

VERSION 1: NOVEMBER 2023

AUSTRALASIAN RECYCLING LABEL IMPACT FRAMEWORK REPORT 2023

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Disclaimer:

The Australian Packaging Covenant Organisation (APCO) has prepared this report with a high-level of care and thoroughness and recommends that it is read in full. This report is based on generally accepted definitions, data and understanding of industry practices and standards at the time it was prepared. It is prepared in accordance with the scope of work and for the purpose outlined in the introduction. Sources of information used are referenced in this report, except where provided on a confidential basis. This report has been prepared for use only by APCO and other third parties who have been authorised by APCO. APCO and the contributing authors are not liable for any loss or damage that may be occasioned directly or indirectly using, or relying on, the contents of this publication. This report does not purport to give legal or financial advice. No other warranty, expressed or implied, is made as to the professional advice included in this report.

INTRODUCTION

The ARL Impact Framework (Impact Framework) Report was developed by the Australian Packaging Covenant Organisation (APCO) to track the impact of the Australasian Recycling Label (ARL) Program on consumers, brand owners and the recovery system in Australia and New Zealand. The **first report** was published in 2022. This report provides a progress update and reveals new insights, with tangible evidence of the ARL Program’s success and the identification of key areas of opportunity for growth.

The purpose of the ARL Program is to provide consumers with the tools to dispose of their

packaging correctly and support brand owners and packaging manufacturers to design packaging that is recyclable. The ARL is applicable to packaging in Australia and New Zealand, where it has been endorsed by government, and is the preferred labelling option for disposal and recycling. In Australia, participation in the ARL Program also supports organisations’ progress towards Australia’s 2025 National Packaging Targets (2025 Targets).

The Impact Framework consists of three Impacts, each with specific indicators used to track the impact of the ARL across Australia and New Zealand.

Impact 1:

Consumers increasingly recognise the ARL and dispose of packaging according to its instructions.

Impact 2:

Resource recovery from the waste stream is maximised.

Impact 3:

The ARL Program supports continual improvement of packaging design to increase recyclability and meet the 2025 Targets.

Both internal and external data sources are used to inform the assessment of the Impact Framework:

- **ARL Reporting data from ARL Program Members**

Every March, ARL Program Members have an obligation to submit an ARL Report to APCO. Members provide details about packaging carrying the ARL in the Australian and/or New Zealand markets in the previous calendar year, and indicate whether the components are labelled with a Recyclable, Conditionally Recyclable, or Not Recyclable ARL. Annual ARL Reporting also assesses the extent to which the ARL influences the design choices made by brands to facilitate progress to the 2025 Targets.

- **Consumer research**

APCO’s regular consumer surveys provide data about social attitudes towards recycling, and gauge the impact of the ARL on individuals’ recycling behaviours in Australia and New Zealand. The latest data was collected in May 2023, approximately 18 months since the previous survey was conducted in late 2021 (results for the 2023 survey are detailed in the [ARL Consumer Insights Report 2023](#)). The sample size for this year’s survey remained consistent, with 1012 Australian and 527 New Zealander participants representing diverse demographic groups.

- **Bin audit outcomes**

In October 2022, APCO engaged Anne Prince Consulting to conduct the first bin audits for the ARL Program to investigate whether consumers were disposing of their packaging according to ARL instructions. The bin audit methodology that was developed for this process aimed to help understand the impact that the ARL has on end-of-life disposal behaviour for consumers. A sample size of 238 households from seven NSW council areas was selected, which represented 2356 kg of waste and 1591 kg of recycling.

Please note that the first ARL Impact Framework Report, published in 2022, should be referred to for the benchmark data and relevant background information.

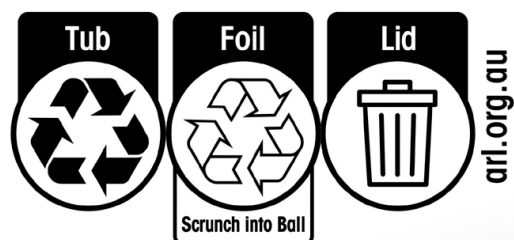


Figure 1 – Example of an ARL artwork array.

IMPACT 1:

Consumers increasingly recognise the ARL and dispose of packaging according to its instructions.

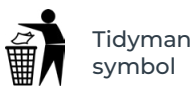
Impact 1 is informed by the annual reporting of ARL Program Members and consumer research.

Importantly, this Impact is based on two key metrics:

1. Recognition: consumers are aware of and seek out the ARL and are frequently exposed to it in the market.

2. Understanding: consumers are looking for recycling information on-pack and following the ARL instructions to positively impact their recycling choices.

Statistically, the latest consumer research results are similar to those of the previous survey, despite an 18-month gap. Annual ARL Reporting by Members revealed steady growth in the number of SKUs carrying the ARL on-market. This section will highlight that consumer awareness of the ARL has increased and that demand to see the ARL on-pack has been consistent with previous years. This growth has helped to identify areas of opportunity for ARL Program stakeholders to foster continued market adoption and consumer education around the ARL.



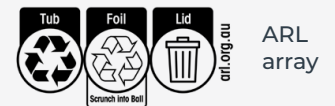
Tidyman symbol



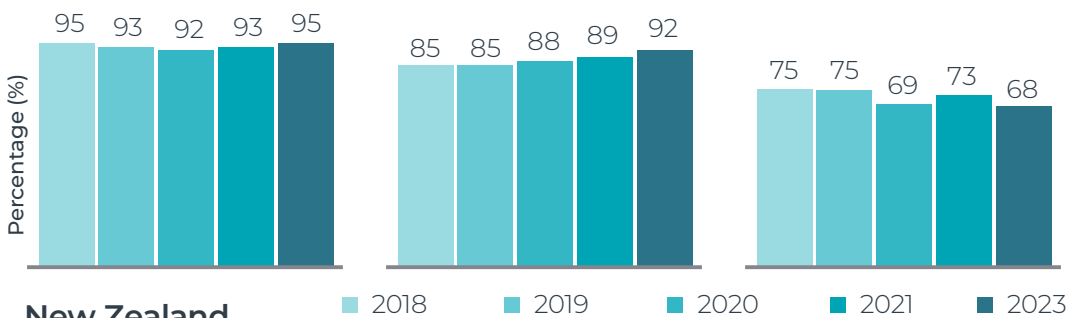
Generic mobius loop



Plastic Identification Code



Australia



New Zealand

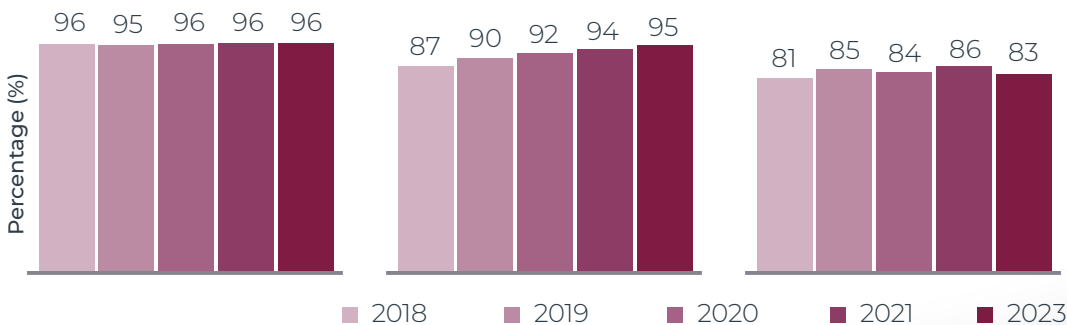


Figure 2 – Awareness of the ARL and other labels found on-packaging among Australian and New Zealand consumers (%) from 2018 - 2023.

RECOGNITION

Increased consumer recognition of the ARL is monitored against the following indicators as part of the Impact Framework:

- 1.1 Consumers' awareness levels of the ARL and the ARL Program
- 1.2 Consumers actively seek out products that display the ARL
- 1.3 The ARL is widely adopted in the market

Consumer awareness of the ARL has matured, with around three quarters of consumers in Australia and New Zealand recognising the ARL. The figures represent a growth of 2-3% against the 2021 data, suggesting new initiatives may be required to promote growth.

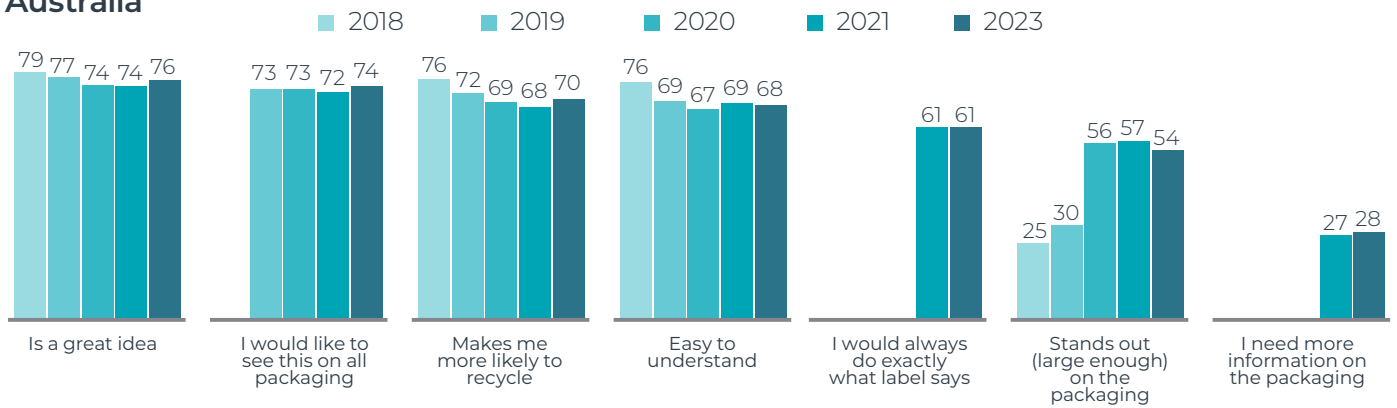
The ARL maintains a strong reputation as a tool for helping the environment, and has a significant positive impact on consumer behaviour.

IMPACT 1:

Consumers responded positively to the ARL's purpose, which was consistent with previous surveys. The percentage of respondents in both Australia and New Zealand who would like to see the ARL on all packaging remains high at an average of 75%, a strong indication of the consumer purchasing preferences for products they perceive to be better for the environment.

The physical packaging of a product continues to be the main source of awareness of the ARL in both markets with approximately two-thirds of consumers looking for recycling information on-pack. This is a positive indication not only of consumer awareness that packaging may carry an ARL, but of the increasing presence and visibility of products with the ARL on the market.

Australia



New Zealand

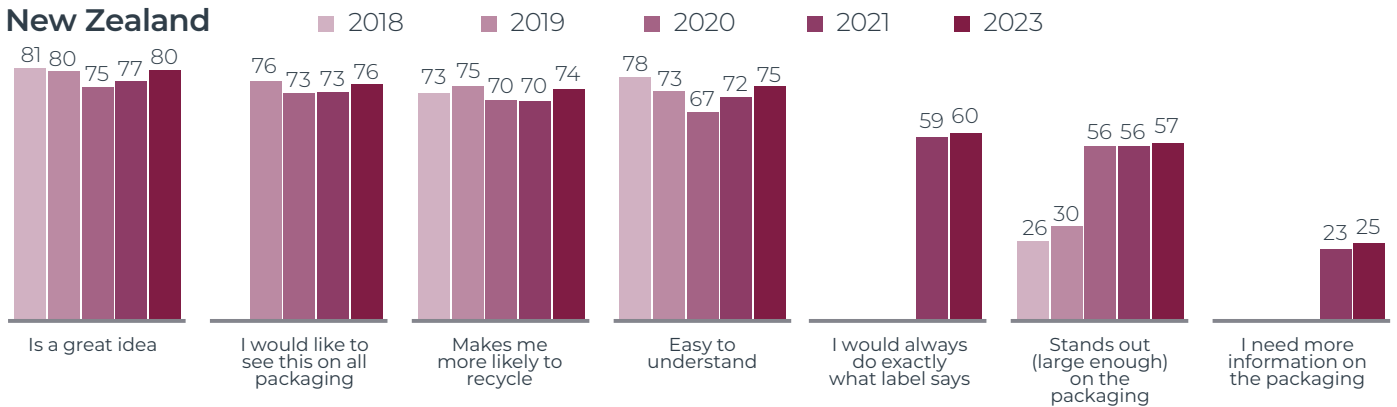


Figure 3 – Percentage (%) of Australian and New Zealand consumers who agree with ARL related statements.

IMPACT 1:

APCO has an ongoing partnership with the Planet Ark Environmental Foundation (Planet Ark) who provide educational material and promote the ARL to the Australian public. Their work focuses on simple and accessible ways to challenge misconceptions about recycling to engage an audience of active consumers. In August 2022, Planet Ark coordinated new advertisements for the ARL to be installed at major shopping malls. Located in front of prime retail sectors such as supermarkets, over 13 million consumers were exposed to ARL advertising in a four-week period.

Planet Ark continue to promote recognition and understanding of the ARL to their online followers and focus a large portion of resources towards the ARL School Program, targeting children via curriculum-approved lesson plans.

APCO is working closely with key stakeholders in New Zealand, including the New Zealand Food & Grocery Council (NZFGC), to investigate the most effective means of communicating the ARL in this market. This will be key to increasing recognition in the market against some of the more commonly recognised symbols such as the generic Mobius Loop and Tidy Man symbol, recognised by 90-96% of New Zealanders.

The number of organisations participating in the ARL Program grew to 900 in 2022, representing a 29% increase in Membership since 2021. This is a significant achievement for the ARL Program as it moves into its fifth year. Coinciding with the Membership growth, the number of SKUs carrying the ARL on-pack has continued to grow, with the total number of SKUs carrying the ARL across Australasia being approximately 321,000. In Australia, the reported count of on-market packaging featuring the ARL reached approximately 231,000 SKUs (2022), compared to the previous year's 174,567 SKUs (2021). A similar trend is evident in New Zealand, where the reported count of on-market packaging featuring the ARL reached 90,000 SKUs (2022), showing a rise of 10,000 compared to the previous year's figure.

The overall increase in the number of SKUs carrying the ARL is a reflection of the both the industry and consumer demand for on-pack recycling information. This may be influenced by industry's ongoing efforts to achieve the target of 80% of supermarket products carrying the ARL by December 2023, as set by the Australian Government in the National Plastics Plan. Similarly, consumer awareness and associated demand continue to drive ARL Program Membership and application of the ARL, with a majority of Australians and New Zealanders indicating that they would like to see the ARL displayed on more packaging in the 2023 Consumer Insights Survey.

The year-on-year increase in the number of SKUs carrying the ARL in both Australia and New Zealand is a positive indication that awareness and demand for the ARL continue to grow. To support continued uptake and understanding it is important that Members continue to refine their reporting practices, and foster collaboration and support from industry stakeholders, government, and major brand owners involved in the ARL Program. To complement the widespread saturation of the ARL in the market, focus should also be drawn to targeted education aimed at enhancing consumer comprehension of the ARL and continued demand for the ARL across all industry sectors.



IMPACT 1:

UNDERSTANDING

Further informing progress to Impact 1 is consumer understanding of the ARL, demonstrated through the following indicators:

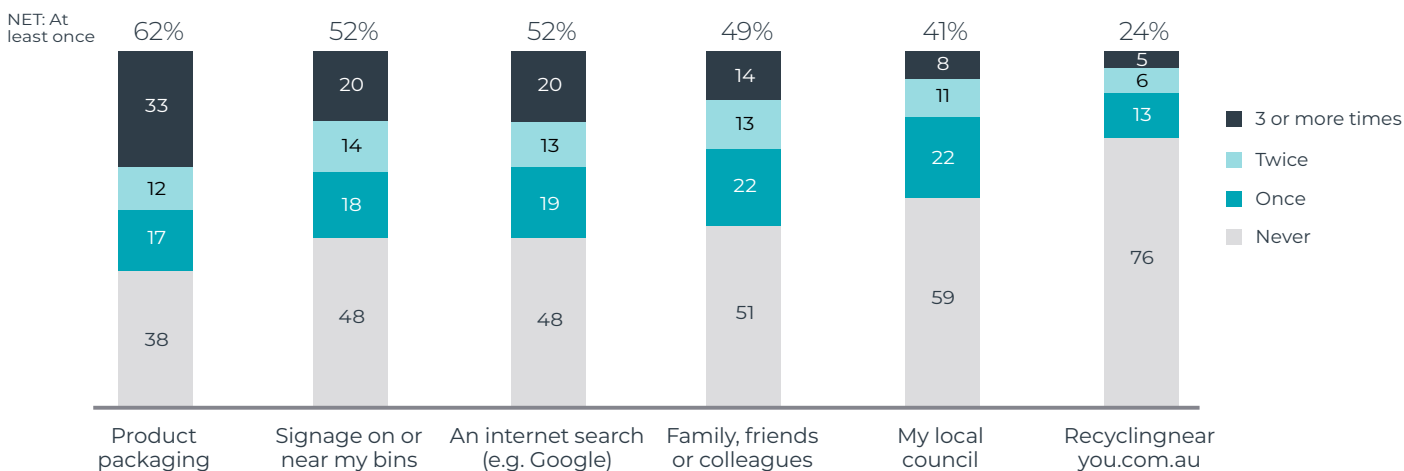
- 1.4 Consumers are actively looking for recycling information on packaging
- 1.5 Consumers follow the ARL instructions when recycling
- 1.6 Consumers change their recycling behaviour based on the ARL

Consumer understanding of the ARL revealed some consistencies and notable differences compared to previous survey data. Interestingly, despite the challenges stemming from the closure of REDcycle's operations in November 2022, there was no clear adverse impact on recycling attitudes in general. Like the 2021 findings, consumers still perceive

recycling as the most beneficial action they can take for the environment. Both Australians and New Zealanders display a strong inclination towards recycling and doing so correctly. In the past six months, 88% of New Zealanders actively sought recycling information, while 81% of Australians did the same. This demonstrates an ongoing willingness to trust in the recycling system, despite half of respondents in both markets being uncertain about what items can and cannot be recycled.

Moreover, 70% of Australians and 74% of New Zealanders responded that the ARL makes them more inclined to recycle. However, there were some key themes in the recent research that suggest some challenges to consumer understanding of the ARL.

Australia



New Zealand

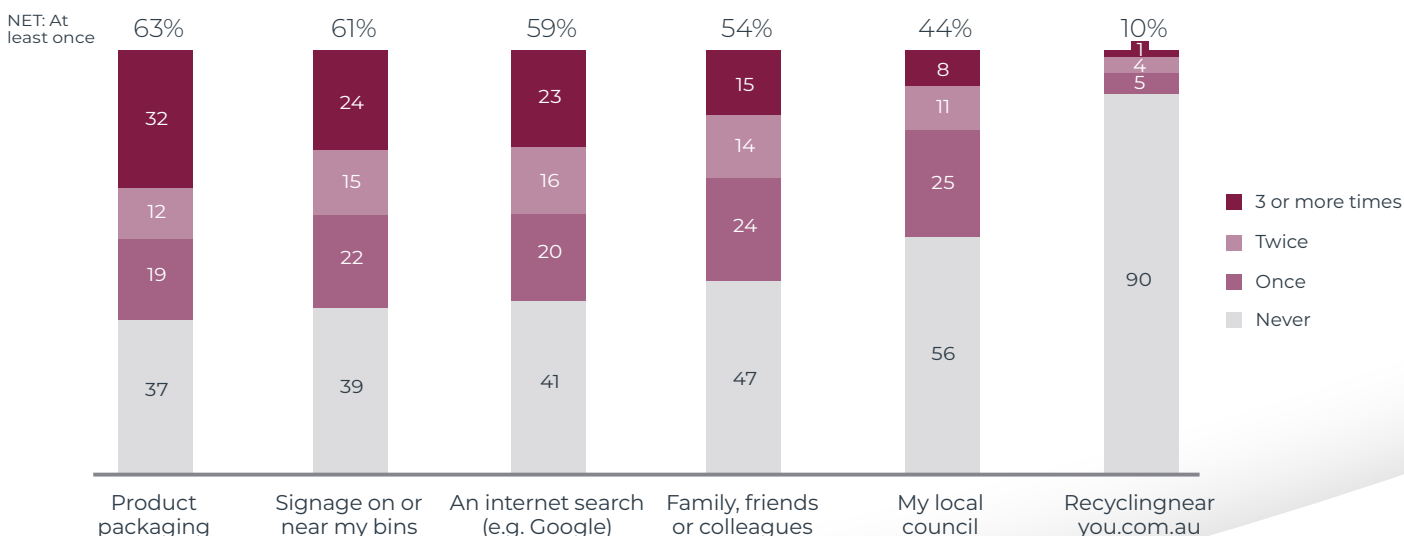


Figure 4 – Primary sources of information (%) and frequency of seeking recycling-related information among Australian and New Zealand consumers.

IMPACT 1:

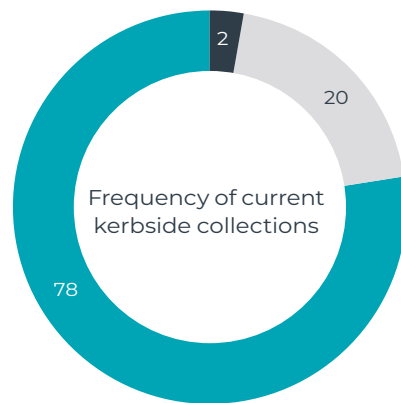
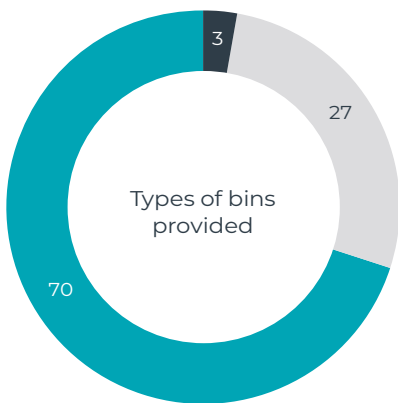
Council Recycling Information and Services

Dependence on local councils as a source of recycling information has dropped. Previously on par with on-pack recycling advice, council guidance now sits second to last as consumers' preferred source of information, behind asking family, friends or colleagues. Signage on bins has become second to on-pack recycling information. This was consistent in both Australia and New Zealand, as was commentary that respondents would like more information on the bins about what can and cannot be recycled. These responses demonstrate the importance of continued collaboration between APCO and government to work towards providing harmonised and consistent recycling information in a manner that is most accessible to consumers.

For the latest survey, respondents were asked additional questions about the type and frequency of bin collections in their local areas. Approximately 20% of respondents in both Australia and New Zealand felt that their bins were not collected frequently enough. Of this group, some respondents shared concerns that their local council only collected recycling fortnightly, which does not serve the volume of their recycling. The research consistently highlights that consumers in Australia and New Zealand are keen to recycle correctly, but there are barriers to their ability to do so.

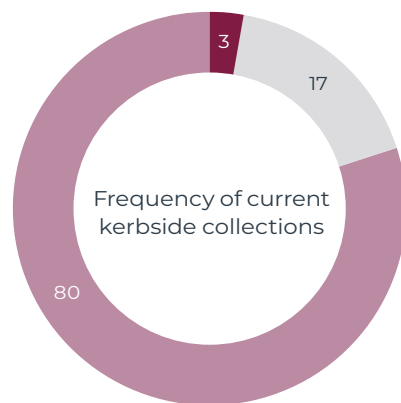
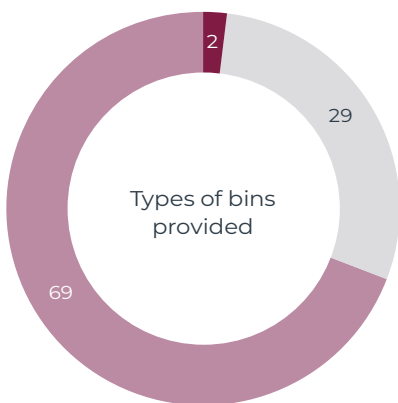
Note: The February 2024 implementation of kerbside standardisation in New Zealand is intended to change both the frequency and ease of collections for households.

Australia



■ Not enough ■ The right amount ■ Too much

New Zealand



■ Not enough ■ The right amount ■ Too much

Figure 5 – Percentage (%) of consumer opinions on the types of bins provided and frequency of collection provided by council in Australia and New Zealand.

IMPACT 1:

Soft plastics collection (Australia)

There were some changes made to the survey this year to account for the closure of REDcycle’s operations in late 2022. As such, some questions for the Australian respondents were deemed redundant and the survey instead took the opportunity to question participants about their attitudes towards soft plastic recycling now and in the future.

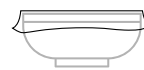
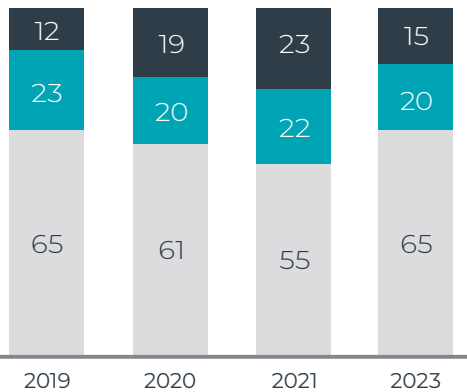
As was expected, willingness to participate in drop-off schemes for soft plastic has dropped. Despite asking respondents to answer as if soft plastic recycling was an option, there was a 10% decline in

those saying they would return to store when asked how two soft plastic formats should be disposed of. This resulted in just under 70% of respondents nominating the general waste bin as the disposal method they think most suitable for soft plastics. However, one in three respondents answered that they would be likely to engage in a collection service once more, should it become available. This is a positive indication that consumers still want to choose the best option for recycling when it is available to them, and signals that new solutions for soft plastics collection will be embraced by most Australian consumers.

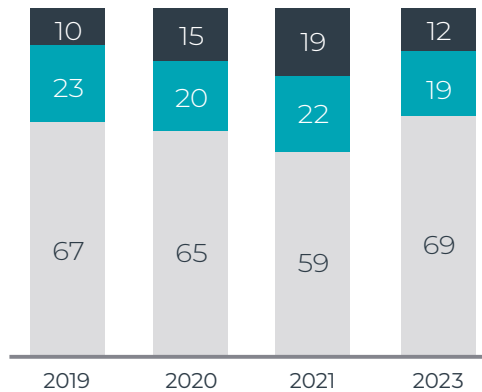
Australia



Soft plastic wrap



Soft plastic film

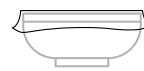
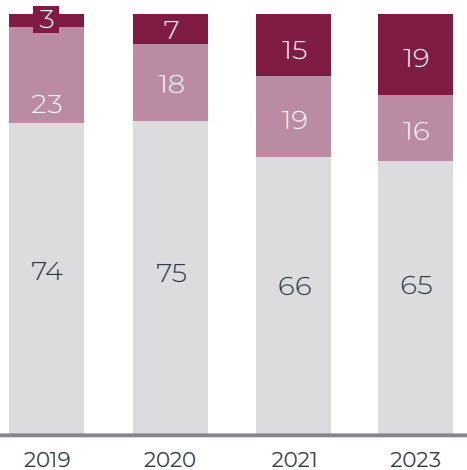


- Take it back to the store
- Recycling bin
- General waste bin

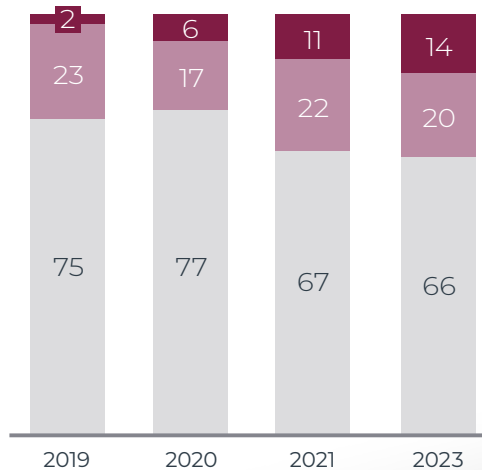
New Zealand



Soft plastic wrap



Soft plastic film



- Take it back to the store
- Recycling bin
- General waste bin

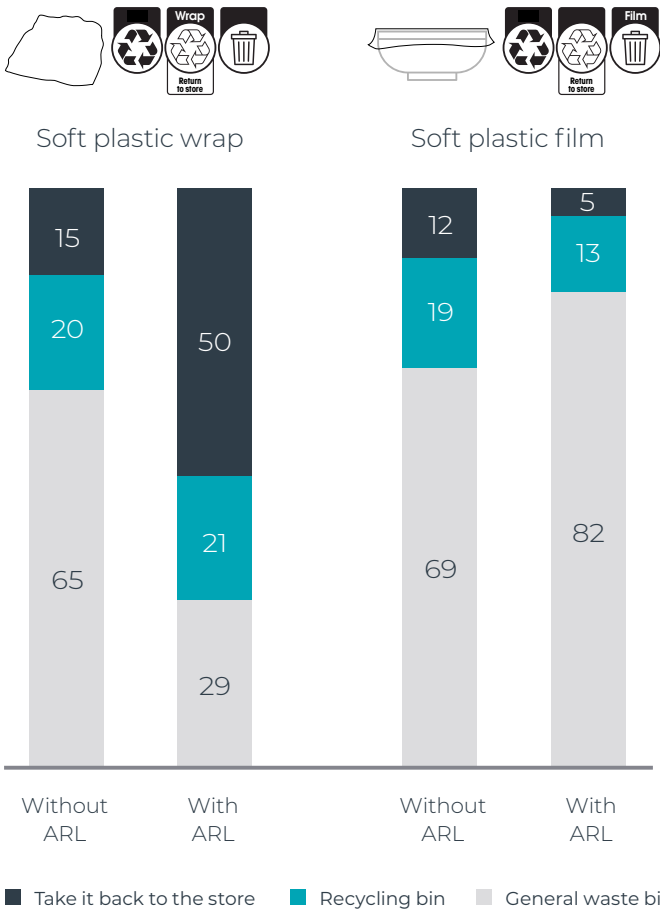
Figure 6 – Percentage (%) of consumers carrying out particular disposal actions for soft plastics in Australia and New Zealand from 2019-2023.

IMPACT 1:

When questioned about their current disposal of soft plastic packaging in general, approximately three-quarters of Australians said they would place them in the general waste. In the absence of an established soft plastic collection scheme for Australia, this is a positive outcome to minimise contamination of the recycling stream. However, 10% of Australian consumers indicated that they would place soft plastics in the recycling bin. This highlights the importance for brand owners and large retailers to continue to communicate the most appropriate disposal method for soft plastics relevant to their consumers and location in lieu of a nationwide collection system.

Positively, the ARL still maintains immense influence over consumers' understanding of disposal methods for soft plastics. When provided with a soft plastic format without the ARL and asked how it should be disposed of, 65% of Australian respondents opted to place the packaging in the general waste bin. However, with the presence of the ARL directing consumers to drop the packaging off in store, this dropped to 29%, highlighting how the ARL increased the likelihood of consumers to take soft plastics to the store.

Australia



New Zealand

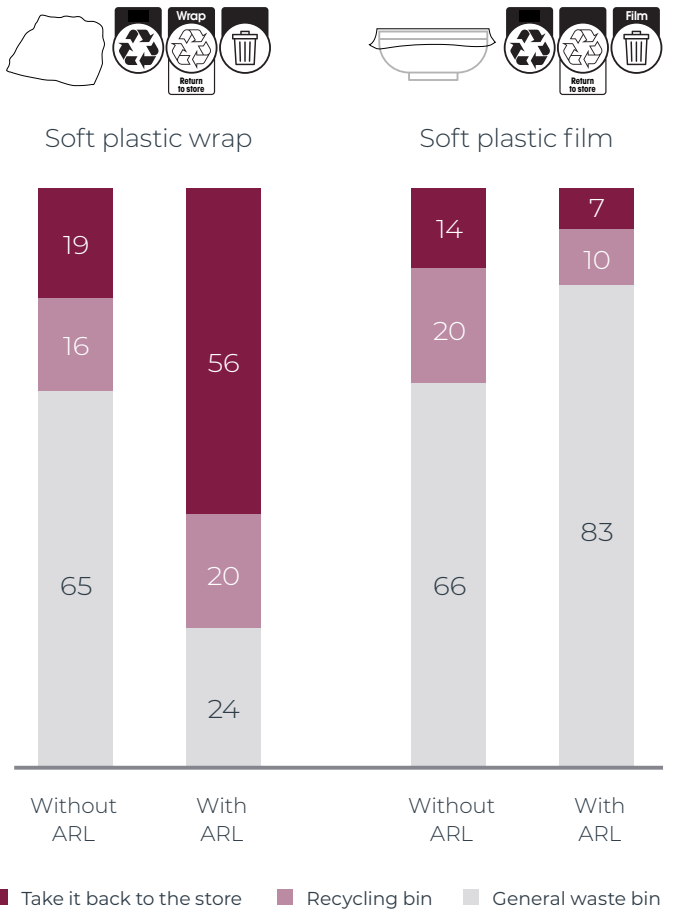


Figure 7 – A comparison of how consumers in Australia and New Zealand indicated they would dispose of two soft plastic formats, depending on whether the packaging had the ARL on-pack or not.

IMPACT 1:

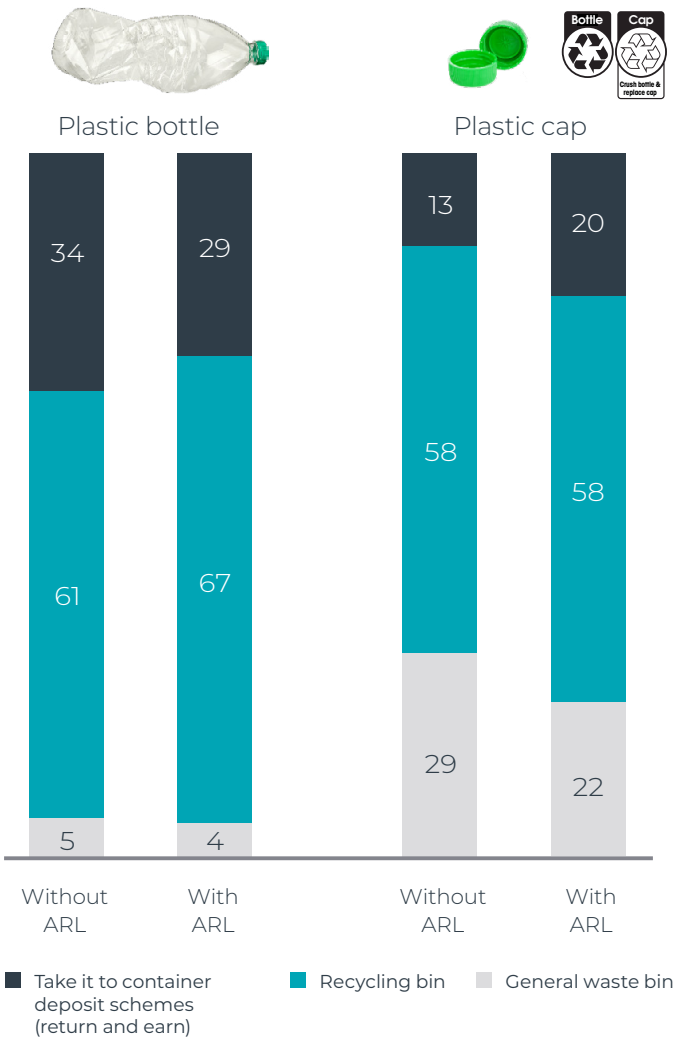
Conditionally Recyclable ARL

The biggest challenge for consumers in understanding the ARL lies in interpreting the instructions provided on the Conditionally Recyclable ARL. Some packaging formats are only recyclable under certain conditions. The purpose of the Conditionally Recyclable logo is to tell the consumer that the component is recyclable, provided the instructions on-pack are followed. These instructions are verified through the Packaging Recyclability Evaluation Portal (PREP) assessment process and are based on a list of approved consumer behaviours for the ARL Program.

Research has shown that consumers are confident recyclers when it comes to basic plastic and cardboard packaging. However, when faced with formats that consist of different materials or multiple components, the ARL instructions may confuse them. Two specific instructions were tested:

- **Crush Bottle and Replace Cap:** used for plastic bottle formats, enabling the plastic lid to be captured with the bottle. Crushing the bottle first is intended to prevent lids from coming off in the compactor truck or at a Material Recovery Facility (MRF) when subjected to pressure. Note: This instruction does not apply to formats that have Container Deposit Scheme (CDS) messaging.

Australia



New Zealand

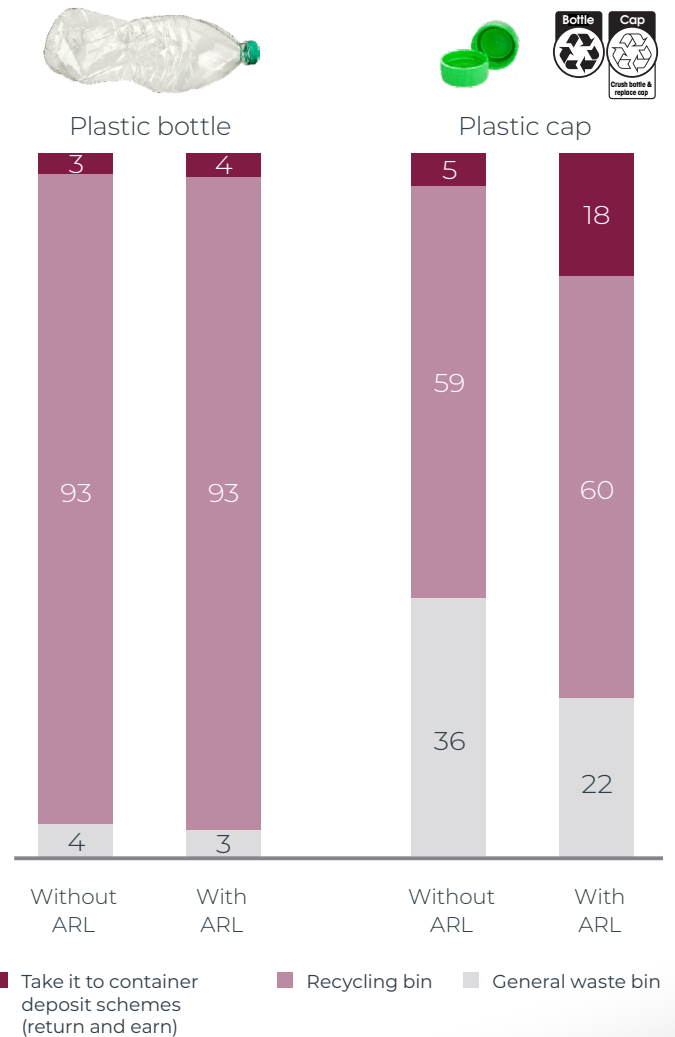


Figure 8 – A comparison of how consumers in Australia and New Zealand indicated they would dispose of a plastic bottle and plastic cap, depending on whether the packaging had the ARL on-pack or not.

IMPACT 1:

- **Scrunch into Ball:** used for aluminium foil components, enabling the foil to be processed at a MRF as a rigid rather than flat aluminium packaging item. Note: components must meet a minimum size requirement when scrunched to use this instruction.

Note: earlier this year, the Conditionally Recyclable 'Scrunch into Ball' instruction was placed Under Review for New Zealand, pending upcoming standardisation for materials collected at kerbside.

Consumer awareness of being able to recycle scrunched aluminium foil remains low in Australia. When presented with an aluminium foil lid from a yogurt tub that did not have an ARL, only 40% of respondents correctly knew how to dispose of this format, compared to 72% who indicated the correct disposal behaviour for a plastic lid. Interestingly, the figure increased by 20 percentage points when an ARL was present on-pack. Among those who still did not know how to dispose of the foil, anecdotal evidence revealed different interpretations of the provided ARL. For example, some respondents believed the tub could be recycled but not the foil, while others expressed general confusion and were unable to determine the meaning of the labelling.

Similar challenges were observed for Crush Bottle and Replace Cap instructions, with only 26% of Australians and 35% of New Zealanders identifying this method as the correct disposal method for packaging carrying this ARL.

These findings indicate that the consumers are still learning to interpret and follow the instructions of the Conditionally Recyclable ARL. Continuous testing and research will be valuable to understand how consumers interact with the various consumer behaviours under the ARL Program.

Last year's report emphasised the need for further consumer education to address knowledge gaps and increase confidence in following the label instructions. This ongoing gap highlights the importance of new initiatives to improve consumer understanding of the ARL. This becomes even more crucial with the introduction of APCO's new Check Locally logo, which aims to provide time and placed-based recycling information for difficult to recycle formats, while also accommodating new collection systems for soft plastics.

Australia

New Zealand

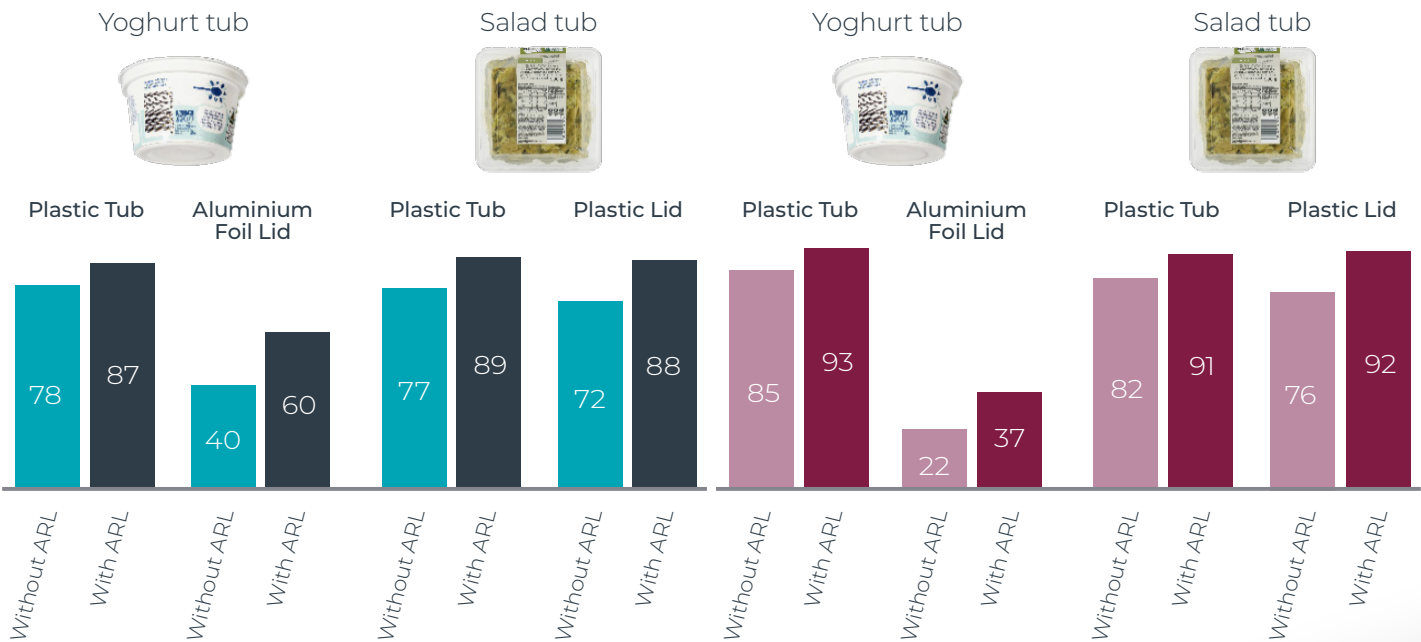


Figure 9 – Percentage (%) of consumers in Australia and New Zealand who correctly indicated a disposal method for a plastic tub with an aluminium foil lid versus a plastic tub with a plastic lid, depending on whether the packaging had the ARL on-pack or not.

IMPACT 2: Resource recovery from the waste stream is maximised

Impact 2 builds upon the insights from the consumer research relating to understanding of the ARL, by analysing the tangible impact of the ARL on kerbside waste and recycling collection. It considers the following indicators:

- 2.1 The kerbside recycling stream includes less contamination from Not Recyclable packaging**
- 2.2 The kerbside residual waste stream includes less Recyclable packaging**
- 2.3 Packaging components displaying the ARL end up in the correct disposal stream**
- 2.4 The kerbside organics stream includes less non-compostable packaging**

The recent bin audits that were conducted in October 2022 used a methodology developed with Anne Prince Consulting that specifically targeted indicator 2.3, which allows some assumptions to be made regarding indicators 2.1 and 2.2. With the current limitations to compostable packaging in Australia and New Zealand, indicator 2.4 has not yet been tested, but there may be opportunity to do so in future. Therefore, it is important to note that the data collected in the ARL bin audits does not yet provide a complete picture of progress toward Impact 2. Additionally, it is important to recognise that this audit was conducted in Australia only.

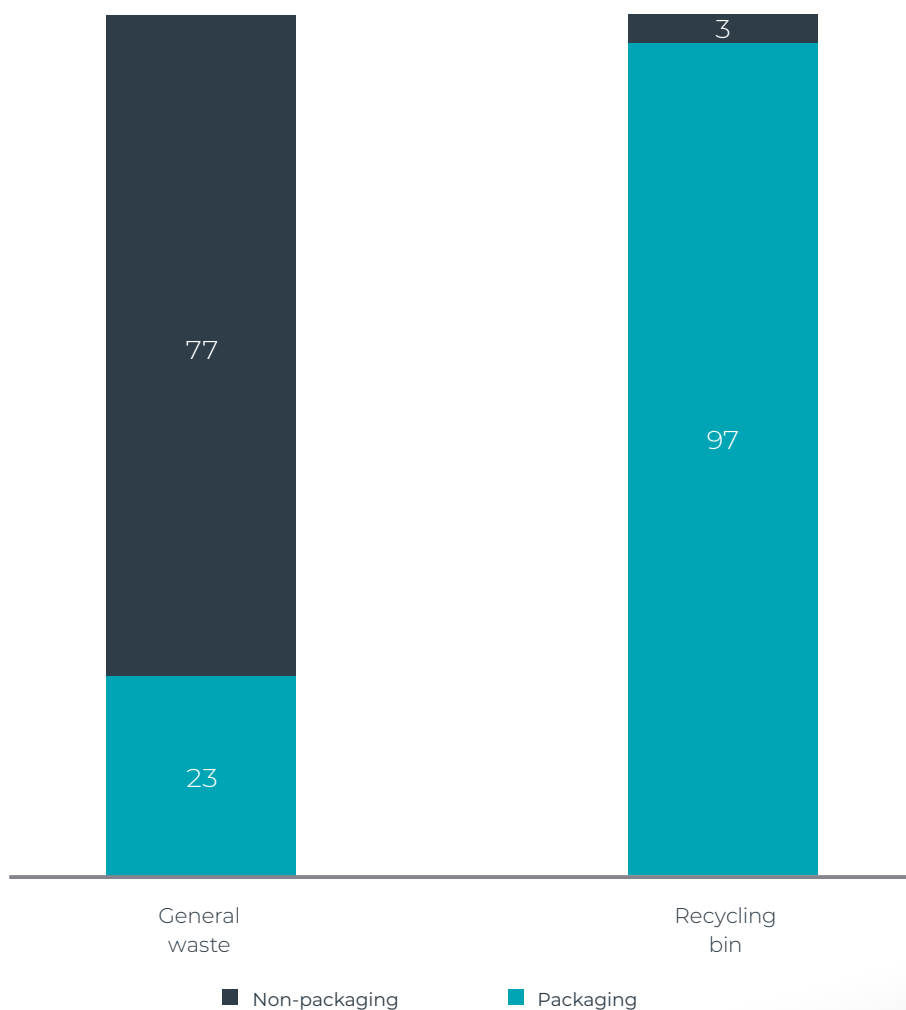


Figure 10 – Percentage (%) of material in general waste and recycling bins in Australia that is packaging.

IMPACT 2:

97% of the material in the recycling stream assessed for the audit was packaging. Of this, one third carried an ARL, predominantly shown on milk bottles and canned produce. This means that interpretation of the results specific to the above indicators is limited, however what is evident is that the ARL's impact on current resource recovery can be improved greatly by continuing to increase uptake of the ARL. This suggests that the growth indicators used for Impact 1 will continue to be crucial in measuring the ARL's overall impact on packaging disposal.

The audit assessed packaging with the ARL as conforming or non-conforming, based on whether

the disposal method and stream (general waste or recycling) matched with the direction provided by the ARL.

On average, 62% of packaging carrying an ARL was found to be conforming with the ARL's on-pack application guidance, a positive benchmark result for the first year of bin audits. There was high conformance for polypropylene (PP), at 78%, as well as non-beverage rigid aluminium at 88% and paper/cardboard at 95%. This is consistent with the consumer research data that has shown higher consumer confidence recycling basic formats both with and without an ARL.

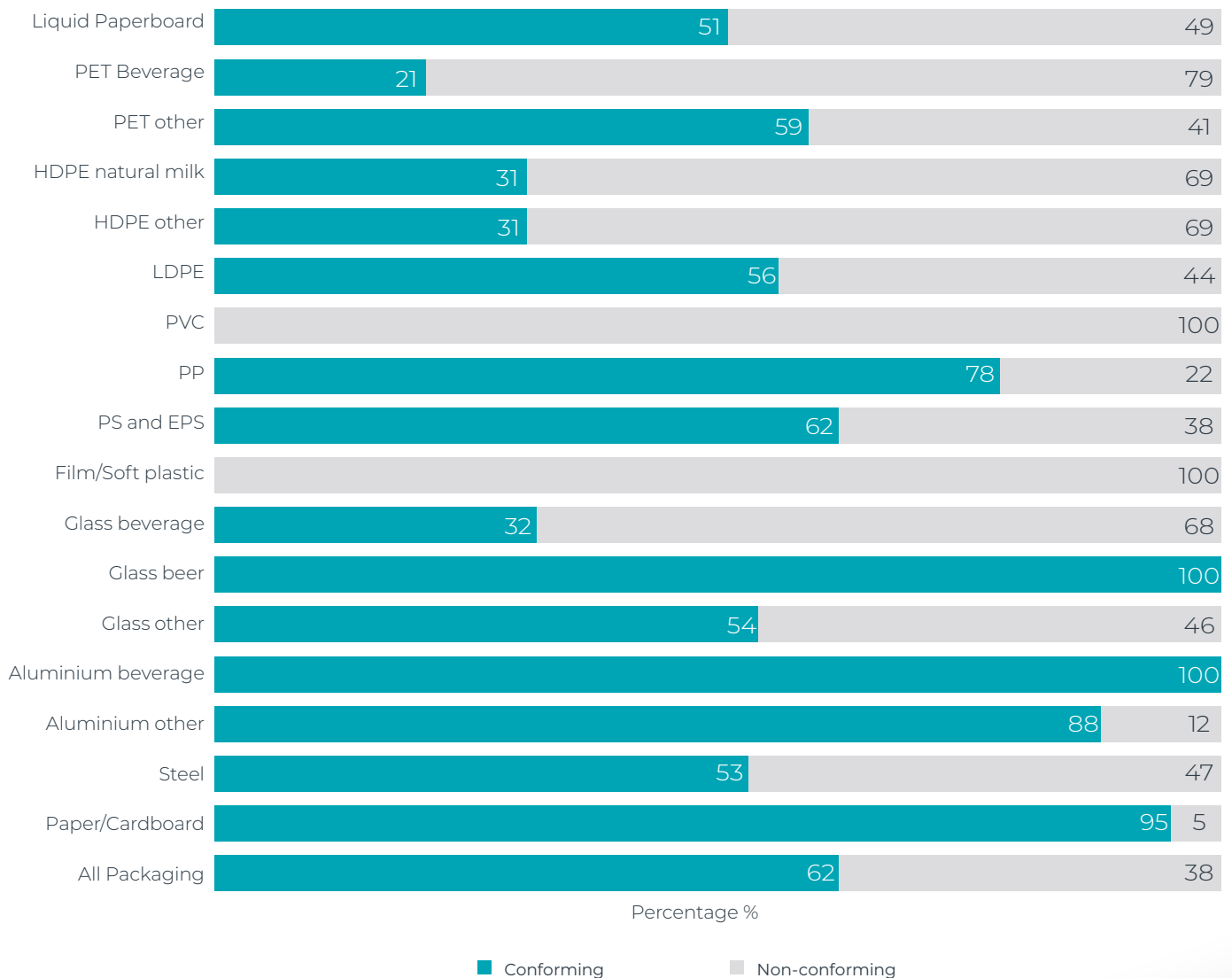


Figure 11 – Percentage (%) conformance with ARL of packaging placed in the recycling bin based on 2022 bin audit. This is for Australia only.

IMPACT 2:

Problematic materials also had high compliance with the ARL's instructions. Polystyrene containers had an 89% conformance rate of being placed in the general waste bin, as per the Not Recyclable ARL. The audit highlighted that consumers were more likely to look for the ARL when the material was composite or complicated in nature. This is consistent with the findings in the consumer research, which shows that consumers overwhelmingly prefer to get their recycling information on-pack rather than seek out council guidance.

The councils included in the bin audit reported mixed acceptance for liquid paper board (LPB), or aseptic cartons. Of the seven councils that were included in the bin audit, two reported that they did not accept this material. The applicable ARL for aseptic cartons made of LPB is Conditionally Recyclable with 'Check Locally' messaging, requiring consumers to check their council's guidance. Only half of this material was conforming, meaning that many consumers were not checking their local council acceptance and instead 'wish-cycling' their aseptic cartons.* It will be important going forward for APCO and councils to continue education around this format.

APCO's new design for the Check Locally logo features a geotag symbol, an optional QR code and an interactive website in partnership with Recycle Mate to provide easier access to options for disposal or recycling, with the expectation that a design moving away from the Mobius Loop found in the Conditionally Recyclable ARL will encourage consumers to think before wish-cycling.

Consumer testing of the new Check Locally logo found that consumers were less likely to interpret the geotag on the Check Locally logo as an instruction to potentially incorrectly place packaging in the kerbside recycling bin. Instead, testing indicated that when unsure of how to interpret the Check Locally logo, consumers were more likely to conservatively place this packaging in the general rubbish, preventing unintended contamination of recycling streams. This is encouraging for the ARL Program and supports the removal of the clear Mobius Loop for away from home disposal.

Where conformance with ARL instructions was found to be low, the bin audit results revealed a need for APCO to refine the methodology for future audits to better define the criteria of conforming and non-conforming. Reasons for non-conformance often came down to one or more of the following:

1. **The confines of the methodology meant that some formats were skewed towards being non-conforming despite the material being fully recovered.**
2. **The instructions on the ARL were not fully followed by consumers.**

*Wish-cycling refers to the practice of placing items in the recycling bin with the hope or assumption that they are recyclable, even if there is no certainty or confirmation from the recycling program or local authorities. This behaviour is driven by good intentions to recycle more but often leads to the contamination of recycling streams and can hinder the efficiency of the recycling process. Wish-cycling can result in non-recyclable items being mixed with recyclable materials, making it more challenging and costly for recycling facilities to sort and process the waste effectively.

IMPACT 2:

59% of HDPE milk bottles recovered from the recycling stream carried an ARL. The typical array for this format is Bottle 'Recyclable' and Cap 'Leave Attached' or 'Crush Bottle and Replace Cap.' Despite the bottles ending up in the correct stream, the conformance measure of HDPE was only 31%. Observations from APCO staff present during the audit process found that this could have been due to bottles regaining their shape after being crushed, alternatively, consumers had not followed the instructions and the cap was not attached. Conformance was only satisfied when the instructions had been fully met, i.e., both crushed bottle and attached cap were present.

Likewise, steel cans had similar rates of recovered material to HDPE but achieved 53% conformance. A distinctive quality of the ARL is that components are labelled separately, meaning that the Lid and Can are represented by separate ARL logos. Under the audit methodology, the Lid and Can were required to be disposed of separately to achieve conformance. It is recognised that this is a gap to be addressed, given that disposal of the lid attached to the can does not inhibit recovery of the material.

Hence, there is opportunity to refine the methodology for future bin audits to clarify the exact parameters of recyclability for certain formats to achieve the most accurate data and prioritise recovery of the material. These opportunities for improvement have been summarised below:

- 1.** Just under one quarter of the material collected in the general waste stream was packaging. With organisations continuing to work towards the 2025 Targets and transition their packaging to be fully recoverable at end-of-life, this represents a significant portion of material that could be diverted from landfill and instead directed to a recovery stream.
- 2.** APCO should clarify whether separable components by their definition in PREP are required to be disposed of separately by consumers in order to be recycled correctly. This impacted the measured conformance in the bin audits for packaging formats with lids including, but not limited to, steel cans, wine bottles, plastic containers and milk bottles.
- 3.** APCO should investigate the use for 'Crush Bottle and Replace Cap' messaging. As was evident through the consumer research, this messaging has low understanding by consumers. The bin audits revealed that consumers were unlikely to carry out the behaviour, or it was impacted by the format returning to its original shape after crushing.
- 4.** Brand owners should continue to work towards redesign for fully recoverable packaging. Making design changes that result in fully recyclable packaging will remove the reliance on consumers taking further action to ensure maximum resource recovery.

IMPACT 3:

The ARL Program supports continual improvement of packaging design to increase recyclability and meet the 2025 Targets.

Impact 3 focuses on continual improvement of packaging that results in increased recyclability and achievement of the 2025 Targets. This is tracked using the following indicators:

3.1 APCO Members change their packaging design based on the ARL Program

3.2 Overall recyclability of products displaying the ARL increases

According to the ARL Reporting data for 2022, it is evident that ARL Program Members have remained motivated and dedicated to reaching the 2025 Targets. In the same year, participating organisations in Australia and New Zealand reported that they had made packaging design changes for over a combined 60,000 of their products based on the guidance provided by the ARL Program.

This positive outcome can be largely attributed to the regular use of PREP, which offers valuable feedback on why certain components did not achieve a recyclable outcome. Member feedback indicates that this tool is particularly beneficial during the packaging design phase, as it helps prevent potential challenges to recyclability once the products are manufactured. It plays a crucial role in enhancing organisations' and manufacturers' understanding of the differences in recyclability across various markets. Working across markets with varying capacities for recyclability can be challenging at times, but this experience helps organisations navigate and adapt to different recycling capabilities, ultimately contributing to the overall success of the ARL Program and the achievement of recycling targets.

The changing nature of recycling in Australia and New Zealand also has a significant impact on performance in relation to these indicators. To keep up with evolving technologies, testing, and new facilities, APCO needs to regularly review the thresholds established for the ARL Program and reflected in PREP. Any reviews and potential changes go through a formal [ARL governance process](#) and are approved by an Internal Review Committee (IRC). Updates to thresholds announced since the last reporting period have an influence on the number of design changes that were made and reported on by organisations.

To support accurate application of the ARL for the NZ market, APCO is continuing to work with NZFGC on implementing the appropriate governance structures to support ARL Program Members operating in the region.

When examining other indicators, the reporting data for 2022 demonstrates the positive influence of the ARL Program on the overall recyclability of packaging. In 2022, Australian organisations participating in the ARL Program reported that 68% of their individual packaging components (rather than the packaging item as a whole) in the market were labelled as recyclable. This represents a 20% increase compared to the reporting data from 2021. It is worth noting the fluctuation of these numbers in recent years, as depicted in the graph below.

IMPACT 3:

Australia

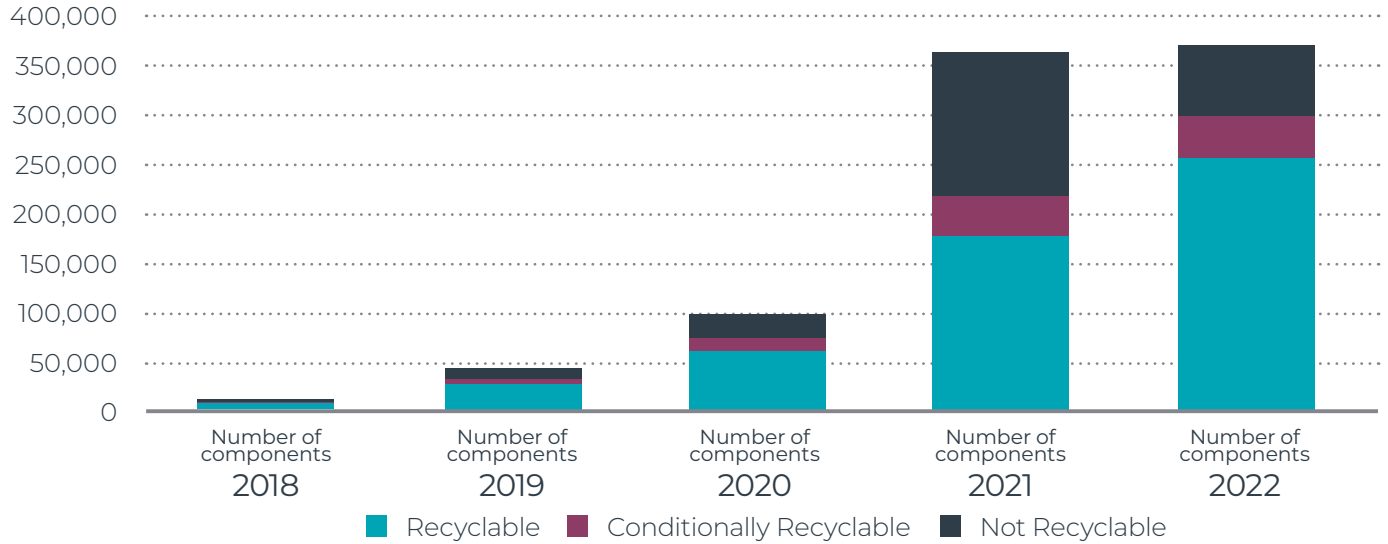


Figure 12 – Number of packaging components labelled with the ARL in Australia from 2018 to 2022, broken down into Recyclable, Conditionally Recyclable and Not Recyclable.

New Zealand

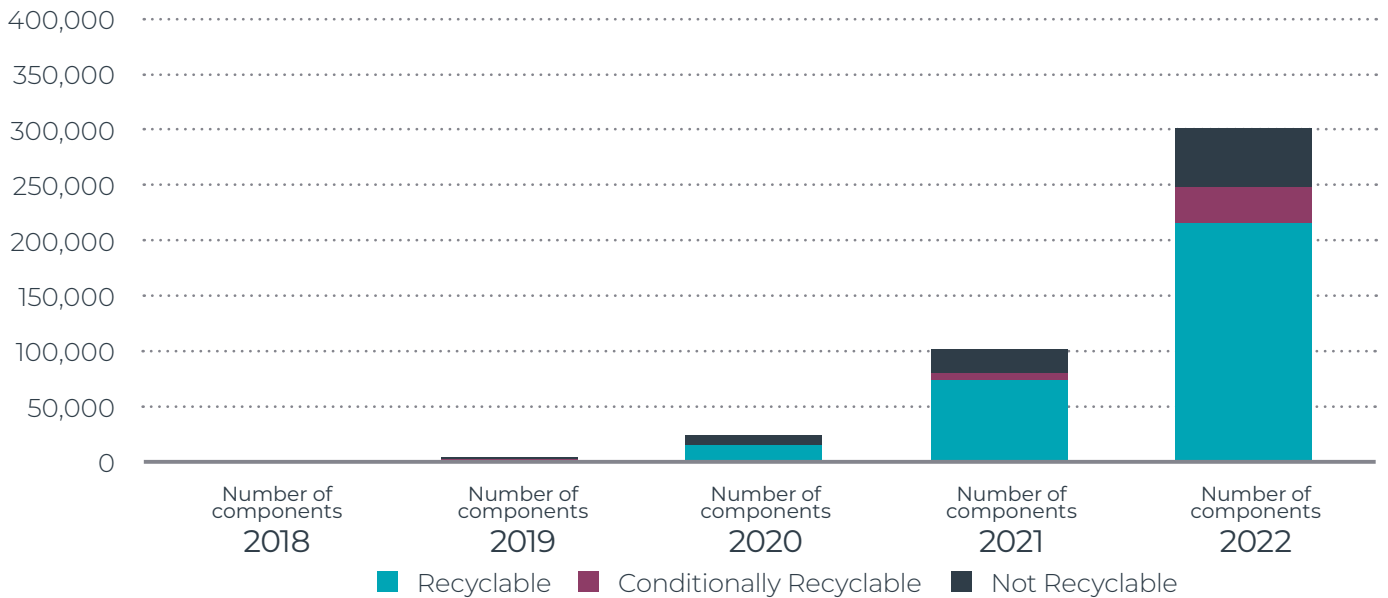


Figure 13 – Number of packaging components labelled with the ARL in New Zealand from 2018 to 2022, broken down into Recyclable, Conditionally Recyclable and Not Recyclable.

IMPACT 3:

The 2022 ARL Impact Framework Report highlighted that the substantial growth in ARL Program participation might have contributed to higher numbers of reported packaging as not recyclable. This could be because organisations aimed to provide disposal information to consumers even in cases where alternative packaging options had not yet been explored. It is possible that throughout the following year, many of these new Program participants were able to transition to recyclable packaging, resulting in the observed 20% increase. This data aligns with the report stating that nearly 60,000 products had undergone design changes in the last year.

APCO is actively exploring ways to streamline Member reporting, such as through partnerships with GS1. This integration will allow for more accurate and up-to-date ARL data, enhancing confidence in these numbers in the future.

Education plays a crucial role in APCO's administration of the ARL Program. In 2022, 150 organisations in Australia and 46 in New Zealand reported making changes based on the knowledge they gained through participating in the ARL Program. This number is encouraging, as it indicates that organisations find the support and education provided by APCO to be valuable, particularly at the packaging design or procurement stage.

It is encouraging to see the positive impact of this support reflected in ARL Reporting by participating organisations. These organisations are working diligently to increase the overall recyclability of their packaging by making fundamental design changes and fostering innovative thinking throughout the packaging value chain. As a result, they are making significant contributions to achieving the 2025 Targets and supporting APCO's vision of a circular economy.

During the past year, APCO has focused on enhancing resources for ARL education and has been actively involved in updating educational materials. Some of the valuable support provided to organisations includes:

- **Conducting presentations** for potential or new organisations to introduce them to the ARL Program and explain how PREP works.
- **Offering follow-up or regular meetings** with Member organisations that request additional or more in-depth training and support.
- **Releasing two new interactive learning courses** available to all APCO Members. These courses provide training on using PREP and understanding the ARL, including video tutorials.
- **Conducting the annual ARL Audit**, with approximately 50 organisations participating in 2022. The audit aims to ensure compliance with the ARL Program and provides an opportunity for further training, understanding, and personal support for participating organisations.
- **Publishing an updated ARL Program User Guide** in March 2023, which includes information on any changes that occurred in 2021.
- **Updating APCO Quickstart Guides** on soft plastics and fibre-based packaging.
- **Launching the ARL Marketplace**, which focuses on providing educational resources to small and medium-sized enterprises (SMEs) and potential new ARL Program participants.

CONCLUSION

APCO's significant efforts to increase educational content and support for ARL Program Members have positively influenced brand owners' design decisions and application of the ARL. The positive feedback from brand owners in their annual reporting regarding the design changes they implement because of the ARL Program is a testament to the ARL's impact and the determination that organisations have to contribute to a circular economy for packaging in Australia and New Zealand.

The bin audits delivered greater clarity on the impact of the ARL by showing how consumers interact with on-pack labels when disposing of their packaging. They also provided an avenue for APCO to physically observe on-pack labelling and identify opportunities for changes that could lead to increased compliance. Future audits will provide additional insight to the impact of the ARL when the methodology has been refined to capture resource recovery more accurately. APCO are aware of the need to ensure this methodology aligns to the goal of optimised resource recovery.

Consumers demonstrate ongoing engagement with recycling in general. They actively seek out information on packaging and are generally aware

of the ARL and its application. Consumers' recycling behaviour tends to change when an ARL is present, indicating increased confidence when provided with on-pack instructions. However, continued growth in recognition and awareness may involve exploring new avenues of exposure. Additionally, the success of the ARL Program is reliant on consumers feeling confident following the ARL's instructions, which leads to increased confidence in recycling overall. The data from consumer research and bin audits demonstrates that consumers often struggle to follow written instructions that are more complex than a simple Recyclable or Not Recyclable designation.

It is also clear that consumers are open to recycling education and want to rely on trustworthy sources of recycling information. Therefore, collaborative strategies and cohesive messaging from APCO, government, industry, and brand owners are crucial. There are many opportunities for the ARL Program to grow and continue to improve consumer behaviour, packaging design and resource recovery. By working together, these parties can ensure that education efforts have a meaningful impact and contribute to greater recovery outcomes.