturers, packers 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.

### 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[[177]](#footnote-178) 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[[178]](#footnote-179) (based on the IBIS World Report[[179]](#footnote-180)). The number of importers is based on NMI data.

Table A10- 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)[[180]](#footnote-181) | 3,229 |
| **Total number of businesses that produce packaged products** | **74,620** |

## 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, packers 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 A10- 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[[181]](#footnote-182) selected ANZIC codes and NMI data |
| Number of staff performing the activity at each packer | 1 | Assumed one 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 one 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[[182]](#footnote-183) average weekly earnings for manufacturers wage including 1.75 multiplier for on-costs |
| **Cost of Activity =** | **$8,128,889** |  |

## Reductions in regulatory burden

The scenarios below illustrate potential time savings from the simplification of regulatory requirements based on assumed time savings of 30 minute and one hour.

Table A10- 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 |
| **Savings from reform** |  | **$2,709,630** | **$5,419,259** |

An annual 30 minute 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 reform options** any package labelling that is compliant with current measurement labelling requirements will continue to be compliant under new arrangements. This means that businesses that are already compliant with packaging requirements would remain compliant under all reform options.

# Appendix 11: Costing the regulatory burden from pattern approval

## Overview

This appendix provides details on how the introduction of increased flexibility will affect measuring instrument manufacturers, importers and distributors, particularly for pattern approval. This section includes:

* A brief description of some key restrictions and limitations to applying pattern approval for measuring instrument manufacturers, importers and distributors under the status quo.
* An estimation of the current cost of pattern approval to manufacturers, importers and distributors 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 to 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.[[183]](#footnote-184) A measuring instrument for trade purposes must be of an approved pattern before it is sold, leased or supplied to the market.

Pattern approval[[184]](#footnote-185) provides confidence and an independent assessment that ensures measuring instruments will perform to the required standard and are fit for purpose.

## 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:

* The current legislation prohibits a manufacturer from selling, leasing or supplying a measuring instrument for trade purposes when approval has not been received. This includes while the pattern approval process is occurring.
* It is assumed that pattern approval process occurs in parallel to manufacturers setting up manufacturing processes and marketing programs.
* NMI’s experience has been that not all instrument designs have an easy fit with the current measurement framework. Where this occurs, 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.
* When appropriate (e.g. a measuring instrument requires field testing for a period of time), a provisional approval may be granted subject to conditions that need to be complied with.
* Where the measuring instrument is low risk, 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 NMI, including a risk assessment and administrative time to produce a provisional certificate.

Over a period of 10 years (2008/09 - 2018/19), there were 1,392 pattern approval applications (an average of 139 applications per year).

## 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 research and development 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 impost on measuring instrument manufacturers, importers and distributors by the pattern approval application process is estimated at **$180,573** aggregated across all applications in a given year.

Table A11- 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 |
| Total Regulatory Burden of pattern approval[[185]](#footnote-186) | **$180,573** |

The estimation of cost is based on the requirements imposed for the pattern approval application process under regulations 58 and 63.[[186]](#footnote-187) This is comprised of 6 activities:

1. **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 documentary standards to benefit their global operations. In this case, the adoption of international documentary standards clearly enables industry efficiency.
2. **Application preparation**: This includes costing the burden of time and labour to understand the requirements for a specific NMI M or NMI R[[187]](#footnote-188) document in the process of preparation for application.
3. **Application form completion**: Time taken for the business to complete the pattern approval application.
4. **Logistical costs**: Cost to business to transport the prototype measuring instrument to the pattern approval laboratories, where this is needed (noting not all applications provide a prototype).
5. **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.
6. **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 5 expense items below 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 5 cost items have been estimated on the basis of the following assumptions and data sources outlined in the tables below.

Table A11- 2: Assumptions for understanding pattern approval requirements

| **Activity** | **Requirement** | **Variable** |  | **Assumptions** |
| --- | --- | --- | --- | --- |
| 1. Understanding pattern approval requirements: This includes costing the time burden 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 gains from learning from previous applications |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[188]](#footnote-189) average weekly earnings for various engineering and technical wage categories including 1.75 multiplier[[189]](#footnote-190) for on-costs |
|  | **Cost of Activity =** | **$77,026** |  |

Table A11- 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[[190]](#footnote-191) average weekly earnings for various engineering and technical wage categories including 1.75 multiplier[[191]](#footnote-192) for on-costs |
|  | **Cost of Activity =** | **$30,811** |  |

Table A11- 4: Assumptions for application form completion

| **Activity** | **Requirement** | **Variable** |  | **Assumptions** |
| --- | --- | --- | --- | --- |
| 3. Application Form: Time taken for the business to complete the Pattern Approval application | 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 |
| 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[[192]](#footnote-193) average weekly earnings for various engineering and technical wage categories including 1.75 multiplier[[193]](#footnote-194) for on-costs |
|  |  | **Cost of Activity =** | **$15,405** |  |

Table A11- 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 |
|  | **Cost of Activity =** | **$11,120** |  |

Table A11- 6: Assumptions for instrument redesign

| **Activity** | **Requirement** | **Variable** |  | **Assumptions** |
| --- | --- | --- | --- | --- |
| 5. 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 documentary 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) | $110.83 | Based on the ABS Cat 6306.0[[194]](#footnote-195) average weekly earnings for various engineering and technical wage categories including 1.75 multiplier[[195]](#footnote-196) for on-costs |
|  | **Cost of Activity =** | **$ 15,405** |  |

Table A11- 7: Assumptions for reviewing the draft certificate

| **Activity** | **Requirement** | **Variable** |  | **Assumptions** |
| --- | --- | --- | --- | --- |
| 6. 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[[196]](#footnote-197) average weekly earnings for various engineering and technical wage categories including 1.75 multiplier[[197]](#footnote-198) for on-costs |
|  | **Cost of Activity =** | **$30,811** |  |

## Changes in regulatory burden

An increase in flexibility is proposed under the new legislation, with the approach to increasing flexibility different under each option.

Under **option 1**, increased flexibility would be supported through legislative provisions that 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 enable the NMI to:

* select appropriate instrument control mechanisms from a range of alternatives and to establish their use following appropriate data collection, risk assessment and consultation with the measuring instrument sector
* reconsider risks over time as circumstances change
* retain pattern approval as a default mechanism of control for trade measuring instruments unless determined otherwise through a determination or exemption by the Chief Metrologist or an alternative method.

Under this option there are two possible changes in regulatory burden that may occur:

* If pattern approval is not required: there will be a reduction in regulatory burden caused by removing costs associated with the pattern approval process.
* If pattern approval is replaced by another mechanism of control or by a set of other controls: 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 yet to be determined.

Under **option 3,** increased flexibility extends the application of a range of instrument control mechanisms 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 to measurement used for other 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 additional powers to compel certain mechanisms of control (to include pattern approval) over measuring instruments used for regulatory purposes. The NMI may impose additional regulatory burden on the other government agencies, businesses and individuals, 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 measuring instrument control mechanisms (not being pattern approval) are applied under measurement law that have not previously been used by regulators in their regulations and/or compliance programs.

While it is possible to reduce regulatory burden for measuring instruments used for trade, there would be an unquantifiable increase in regulatory burden for measuring instruments used for other regulatory purposes in option 3.

## 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 a 5 to 10 year timeframe per option.

Table A11- 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 | **$180,573** | $171,544 | $114,458 | **Increase** |
| **Savings from options** |  | **-$9,029** | **-$36,115** | - |

Table A11- 9: Summary of potential savings for the sector in relation to status quo

|  |  |  |  |
| --- | --- | --- | --- |
| **Status Quo cost of pattern approval** | **Option 1 potential savings** | **Option 2 potential savings** | **Option 3 potential savings** |
| Approximate **$0.18m** cost for pattern approval application (combined annual application cost) | Potential savings of approximately **$0.01m** if 5% reduction in pattern approval over 5-10 years for specific instrument categories | Potential savings of approximately **$0.04m** if 20% reduction in pattern approval over 5-10 years  Unquantifiable potential change (**increase or decrease**) in burden from flexible controls on measuring instruments used for trade | As for option 2, plus:  **Additional regulatory burden** for measuring instruments used for regulatory purposes |

# Appendix 12: Costing the regulatory burden on Authorised Third Parties

## Overview

This appendix provides details on how proposed changes would affect 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 of proposed changes to appointment and reporting arrangements
* potential changes to regulatory burden on ATPs based on changing requirements.

Broadly, the changes relate to the application, renewal and reporting requirements that ATPs need to meet under the measurement legislation.

### 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)

As of March 2021, there were 617 ATPs implementing the measurement framework in Australia. Below is the breakdown of licensees, authorities and appointments.

Table A12- 1: Breakdown of Authorised Third Parties

|  |  |
| --- | --- |
| **ATPs** | **Current number of entities** |
| SL | 334 |
| PWBL | 228 |
| UMV | 14 |
| CA | 13 |
| VA | 25 |
| AA | 3 |
| **Total** | **617** |

## 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 appointments are not included here.

Table A12- 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 |
| **Total All ATPs[[198]](#footnote-199)** | **$513,677** | **$3,050,898** | **$3,564,575** |

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 Servicing Licensees, the cost of ongoing record keeping, maintaining appropriate standards or affixing verification marks have not been included.

### Methodology, assumptions and data sources

Table A12- 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 |
| **Total** | **35** | **433** | **617** |

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.

#### Servicing Licensee

Table A12- 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 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[[199]](#footnote-200) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[200]](#footnote-201) for on-costs |
|  | - | **Cost of Activity a =** | **$13,965** | Annual cost of SL understanding the process to apply |
|  |  |  |  |  |
| Supplying the relevant information and documents with application | (s18NA, s18ND, s18NHf, reg2.41) | Number of SL applications expected yearly | 21 | There were 334 SL licensees in 2020. Estimated average number of new licences per year, based on 2 year average numbers 2019 and 2020 (25+18)/2=21 |
| Number of persons required to do this activity | 1 | Minimum requirement of one staff member |
| Number of times activity performed per year per staff | 1 | Based on annual number of actual applications |
| Avg. time of each staff to do activity (in hours) | 15 | NMI estimates |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[201]](#footnote-202) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[202]](#footnote-203) for on-costs |
|  | - | **Cost of Activity b =** | **$34,911** | Time for SL to put together all information required to accompany application including details of the required equipment |
| **Total cost of application** | | | **$48,876** |  |
|  | | | | |
| * 1. **RENEWAL** | | |  | ESTIMATE NUMBER TO RENEW EACH YEAR |
| Understanding the process for licence renewal | (s18NK-NL) | Number of SL renewals expected yearly | 120 | 120 licences are renewed annually |
| Number of persons required to do this activity | 1 | One staff member |
| Number of times activity performed per year per staff | 1 | Based on annual number of actual applications |
| Avg. time of each staff to do activity (in hours) | 1 | NMI estimates including discounting for efficiency gains from learning from prior applications |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[203]](#footnote-204) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[204]](#footnote-205) for on-costs |
|  | - | Cost of Activity a = | **$13,300** |  |
|  |  |  |  |  |
| Supplying the relevant information and documents | (s18NK-NL) | Number of SL renewals expected yearly | 120 | 120 licences are renewed annually |
| Number of persons required to do this activity | 1 | Minimum requirement of one staff member |
| Number of persons required to do this activity | 1 | Based on annual number of actual applications |
| Avg. time of each staff to do activity (in hours) | 5 | NMI estimates including discounting for efficiency gains from learning from prior applications |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[205]](#footnote-206) average weekly earnings for various engineering and technical wage |
|  | - | Cost of Activity b = | **$66,498** |  |
| **Total cost of renewal** | | | **$79,798** |  |
|  | | | | |
| * 1. **COMPETENCY: STATEMENT OF ATTAINMENT** | | |  | STATEMENT OF ATTAINMENT OF A VERIFIER |
| Time required for assessment to obtain the Statement of Attainment | (s18NH 9(a)-(c), reg 2.43 9A) | **Number of SL expected to apply / renew annually** | 120 | 120 licences are renewed annually |
| Number of persons required to do this activity | 1 | minimum requirement of one verifier per SL |
| Number of times activity performed per year per staff | 1 | Based on annual number of actual applications |
| Average time of each staff to do activity (in hours) | 8 | Assessment takes a maximum of one day |
|  | Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[206]](#footnote-207) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[207]](#footnote-208) for on-costs |
| **Total cost of competency =** | | | **$106,397** |  |
|  | | | | |
| 4. **REPORTING TO THE SECRETARY ON VERIFICATIONS** | | |  | REPORTING EACH YEAR |
| Form 6 | (s18NH d, e, h, g, reg 2.43 10-16) | Number of measuring instruments verified and reverified per year | 78,198 | Based on 3 year average number of reported measuring instruments verified and reverified[[208]](#footnote-209) |
| Time required to report the verification in hrs | 0.25 | 15 minutes to report, on each verification on Form 6 |
| Number of persons required to do this activity | 1 | Minimum requirement of one verifier per SL |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[209]](#footnote-210) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[210]](#footnote-211) for on-costs |
|  | - | **Cost of Activity =** | **$2,166,671** |  |
|  | | | | |
| **Informing on changes in eligibility to verify MI** | | |  |  |
| Changes in eligibility to verify MI | (reg 2.43(6)) | Number of reports | 200 | NMI estimate |
| Number of staff per business performing activity | 1 | Minimum requirement of one staff member |
| How many times activity happens | 1 | Estimate of once that verifiers might inform SL of a change in eligibility as verifiers |
| Avg. time of verifier to notify SL (in hours) | 0.33 | NMI estimates its takes 20 minutes per report |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[211]](#footnote-212) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[212]](#footnote-213) for on-costs |
|  | - | **Cost of Activity =** | **$7,315** |  |
|  | | | | |
| **SL NOTIFICATION TO MEASURING INSTRUMENT CONTROLLER OF CHANGE IN CONDITIONS**  **Informing on grounds for disciplinary action** | | |  |  |
| informing measuring instruments controller about NITP if measuring instrument not approved pattern, outside MPE etc. | (reg 2.43(14)) | number of measuring instruments verified and reverified per year | 78,198 | Based on 3 year average number of reported measuring instruments verified and reverified[[213]](#footnote-214) |
| Number of staff required to notify the measuring instrument controller | 1 | One verifier per business |
| How many times activity happens | 1% | This estimate is an average. Notifications to the measuring instruments controller happens for around 1% of all verified instruments. |
| Avg. time of each staff to do activity (in hours) | 0.33 | NMI estimate 20 minutes to inform the controller |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[214]](#footnote-215) average weekly earnings for various engineering and technical wage |
|  | - | **Cost of Activity =** | **$28,600** |  |
|  | | | | |
| **time for SL to provide Test Report / histogram to Secretary if required to** | | |  |  |
| time SL to provide test report if directed to; re 2.39(3) - batch testing histogram use of NITP reported to secretary/manufacturer/importer | (NTMR 2.43(25); reg 2.39 (3); 3.19 ) | Average annual number of complex measuring instruments verified and reverified each year | 7,419 | NMI estimates based on 3 year average number of reported complex instruments measuring instruments verified and reverified |
| Number of persons required to do this activity | 1 | One staff member |
| Time required to do this activity | 1 | Estimated time to prepare and send a report to the Secretary and if applicable to the manufacture/importer |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[215]](#footnote-216) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[216]](#footnote-217) for on-costs |
|  | - | **Cost of Activity =** | **$822,248** |  |
| **Total Reporting costs** | | | **$3,024,834** |  |
|  | | | | |
| **Total Annual SL Costs (Application, renewal cost, competence and reporting)** | | | **$3,259,905** |  |

#### Utility Meter Verifiers

Table A12- 5: Assumptions for Utility Meter Verifiers calculations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| * + - 1. **APPLICATION** | | |  |  |
| Understanding the appointment process | (s18R) | Number of UMVs | 1 | UMVs numbers are stable – estimate only one 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[[217]](#footnote-218) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[218]](#footnote-219) for on-costs |
|  | - | Cost of Activity = | **$665** | Burden to understand the application process |
|  |  |  |  |  |
| Supplying the relevant information and documents with application | (s18R) | Number of UMVs | 1 | 14 current number of UMVs. Numbers are stable – estimate only 1 new applicant annually |
| Number of staff per business performing activity | 1 | As a minimum one staff is involved |
| Number of times activity performed per year per staff | 1 | Once based on number of annual applications |
| Avg. time of each staff to do activity (in hours) | 1 | NMI estimates |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[219]](#footnote-220) average weekly earnings for various engineering and technical wage |
|  | - | **Cost of Activity =** | **$111** |  |
| **Total cost of application** | | | **$776** |  |
|  | | | | |
| **2. Renewal process** | | |  |  |
| Understanding the process for Renewal |  | Number of LMAs | 14 | 14 current UMV licences. Administratively good for 3 years. Total 41 annual renewals average applications. |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 0.3 | 14 current UMV licences. The appointment generally is good for 3 years generally hence 1/3 = 0.33 |
| Avg. time of each staff to do activity (in hours) | 6 | NMI estimate |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[220]](#footnote-221) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[221]](#footnote-222) for on-costs |
|  | - | **Cost of Activity =** | **$2,793** |  |
|  |  |  |  |  |
| Supplying the relevant information and documents |  | Number of UMV | 14 | 14 current UMV licences. Administratively good for 3 years. Total 41 annual renewals average applications. |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 0.3 | 14 current UMV licences. The appointment generally is good for 3 years generally hence 1/3 = 0.33 |
| Avg. time of each staff to do activity (in hours) | 5 | NMI estimate |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[222]](#footnote-223) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[223]](#footnote-224) for on-costs |
|  | - | Cost of Activity = | $2,327 |  |
| **Total cost of renewal** | | | **$5,120** |  |
|  | | | | |
| **3.COMPETENCE** | | |  |  |
| 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 AS 17025 |
| **Total cost of competence** | | | **$70,000** |  |
|  | | | | |
| **4.COST OF REPORTING TO THE CHIEF METROLOGIST WHEN ASKED TO (s18RBg)** | | | |  |
| Report to the Chief Metrologist if asked to | s18RB(g) | Number of UMVs | 14 | Current number of UMVs |
| Number of staff per business performing activity | 1 | One staff member |
| Avg. time of each staff to do activity (in hours) | 3 | Time to write the report and submit by email. |
| Number of times activity performed per year per staff | 1 | Estimate one request made once every year |
| Labour cost ($/hr) (wage + non-wage labour costs) time of assessment | $110.83 | Based on the ABS Cat 6306.0[[224]](#footnote-225) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[225]](#footnote-226) for on-costs |
|  | - | **Cost of activity =** | **$4,655** | Annual cost |
|  | | | | |
| **COST OF PROVIDING LIST OF EMPLOYEES (VERIFIERS) TO THE SECRETARY(s18RBb)** | | | |  |
| Provide a list of verifiers to the Secretary | (s18RB(b)) | Number of UMVs | 14 | Current number of UMVs |
| Number of staff per business performing activity | 1 | One staff member |
| Avg. time of each staff to do activity (in hours) | 0.5 | NMI estimate |
| Number of times activity performed per year per staff | 0.3 | Estimated that it will be once every 3 years |
| Labour cost ($/hr) (wage + non-wage labour costs) time of assessment | $110.83 | Based on the ABS Cat 6306.0[[226]](#footnote-227) average weekly earnings for various engineering and technical wage |
|  | - | **Cost of activity =** | **$233** | Annual cost |
| **Total cost of reporting** | | | **$4,887** |  |
|  | | | | |
| **Total Annual UMV Costs (Application, renewal cost, competence and reporting)** | | | **$80,784** |  |

#### Legal Metrology Authorities (CA, VA, AA)

Table A12- 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 LMAs | 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[[227]](#footnote-228) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[228]](#footnote-229) for on-costs |
|  | - | **Cost of Activity =** | **$1,995** |  |
| Supplying the relevant information and documents with application | (reg72) | Number of LMAs | 3 | Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years.  2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25). The number of LMA is fairly stable over time |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 1 | Once based on number of annual applications |
| Avg. time of each staff to do activity (in hours) | 15 | Assuming a large number of documents need to be compiled (worst case) |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[229]](#footnote-230) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[230]](#footnote-231) for on-costs |
|  |  | **Cost of Activity =** | **$4,987** |  |
| **Total cost of application** | | | **$6,982** |  |
|  | | | | |
| **2. Renewal process** |  | **Costs relating to Renewal process** |  | ESTIMATE NUMBER TO RENEW EACH YEAR |
| Understanding the process for Renewal | (reg72) | Number of LMAs | 41 | Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25). |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 0.3 | The appointment generally is good for 3 years generally hence 1/3 = **0.33** |
| Avg. time of each staff to do activity (in hours) | 1 | Average time over 32 standards (NMI Est.) estimate accounts for an assumed 50% efficiency gains from learning in subsequent applications |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[231]](#footnote-232) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[232]](#footnote-233) for on-costs |
|  | - | **Cost of Activity =** | **$1,500** |  |
| Supplying the relevant information and documents | (reg72) | Number of LMAs | 41 | Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA Numbers Total 41 (AA=3, CA=13, VA=25). |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 0.3 | The appointment generally is good for 3 years generally hence 1/3 = **0.33** |
| Avg. time of each staff to do activity (in hours) | 5 | NMI estimate |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[233]](#footnote-234) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[234]](#footnote-235) for on-costs |
|  | - | Cost of Activity = | **$7,498** |  |
| **Total cost of renewal** | | | **$8,998** |  |
|  | | | | |
| 3.**Competence** | | |  |  |
| 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 |
| **Total cost of competence** | | | **$102,500** |  |
|  | | | | |
| **4.Report to the Chief Metrologist if asked to (reg 77(1)(c))** | | |  |  |
| Report to the Chief Metrologist | (reg 77(1)(c)) | Number of LMAs | 41 | Average number of LMA appointments issued per year (although legislation only specifies VA and CA, this includes 2 Approving Authorities). Administratively good for 3 years. 2021 LMA numbers Total 41 (AA=3, CA=13, VA=25). |
| Number of staff per business performing activity | 1 | One staff member |
| Avg. time of each staff to do activity (in hours) | 3 | Estimated time to write the report and submit by email. Note this is an estimate as this has never been required, although provision is made for this in the legislation. |
| Number of times activity performed per year per staff? | 0.3 | The appointment generally is good for 3 years generally hence 1/3 = **0.33** |
| Labour cost ($/hr) (wage + non-wage labour costs) time of assessment | $110.83 | Based on the ABS Cat 6306.0[[235]](#footnote-236) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[236]](#footnote-237) for on-costs |
| **Total cost of reporting** | | | **$4,499** |  |
|  | | | | |
| **Total Annual LMA Costs (Application, renewal cost, competence and reporting)** | | | **$122,979** |  |

#### Public Weighbridge Licensee

Table A12- 7: Assumptions for public weighbridge licensee calculations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1. APPLICATION** | | |  |  |
| Understanding the process for licence application | (s18PA, PD, PE, PH(1)(a)-(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[[237]](#footnote-238) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[238]](#footnote-239) for on-costs |
|  |  | **Cost of Activity =** | **$4,433** | Annual cost |
|  | | | | |
| Supplying the relevant information and documents with application | (s18PA, PD, PE, PH(1)(a)-(b), ; NTMR 3.12-3.16 | Number of PWB applications expected yearly | 10 | Annual average number of new PWBL = 228  Total number NMI estimate not more than 10 new licences processed annually |
| Number of staff per business performing activity | 1 | Once based on number of annual applications |
| Number of times activity performed per year per staff | 1 | Once based on number of annual applications |
| Avg. time of each staff to do activity (in hours) | 8 | NMI estimate |
|  | Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[239]](#footnote-240) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[240]](#footnote-241) for on-costs |
|  | - | **Cost of Activity =** | **$8,866** | Annual cost of PWB licensees completing application with relevant information |
| **Total cost of application** | | | **$13,299** | Annual cost |
|  | | | | |
| **2. RENEWAL OF LICENCE** | | |  |  |
| **Renewal process** |  | **Costs relating to Renewal process** |  | BASED ON ESTIMATE NUMBER TO RENEW EACH YEAR |
| Understanding the process for licence renewal | (s18PL-PM; NTMR 3.12-3.16) | Number of renewals expected yearly | 80 | Annual actual average |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 1 | Once based on number of annual applications |
| Avg. time of each staff to do activity (in hours) | 1 | Estimate accounts for an assumed 50% efficiency gains from learning in subsequent applications |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[241]](#footnote-242) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[242]](#footnote-243) for on-costs |
|  |  | **Cost of Activity =** | **$8,866** | Annual cost |
|  | | | | |
| Supplying the relevant information and documents | (s18PL-PM; NTMR 3.12-3.16) | **Number of renewals expected yearly** | 80 | Annual actual average |
| Number of staff per business performing activity | 1 | One staff member |
| Number of times activity performed per year per staff | 1 | Once based on number of annual applications |
| Avg. time of each staff to do activity (in hours) | 3 | Assume at least one staff |
| Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[243]](#footnote-244) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[244]](#footnote-245) for on-costs |
|  | - | **Cost of Activity =** | **$26,599** | Annual cost of burden on PWB applicant completing the renewal |
| **Total cost of renewal** | | | **$35,465** | Annual cost |
|  | | | | |
| **3. Competence** | | |  | Cost of requirement to have a verifier with a Statement of Attainment |
| Time required for assessment to obtain the Statement of Attainment | (S18pc 18PH 1.c-d-e; NTMR reg 3.25) | Number PWB entities expected to apply / renew annually | 80 | Annual average number of actual applications |
| Number of staff per business performing activity | 1 | Minimum requirement of one competent operation per PWBL |
| Avg. time of each staff to do activity (in hours) | 4 | A written assessment takes ½ a day at most (est. 4 hours). Operators provide additional information that is derived from the course of their work time. |
| Labour cost ($/hr) (wage + non-wage labour costs) time of assessment | $110.83 | Based on the ABS Cat 6306.0[[245]](#footnote-246) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[246]](#footnote-247) for on-costs |
| **Total cost of competency** | | | **$35,466** | Annual cost |
|  | | | | |
| **4.PROVIDING INFORMATION** | | |  | A PWB provides information in writing **[[247]](#footnote-248)** |
| compliance with Public Weighbridge regulations | NTMR reg 3.37 | Number of PWBs | 228 | Annual average number of PWBLs to renew per year = 228 total licences Renewals for 1.2 and 3 year |
| Number of staff per business present during activity | 1 | One staff member |
| Avg. time of each staff (in hours) | 2 | Assumes 30 minutes per quarter on the assumption of a high change in operators in a year |
|  | Number of times activity performed per year per staff | 0.3 | A call for information is made on average once every 3 years, 1/3 years = **0.33** |
|  | Number of times activity performed per year per staff? | 1 | Assume at least one staff |
|  | Labour cost ($/hr) (wage + non-wage labour costs) | $110.83 | Based on the ABS Cat 6306.0[[248]](#footnote-249) average weekly earnings for various engineering and technical wage including 1.75 multiplier[[249]](#footnote-250) for on-costs |
| **Total cost of providing information** | | | **$16,678** | Cost of providing this information to the Secretary |
|  | | | | |
| **Total Annual PWBL Costs (Application, renewal cost, competence and reporting)** | | | **$100,908** |  |

## Proposed changes to regulatory burden

### 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 set out any reporting requirements imposed on them.

Some ATPs have multiple licences, authorities and appointments, or a mixture of these. Each one requires a separate application and renewal. Streamlining the administrative arrangements by which ATPs are appointed may reduce some 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 A12- 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 |
| **Total** | **373** | **238** | **6** |

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.

Table A12- 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 |
| **Total** | **15** |

### Streamlining the appointments system

The table below summarises the appointment arrangements proposed under each option.

Table A12- 10: Appointment arrangements proposed under options 1-3

|  |  |  |
| --- | --- | --- |
| **ATP** | **Option 1** | **Option 2 and 3** |
| SL | 1. **Merged Licence** | 1. **Appointed Authority: single appointment mechanism**   Single legislative appointment mechanism will apply with distinct ATP functions (SL, UMV, CA, VA, AA, PWBL) specified in the regulations and the ability to accommodate new types of functions in the future. Requirements for public weighbridges will be simplified. |
| UMV |
| CA | 1. **Merged Authority** |
| VA |
| AA | 1. **Approving Authority** |
| PWBL | 1. **PWBL**   Requirements for public weighbridges will be simplified. |
| General licences | N/A | 1. **General licences**   General Licences may be introduced in future to enable the provision of measurement services. |
| How many ATPs benefit? | 244 ATPs | * + 1. **ATPs (potentially all 617 ATPs)** |

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 Servicing Licensees and UMVs will streamline some licence applications and renewals.
* ATPs who currently hold Certifying Authority and Verifying Authority 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**, some small savings may be achieved by utilising a single legislative mechanism to appoint ATPs to perform distinct functions[[250]](#footnote-251):

* 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.
* All ATPs would be appointed through a single legislative mechanism. This would provide a small reduction in 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 be appointed 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 A12- 11: Changes in regulatory burden for appointments of ATPs under each option

| **Status Quo** | **Option 1** | **Option2** | **Option 3** |
| --- | --- | --- | --- |
| $ 0.5m | **Savings** through merged licences and authorities that would apply to some ATPs | **Savings** from streamlined appointment arrangements that could apply to all ATPs | **Savings** described under **option 2**,plus an **unquantifiable increase in regulatory burden** 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 / renewals |

### 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 UMVs (under **all options**)and LMAs (under **options 2 and 3**). There will be no change in reporting requirements for Servicing Licensees[[251]](#footnote-252) and PWBLs.[[252]](#footnote-253)

Currently, UMVs[[253]](#footnote-254) and LMAs (CAs, VAs, and AAs)[[254]](#footnote-255) provide information at the request of NMI, rather than routine reporting. UMVs (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.

* UMV 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 Servicing Licensees (i.e. fortnightly reporting). It is difficult to quantify the increased regulatory burden on UMVs.
* 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 UMVs (i.e. potentially monthly but at least several times a year).
* Reporting framework updates may also realise reporting savings for Servicing Licensees.

The change in the regulatory burden per option is described below:

Table A12- 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) | **Increased cost of reporting** for UMVs, subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs. | **Increased cost of reporting** for UMVs and LMAs subject to a transition period and development of an appropriate reporting framework. Updated framework may provide savings for SLs. | **Potential unquantifiable increase in regulatory burden** based on a possible rise in the number of ATPs providing measurement services for other regulatory purposes (non-trade). |

# 

# Appendix 13: Costing the regulatory burden of mandatory verification

## 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.*

## Verification

Measuring instruments used for trade purposes must be verified[[255]](#footnote-256) by an authorised verifier[[256]](#footnote-257) prior to first use. Section 18GG of the 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.

## 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. 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).
* **5 year average number of instruments verified per year**: Average number of instruments verified over the last 5 year period (2015/16 - 2019/20).
* **Cost of verification service to business**: Time x hourly rate x number of instruments verified.

Table A13- 1: Estimated cost of verification

| **Instrument Category** | **Time to verify (hours)** | **Servicing Licensee hourly rate** | **5 year average number of instruments verified per year[[257]](#footnote-258)** | **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)[[258]](#footnote-259) | 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[[259]](#footnote-260) | 48 | $170 | 1 | $8,160 |
| 6.7 - Automatic packaging conveyor weighers | 1 | $170 | 287 | $48,790 |
| 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[[260]](#footnote-261) | 6 | $170 | 823 | $839,460 |
| **Total** |  |  | **72,765** | **$7,060,831** |

The total regulatory burden for verification of measuring instruments is **$7,060,831.**

## Changes in regulatory burden

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 do not need to 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 by the Chief Metrologist (as for option 1).
* Establish alternative instrument controls:
  + Both pre market[[261]](#footnote-262) and post market[[262]](#footnote-263) controls would be available, including requirements such as verification.
  + Control mechanisms would be drafted to be accessible to other regulators who wish to utilise them, rather than being specifically limited to trade use.
  + These controls would be established following appropriate data collection, risk assessment and consultation. Therefore, 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.
* 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 to measurement used for other 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 additional powers 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, 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 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, 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.

## Potential savings

Verification remains a fundamental mechanism of control for measuring instruments. The extent of savings is not possible to quantify precisely in this RIS but it is anticipated that there will be no change to regulatory burden 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,[[263]](#footnote-264) with implementation or transition across a 5 to 10 year timeframe per scenario.

Table A13- 2: Scenarios of potential savings

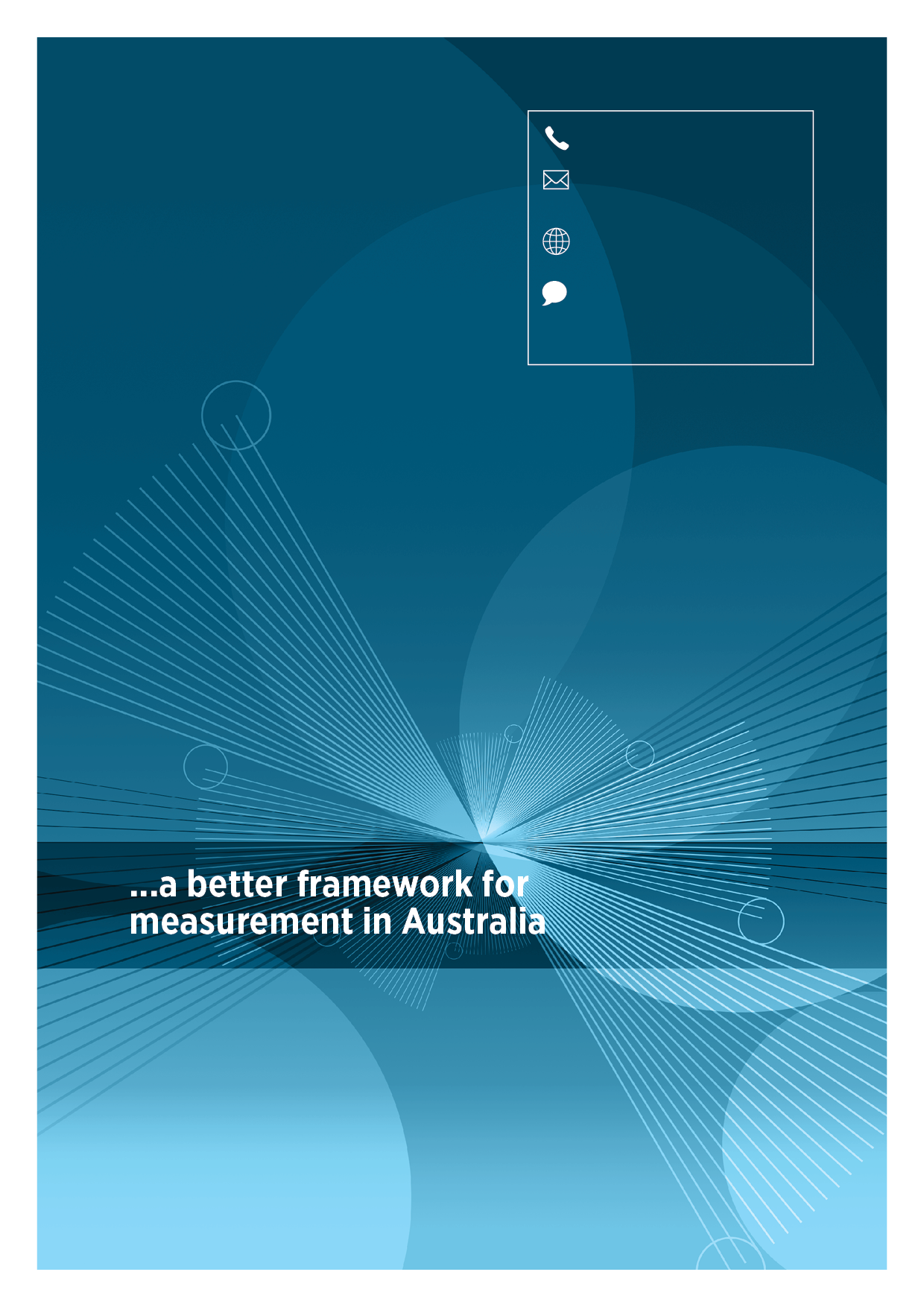
| **Potential savings scenarios** | **Status Quo** | **Option 1** | **Option 2** | **Option 3** |
| --- | --- | --- | --- | --- |
| % Reduction in burden |  | 2% | 4% | Cannot be determined |
| Regulatory burden to industry | $7,060,831 | $6,919,614 | $6,778,398 | Increase |
| **Savings from options** |  | $141,217 | $282,433 | - |

The table below provides a summary of potential savings for the sector in relation to status quo:

Table A13- 3: Summary of potential savings

|  |  |  |  |
| --- | --- | --- | --- |
| **Status Quo cost of verification** | **Option 1** | **Option 2** | **Option 3** |
| **$ 7.06m**  Estimated cost for verification | **Potential savings** approximately **$0.14m** for measuring instruments used for trade | **Potential savings** approximately **$0.28m** for measuring instruments used for trade  Unquantifiable potential change (**increase or decrease**) in burden from other flexible controls on measuring instruments used for trade | As for option 2 plus  **Additional regulatory burden** for the verification of measuring instruments used for regulatory purposes |

*(this page has been intentionally left blank)*



##### 1300 686 664

##### [measurementlawreview @industry.gov.au](mailto:measurementlawreview@industry.gov.au)

##### [industry.gov.au/ measurement-law-review](file:///C:/Users/KSparkes/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/YQJJ5RZG/industry.gov.au/measurement-law-review)

consult.industry.gov.au/  
measurement-law-review/mlr-consultation-regulation-impact-statement/

1. 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**. [↑](#footnote-ref-2)
2. Authorised third parties (ATPs) 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. [↑](#footnote-ref-3)
3. 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*. [↑](#footnote-ref-4)
4. Trade measurement refers to buying and selling of goods and services where the value is determined by measurement. [↑](#footnote-ref-5)
5. Sufficiently close to the true value of the thing being measured. [↑](#footnote-ref-6)
6. Having a trusted and consistent level of accuracy for each measurement result. [↑](#footnote-ref-7)
7. Under the International Organization of Legal Metrology (OIML) Convention and the Metre Treaty. [↑](#footnote-ref-8)
8. The term ‘measurement standard’ includes measuring devices, instruments, systems and formulae. Defined as a ‘*standard of measurement*’ in the current measurement legislation. . For example, an atomic clock is a standard of measurement which ‘realises’ (makes real, or implements in practice) the international definition of the second as a unit of measurement. [↑](#footnote-ref-9)
9. New and innovative measuring instruments may use new technologies, measure new quantities, measure multiple parameters simultaneously, or relate to innovative applications and business models. [↑](#footnote-ref-10)
10. 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.* [↑](#footnote-ref-11)
11. Pattern approval is where an impartial body examines the design of an instrument prototype against our national or international documentary standards. This determines the measurement accuracy of the instrument and whether the instrument retains this accuracy under a range of environmental and operating conditions. [↑](#footnote-ref-12)
12. 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> [↑](#footnote-ref-13)
13. The Australian ‘primary standards’ refer to standards of measurement of the highest accuracy that are traceable to the SI and have been internationally compared and recognised. Knowing the accuracy of a primary measurement standard becomes important to ensure that it is accurate enough to calibrate a reference weight used to verify a weighing instrument. [↑](#footnote-ref-14)
14. <https://www.nist.gov/noac> [↑](#footnote-ref-15)
15. Principles-based regulation involves imposing outcome based requirements without specifying exactly how these outcomes must be achieved. [↑](#footnote-ref-16)
16. This includes:

    The requirement to use trade approved and verified measuring instruments for weighing loose products at the point of sale, but not for packaged goods.

    The requirement to sell goods by specified units of measure when packaged but not loose (exception: meat, beer and the 5 basic spirits).

    The requirement for packaged products to be marked with a measurement statement.

    The Secretary’s list, which sets out alternative units of measure for specified 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. [↑](#footnote-ref-17)
17. 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*. [↑](#footnote-ref-18)
18. Part 4 of the *Regulatory Powers (Standard Provisions) Act 2014* creates a framework for the use of civil penalties to enforce civil penalty provisions. [↑](#footnote-ref-19)
19. Explanatory Memorandum, *Regulatory Powers (Standard Provisions) Bill 2014* (Cth). [↑](#footnote-ref-20)
20. 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. [↑](#footnote-ref-21)
21. For example, developing specialised equipment or unique facilities, which may involve considerable research. [↑](#footnote-ref-22)
22. ***Legal Metrology*** refers to measurement used for legal purposes. ***Metrology*** is the scientific study of measurement. [↑](#footnote-ref-23)
23. <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. [↑](#footnote-ref-24)
24. ATPs are organisations appointed under the legislation and include Servicing Licensees, Utility Meter Verifiers, Public Weighbridge Licensees, and Legal Metrology Authorities. [↑](#footnote-ref-25)
25. Including where measurement forms the basis of regulation. [↑](#footnote-ref-26)
26. The legal framework for traceability is enabled by a national hierarchy of realised standards of measurement. In this hierarchy, current traceability pathways rely on: Australian primary measurement 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. [↑](#footnote-ref-27)
27. For example, recognising all “calibration and measurement capabilities” (CMCs) published in the [Key Comparison Database](https://www.bipm.org/en/cipm-mra/kcdb.html) (KCDB) 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. [↑](#footnote-ref-28)
28. For example,the World Health Organisation Biological Reference Materials/guidelines and recommendations, or the CODEX Alimentarius Commission standards. [↑](#footnote-ref-29)
29. For example, primary measurement standards disconnected from the Australian national hierarchy of standards may be integrated through a process to be determined by the Chief Metrologist. [↑](#footnote-ref-30)
30. 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. [↑](#footnote-ref-31)
31. Under regulation 37 of the *National Measurement Regulations 1999: Certification of measuring instruments*. [↑](#footnote-ref-32)
32. 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. [↑](#footnote-ref-33)
33. [Electric Vehicle Council submission](https://consult.industry.gov.au/measurement-law-review-consultation/submissions/view/sbm1a3e01dcdf05b3e2287f2) [↑](#footnote-ref-34)
34. [Unilever submission](https://consult.industry.gov.au/measurement-law-review-consultation/submissions/view/sbm1a3e01dcdf053a8361af4) [↑](#footnote-ref-35)
35. For example, certain types of utility meters are exempt from verification requirements. [↑](#footnote-ref-36)
36. For example, approval standards, testing procedures or accreditation frameworks. [↑](#footnote-ref-37)
37. 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)). [↑](#footnote-ref-38)
38. 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). [↑](#footnote-ref-39)
39. Post market is defined as after first use of a measuring instrument for trade purposes, for example periodic re-verification or in-service inspections. [↑](#footnote-ref-40)
40. This is also known as conformity to type (CTT). [↑](#footnote-ref-41)
41. The test method being used to test and verify measuring instruments is typically formalised as a National Instrument Test Procedure (NITP). [↑](#footnote-ref-42)
42. Schedule 2 of the *National Trade Measurement Regulations 2009* lists the current classes and subclasses of servicing licences [↑](#footnote-ref-43)
43. Currently, each type of ATP has a separate provision in the *National Measurement Act 1960* or the *National Measurement Regulations 1999* providing for their appointment. This involves a lot of unnecessary duplication. [↑](#footnote-ref-44)
44. This may include such things as accreditation through any International Laboratory Accreditation Cooperation (ILAC) accreditation body, peer assessment or an NMI review of capability. [↑](#footnote-ref-45)
45. 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. [↑](#footnote-ref-46)
46. The need to require advertising to include a measurement representation, where applicable, may be reviewed in future where a need is identified. [↑](#footnote-ref-47)
47. [OIML R79: Labelling requirements for prepackages](https://www.oiml.org/en/files/pdf_r/r079-e15.pdf) includes recommendations at 5.5 regarding the method of measurement that should be used for packaged products. [↑](#footnote-ref-48)
48. [OIML R79: Labelling requirements for prepackages](https://www.oiml.org/en/files/pdf_r/r079-e15.pdf) recommends at 5.1 that “a pre-package shall bear a declaration of the nominal quantity on the principal display panel”. [↑](#footnote-ref-49)
49. 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>, [↑](#footnote-ref-50)
50. Further information on the UPC can be found at: <https://www.accc.gov.au/business/industry-codes/unit-pricing-code>. [↑](#footnote-ref-51)
51. Paragraph 4.10(3)(a) *National Trade Measurement Regulations 2009*. [↑](#footnote-ref-52)
52. Paragraph 4.10(3)(b) *National Trade Measurement Regulations 2009*. [↑](#footnote-ref-53)
53. Clause 3.1 of Schedule 4 *National Trade Measurement Regulations 2009*. [↑](#footnote-ref-54)
54. [*Therapeutic Goods Order No. 92 – Standard for labels of non-prescription medicines*](https://www.legislation.gov.au/Details/F2017C00744), particularly order 7. [↑](#footnote-ref-55)
55. <https://www.legislation.gov.au/Details/F2018C00464>. [↑](#footnote-ref-56)
56. <https://www.legislation.gov.au/Details/F2009L02457>. [↑](#footnote-ref-57)
57. <https://www.legislation.gov.au/Details/F2009L02457>. [↑](#footnote-ref-58)
58. [15 USC Ch 39: Fair Packaging and Labeling Program](https://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title15-chapter39&edition=prelim), paragraph 1453(a)(2). [↑](#footnote-ref-59)
59. [Weights and Measures Regulations (C.R.C., c. 1605)](https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1605/index.html), paragraph 47(a). [↑](#footnote-ref-60)
60. [*The Legal Metrology (Packaged Commodities) Rules*](https://consumeraffairs.nic.in/legalmetrologyactsandrules/legal-metrology-packaged-commodities-rules-2011) *2011*, regulation 8. [↑](#footnote-ref-61)
61. [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](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01976L0211-20190726), Clause 3, Annex 1. [↑](#footnote-ref-62)
62. [The Weights and Measures (Packaged Goods) Regulations 2006](https://www.legislation.gov.uk/uksi/2006/659/contents), regulation 5(1). [↑](#footnote-ref-63)
63. [*Weights and Measures Regulations 1999*](https://www.legislation.govt.nz/regulation/public/1999/0373/latest/whole.html), paragraph 79(a)(a) – general and paragraph 79A(5)(b) – packages of food [↑](#footnote-ref-64)
64. [General Principles for the Labelling of Prepackaged Foods (GB7718-xxxx) (in draft for comment with the WTO, 14 May 2020)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01976L0211-20190726), section 4.5.3. [↑](#footnote-ref-65)
65. As above, section 4.2.1. [↑](#footnote-ref-66)
66. [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](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02011R1169-20180101), Article 13(1). [↑](#footnote-ref-67)
67. As above, Article 13(5). [↑](#footnote-ref-68)
68. [Regulation (EC) N 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R1223-20201203), 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. [↑](#footnote-ref-69)
69. As above, Article 19(1). [↑](#footnote-ref-70)
70. <https://www.legislation.gov.au/Details/C2020C00304>. [↑](#footnote-ref-71)
71. 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. [↑](#footnote-ref-72)
72. 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. [↑](#footnote-ref-73)
73. Analysis was carried out according to key fundamental elements of the legislation: traceability, measuring instruments, third party arrangements, measurement-based transactions and compliance arrangements. [↑](#footnote-ref-74)
74. OIML-Certification System. [↑](#footnote-ref-75)
75. 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>. [↑](#footnote-ref-76)
76. ATPs are businesses which are appointed or licensed under the measurement legislation to perform a particular measurement service. These include servicing licensees, UMVs, Public Weighbridge Licensees and LMAs. [↑](#footnote-ref-77)
77. <https://consult.industry.gov.au/measurement-law-review-consultation/submissions/list> [↑](#footnote-ref-78)
78. <https://www.industry.gov.au/regulations-and-standards/measurement-standards/measurement-law-review> [↑](#footnote-ref-79)
79. <https://consult.industry.gov.au/measurement-law-review/mlr-consultation-regulation-impact-statement/> [↑](#footnote-ref-80)
80. Includes industry groups, Commonwealth / state government, consumer groups, authorised third parties, other businesses and private individuals that have subscribed. [↑](#footnote-ref-81)
81. CILC is a forum with consumer and industry members to exchange views about trade and regulatory matters related to trade measurement. [↑](#footnote-ref-82)
82. <https://consult.industry.gov.au/measurement-law-review/mlr-consultation-regulation-impact-statement/> [↑](#footnote-ref-83)
83. 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>, [↑](#footnote-ref-84)
84. Requirements referred to here include those in schedule 4 and 5 of the *National Trade Measurement Regulations 2009*. [↑](#footnote-ref-85)
85. See [section 50 of the *Legislation Act 2003*](https://www.legislation.gov.au/Details/C2016C00186) (Cth). [↑](#footnote-ref-86)
86. Section 4. [↑](#footnote-ref-87)
87. <https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging> [↑](#footnote-ref-88)
88. DIIS, *Review of Part 4 of the National Trade Measurement Regulations, Options Paper* - May 2015. [↑](#footnote-ref-89)
89. 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> [↑](#footnote-ref-90)
90. <https://www.minister.industry.gov.au/ministers/craiglaundy/media-releases/measurement-it-rules>. [↑](#footnote-ref-91)
91. 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. [↑](#footnote-ref-92)
92. <https://www.industry.gov.au/regulations-and-standards/measurement-standards/measurement-law-review>. [↑](#footnote-ref-93)
93. *Economic Analysis of the Measurement Framework*, January 2020, Ernst and Young Consultancy Report to the Department of Industry, Science, Energy and Resources. [↑](#footnote-ref-94)
94. Ibid. Note, this calculation uses a methodology of apportioning the contribution of the measurement system to productivity and implied contribution to economic growth. [↑](#footnote-ref-95)
95. Ibid. [↑](#footnote-ref-96)
96. [OIML R79](https://www.oiml.org/en/files/pdf_r/r079-e15.pdf) includes recommendations at 5.5 regarding the method of measurement that should be used for packaged products. [↑](#footnote-ref-97)
97. Further information on the UPC can be found at: <https://www.accc.gov.au/business/industry-codes/unit-pricing-code>. [↑](#footnote-ref-98)
98. Currently exempt under paragraph 4.10(3)(a) of the *National Trade Measurement Regulations 2009.* [↑](#footnote-ref-99)
99. Currently exempt under paragraph 4.10(3)(b) of the *National Trade Measurement Regulations 2009.* [↑](#footnote-ref-100)
100. Clause 3.1 of Schedule 4 *National Trade Measurement Regulations 2009*. [↑](#footnote-ref-101)
101. Placement of the measurement mark on wine bottles would continue to be subject to regulation 4. [↑](#footnote-ref-102)
102. [*Therapeutic Goods Order No. 92 – Standard for labels of non-prescription medicines*](https://www.legislation.gov.au/Details/F2017C00744), particularly order 7. [↑](#footnote-ref-103)
103. <https://consult.industry.gov.au/packaging-review-team/measurement-mark/supporting_documents/ORIMASurveyResults.docx>, [↑](#footnote-ref-104)
104. <https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging>, [↑](#footnote-ref-105)
105. Information on the Unit Pricing Code (UPC) can be found at: <https://www.accc.gov.au/business/industry-codes/unit-pricing-code>. [↑](#footnote-ref-106)
106. The Treasury 2012, [*Post Implementation Review of the Unit Pricing Code of Conduct*](http://ris.pmc.gov.au/sites/default/files/posts/2012/11/unit-pricing-pir1.doc), October. [↑](#footnote-ref-107)
107. The Department of Industry, Innovation and Science 2016, [*Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*](https://industry.gov.au/industry/IndustrySectors/FoodManufacturingIndustry/Documents/CoOL-Decision-RIS.pdf)*,* March. [↑](#footnote-ref-108)
108. 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). [↑](#footnote-ref-109)
109. Section 18GC of the National Measurement Act 1960 - Supplying measuring instruments not of an approved pattern. [↑](#footnote-ref-110)
110. 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). [↑](#footnote-ref-111)
111. Further detail regarding what these arrangements would look like is outlined above in response to RIS Question 3. [↑](#footnote-ref-112)
112. The test method being used to test and verify measuring instruments is typically formalised as an NITP. [↑](#footnote-ref-113)
113. The test method being used to test and verify measuring instruments is typically formalised as an NITP. [↑](#footnote-ref-114)
114. This may include such things as accreditation through any International Laboratory Accreditation Cooperation (ILAC) accreditation body, peer assessment or an NMI review of capability. [↑](#footnote-ref-115)
115. “Bunkering” is a term used to refer to the supplying of [fuel](https://en.wikipedia.org/wiki/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. [↑](#footnote-ref-116)
116. 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. [↑](#footnote-ref-117)
117. 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. [↑](#footnote-ref-118)
118. [*Therapeutic Goods Order No. 92 – Standard for labels of non-prescription medicines*](https://www.legislation.gov.au/Details/F2017C00744), particularly order 7. [↑](#footnote-ref-119)
119. [OIML R79: Labelling requirements for prepackages](https://www.oiml.org/en/files/pdf_r/r079-e15.pdf) includes recommendations at 5.5 regarding the method of measurement that should be used for packaged products. [↑](#footnote-ref-120)
120. 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. [↑](#footnote-ref-121)
121. These include Certifying Authorities, Verifying Authorities and Approving Authorities. [↑](#footnote-ref-122)
122. 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). [↑](#footnote-ref-123)
123. 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**). [↑](#footnote-ref-124)
124. These are issued under the OIML-Certification System (OIML CS). [↑](#footnote-ref-125)
125. 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. [↑](#footnote-ref-126)
126. 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. [↑](#footnote-ref-127)
127. 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.* [↑](#footnote-ref-128)
128. For example traceability back to World Health Organisation standards, or international food standards adopted by the Codex Alimentarius Commission. [↑](#footnote-ref-129)
129. 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, importers and distributors. 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 5: Impacts on measuring instrument manufacturers, importers and distributors, importers and distributors. [↑](#footnote-ref-130)
130. This would involve additional powers for the Chief Metrologist, to be specified under measurement regulations, that would include: determining additional appropriate traceability pathways, primary measurement standards, methods, systems, instruments; recognising international arrangements, references, outputs from NMIs, databases; revoking recognition of traceability pathways (e.g. to enable superseded methods to be revoked); and revalidating approved traceability pathways to reflect change in algorithms. [↑](#footnote-ref-131)
131. *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. [↑](#footnote-ref-132)
132. *National Measurement Regulations 1999*, regulation 21, recognition of foreign reference standards of measurement. Under this regulation an overseas reference measurement standard 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. [↑](#footnote-ref-133)
133. This database supports the CIPM MRA. [↑](#footnote-ref-134)
134. The Treasury 2012, [*Post Implementation Review of the Unit Pricing Code of Conduct*](http://ris.pmc.gov.au/sites/default/files/posts/2012/11/unit-pricing-pir1.doc), October. [↑](#footnote-ref-135)
135. The Department of Industry, Innovation and Science 2016, [*Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*](https://www.industry.gov.au/data-and-publications/country-of-origin-labelling-decision-regulation-impact-statement)*,* March. [↑](#footnote-ref-136)
136. [Household and Family Projections, Australia, 2016 to 2041](https://www.abs.gov.au/ausstats/abs@.nsf/mf/3236.0) (cat. no. 3236.0) released 14/03/2019. The survey estimates a total of 9,802,786, projected Australian households in 2020. [↑](#footnote-ref-137)
137. ORIMA Research 2015, [*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), research conducted on behalf of the department, formerly known as the Department of Industry, Innovation and Science. [↑](#footnote-ref-138)
138. MORI 1997, *Indications of Quantity on Pre-packaged Food: Drained Net Weight*, Department of Trade and Industry. [↑](#footnote-ref-139)
139. https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging. [↑](#footnote-ref-140)
140. Choice 2014, Media article: [*CHOICE unwraps industry push to hide shrinking packs*](https://www.choice.com.au/about-us/media-releases/2014/september/choice-unwraps-industry-push-to-hide-shrinking-packs), September. [↑](#footnote-ref-141)
141. Lennard et. al. 2001, *Why consumers under-use food quantity indicators,* The International Review of Retail, Distribution and Consumer Research, 11:2, 177-199. [↑](#footnote-ref-142)
142. ORIMA Research 2015, [*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), research conducted on behalf of the former Department of Industry, Innovation and Science. [↑](#footnote-ref-143)
143. MORI 1997, *Indications of Quantity on Pre-packaged Food: Drained Net Weight*, Department of Trade and Industry. [↑](#footnote-ref-144)
144. Assumes a household purchases 51 products per week. [↑](#footnote-ref-145)
145. [Household and Family Projections, Australia, 2016 to 2041](https://www.abs.gov.au/ausstats/abs@.nsf/mf/3236.0) (cat. no. 3236.0) released 14/03/2019. The survey estimates a total of 9,802,786, projected Australian households in 2020. [↑](#footnote-ref-146)
146. Office of Best Practice Regulation March 2020, [*Regulatory Burden*](https://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf) *Measurement Framework.* [↑](#footnote-ref-147)
147. ABS 2011,[*6530.0- 2009-10 Household Expenditure Survey*](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6530.02009-10?OpenDocument), 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. [↑](#footnote-ref-148)
148. CHOICE 2017, [*Want to spend less at the checkout?*](https://www.choice.com.au/shopping/everyday-shopping/supermarkets/articles/cheapest-groceries-australia), Media article, updated 5 June 2017. [↑](#footnote-ref-149)
149. ABS 2011,[*6530.0- 2009-10 Household Expenditure Survey*](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6530.02009-10?OpenDocument), 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. [↑](#footnote-ref-150)
150. 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?*](https://www.choice.com.au/shopping/everyday-shopping/supermarkets/articles/cheapest-groceries-australia), Media article, updated 5 June 2017. [↑](#footnote-ref-151)
151. IBISWorld 2017, *Industry Reports G4111 – Supermarkets and Grocery Stores in Australia,* October. [↑](#footnote-ref-152)
152. IBISWorld 2017, *Industry Reports G4111 – Supermarkets and Grocery Stores in Australia,* October. [↑](#footnote-ref-153)
153. Office of Best Practice Regulation March 2020, <https://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-154)
154. 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. [↑](#footnote-ref-155)
155. Please note all import data for the EU in the following calculations for industry impact includes the UK. [↑](#footnote-ref-156)
156. Department of Foreign Affairs and Trade, [*Composition of Trade Australia 2018-19,*](https://www.dfat.gov.au/sites/default/files/cot-2018-19.pdf) p 109. [↑](#footnote-ref-157)
157. Department of Foreign Affairs and Trade, [*Composition of Trade Australia 2018-19,*](https://www.dfat.gov.au/sites/default/files/cot-2018-19.pdf) p 109. [↑](#footnote-ref-158)
158. 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. [↑](#footnote-ref-159)
159. https://www.foreign-trade.com/reference/hscode.htm. [↑](#footnote-ref-160)
160. Personal Communications - ACCORD, Op. Cit. during the [packaging review](https://www.industry.gov.au/regulations-and-standards/measurement-standards/review-of-measurement-markings-on-packaging). [↑](#footnote-ref-161)
161. The Department of Industry, Innovation and Science 2016, [*Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*](https://www.industry.gov.au/data-and-publications/country-of-origin-labelling-decision-regulation-impact-statement)*,* March. [↑](#footnote-ref-162)
162. HS2204 - Wine of fresh grapes, including fortified wines; grape must other than that of heading no. 2009. [↑](#footnote-ref-163)
163. HS 2208 - Ethyl alcohol, undenatured; of an alcoholic strength by volume of less than 80% volume; spirits, liqueurs and other spirituous beverages. [↑](#footnote-ref-164)
164. The Department of Industry, Innovation and Science 2016, [*Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*](https://www.industry.gov.au/data-and-publications/country-of-origin-labelling-decision-regulation-impact-statement)*,* March. [↑](#footnote-ref-165)
165. Section 18.4.3 Sensitivity tables. [↑](#footnote-ref-166)
166. ABS 2011,[*6530.0- 2009-10 Household Expenditure Survey*](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6530.02009-10?OpenDocument), September. [↑](#footnote-ref-167)
167. Reserve bank of Australia 2018, [*Inflation Calculator*](https://www.rba.gov.au/calculator/annualDecimal.html)*,* accessed February 2018. [↑](#footnote-ref-168)
168. 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. [↑](#footnote-ref-169)
169. ORIMA Research 2015, [*Understanding Consumer Preferences towards Measurement Markings on Fast Moving Consumer Goods Product Packages*](https://storage.googleapis.com/converlens-au-industry/industry/p/prj1a3e230fc11f7461253ff/public_assets/ORIMA-Survey-Results.docx), research conducted on behalf of the Department of Industry, Innovation and Science. [↑](#footnote-ref-170)
170. MORI 1997, *Indications of Quantity on Pre-packaged Food: Drained Net Weight*, Department of Trade and Industry. [↑](#footnote-ref-171)
171. Office of Best Practice Regulation March 2020, [*Regulatory Burden Measurement Framework.*](https://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf) [↑](#footnote-ref-172)
172. ABS 2011,[*6530.0- 2009-10 Household Expenditure Survey*](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6530.02009-10?OpenDocument), September. [↑](#footnote-ref-173)
173. Reserve bank of Australia 2018, [*Inflation Calculator*](https://www.rba.gov.au/calculator/annualDecimal.html)*,* accessed February 2018. [↑](#footnote-ref-174)
174. CHOICE 2017, [*Want to spend less at the checkout?*](https://www.choice.com.au/shopping/everyday-shopping/supermarkets/articles/cheapest-groceries-australia), Media article, updated 5 June 2017. [↑](#footnote-ref-175)
175. FMCGs are defined using the [Harmonised System (HS) codes](https://www.foreign-trade.com/reference/hscode.htm), and for the purposes of this report include vegetable products (HS06-15), foodstuffs (HS16-24) and cosmetics (HS2712 and HS33-34). [↑](#footnote-ref-176)
176. The Department of Industry, Innovation and Science 2016, [*Country of Origin Labelling – Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*](https://www.industry.gov.au/data-and-publications/country-of-origin-labelling-decision-regulation-impact-statement)*,* March. [↑](#footnote-ref-177)
177. ABS Cat. 8155.0 Australian Industry, 2018-19 released May 2020. [↑](#footnote-ref-178)
178. Calculated as total number of employees in the affected ANZSIC sectors = 308,072 divided by average number of employees per establishment 8 = 71,391businesses in the selected sectors. [↑](#footnote-ref-179)
179. IBISWorld Industry Report C2419 on Measurement and Other Scientific Equipment Manufacturing, Industry Market Research, Reports, and Statistics, June 2020 pg12 www.ibisworld.com. [↑](#footnote-ref-180)
180. There could be businesses that have been included here that may also be manufacturers but difficult to isolate these in the ABS statistics. [↑](#footnote-ref-181)
181. ABS Cat. 8155.0 Australian Industry, 2018-19 released May 2020. [↑](#footnote-ref-182)
182. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0. [↑](#footnote-ref-183)
183. 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. [↑](#footnote-ref-184)
184. 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. [↑](#footnote-ref-185)
185. Totals may not match calculation tables below due to rounding errors. [↑](#footnote-ref-186)
186. *National Measurement Regulations 1999*, regulation 58 – Application for approval of patterns of measuring instruments; regulation 63 – Certificates of approval. [↑](#footnote-ref-187)
187. 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](https://www.oiml.org/en) (OIML) recommendation of the same name and number. NMI M have been prepared by the NMI. [↑](#footnote-ref-188)
188. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0. [↑](#footnote-ref-189)
189. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-190)
190. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0. [↑](#footnote-ref-191)
191. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-192)
192. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0. [↑](#footnote-ref-193)
193. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-194)
194. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0. [↑](#footnote-ref-195)
195. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-196)
196. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0. [↑](#footnote-ref-197)
197. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-198)
198. Totals may not match calculation tables below due to rounding errors. [↑](#footnote-ref-199)
199. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-200)
200. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-201)
201. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-202)
202. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-203)
203. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-204)
204. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-205)
205. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-206)
206. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-207)
207. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-208)
208. All verifications including instruments verified as part of other Instruments 3-year average (2016/17-2018/19). [↑](#footnote-ref-209)
209. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-210)
210. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-211)
211. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-212)
212. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-213)
213. All verifications including instruments verified as part of other Instruments 3-year average (2016/17-2018/19). [↑](#footnote-ref-214)
214. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-215)
215. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-216)
216. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-217)
217. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-218)
218. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-219)
219. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-220)
220. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-221)
221. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-222)
222. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-223)
223. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-224)
224. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-225)
225. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-226)
226. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-227)
227. Ibid. [↑](#footnote-ref-228)
228. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-229)
229. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-230)
230. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-231)
231. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-232)
232. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-233)
233. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-234)
234. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-235)
235. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-236)
236. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-237)
237. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-238)
238. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-239)
239. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-240)
240. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-241)
241. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-242)
242. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-243)
243. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-244)
244. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-245)
245. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-246)
246. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-247)
247. 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. [↑](#footnote-ref-248)
248. Australian Bureau of Statistics (2018), “Employee Earnings and Hours, Australia, Cat. No. 6306.0”. [↑](#footnote-ref-249)
249. 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://obpr.pmc.gov.au/sites/default/files/2021-09/regulatory-burden-measurement-framework.pdf> [↑](#footnote-ref-250)
250. These functions will be detailed in the regulations and will reflect current ATP types (e.g. SL, PWBL, UMV, VA, CA, AA), as well as being able to accommodate new types of ATP functions in the future. [↑](#footnote-ref-251)
251. 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. [↑](#footnote-ref-252)
252. 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. [↑](#footnote-ref-253)
253. UMV appointments are granted under section 18R *National Measurement Act 1960* and under s 18RB g Conditions on appointment of UMVs, they report as required in writing by the Secretary. [↑](#footnote-ref-254)
254. 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. [↑](#footnote-ref-255)
255. 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 *National Measurement Act 1960*. [↑](#footnote-ref-256)
256. Under Section 18GH of the *National Measurement Act 1960*, Servicing Licensees or an employee of a competent Servicing Licensee may verify. Under section 18GI a Utility Meter Verifier may verify a utility meter. [↑](#footnote-ref-257)
257. Excluding instruments verified as part of other measuring instruments, 5-year average (2015/16 - 2019/20). [↑](#footnote-ref-258)
258. This assumes batch testing of 10,000 measures. [↑](#footnote-ref-259)
259. This does not include significantcosts 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. [↑](#footnote-ref-260)
260. Theassumption 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.  [↑](#footnote-ref-261)
261. 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). [↑](#footnote-ref-262)
262. Post market is defined as after first use of a measuring instrument for trade purposes, for example periodic re-verification or in-service inspections. [↑](#footnote-ref-263)
263. #### Refer to the sub-section on [changes in relation to the verification of measuring instruments](#_Changes_in_relation).

     [↑](#footnote-ref-264)