Drivers and barriers affecting kerbside recycling behaviour in Victorian households in 2014

Sustainability Victoria

State Government Victoria

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1. Executive summary

1.1. Background

Sustainability Victoria aims to improve the efficiency and effectiveness of recycling in Victorian households. To do this, a strong evidence base is critical to help us best understand Victorians' behaviours and attitudes to kerbside recycling.

This report details social research (qualitative and quantitative) in this area, conducted for Sustainability Victoria from May to July 2014. It involved 16 face to face interviews, conducted both in homes and in a Melbourne office, followed by an online survey of 456 people

The findings from this research, together with other data (including bin audits) and initiatives, can be used to inform future educational programs and campaigns aimed at improving household recycling behaviours for kerbside recycling and organics. More specifically, it can help to ensure activities directly target the behaviours and attitudes of the intended audience.

The research was undertaken by Colmar Brunton.

1.2. Objectives

The objectives of this research were to:

1. Identify and establish a baseline of community attitudes regarding the need for and importance of an integrated waste and resource recovery system.

2. To determine (in relation to recycling collections) baseline figures for attitudes and the key behaviours and identify key drivers and barriers and the target audience that addresses contamination of recycling collections and low resource recovery rates for priority materials. The key behaviours to investigate within this objective include:
   - hard plastics not being recycled;
   - aluminium items not being recycled;
   - containers with food;
   - recyclables from the bathroom and laundry; and
   - keeping recyclables out of plastic bags.

3. To determine (in relation to organic i.e. garden and food waste collections) baseline figures for attitudes and key behaviours and identify key drivers and barriers and the target audience that address contamination of organic collections and participation in food waste collection. The key behaviours to investigate within this objective are:
   - Inclusion of food waste (hypothetical behaviour);
   - Keep organics out of plastic bags; and
   - Keep inorganic backyard detritus (plastic bags, beer bottles, toys, gardening debris etc.) out of the organics bin.

4. To test the community's understanding of the language currently used for waste education (particularly garden/food organics) and identify more appropriate alternatives where required.

1.3. Key findings

1.3.1. Attitudes towards recycling and waste management

Importance of recycling and support for waste management systems:

- The majority of Victorians agree that recycling is either very (53%) or fairly (42%) important.
- Acceptance of the need for recycling relates to care for the environment which extends to maintaining the environment for future generations and setting a good example for one's children.
- Accordingly, the majority (90%) of Victorians support the need for a waste management system, including landfills and recycling plants, in areas where they are needed.
- For most, in home systems support recycling and make it just as easy to recycle as to put items in the rubbish bin (80%) and are supported by all household members (88%).
- Responsibility for recycling is generally shared among household members. Fifty percent of Victorian adults feel it is evenly shared, while 48% feel they are mostly responsible. Only 2% indicated others in their household are mostly responsible.
- However, some find it difficult to articulate why they recycle, beyond that it is a habit.

1.3.2. Recycling Behaviours

General recycling behaviours:

- Most Victorians are willing to make an effort to recycle, but it is still important to make it as easy for people to recycle as it is to put something in the garbage bin.
- Six in 10 Victorians (59%) believe they recycle almost every item that can be recycled (over 90% of items in their household) while about one third (35%) recycle more than 70% but less than 90%.
- The main motivation is doing the right thing by the environment and clear identification on packaging. The main barrier is being unsure of what can and cannot be recycled.

Recycling of hard plastic items:

- The majority of Victorians (76%) do not always recycle all of the hard plastic items we asked about (shampoo and conditioner bottles, washing detergent bottles, plastic cleaning bottles, yoghurt containers, plastic takeaway containers, plastic punnets and plastic biscuit trays).
- Those who always recycle all of these hard plastic items are more likely to indicate that knowing *very or fairly well what items go in the recycling bin* makes it easier to recycle household items. Whereas, those who do not always recycle all of these hard plastic items are more likely to indicate that *the bins inside the house being too small* makes it more difficult for them to recycle household items.

Recycling of aluminium items:

- One in seven (14%) Victorians recycle all aluminium items asked about (cans (e.g. soft drink cans, tinned food), aerosol cans from kitchen or bathroom, baking trays and foil); the

remaining (86%) do not always do so. Those who do not recycle aluminium items are more likely to do so if they know items do not have to be washed or rinsed before.

- Those who always recycle all of these aluminium items are more likely to indicate that *recycling is very or fairly important to them personally.* Whereas, those who do not always recycle all of these aluminium items are more likely to indicate that *the time or effort to wash items before putting them into the recycling bin* makes it more difficult for them to recycle household items.

Emptying and recycling of containers with food:

- Just over one quarter (28%) of Victorians recycle all food containers asked about (pizza boxes, cardboard takeaway containers, yogurt containers, plastic margarine containers and plastic takeaway containers).
- Those who always recycle all of these containers with food are more likely to indicate that *all members in my household support recycling* makes it easier to recycle household items. Whereas, those who do not always recycle all of these containers with food are more likely, to indicate that a *lack of visual reminders (e.g. signs about recycling) in my house* makes it harder to recycle.
- Target communication, recycling programs or initiatives at younger Victorians (18-24 years) across Victoria to encourage more to always recycle food containers.

Recycling items from the bathroom and laundry:

- Just over a quarter (27%) of Victorians always recycle all recyclable items from these rooms that we asked about (toilet paper rolls, laundry powder boxes, plastic shampoo and conditioner bottles, washing detergent bottles, plastic bottles for cleaning and aerosol cans from the bathroom).
- Those who always recycle all of these items from the bathroom and laundry are more likely to indicate that *they understand very or fairly well what can go in the recycling bin* makes it easier to recycle household items. Whereas, those who do not always recycle all of these items from the bathroom and laundry are more likely to indicate that *the bins inside the house being too small and lack of recycle bin/s in some rooms of their house makes it difficult to recycle from these rooms* makes it more difficult for them to recycle household items.
- Those aged 18-34 years and those in Melbourne are less likely to be always recycling from the bathroom and laundry, which suggests further encouragement is needed.

Keeping recyclables out of plastic bags:

- A majority of Victorians (87%) are correctly putting items loose into the recycling bin.
- Those who always place recycling in the recycling bin loose are more likely to agree that *clear identification on packaging on what can be recycled* and *doing the right thing to preserve resources for future generations.* Those who do not always place recycling in the recycling bin loose are more likely to indicate that *the time it takes to recycle* makes it more difficult for them to recycle.
- Those living in Melbourne and those aged 25-34 years are less likely to be always keeping recyclables about of plastic bags. Furthermore, those in apartments or units are more likely to be using plastic bags. Target communication to those in apartments and units that placing recyclables in plastic bags is not an acceptable behaviour.

1.3.3. Organic (garden and food) recycling

Consideration of a food waste recycling system:

- Half of respondents (52%) are likely to consider a food waste recycling system such as a compost, worm farm or other system in their household, although a quarter (26%) are unlikely to do so. Younger Victorians are less likely to consider a food waste recycling system suggesting that older Victorians would be more likely to adopt.

Inclusion of food waste in the organics bin:

- Among those with access to an organics bin 60% are likely to consider putting food waste in their organics bin if this was available to them. Females are more likely than males to be very likely to consider putting food waste in an organics bin if this was available to them.
- Those who are likely to consider including food waste in the organics bin in the future are more likely to indicate that *being able to wrap food waste in paper rather than placing loose in the green bin* makes it easier to recycle food waste. Whereas, those who are unlikely to consider including food waste in the organics bin in the future more likely to indicate that they *don't see the point of recycling food waste.*

Keep organics out of plastic bags:

- The majority of Victorians who have access to an organics bin are always putting in items loosely. A total of 9 in 10 Victorians are correctly keeping items out of plastic bags in the organics bin.
- Those who do not put plastic bags in the organics bin are more likely to indicate that *they understand what items go in the organics bin for garden waste fairly or very well* makes it easier to keep inorganic backyard items out of the organics bin. Whereas, those who do put plastic bags in the organics bin are more likely to indicate that *when entertaining beer bottles may end up in the organics bin* makes it more difficult for them to keep inorganic backyard items out of the organics bin.

Keep inorganic backyard detritus (plastic bags, beer bottles, toys, gardening debris (e.g. garden tools, garden hose) etc.) out of the organics bin:

- Almost two thirds (64%) of people with an organics bin have indicated they have ever put any of the inorganic items we asked about into their organics bin.
- Among those who have access to an organics bin the inorganic item most likely to have placed in the organics bin is soil, with four in ten (43%) having done so and one in ten (12%) have put a plastic bag containing garden waste in their organics bin.
- Inorganic items less likely to be put in the organics bin are gardening debris (e.g. garden tools, garden hose) (8%), loose plastic bags (5%) beer bottles (4%) DIY waste (3%) and children's toys (1%).
- Those who do not put inorganic items in the organics bin are more likely to indicate that *they understand what items go in the organics bin for garden waste fairly or very well* makes it easier for them to keep inorganic backyard items out of the organics bin. Whereas, those who do put inorganic items in the organics bin are more likely to indicate that *backyard materials getting mixed up with the garden waste* and *too much effort to correctly check what goes in the bin* makes it more difficult for them to keep inorganic backyard items out of the organics bin.
- 25-34 year olds are more likely to be incorrectly using plastic bags in the organics bin whilst younger Victorians aged 18-24 year olds are least likely to be keeping inorganic items out of the organics bin. Those in metropolitan areas require further education.

1.3.4. Understanding recycling language

A number of terms cause confusion and as such are recommended to be avoided in communications about recycling without further explanation and education of the meaning. Terms currently well understood include recycling bin, compost, food waste and green/garden waste. Terms requiring further explanation and/or education include organics co-mingled, residual waste, contamination, biodegradable, hard plastic and soft plastic.

1.4. Recommendations

1.4.1. Attitudes towards recycling and waste management

Improve knowledge and understanding among those aged 18-34 years as they are less informed than other Victorians. It will be important to build awareness and understanding of what can and cannot be recycled to encourage the correct recycling behaviour. As younger Victorians are more likely to learn how to correctly recycle as part of their childhood, it will be important to educate future generations through encouragement of correct recycling in home by parents and through education and programs through schools. Having a focus on strategies to build awareness among young Victorians about correct recycling behaviours will help ensure frequency of correct recycling behaviour improves over time.

1.4.2. Recycling Behaviours

Most Victorians have a good idea of what can and cannot be recycled, there are a number of specific household items that can often be overlooked and placed in the garbage bin rather than being recycled. A number of key recommendations have been identified around the five desired recycling behaviours:

General recycling behaviours:

- Encourage households to actively evaluate the system or process they have in place for recycling in their house to ensure it just as easy to recycle an item as it does put it in the garbage bin. Encourage households to identify if there are any improvements that can be made in order to make recycling easier. For example, some may find it easier to have more than one recycling bin in different locations of the house, have larger recycling bins or dual systems (general waste bin and recycling bin side by side) to better suit their recycling needs.

Recycling of hard plastic items:

- To encourage more Victorians to recycle more hard plastics focus messaging and communication on building an understanding of what hard plastics can and cannot be recycled and encourage households to consider increasing their recycling bin size. Remind Victorians that hard plastics such as biscuit trays and punnets should always be recycled.
- Target communication and recycling programs or initiatives at younger Victorians (18-34 years) in metropolitan areas to encourage more to always recycle hard plastics.

Recycling of aluminium items:

- To encourage more Victorians to recycle more aluminium items focus messaging and communication on building the importance of recycling, whilst educating Victorians that items do not have to be clean or washed before recycling. Informing people that no additional effort is necessary (with the exception of being free from food). This would reduce the perceived barriers for those not always recycling aluminium items. Furthermore, build awareness that aerosol cans and aluminium foil can be recycled, simultaneously encouraging people to always recycle these items.
- Communication should be targeted at younger Victorians aged 18-34 years and those living in Melbourne who are not always doing the correct behaviour.

Emptying and recycling of containers with food:

- Further encouragement is needed to recycle food containers, especially plastic takeaway containers. It will be important to remind Victorians that containers can be recycled without having to rinse or wash.
- To reduce the barriers for those not always recycling food containers it is recommended the Sustainability Victoria work with local councils to provide visual reminders in home (e.g. signs about recycling, fridge magnet, sticker on the bin, pamphlets on recycling etc.). An initiative should be aimed at providing in home materials that remind and encourage people of the correct recycling behaviour.
- Target communication and recycling initiatives at younger Victorians (18-24 years) across Victoria to encourage more to always recycle food containers. Those living in group or shared households also need further encouragement.

Recycling of items from the bathroom and laundry:

- To encourage people to always recycle items from the bathroom and laundry it will be important to build an understanding of what items from these rooms can be recycled, such as aerosol cans (e.g. deodorant).
- Furthermore to reduce barriers associated with bin sizes in home being too small and the lack of recycle bins in some rooms, encourage households to have a second recycling bin stored in the laundry or larger sized bin. In addition, focus communication on educating people that chemicals in cleaning products (e.g. bleach) do not cause any issues for recycling.
- Target communication and initiatives at younger Victorians (18-34 years) and those in Melbourne to encourage more to always recycle all items from the bathroom and laundry.

Keeping recyclables out of plastic bags:

- To motivate those who are not doing the correct behaviour, it is extremely important to educate on why keeping recyclables out of plastic bags is important and the consequences of the incorrect behaviour (i.e. that recyclables in plastic bags do not get recycled and end up in landfill). Focus messaging and communication on reducing the perceived barrier that it takes too much time to recycle. Educate on the benefits of recycling and remind people why it is important to do the behaviour and continue to educate on why plastic bags should be discouraged.
- Target communication and initiatives at younger Victorians (25-34 years) and those in Melbourne to encourage more to always recycle recyclables loose from plastic bags. Furthermore, those living in apartments or units need to be encouraged to avoid using plastic bags to carry recyclables to recycling bins. Working with councils and building management to ensure that residents are aware of the correct recycling behaviours.

1.4.3. Organic (garden and food) recycling

Inclusion of food waste (hypothetical behaviour):

- Opportunities exist to further expand the areas in Victoria where food waste is accepted in the organics bin. It will be important to educate on the benefits of recycling food waste to the household and the impact this has on the local community.
- Offering households plastic containers to store food waste inside the house would encourage people to recycle food waste. It is recommended that Sustainability Victoria work with local councils to set up an initiative that could be implemented in those areas where food waste is accepted. Furthermore it will be important to reduce the perceived barriers that recycling food waste would create a mess and being able to wrap food waste in paper would assist.
- With females more interested in including food waste in the organics bin, indicates that communication aimed at women and those responsible for food preparation in the home would be essential for the introduction of this program to other councils.

Keep organics out of plastic bags:

- To ensure plastic bags are not placed in the organics bin, it will be important for Sustainability Victoria to increase the understanding of what items can be put into the organics bin. Educate that organic / garden waste needs to be emptied out of plastic bags before going into the organics bin. Encourage backyard clean up to be placed in reusable household buckets that could be emptied directly into the organics bin, avoiding the use of plastic bags.
- Target communication and recycling programs at Victorians aged 25-34 years across Victoria to encourage more to always keep organics out of plastic bags. In addition, it will be important to target communication at couples with dependent children at home to reduce the number of people incorrectly putting plastic bags in the organics bin.

Keep inorganic backyard detritus (plastic bags, beer bottles, toys, gardening debris (e.g. garden tools, garden hose) etc.) out of the organics bin:

- Sustainability Victoria needs to increase the understanding of the consequences of putting foreign items (such as plastic bags, pot plants and gardening debris) into the organics bin. Educate Victorians on what can and cannot be placed into the organics bin. Remind people it is important to check for inorganic items in garden waste to avoid any foreign materials getting mixed up in backyard waste.
- Target communication and recycling programs or initiatives at men, those aged 18-34 years and those living in Melbourne to encourage more to keep inorganic items out of the organics bin.

1.4.4. Understanding recycling language

It is recommended that Sustainability Victoria avoid terms in communication such as organics, co-mingled, residual waste, contamination, biodegradable, hard plastic and soft plastic.

It is strongly advised that organics is not used within any communication as this term was frequently misunderstood. Food waste, green waste or garden waste are terms that would be more widely recognised and correctly understood. It is recommended that Sustainability Victoria do not use the term “organics” in communications targeted to the public without a clear definition accompanying the use of the word. An explanation such as “plant or animal waste that was once living, for example food or garden waste” would be more effective.

Education is required to help people understand the hard plastic concept. The term hard plastics does require some explanation as there is confusion that it does not include all types of hard plastics.

2. Methodology

2.1. Stage 2: Qualitative Fieldwork

In order to investigate recycling behaviour and language, we conducted 16 face to face in-depth interviews with the general public (two hours each).

Half of the interviews were conducted in homes while the others were conducted in a Melbourne office.

Fieldwork took place between Thursday 29 May and Monday 9 June 2014.

In the in-depth interviews we spoke to a range of individuals, with varying backgrounds, including males and females aged 18 years and older, located in metropolitan Melbourne, have a mix of Melbourne Councils - ensure minimum of two interviews with access to organics bin that includes food waste (Nullumbik & Hume Councils).

Individuals we spoke to have a mix of household types (shared household, household with kids, household no kids, people living alone), varying household sizes (small (1-2 people) / medium (3-4people) / large (5+ people)) and property types.

All have access to a recycling bin, are mostly responsible or have shared responsibility for recycling and some individuals recycle every item, others recycle a lot of items, whilst others recycle some items that can be recycled.

Table 1: Qualitative interviews sample structure

Interview location	Living with…	Age	Council	Who is responsible for recycling…	How much is recycled from your house…	Household size
In office	Living alone	18-29	Hobsons Bay	Me	All	Small
In home	Shared living	18-29	Yarra	Even	Every item	Large
In office	With children	30-39	Bayside	Even	Every item	Large
In home	With children	30-39	Port Phillip	Even	A lot	Small
In office	With children	40-49	Moonee Valley	Even	A lot	Medium
In home	With children	40-49	Nillumbik	Me	Every item	Medium
In office	No children	40-49	Moreland	Me	Every item	Small
In home	No children	40-49	Whitehorse	Even	A lot	Small
In office	Shared living	40-49	Port Phillip	Others	A lot	Medium
In office	Children	50-59	Glen Eira	Me	A lot	Medium
In home	With children	50-59	Banyule	Me	A lot	Large
In home	With children	50-59	Hume	Me	A lot	Medium
In office	No children	60+	Whitehorse	Even	A lot	Small
In home	No children	60+	Nillumbik	Me	Every item	Small
In home	Living alone	60+	Kingston	Me	Every item	Small

The qualitative discussion guide can be seen in Appendix C.

2.2. Stage 2: Quantitative Fieldwork

In order to understand attitudes and behaviours towards recycling 456 x 15 minute online surveys with the Victorian population were administered. Quantitative fieldwork was conducted between Tuesday 1 July and Monday 7 July 2014.

Individuals who completed the online survey are over the age of 18, living in Victoria (metropolitan/regional) and, have access to a recycling bin, an organics bin for garden waste or an organics bin for garden waste and food waste.

Table 2: Sample demographics

	Target	Total Achieved
Total sample	n=402	n=456
Age		
18-24 years	n=125	n=125
25-34 years	n=145	n=145
35 + years	n=132	n=186
Gender		
Male	n=200	n=221
Female	n=200	n=235
Location		
Metropolitan Melbourne	n=200	n=228
Regional Victoria	n=200	n=228

The quantitative questionnaire can be seen in Appendix B.

2.3. Stage 3: Analysis and Reporting

After completion of the qualitative and quantitative research fieldwork, all results were analysed and incorporated into this report.

The following information provides further detail on how the data is presented throughout this report.

2.4. Interpreting This Report

2.5. Definitions

The following terms or abbreviations have been utilised throughout this report.

Table 3: Definitions

Term of abbreviation	Definition
OE	Open end response
MR	Multiple response
SR	Single response

2.6. Percentages and averages

Respondents who completed a survey but did not answer a particular question are excluded from the tabulation of results and calculation of statistics for that question.

Percentages are generally rounded to whole numbers. Some percentages may not add to 100 percent due to rounding.

Note that average ratings **cannot** be translated into percentages. For example, an average rating of 7.3 out of 10 cannot be interpreted as meaning 73% of people.

Sorting of results

In all tables, rows are sorted from most frequent response to least.

Weighting

The results of this survey have been weighted according to ABS statistics for age, gender and location (metro/regional Victoria).

For further details about weighting please see Appendix A: Technical Notes.

Tests of Statistical Significance

Tests for statistical significance have been conducted on all subgroups of interest in this survey.

An exception reporting approach has been undertaken in that if no statistical significance is mentioned, there are none associated with these groups.

Tests have been undertaken at a 95% confidence level. If there is a statistically significant difference between the result for a particular group and the result for the wider population, we can be confident

that this difference has not occurred by chance, rather that it reflects a genuine difference among that group compared to the wider population.

In tables and graphs, the figures with an upwards arrow (i.e.↑) represent a proportion that is significantly higher than the subtotal of the other subgroups. Conversely, the figures with a downwards arrow (i.e.↓) represent a proportion that is significantly lower than the subtotal of the other subgroups.

Reliability

The margin of error associated with this survey is +/-**4.59%.** This means we can be 95% confident that the true result in the population of interest lies between **45.41% and 54.59%.**

Where sample sizes are low (less than n=50), these are marked by an asterix (*) in this report. These results should be interpreted with caution. Where sample sizes are very low (less than n=30), these results are not shown in this report.

2.7. Analysis Techniques on Recycling Behaviours

2.7.1. Theory of Planned Behaviour1

We have analysed the drivers and barriers of recycling by using the Reasoned Action Model by Fishbein and Ajzen. According to this theory, human behaviour is guided by three kinds of considerations; beliefs about the likely outcomes of the behaviour and the evaluations of these outcomes (behaviour beliefs), beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs) and beliefs about the presence of factors that may facilitate or impede performance of the behaviour and the perceived power of these factors (control beliefs).

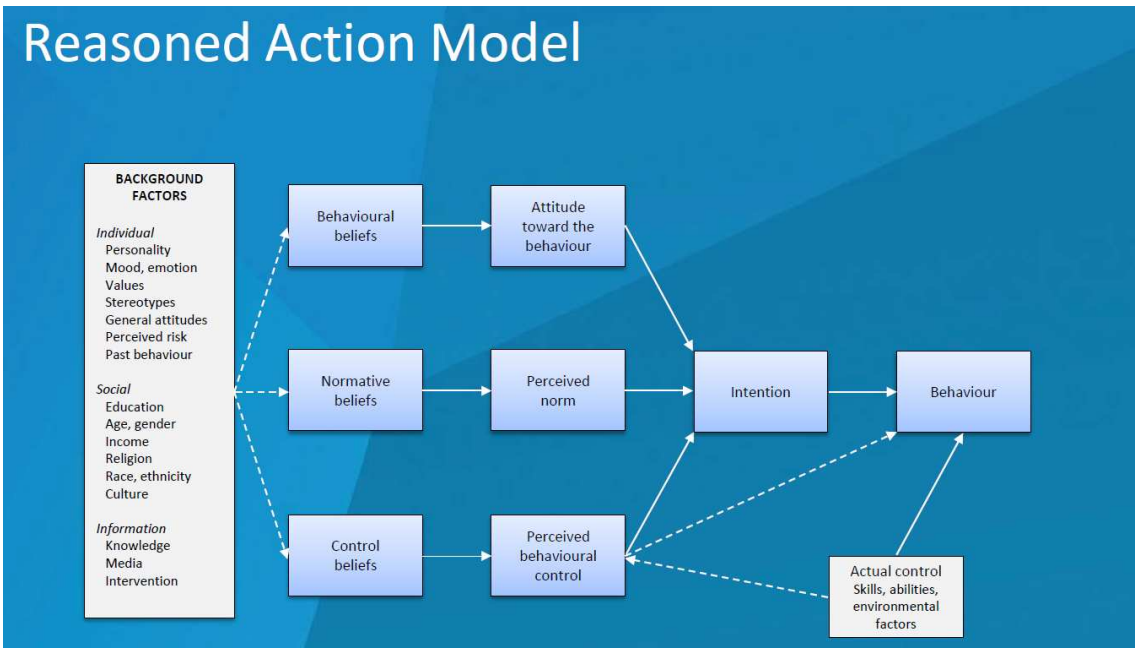
This model assumes that the more favourable the attitude and perceived norm, and the greater perceived control, the stronger should be the person's intention to perform the behaviour.

To apply this model to recycling behaviour, we firstly must understand the types of beliefs towards recycling. We have identified a number of beliefs listed below:

- **Behavioural beliefs** are attitudes towards the behaviour. For example in relation to recycling, behavioural beliefs include understanding of what can and cannot go in the recycling bin, being unsure of what can be recycled, caring about recycling, understanding why recycling is important and takes too much time to recycle.
- **Normative beliefs** are the perceived norm. For example, in relation to recycling, normative beliefs include doing the right thing for the environment, members in my household support recycling and others in my neighbourhood always recycle.
- **Control beliefs** and perceived behavioural control. For example, in relation to recycling a control belief may be a perception that bins inside the house are too small which make recycling hard, lack of a recycling process in home, recycling bin full before collection day, larger sized kerbside recycling bin, visual cues and clear identification on packaging.

[1] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

Figure 1: Reasoned Action Model



2.7.2. Advanced Analysis of the Drivers & Barriers towards recycling using Odds Ratio

In addition to understanding the proportion of people who indicated that agreed with each of the different barriers and drivers, we conducted more advanced analysis techniques to identify how important these factors are on determining recycling behaviour.

In order to identify how important each of the barriers and drivers are in influencing recycling behaviour we have conducted analysis using an Odds Ratio technique (Refer to Section 7.3 for a more detailed explanation of Odds Ratio) on the factors to identify how important these factors are in determining the correct recycling behaviour.

By comparing the performance of these barriers and drivers across those who are doing the correct behaviour (e.g. always recycle all hard plastics) and those who are doing the incorrect behaviour (e.g. not always recycling all hard plastics) enables us to determine the importance of these factors in determining the correct and incorrect behaviour.

The importance has been illustrated as a calculated performance score and indicates how many times more likely this factor determines categorisation into this group. For example, those who always recycle all hard plastics are six to seven times (score of 6.6) more likely to agree they understand very or fairly well what items can go in the recycling bin. This means that those who always recycle these items have greater knowledge about recycling.

3. Findings

3.1. Attitudes toward recycling and waste management

Research objective addressed in this section:

To identify and establish a baseline of community attitudes regarding (a) the need for and (b) importance of an integrated waste and resource recovery system.

Key Findings:

Importance of recycling and support for waste management systems:

- The majority of Victorians agree that recycling is either very (53%) or fairly (42%) important.
- Acceptance of the need for recycling relates to care for the environment which extends to maintaining the environment for future generations and setting a good example for one's children.
- Accordingly, the majority (90%) of Victorians support the need for a waste management system, including landfills and recycling plants, in areas where they are needed.
- For most, in home systems support recycling and make it just as easy to recycle as to put items in the rubbish bin (80%) and are supported by all household members (88%).
- Responsibility for recycling is generally shared among household members. Fifty percent of Victorian adults feel it is evenly shared, while 48% feel they are mostly responsible. Only 2% indicated others in their household are mostly responsible.
- However, some find it difficult to articulate why they recycle, beyond that it is a habit. This suggests that for some, recycling is automatic, low involvement behaviour. It is therefore important that the correct behaviour becomes habitual.

Knowledge of what can and cannot be recycled:

- Most Victorians believe they have at least a fair knowledge of what can go in their recycling bins. Overall, 97% feel they know at least fairly well what can go in the recycling bin and 96% feel they know at least fairly well what can go in the organics bin for garden waste. However, when probed further on specific items, not everyone is aware what can and cannot be recycled.
- Those aged 55 years and over are more likely to feel they understand very well what items can be placed in the recycling bin and organics bin for garden waste while those aged 18-34 are significantly less likely to feel they understand very well what items go in these bins.

Sources of information about recycling:

- Local councils are key sources of information about what items can and cannot be recycled, including information provided by one's local council (68%), and one's council website (32%). Local newspapers are also important (mentioned by 21%). Fewer become aware through social media sites (3%), community groups (4%) and neighbours (4%).

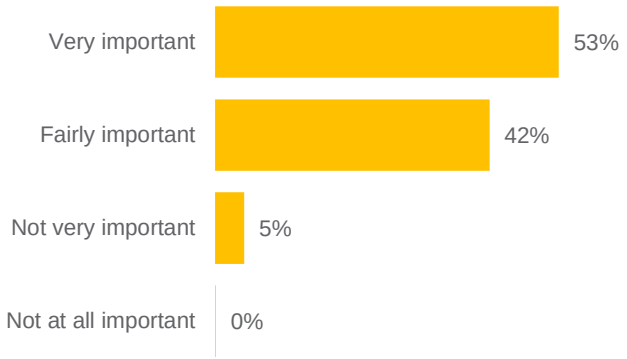
More 18-34 year olds learn about what items can and cannot be recycled from their childhood (31%), parents (44%) and friends or family (33%), whereas more people aged 55 years and over become aware of what can and cannot be recycled from information provided by the local council (81%) and local newspapers (29%).

The importance of recycling

The majority of Victorians agree that recycling is important. Approximately half (53%) of the people surveyed believe that recycling is very important to them personally, 42% believe it to be fairly important and 5% find it not very important. Very few Victorians believe that recycling is not important at all. Believing that recycling is important is a key driver for correct recycling habits which will be explored in later sections of the report.

Those who recycle everything even when it requires additional effort are significantly more likely to agree that recycling is very important (62%), whilst those who usually recycle are much more likely to agree recycling is fairly important (71%).

Figure 2: Importance of recycling



Q2 How **important** is recycling to you personally? (SR)
Base: All respondents (n=456)

Acceptance of the need for recycling relates to care for the environment which extends to maintaining the environment for future generations and setting a good example for children to do the same. In particular, those with young children are motivated to recycle as they want a healthy future for their children. Recycling is seen by these people as an opportunity to teach their children to do the right thing. Thus, the link between recycling and a healthier environment is well understood by people we spoke to in the in-depth interviews.

> *I think Australian people are very motivated to recycle and are very conscious of the environment." (Male, 65+ y.o., Whitehorse)*

> *I think it's filtered to the kids too because they see we do the right thing. For example the other day my daughter had the girl next door over and they had a packet of shapes each and she put it in the paper bin. My daughter [corrected her], took it out of that bin and put it in there… She could've got embarrassed but she said it and she moved it." (Female, 40 to 49 y.o., Nillumbik)*

> *It's good for the kids' upbringing. If you don't start them at a young age, they always slacken off." (Male, 40 to 49 y.o., Moonee Valle)*

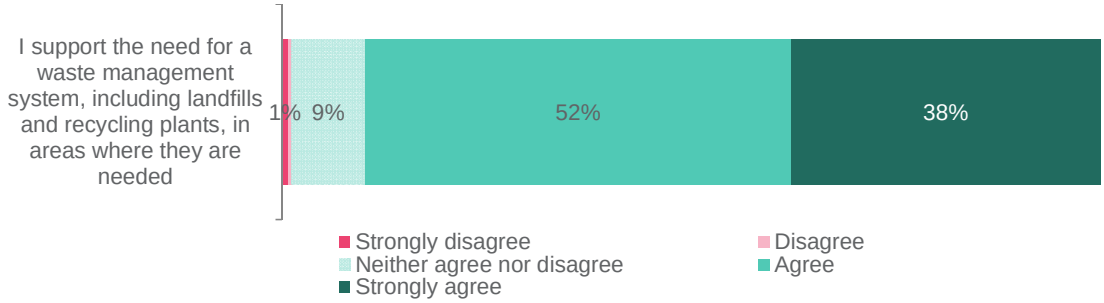
Some find it difficult to articulate why they recycle, beyond that it is a habit. This suggests that for some, recycling is automatic, low involvement behaviour. It is therefore important that the correct behaviour becomes habitual.

> *I don't recall when I didn't know [what to recycle] because we've probably had the separate bins in Glen Eira for about 20 to 25 years." (Male, 50-59 y.o., Glen Eira)*

Waste management systems

The majority (90%) of Victorians agree or strongly agree that they support the need for a waste management system, including landfills and recycling plants, in areas where they are needed. Only 1% disagrees or strongly disagrees with this sentiment, whilst 9% neither agree nor disagree. Further investigation shows that there are no significant differences based on demographics.

Figure 3: Support for a waste management system

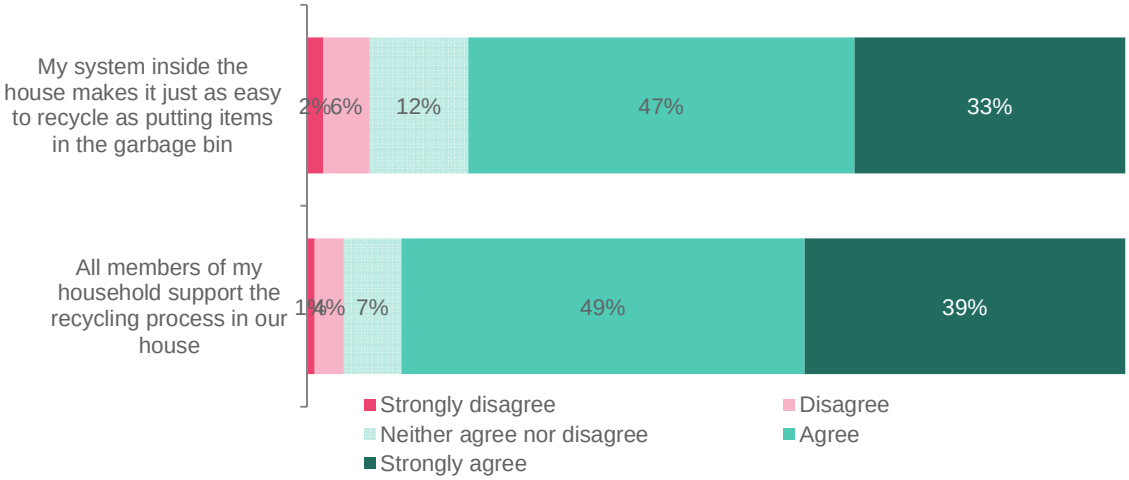


Q8 How much do you agree or disagree with each of the following statements? (SC PER ROW)
Base: All respondents (n=456)

In home recycling systems

The majority of Victorians agree they have a system in the house which supports recycling by making it just as easy to recycle as to put items in the rubbish bin and that their in home system is supported by all members of their household. Furthermore, four in five (80%) strongly agree or agree they have a system in the house which supports recycling by making it just as easy to recycle as to put items in the rubbish bin. Likewise, 88% strongly agree or agree that the recycling processes in their home are supported by all members of the household.

Figure 4: Support for recycling systems in the home



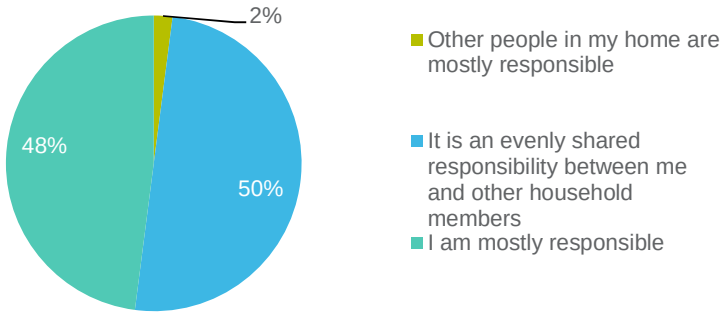
Q8 How much do you agree or disagree with each of the following statements? (SC PER ROW)
Base: All respondents (n=456)

Observed within the in home interviews (as part of the in-depth interviews), researchers found that those households which have an effective recycling system in home are characterised by the following:

- A dual or side by side recycling bin and garbage bin (makes the decision to recycle as easy as it is to put in the recycling bin);
- Having a small sized garbage bin and larger sized recycling bin;
- A closed recycling bin with lid;
- Not collecting recycling in plastic bags;
- Having more than one recycling bin, one in the kitchen and laundry;
- An outdoor kerbside recycling bin that is in close proximity to the kitchen / way out of the house (e.g. having to walk past the recycling bin to get to the garage etc.)

Responsibility for recycling is generally shared among household members. Fifty percent of Victorian adults feel it is evenly shared, while 48% feel they are mostly responsible. Only 2% indicate others in their household are mostly responsible. Younger Victorians (18-24 years) are less likely to be mainly responsible for household recycling (21%) and have shared responsibility (79%).

Figure 5: Level of responsibility

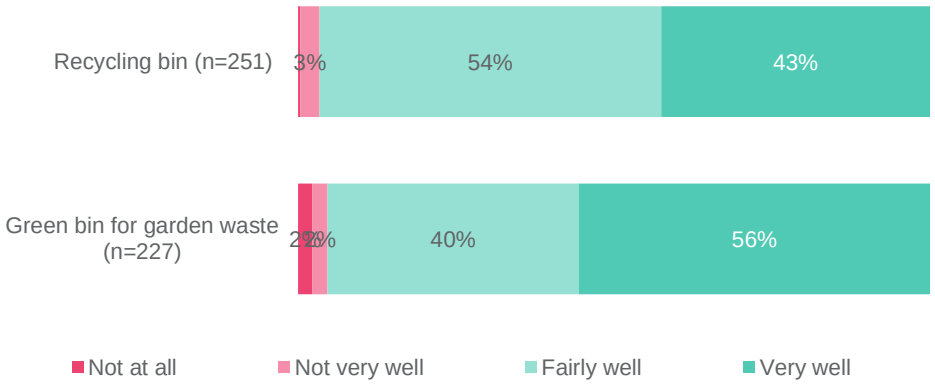


Q1 How would you describe your **level of responsibility** in managing your household's waste and recycling? (SR)
Base: All respondents (n=456)

Most Victorians believe they know what can be placed in their recycling bins. A majority of people believe that they know what items can be placed in the recycling bin very well/fairly well (97%) and know what items can be placed in the organics bin for garden waste very well/fairly well (96%). However, when probed further on specific items, not everyone is aware what can and cannot be recycled.

Those aged 55 years and over are more likely to feel they understand what items can be placed in the recycling bin (56%) and organics bin for garden waste (73%) very well. On the other hand, those aged 18-34 years are significantly less likely to feel they understand what items can be placed in the recycling bin very well (28%) or placed in the organics bin for garden waste very well (30%). Refer to Appendix D for full analysis by demographics.

Figure 6: Understanding of what items can be placed in each of the bins



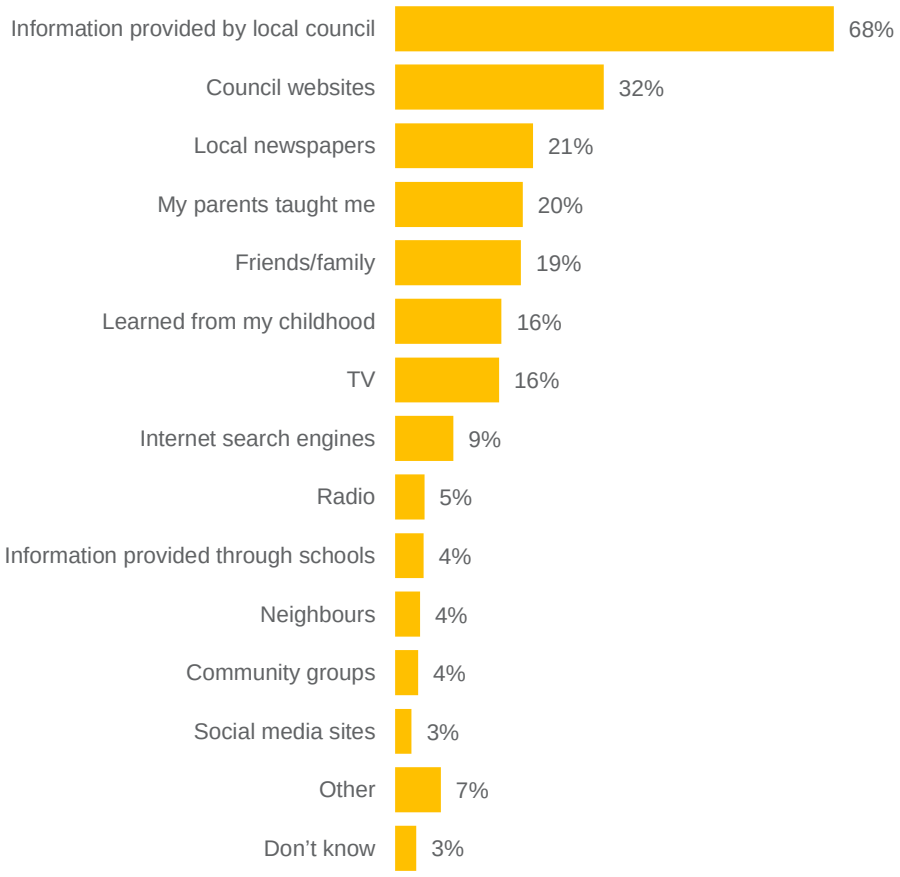
Q3 How well do you **understand what items** can be placed each of the bins in your household? (SR)
Base: All respondents with recycling bin (n=450) organics bin for garden waste (n=227)

Awareness of what items can and cannot be recycled

Information provided by the council is one of the main ways people educate themselves on what items can and cannot be recycled. The majority of people become aware of what items can and cannot be recycled through information provided by their local council (68%), through their council website (32%) and local newspapers (21%). Fewer become aware through social media sites (3%), community groups (4%) and neighbours (4%).

More 18-34 year olds learn about what items can and cannot be recycled from their childhood (31%), parents (44%) and friends or family (33%), whereas more people aged 55 years and over become aware of what can and cannot be recycled from information provided by the local council (81%) and local newspapers (29%). This means that different demographic audiences are relying on different sources of information.

Figure 7: Awareness of what items can and cannot be recycled



Q4 Which of the following best describes **how you became of aware** of what items **can** and **cannot** be recycled? (MR)
Base: All respondents (n=456)

3.2. Recycling Behaviours

Research objective addressed in this section:

To determine baseline figures for attitudes and the key behaviours and identify key drivers and barriers and the target audience that addresses: contamination of recycling collections; and low resource recovery rates for priority materials.

The key behaviours to investigate are:

- hard plastics not being recycled;
- aluminium items not being recycled;
- containers with food;
- recyclables from the bathroom and laundry; and
- keeping recyclables out of plastic bags.

Key Findings:

General recycling behaviours:

- Most Victorians (80%) nearly always recycle even if it requires additional effort while one in five (19%) usually recycle if it does not require additional effort. Thus, most people are willing to make an effort to recycle, but it is still important to make it as easy for people to recycle as it is to put something in the garbage bin.
- Six in 10 Victorians (59%) believe they recycle almost every item that can be recycled (over 90% of items in their household) while about one third (35%) recycle more than 70% but less than 90%. Further investigation highlights that claimed behaviour is different to actual behaviour.

Recycling of hard plastic items:

- Only one quarter (24%) of Victorians always recycle all of the hard plastic items asked about (shampoo and conditioner bottles, washing detergent bottles, plastic cleaning bottles, yoghurt containers, plastic takeaway containers, plastic punnets and plastic biscuit trays). This means the majority of Victorians (76%) do not always recycle all of these items.
- Those who always recycle all of these hard plastic items are six times more likely, compared to those who do not always recycle all of these items to indicate that knowing ***very or fairly well what items go in the recycling bin*** makes it easier to recycle household items. This driver is a behavioural belief that leads to more positive attitudes towards recycling.
- Those who do not always recycle all of these hard plastic items are six times more likely, compared to those who always recycle all of these items to indicate that ***the bins inside the house being too small*** makes it more difficult for them to recycle household items. This barrier is a control belief that may be associated with making recycling harder.

Recycling of aluminium items:

- One in seven (14%) Victorians recycle all aluminium items asked about (cans (e.g. soft drink cans, tinned food), aerosol cans from kitchen or bathroom, baking trays and foil); the remaining (86%) do not always do so. Those who do not recycle aluminium items are more likely to do so if they know items do not have to be washed or rinsed before.
- Those who always recycle all of these aluminium items are four times more likely, compared to those who do not always recycle all of these items to indicate that ***recycling is very or fairly***

important to them personally. This driver is an attitude towards recycling leading to more positive intentions towards recycling.

- Those who do not always recycle all of these aluminium items are almost four times more likely, compared to those who always recycle all of these items to indicate that *the time or effort to wash items before putting them into the recycling bin* makes it more difficult for them to recycle household items. This barrier is a control belief that may be associated with making recycling harder.

Emptying and recycling of containers with food:

- Just over one quarter (28%) of Victorians recycle all food containers asked about (pizza boxes, cardboard takeaway containers, yogurt containers, plastic margarine containers and plastic takeaway containers). The majority (72%) do not consistently recycle all of these items.
- Those who always recycle all of these containers with food are three times more likely, compared to those who do not always recycle all of these items to indicate that *all members in my household support recycling* makes it easier to recycle household items. This main driver is a normative belief resulting in positive perceived norms towards recycling.
- Those who do not always recycle all of these containers with food are seven times more likely, compared to those who always recycle all of these items to indicate that a *lack of visual reminders (e.g. signs about recycling) in my house* makes it more difficult for them to recycle household items. This is a control belief that increases the perceived challenges associated with recycling.

Recycling items from the bathroom and laundry:

- Just over a quarter (27%) of Victorians always recycle all recyclable items from these rooms that we asked about (toilet paper rolls, laundry powder boxes, plastic shampoo and conditioner bottles, washing detergent bottles, plastic bottles for cleaning and aerosol cans from the bathroom). Thus 73% do not always recycle these items.
- Those who always recycle all of these items from the bathroom and laundry are three to four times more likely, compared to those who do not always recycle all of these items to indicate that *they understand very or fairly well what can go in the recycling bin* makes it easier to recycle household items. This is a perceived behavioural control as a result of positive control beliefs making recycling easier.
- Those who do not always recycle all of these items from the bathroom and laundry are three times more likely, compared to those who always recycle all of these items to indicate that *the bins inside the house being too small and lack of recycle bin/s in some rooms of their house makes it difficult to recycle from these rooms* makes it more difficult for them to recycle household items. This barrier is a control belief perceived to be making recycling more difficult.

Keeping recyclables out of plastic bags:

- Behaviour varies for each of the recycling bins with most, (87%) correctly putting items loose into the recycling bin, and 88% placing items loose in an organics bin for garden waste.
- Those who always place recycling in the recycling bin loose are three times more likely, compared to those who do not always place recycling in the recycling bin loose to agree that *clear identification on packaging on what can be recycled* and *doing the right thing to preserve resources for future generations* makes it easier for them to recycle. This driver is a control and behavioural belief that leads to more positive attitudes towards recycling.
- Those who do not always place recycling in the recycling bin loose are almost seven times more likely, compared to those who always place recycling in the recycling bin loose to

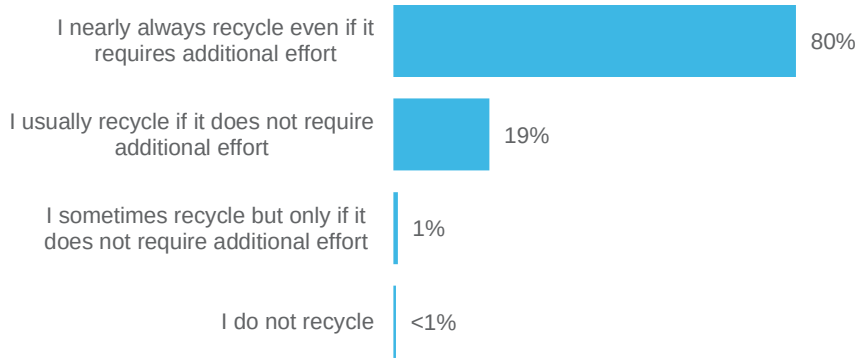
indicate that *the time it takes to recycle* makes it more difficult for them to recycle. This barrier is a control belief that may be associated with making recycling harder.

General recycling behaviours

Most Victorians (80%) nearly always recycle even if it requires additional effort while one in five (19%) usually recycle if it does not require additional effort. This means that most people are willing to make an effort to recycle correctly. However, this also highlights how important it is to make it easy for people to recycle. Those aged 55 years or older are significantly more likely (90%) and 18-34 year olds significantly less likely (69%) to nearly always recycle even if it requires additional effort.

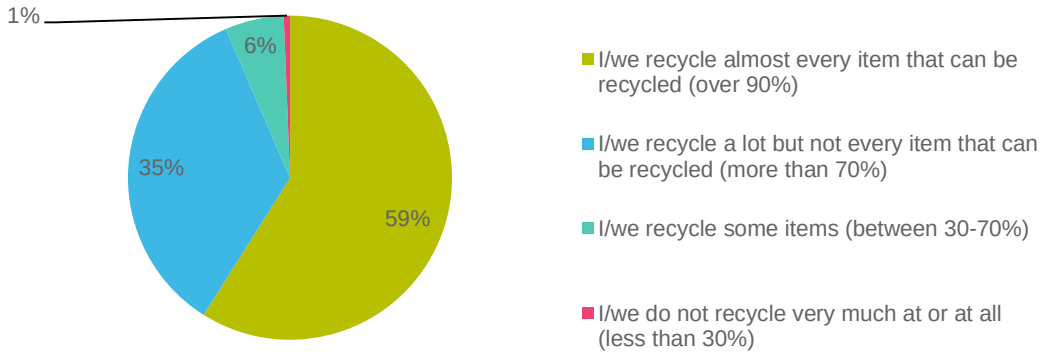
Six in 10 Victorians (59%) recycle almost every item that can be recycled (over 90% of items in their household) while about one third (35%) recycle more than 70% but less than 90%. Very few (6%) indicate they recycle less than 70% of items. Those aged 55 and over are significantly more likely to recycle almost every item (72%), whereas those aged 18-34 years old are significantly less likely than the total population to recycle every item that can be recycled (44%).

Figure 8: Overall attitude to recycling household waste



Q5 Which of the following statements best describes your **attitude to recycling** of household waste? (SR)
Base: All respondents (n=456)

Figure 9: Amount of household waste recycled



Q6 Thinking about your household overall, which of the following statements best describes **how much** of your household waste is recycled? (SR)
Base: All respondents (n=456)

Drivers of and barriers to recycling

Drivers of recycling

Doing the right thing by the environment is the most frequently mentioned driver for recycling. Half of Victorians (52%) are motivated to recycle household items to do the right thing by the environment. Almost half (47%) also mention caring about recycling and identification on packaging (also 47%).

Caring about the environment (58%), understanding why recycling is important (52%), doing the right thing by the environment (61%), doing the right thing to preserve resources for future generations (47%), having more information about what can and cannot be recycled (42%), being aware of the impact of putting something in recycling that cannot go in there (35%) and having a good recycling system (55%) are reasons more likely to motivate those aged 55 years and over to recycle. Conversely having more information about what can and cannot be recycled (20%), clear identification on packaging on what can be recycled (35%) and having a good recycling system (27%) is less likely to motivate 18-34 year old to recycle household items. Refer to Appendix D for full analysis by demographics.

Seven out of 10 (72%) Victorian adults indicate the main thing that makes recycling easier for them is either:

- a desire to do the right thing by the environment (15%);
- clear identification on packaging of items that can be recycled (12%);
- having a good recycling system or process in one's house (11%);
- having always recycled or it being something learned from childhood (8%);
- a desire to do the right thing or to preserve resources for future generations (7%);
- understanding why recycling is important (6%);
- having more information about what can and cannot be recycled (6%); or
- having the rubbish and recycling bins side by side in the house (6%).

> *I would rather have them [plastic bottles] be used again for something rather than just become landfill. The less landfill we create the better for everyone." (Female, 40-49 y.o., Moreland)*

> *I think everybody should do it because if everybody does it they won't be pulling down so many trees. The environment would be so much better if they're recycling stuff, reusing stuff. It's not whatever they have to do to make plastic. It just helps the world a bit better." (Female, 40-49 y.o., Port Phillip)*

> *Most things are labelled with where they should go or should not go, in the recycling bin or not." (Male, 40-49 y.o., Moonee Ponds)*

Note in total, **environmental concerns** (including doing the right thing by the environment and preserving resources for future generations) are the main thing making recycling easier for one in five (22%) Victorian adults. **In home recycling systems** (including having a good system or rubbish and recycling bins side by side in the house) is the main thing making recycling easier for 17% and **information about recycling** (either on packaging or elsewhere) is the main thing making recycling easier for 18%.

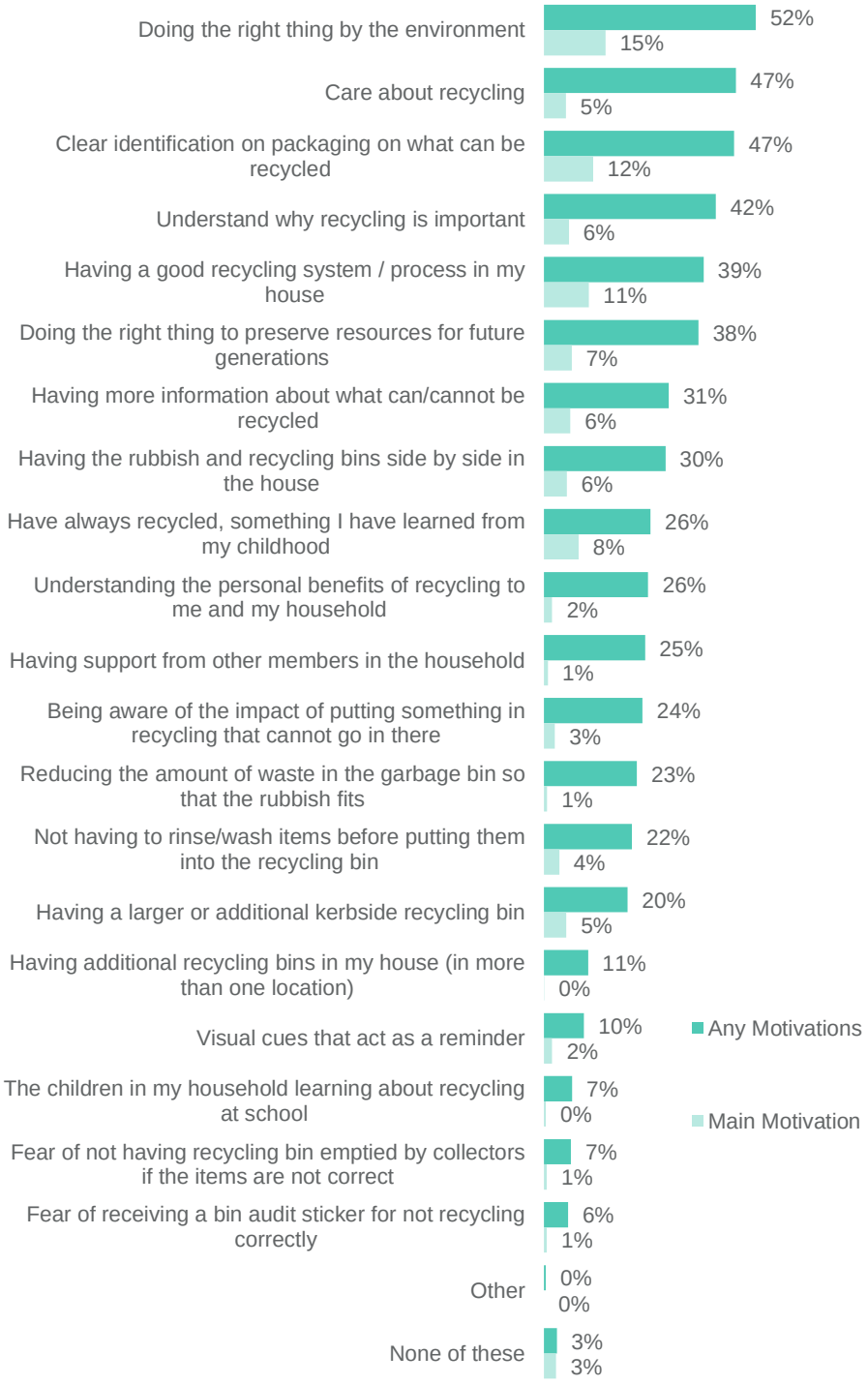
While mentioned by some, currently, negative reinforcers such as fear of getting a bin audit sticker or not having bins emptied are less influential, perhaps due to a relatively small proportion of Victorians having experienced this.

> *It had on the [bin audit] sticker if it happens again we won't take your rubbish away. Then I was so paranoid because we try and be so good…. everyone in the street can see the big sticker that goes across the bin and seals it shut." (Female, 40 to 49 y.o., Nillumbik)*

While some mentioned that it is now much easier to recycle than it previously has been.

> *We used to have those black tubs and everything had to be squashed and papers tied, that was always my job, I hated it." (Male, 18 to 29 y.o., Hobsons Bay)*

Figure 10: Things that make it easier to recycle



Q17A Below is a list of statements that some people have mentioned it makes it **easy to recycle**. Which of the following make it **easier** to recycle household items? (MR)
Q17B What is the **MAIN** factor that makes recycling easier for you? (SC)
Base: All respondents (n=456)

Barriers to recycling

Almost one third (29%) of Victorian adults surveyed indicate that none of the factors mentioned make it difficult for them to recycle household items. Furthermore, those who do indicate things that make it harder for them to recycle household items, tend to nominate fewer factors.

The things that people are most likely to indicate are the main things making it difficult for them to recycle include:

- being unsure about what can and cannot be recycled (21%);
- the chemicals in some household bottles preventing recycling of items (11%);
- the recycling bin being full before collection day (11%);
- not wanting to waste too much water to clean items (6%); and
- the time and effort required to wash items before putting them into the recycling bin being too much (6%).

Encouraging people to share their knowledge about the importance of recycling with members of the household will be the most effective way to combat this issue. Advocates within a household can encourage better behaviour among other household members.

Note that 18-34 year olds are more likely to mention being unsure about what can and cannot be recycled (42%) and the time or effort to wash items before putting them into the recycling bin (26%) as barriers to recycling, whereas those aged 55 years and older are much less likely to mention these as barriers to recycling.

Yeah and sometimes you're just lazy and can't be bothered, you say 'bugger this I'm not going to wash it' so throw it in the rubbish bin." (Male, 40 to 49 y.o., Moonee Valle)

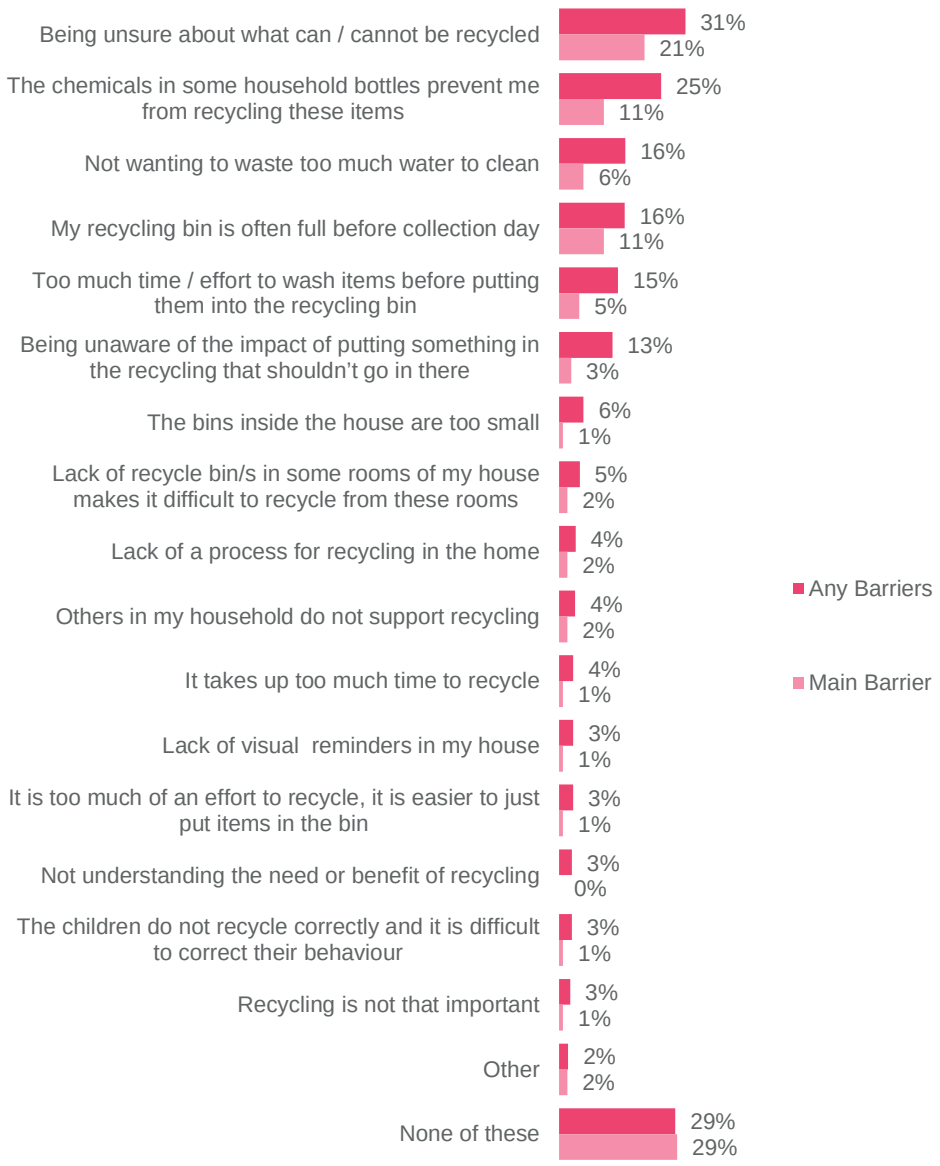
I'm still not 100% sure on Styrofoam. I don't know if that can be recycled to be honest. I think it can't be. It probably can but I'm thinking it can't be…I don't know." (Female, 40 to 49 y.o., Whitehorse)

Insights from the in-depth interviews suggest encouraging convenient and tidy bins for waste, recycling and food scraps (if relevant) will help improve recycling behaviour. When bins are used in bathrooms and bedrooms they should ideally be used for only one type of waste (recyclables or non-recyclables) as it appears people are less likely to sort contents into different collection bins after they have already been placed in a bin inside the house.

Furthermore, in households with numerous people there are often different beliefs, levels of knowledge and values surrounding recycling. Older children are particularly reported to be doing the wrong thing and/or not caring.

I do my best to always ensure I recycle well. I would say my flatmates are pretty good, but maybe not as conscious but still good." (Male, 20-29 y.o, Yarra)

Figure 11: Things that make it difficult to recycle



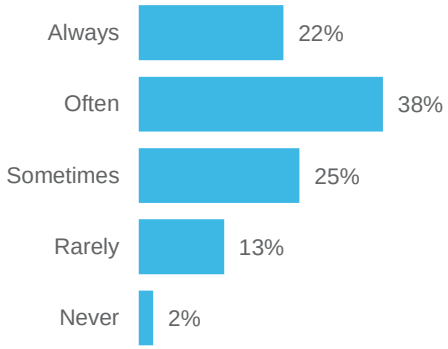
Q16A Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it **difficult for you to recycle** household items? (MR)
Q16B What is the **MAIN** factor that makes it **difficult** for you to recycle household items? Please select only one. (SC)
Base: All respondents (n=456)

Almost three in five Victorians indicate their recycling bin is often (38%) or always (22%) full before collection day. A further 25% indicate that it is sometimes full before collection day. Only 15% rarely (13%) or never (2%) experience this issue. 18-24 and 35-44 year olds are more likely to state that their recycling bin is always full before collection day, whereas those aged 65 years and over are more likely to sometimes have their recycling bin full before collection day (37%).

Among the 98% who indicate they experience this issue at least rarely, two thirds (67%) store the recyclables until the bin is empty and another 30% put the recyclables in a neighbours bin. However, 14% put the recyclables in the garbage bin if the recycling bin is full, meaning that these items are then unable to be recycled.

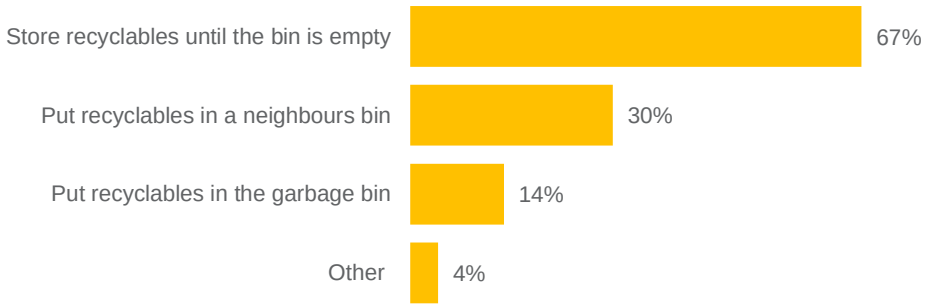
Those aged 55 years and over are significantly less likely to put the recyclables in the garbage bin if their recycling bin is full (8%) compared to the total population (17%).

Figure 12: How often is recycling bin full before collection day



Q9A How often is your **recycling bin** full **before** collection day? (SR)
Base: All respondents (n=456)

Figure 13: Actions if recycling bin is full



Q9B If your recycling bin is full, what do you do? (MR)
Base: All respondents who indicated their recycling bin at least rarely gets full before collection day (n=444)

3.2.1. Recycling of hard plastic items

Frequency of recycling hard plastic items

A quarter (24%) of all Victorians always recycle all of the hard plastic items that we asked about (shampoo and conditioner bottles, washing detergent bottles, plastic cleaning bottles, yoghurt containers, plastic takeaway containers, plastic punnets and plastic biscuit trays). This means the majority of Victorians (76%) don't always recycle all of these hard plastic items.

The majority of Victorians are aware most of the hard plastic items we asked about can be recycled (refer to Table 4 below). However, one in ten (9%) do not know plastic biscuit trays can be recycled and 6% are unaware plastic punnets can be recycled.

The most commonly recycled hard plastic items are shampoo and conditioner bottles, with two thirds (65%) of Victorians claiming to always recycle these. However 5% indicate that they never recycle shampoo and conditioner bottles.

Fewer than half of all Victorians always recycle takeaway containers (46%) and biscuit trays (41%). About 1 in 10 indicate that they never recycle plastic biscuit trays (12%) or plastic takeaway containers (9%).

Hard plastic items most commonly never recycled within Victorian households include:

- plastic biscuit trays (12% of respondents never recycle these items and a further 9% are not aware biscuit trays can be recycled)
- plastic takeaway containers (9% of respondents never recycle these items and 4% are not aware plastic takeaway containers can be recycled); and
- plastic margarine containers (8% of respondents never recycle these items and 2% are unaware that they can be recycled).

Table 4: Frequency of recycling hard plastic items

	Always	Often	Sometimes	Rarely	Never	I am not aware this item can be recycled	I do not have this in my house
Plastic shampoo / conditioner bottles	65%	19%	5%	2%	5%	3%	1%
Washing detergent bottles	62%	19%	8%	3%	4%	3%	2%
Plastic bottles for cleaning	61%	21%	6%	3%	4%	4%	1%
Yoghurt containers	58%	16%	7%	5%	7%	2%	5%
Plastic margarine containers	57%	17%	7%	4%	8%	2%	4%
Plastic punnets	53%	19%	9%	5%	6%	6%	3%
Plastic takeaway containers	46%	18%	11%	7%	9%	4%	5%
Plastic biscuit trays	41%	14%	9%	7%	12%	9%	8%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Further investigation by demographic profile highlights that younger Victorians (aged 18-34) are less likely than older Victorians to recycle plastic shampoo and conditioner bottles (52% 18-34 y.o. vs 74% 35-54 y.o.) and washing detergent bottles (46% 18-34 y.o. vs. 71% 55+ y.o.). Very few other demographic differences exist among the recycling behaviour of different hard plastic items in the home.

Table 5: Recycling of hard plastic by demographics

Agree always recycle each item.	Total N=456	Male N=221	Female N=235	18-34 N=125	35-54 N=145	55+ N=186	Metro N=228	Regional N=228
Plastic shampoo / conditioner bottles	65%	67%	63%	**52%**	**74%**	67%	64%	66%
Washing detergent bottles	62%	60%	63%	**46%**	66%	**71%**	59%	69%
Plastic bottles for cleaning	61%	59%	63%	55%	63%	66%	60%	64%
Yoghurt containers	58%	57%	58%	50%	62%	60%	57%	61%
Plastic margarine containers	57%	59%	56%	56%	60%	56%	56%	61%
Plastic punnets	53%	50%	56%	44%	60%	54%	52%	57%
Plastic takeaway containers	46%	48%	43%	38%	52%	46%	46%	44%
Plastic biscuit trays	41%	40%	41%	32%	45%	44%	40%	42%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Key target audience to address regarding recycling hard plastic items

Those who do not always recycle hard plastics that we asked about (plastic shampoo and conditioner bottles, washing detergent bottles, plastic bottles for cleaning, yoghurt containers, plastic margarine containers, plastic punnets, plastic takeaway containers and plastic biscuit trays) are more likely to be younger (35% vs 16% of those who always recycle all hard plastic items are aged between 18 -34 years). On average those who do not always recycle all hard plastic containers are less likely to be older, with a quarter of all people who always recycle hard plastic items aged 55-64 years.

Those who do not always recycle hard plastic containers and those who always recycle plastic containers are equally likely to be male or female.

Those who do not always recycle hard plastic items are more likely to be living in metropolitan Melbourne (78%) compared to those who always recycle hard plastic items (64%). This means that those living in metropolitan areas are less likely to recycle all plastic items and need further encouragement.

Those who are not always recycling all hard plastics are less likely to believe that recycling is very important to them (49% of those who do not recycle all items vs 66% of those who recycle all hard plastic items). Whereas, those who always recycle hard plastic containers feel they understand what goes into their recycling bin “very well” (58% vs 38% those who do not recycle all hard plastic items). To further promote recycling of hard plastic containers, Sustainability Victoria needs to focus on communication to improve the importance of recycling among Victorians and provide people with the

knowledge and confidence that they understand what hard plastics can and cannot be recycled. Sustainability Victoria should aim to target communications towards encouraging younger Victorians living in metropolitan areas to recycle all hard plastic items in the household.

Table 6: Demographics and attitudes of those who always and do not always recycle hard plastic items

	Recycles hard plastic items		
	Total n=456	Not always n=328	Always n=128
Age (S4)			
18-24	12%	**14%**	**6%**
25-34	18%	**21%**	**10%**
35-44	19%	19%	19%
45-54	18%	**15%**	**25%**
55-64	15%	**12%**	**24%**
65+	18%	19%	17%
Gender (S3)			
Male	49%	48%	52%
Female	51%	52%	48%
Location (S2)			
Melbourne Metro	75%	**78%**	**64%**
VIC Regional	25%	**22%**	**36%**
Household structure (D1)			
Couple with dependent children at home (17 years and under)	20%	**22%**	**13%**
Recycling system (Q8_1)			
Strongly agree that system inside the house makes it just as easy to recycle as putting items in the garbage bin	33%	**29%**	**46%**
Support for recycling process (Q8_2)			
Strongly agree that all members of household support the recycling process	39%	**35%**	**54%**
Attitude to recycling of household waste (Q5)			
I nearly always recycle even if it requires additional effort	80%	**76%**	**92%**
Amount of household waste is recycled (Q6)			
I/we recycle almost every item that can be recycled (over 90%)	59%	**52%**	**81%**
Awareness of what can and cannot be recycled (Q4)			
Council website	32%	**29%**	**42%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who do and do not always recycle hard plastic items

Additional analysis conducted has identified factors which have a greater impact on those who do and do not always recycle hard plastics. Those who always recycle all of the hard plastic items we asked about (plastic shampoo/conditioner bottles, washing detergent bottles, plastic bottles for cleaning,

yoghurt containers, plastic margarine containers, plastic punnets, plastic takeaway containers and plastic biscuit trays) are more likely to indicate that they agree with more of the positive statements 'drivers' of behaviour, while those who do not always recycle all of these hard plastic items, are more likely to agree with negative statements 'barriers' to recycling. Knowledge of drivers and barriers can be used to develop messages and programs to encourage greater recycling of hard plastic items. Figure 14 and Figure 15 highlights the calculated importance scores of the drivers and barriers for those who always recycle hard plastics and those who do not always recycle hard plastics. This can be interpreted as how likely this subgroup is to agree with each factor. A score of 4.4 indicates that these respondents within this audience (e.g. those who always recycle hard plastics) are four times more likely than those who are not in this audience (e.g. not always recycle hard plastics).

Drivers of recycling for those who always recycle all these hard plastic items:

Those who always recycle all of these hard plastic items are more than six times more likely to indicate that they ***understand very or fairly well what can go in the recycling bin*** compared to those who do not always recycle all of these hard plastic items. This main driver may be described as a **behavioural belief**. According to Theory of Planned Behaviour[2], such positive behavioural beliefs would also lead to more positive attitudes towards recycling. This is apparent in the range of drivers for recycling for those who consistently recycle hard plastic items.

Those who always recycle all of these hard plastic items are also more than four times more likely to indicate that ***recycling is very or fairly important to them personally*** compared to those who do not always recycle all of these hard plastic items. They are also two to three times more likely, compared to those who do not always recycle all of these items to indicate that ***doing the right thing to preserve resources for the environment for future generations*** makes it easier to recycle household items.

They are two to three times more likely to indicate that ***understanding the personal benefits of recycling to me and my household (e.g. feeling rewarded for my recycling efforts)***, ***having a good recycling system or process in the house***, and ***understanding why recycling is important***, and ***all members of their household supporting the recycling process in the house*** makes it easier to recycle household items.

Barriers to recycling for those who do not always recycle all these hard plastic items:

Those who do not always recycle all of these hard plastic items are six times more likely, compared to those who always recycle all of these items to indicate that ***the bins inside the house being too small*** makes it more difficult for them to recycle household items. This main barrier may be described as a **control belief** because the perception that one's bins inside the house are too small is associated with making recycling harder. According to Theory of Planned Behaviour[3], such a negative control belief would also give rise to lower perceived behavioural control.

There are a number of other barriers to recycling for those who do not consistently recycle hard plastic items. They are two to three times more likely to indicate that ***being unsure about what can and cannot be recycled, the chemicals in some household bottles preventing them from recycling these items***, ***lack of a process for recycling in the home, it taking up too much time to recycle, a lack of visual reminders in their house (e.g. signs about recycling)***, and ***the time or effort to wash items before putting them into the recycling bin*** makes it more difficult for them to recycle household items.

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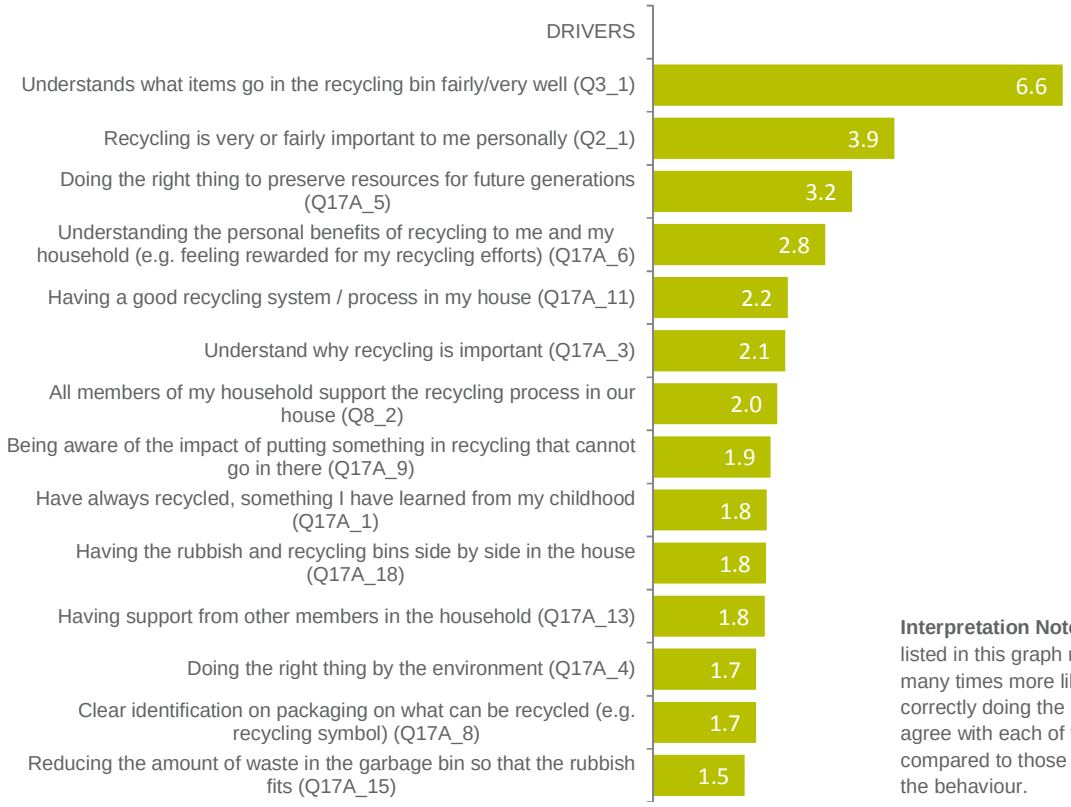
[2] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

[3] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

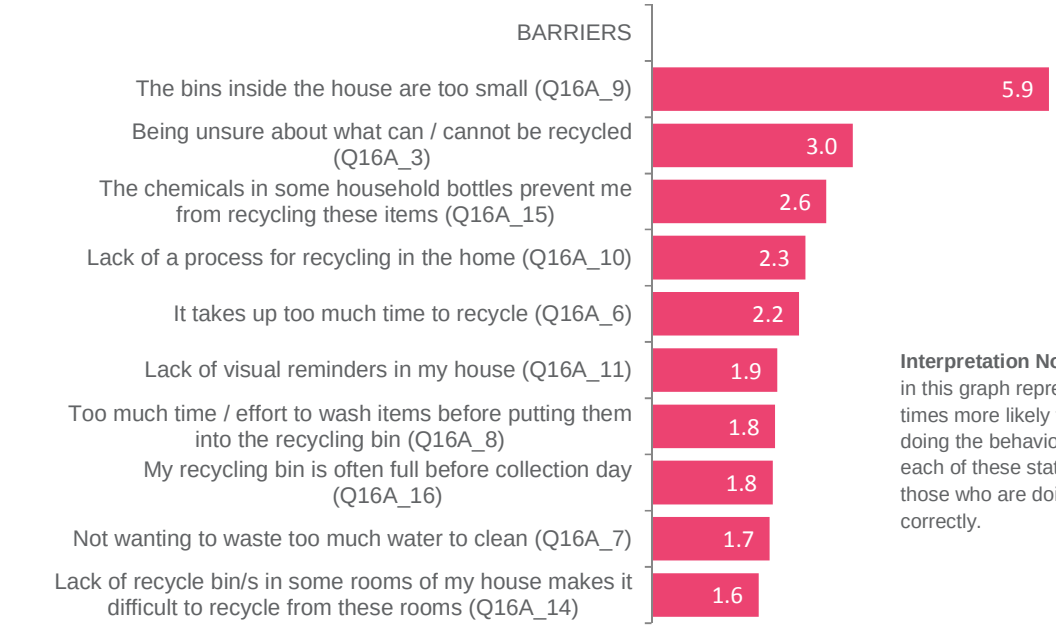
Figure 14: Drivers and barriers for those who always recycle hard plastic items



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents (n=456)

Figure 15: Drivers and barriers for those who do not always recycle hard plastic items



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents (n=456)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of recycling, whilst focusing on the key motivational drivers.

Table 7: Recycling of hard plastic items summary

Target audience	Drivers of recycling	Barriers to recycling
Those who are currently not always recycling hard plastics are more likely to be: • Living in Melbourne • Younger – aged 18-34 • Couple with dependent children	Six times more likely to indicate: • ***Understand very or fairly well*** what can go in the recycling bin • Four times more likely to agree: • Recycling is ***very or fairly important*** to them personally • ***Doing the right thing*** to preserve resources for the environment for future generations Two to three times more likely to indicate • Understanding the ***personal benefits*** of recycling for me and my household • Having a ***good recycling system*** in place • Understanding ***why recycling is important*** • All household members ***support*** recycling	Two to three times more likely to indicate: • The bins inside the house are ***too small*** • ***Being unsure*** about what can and cannot be recycled • The ***chemicals*** in some household bottles prevent them from recycling these items • ***Lack of a process*** in the home • Taking up ***too much time*** to recycle • Lack of ***visual reminders*** *(e.g. signs about recycling)* in the home • Time or effort to ***wash items*** before putting in the recycling bin

3.2.2. Recycling of aluminium items

Frequency of recycling aluminium items

Fourteen percent of Victorians are recycling all aluminium items we asked about (cans (e.g. soft drink cans, tinned food), aerosol cans from kitchen or bathroom, baking trays and foil). This means the vast majority of Victorians (86%) are not recycling all of these aluminium items from the household.

Victorians understand that aluminium cans can be recycled (none indicating they did not know that aluminium cans can be recycled), however only four in five are always recycling these items. Seventeen percent of Victorians are only recycling aluminium cans some of the time, whilst 1% never do so.

Aerosol cans need improvement with roughly one in ten Victorians not aware that these can be recycled. Four in ten Victorians are recycling aerosol cans from the kitchen and bathroom, suggesting further encouragement is needed. A total of 15% of people are never recycling aerosol cans from the kitchen and 17% are never recycling aerosol cans from the bathroom.

Recycling behaviour for aluminium foil can be improved. About one in three (30%) Victorians always recycle aluminium foil; however 15% of Victorians never recycle aluminium foil. In order to encourage more to recycle these items, Sustainability Victoria will need to improve knowledge and understanding that aluminium foil can be recycled (currently 13% of Victorians are not aware this item can be recycled).

Table 8: Recycling of aluminium items

	Always	Often	Sometimes	Rarely	Never	I am not aware this item can be recycled	I do not have this in my house
Aluminium cans	80%	13%	2%	2%	1%	0%	1%
Aerosol cans from the kitchen	39%	16%	7%	6%	15%	14%	3%
Aerosol cans from the bathroom	39%	16%	7%	8%	17%	11%	3%
Aluminium baking trays	38%	12%	10%	8%	9%	9%	13%
Aluminium foil	30%	16%	12%	12%	15%	13%	2%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Further investigation highlights that younger Victorians aged 18-34 years are less likely to recycle aerosol cans from the bathroom when compared to older Victorians. Whilst older Victorians aged 55 years and over are also more likely to always recycle aluminium cans and aluminium baking trays. This suggests there is a difference in recycling behaviour by age and that further encouragement is needed for younger Victorians.

Those living in regional Victoria are more likely to always recycle aerosol cans from the kitchen and aluminium cans than those living in metropolitan areas.

Table 9: Recycling of aluminium items by demographics

Agree always recycle each item.	Total N=456	Male N=221	Female N=235	18-34 N=125	35-54 N=145	55+ N=186	Metro N=228	Regional N=228
Aluminium cans	80%	80%	79%	66%	83%	**88%**	77%	**86%**
Aerosol cans from the kitchen	39%	38%	40%	31%	40%	47%	37%	**48%**
Aerosol cans from the bathroom	39%	40%	38%	**26%**	41%	**49%**	37%	47%
Aluminium baking trays	38%	40%	36%	30%	35%	**48%**	38%	38%
Aluminium foil	30%	35%	25%	25%	27%	37%	29%	33%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Key target audience to address regarding recycling aluminium items

Further investigation on the audience who always recycle all aluminium items (14% of Victorians) compared to those who do not recycle all aluminium items (86% of Victorians) highlights some key differences by audiences.

Those who do not always recycle all aluminium items are more likely to be younger with an average age of 44 years. Just under a third of all people always doing this behaviour are aged 65 years or over. There is no difference by gender.

Those who do not always recycle all aluminium items are more likely to be living in metropolitan Melbourne (77% vs 62% of those always doing the behaviour). This means in order to improve the behaviour it is important to focus on communicating with people in Melbourne.

Those who do not always recycle all aluminium items are less likely to agree that the system in their household makes it just as easy to recycle as it does to put it in the garbage bin. This means that communication should target those who do not have a system that is sufficient in their home, to encourage more people to recycle all aluminium items.

Table 10: Demographics and attitudes of those who always and do not always recycle aluminium items

Recycles aluminium items	Total n=456	Not always n=379	Always n=77
Age (S4)			
18-24	12%	**14%**	**1%**
25-34	18%	**20%**	**7%**
35-44	19%	19%	15%
45-54	18%	16%	24%
55-64	15%	14%	20%
65+	18%	**16%**	**32%**
Gender (S3)			
Male	49%	49%	46%
Female	51%	51%	54%
Location (S2)			
Melbourne Metro	75%	**77%**	**62%**
VIC Regional	25%	**23%**	**38%**
Property type (D4)			
Separate / detached house	72%	**69%**	**87%**
Recycling system (Q8_1)			
Strongly agree that system inside the house makes it just as easy to recycle as putting items in the garbage bin	33%	**30%**	**52%**
Support for recycling process (Q8_2)			
Strongly agree that all members of household support the recycling process	39%	**37%**	**53%**
Attitude to recycling of household waste (Q5)			
I nearly always recycle even if it requires additional effort	80%	**78%**	**93%**
Amount of household waste is recycled (Q6)			
I/we recycle almost every item that can be recycled (over 90%)	59%	**55%**	**84%**
Awareness of what can and cannot be recycled (Q4)			
Information provided by local council	68%	**65%**	**86%**
Council websites	32%	**30%**	**45%**
Local newspaper	21%	**18%**	**42%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who do and do not always recycle aluminium items

Additional analysis conducted has identified factors which have a greater impact on those who do and do not always recycle aluminium items. Those who always recycle all of the aluminium items we asked about (cans (e.g. soft drink cans, tinned food), aerosol cans from kitchen or bathroom, baking trays and foil) are more likely to indicate that they agree with more of the positive statements 'drivers' of behaviour, while those who do not always recycle all of these aluminium items, are more likely to agree with negative statements 'barriers' to recycling. These drivers and barriers can be used to develop messages and programs to encourage greater recycling of aluminium items.

Drivers of recycling for those who always recycle all these aluminium items:

Those who always recycle all of these aluminium items are four times more likely, compared to those who do not always recycle all of these items to indicate that *recycling is very or fairly important to them personally.* This main driver is an **attitude towards recycling**. According to Theory of Planned Behaviour[4], such a positive attitude would be produced by positive behavioural beliefs, as reflected in the other drivers for those who consistently recycle all aluminium items, i.e. these people indicate understanding why recycling is important which makes it easier for them to recycle.

Those who always recycle all of these aluminium items are also two to three times more likely, compared to those who do not always recycle all of these items to indicate that *the children in my household learning about recycling at school, having a good recycling system or process in my house, fear of receiving a bin audit sticker for not recycling correctly, understanding the personal benefits of recycling to me and my household (e.g. feeling rewarded for my recycling efforts), understanding why recycling is important, doing the right thing to preserve resources for future generations*, and *having a larger or additional kerbside recycling bin* makes it easier to recycle household items. Furthermore, they are twice as likely compared to those who do not always recycle these aluminium items to *agree or strongly agree their system inside the house makes it as easy to recycle as putting items in the garbage bin.*

Barriers to recycling for those who do not always recycle all these aluminium items:

Those who do not always recycle all of these aluminium items are almost four times more likely, compared to those who always recycle all of these items to indicate that *the time or effort to wash items before putting them into the recycling bin* makes it more difficult for them to recycle household items. This main barrier may be described as a **control belief** which according to Theory of Planned Behaviour[5], would give rise to lower perceived behavioural control as reflected in the range of barriers to recycling for people who do not consistently do this behaviour, i.e. these people are more likely to be unsure about what can and cannot be recycled.

They are also two to three times more likely to indicate that *being unsure about what can / cannot be recycled, not wanting to waste too much water to clean, it taking up too much time to recycle, the chemicals in some household bottles preventing them from recycling these items*, *not understanding the need or benefit of recycling, the lack of a process for recycling in the house* and *a lack of visual reminders in their house (e.g. signs about recycling)* makes it more difficult for them to recycle household items.

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[4] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

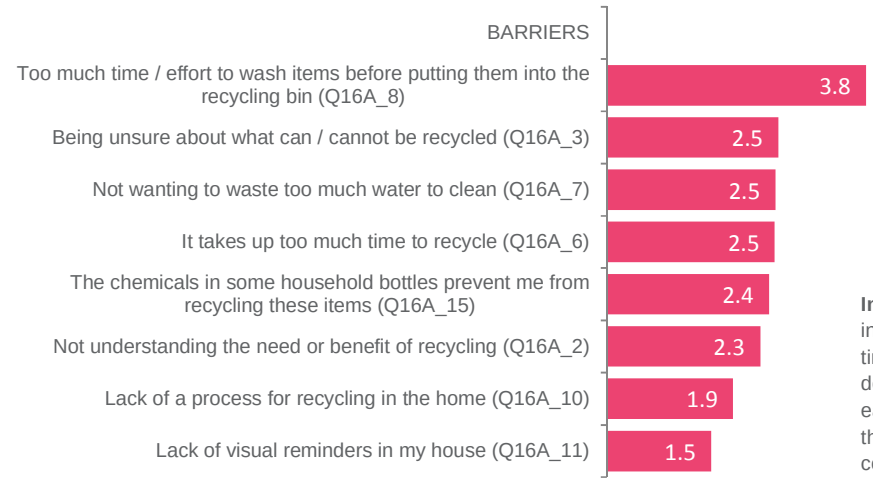
[5] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

Figure 16: Drivers and barriers for those who always recycle aluminium items

Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents (n=456)

Figure 17: Drivers and barriers for those who do not always recycle aluminium items



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents (n=456)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of recycling, whilst focusing on the key motivational drivers.

Table 11: Recycling of aluminium items summary

Target audience	Drivers of recycling	Barriers to recycling
Those who are not always recycling **aluminium items** are more likely to be: • Living in Melbourne • Younger – aged 18-34 years They are also less likely to be: • Aged 65+ • Live in a separate / detached house	Four times more likely to indicate: • Recycling is ***very or fairly important*** to them personally Two to three times more likely to indicate: • Children in household are ***learning*** about recycling at school • Having a ***good recycling system or process*** in my house • Fear of receiving a ***bin audit sticker*** for not recycling correctly • Understanding the ***personal benefits*** of recycling to me and my household (e.g. feeling rewarded for my recycling efforts) • ***Understanding*** *why recycling is important* • Doing the ***right thing*** to preserve resources for future generations • Having a ***larger or additional*** kerbside recycling bin	Four times more likely to indicate: • Time or effort to ***wash items*** before putting them into the recycling bin • Two to three times more likely to indicate: • Being ***unsure*** about what can / cannot be recycled • Not wanting to ***waste too much water*** to clean • Taking up ***too much time*** to recycle • ***Chemicals*** in some household bottles preventing them from recycling these items • ***Not understanding*** the need or benefit of recycling • Lack of a ***process*** for recycling in the house • Lack of ***visual reminders*** in their house (e.g. signs about recycling)

3.2.3. Emptying and recycling of containers with food

Frequency of recycling containers with food

A total of 28% of all Victorians recycle all containers that once contained food that we asked about (pizza boxes, cardboard takeaway containers, yogurt containers, plastic margarine containers and plastic takeaway containers). This means that the majority of Victorians (72%) do not always recycle all these recyclable items.

Pizza boxes are the most common type of container that contained food that is always recycled by Victorians, with almost two thirds (64%) of people always recycling this item.

Cardboard takeaway containers are much more likely to be always recycled (60%) when compared to their plastic counterparts (46%). This indicates that fewer plastic takeaway containers are being recycled. The items that people most frequently indicate they never recycle include plastic takeaway containers (9%), plastic margarine containers (8%) and yoghurt containers (7%).

Table 12: Recycling containers with food

	Always	Often	Sometimes	Rarely	Never	I am not aware this item can be recycled	I do not have this in my house
Pizza boxes	64%	13%	5%	3%	6%	2%	7%
Cardboard takeaway containers	60%	15%	8%	4%	5%	2%	5%
Yoghurt containers	58%	16%	7%	5%	7%	2%	5%
Plastic margarine containers	57%	17%	7%	4%	8%	2%	4%
Plastic takeaway containers	46%	18%	11%	7%	9%	4%	5%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Key target audience to address regarding emptying and recycling of containers with food

Further investigation of the 28% who are currently always recycling the food containers we asked about compared to the 78% who do not always do so indicates some demographic and attitudinal differences exist between these groups.

Firstly those who always recycle these items are less likely to be aged 18-24 years (5% vs 15% of those who don't). This means that communications to encourage Victorians to always recycle all food containers should target younger Victorians as they are least likely to be doing the behaviour. Those who are not currently recycling all containers with food are also less likely to indicate they have a system in their household that makes recycling just as easy as putting items in the recycling bin (25% vs 53%) and that all members of household support the recycling process (31% vs 61%).

Table 13: Demographics and attitudes of those who always and do not always recycle food containers

Recycles food containers	Total n=456	Not always n=318	Always n=138
Age (S4)			
18-24	12%	**15%**	**5%**
25-34	18%	18%	20%
35-44	19%	19%	17%
45-54	18%	16%	21%
55-64	15%	13%	19%
65+	18%	19%	18%
Gender (S3)			
Male	49%	48%	49%
Female	51%	52%	51%
Location (S2)			
Melbourne Metro	75%	77%	70%
VIC Regional	25%	23%	30%
Household structure (D1)			
Group /shared household	9%	**11%**	**3%**
Recycling system (Q8_1) *Strongly agree* that system inside the house makes it just as easy to recycle as putting items in the garbage bin	33%	**25%**	**53%**
Support for recycling process (Q8_2) *Strongly agree* that all members of household support the recycling process	39%	**31%**	**60%**
Attitude to recycling of household waste (Q5)			
I nearly always recycle even if it requires additional effort	80%	**74%**	**94%**
Amount of household waste is recycled (Q6)			
I/we recycle almost every item that can be recycled (over 90%)	59%	**52%**	**77%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

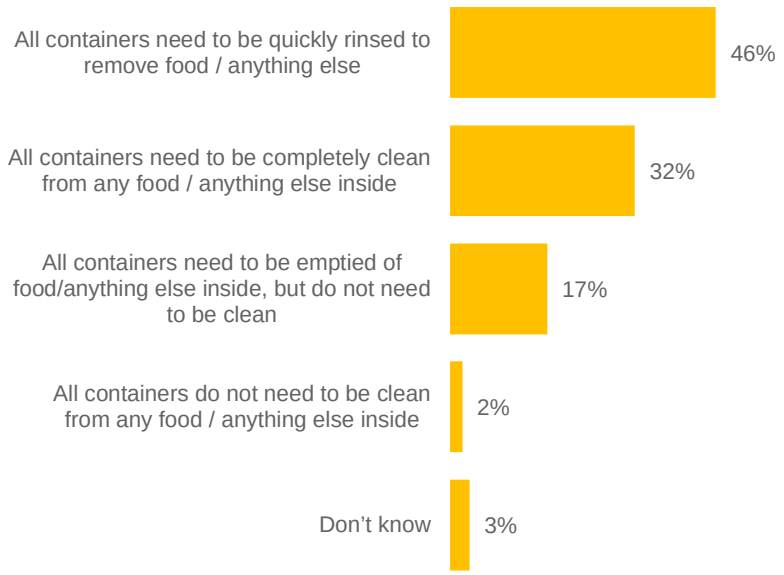
Knowledge of how to recycle containers with food

Respondents were asked about the knowledge of cleanliness that was required before recycling items that contained food. The majority (95%) believe that the items need to be rinsed or be completely clean to be recycled.

Just under half (46%) have the impression that all containers need to be quickly rinsed to remove food or anything else. While almost a third (32%) believe that items need to be completely clean from any food / anything else.

Fewer than one in five (17%) of people understand that all containers need to be emptied of food/anything else inside, but do not need to be clean. These people have a better understanding that less 'work' needs to be done in order to recycle food containers.

Figure 18: Knowledge of cleanliness

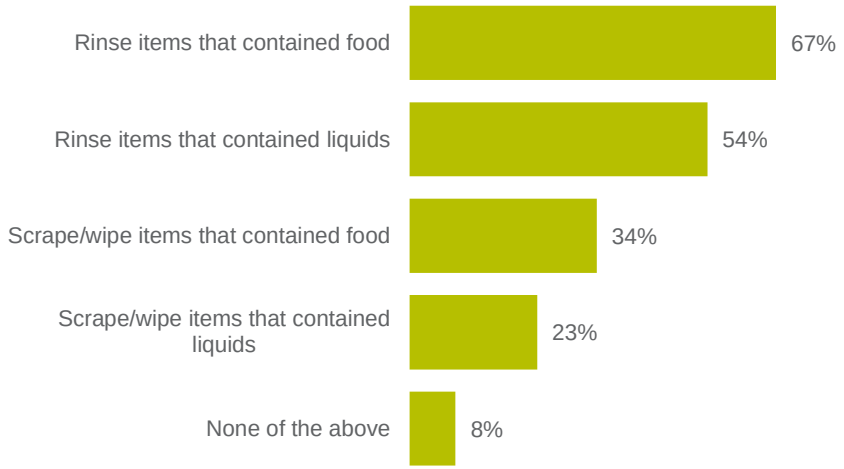


Q14 Thinking about **items that contained food**, which of the following do you believe to be true? (SC)
Base: All respondents (n=456)

Accordingly, almost seven in ten (67%) unnecessarily rinse items that contained food and one in two (54%) rinse items that contained liquids. Thus, most people are making an effort to ensure that items are clean before recycling because they believe there is a need to do so. Only 8% of Victorians do not do anything before recycling, indicating that most do something.

A third (34%) are scraping or wiping items that contained food, whilst a fifth (23%) are doing this to items which contained liquid.

Figure 19: Recycling actions of food containers

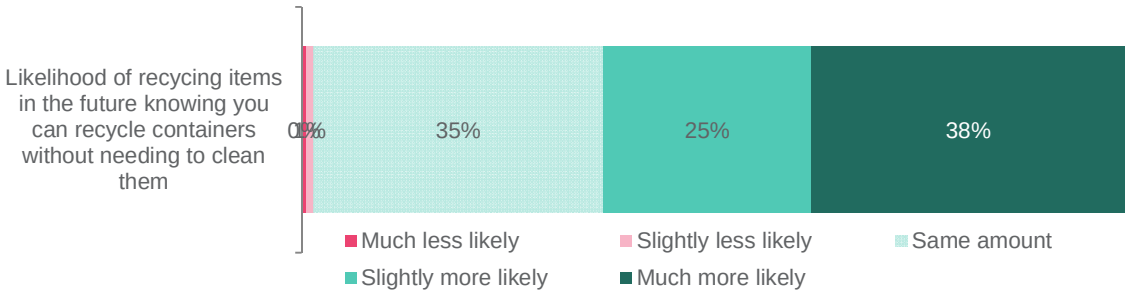


Q15 Before placing items in your recycling bin, which of the following do you do? (MR)
Base: All respondents (n=456)

When Victorians know that they can recycle containers without the need to clean them the majority indicate they are more likely to recycle these items. It will be important to educate people to build awareness that food containers can be recycled without being thoroughly cleaned or even rinsed.

Almost two in five (38%) Victorians would be much more likely to recycle food containers in the future knowing they can do so without needing to clean them and a quarter (25%) of Victorians would be slightly more likely to recycle these items. In total two thirds agree they would recycle more items knowing that they do not have to clean them first. Very few indicate they are less likely to do so. No other demographic differences exist.

Figure 20: Likelihood to recycle in the future



Q18 You **can recycle food containers without needing to clean them** (e.g. just empty them not wash them). Knowing this how likely are you to recycle these items in the future? (SC)
Base: All respondents (n=456)

Further investigation highlights that those who believe that it takes too much time and effort to wash items before recycling (15% of Victorians) are extremely motivated when knowing that items can be recycled without needing to wash them. A total of nine in ten people who indicate this as a barrier to recycling are slightly or much more likely to recycle these items knowing this information. This indicates that educating these people about not needing to wash or clean would help reduce recycling barriers.

Further investigation on those always recycling aluminium food containers such as aluminium baking trays and aluminium foil (25% always recycle these items and 75% do not always recycle these) indicates those not always recycling these items are significantly more likely to recycle these items in the future if they know that containers do not have to be cleaned (66% agreeing slightly or much more likely vs 54% not doing the behaviour).

Figure 21: Likelihood to recycle in the future knowing you can recycle containers without needing to clean them

Q18 You **can recycle food containers without needing to clean them** (e.g. just empty them not wash them). Knowing this how likely are you to recycle these items in the future? (SC)
Base: Those always recycling baking trays and al foil (n=120) Not always recycling (n=336)

Key drivers and barriers to for those who do and do not always recycle containers with food

Additional analysis conducted has identified factors which have a greater impact on those who do and do not always recycle containers with food. Those who always recycle all of the containers with food we asked about (pizza boxes, cardboard takeaway containers, yogurt containers, plastic margarine containers and plastic takeaway containers) are more likely to indicate that they agree with more of the positive statements 'drivers' of behaviour, while those who do not always recycle all of these containers with food, are more likely to agree with negative statements 'barriers' to recycling. These drivers and barriers can be used to develop messages and programs to encourage greater recycling of containers with food.

Drivers of recycling for those who always recycle all these containers with food:

Those who always recycle all of these containers with food are two to three times more likely, compared to those who do not always recycle all of these items to indicate that ***all members in my household support recycling, doing the right thing to preserve resources for future generations, having always recycled or it being something learned from childhood, understanding the personal benefits of recycling to me and my household (e.g. feeling rewarded for my recycling efforts), being aware of the impact of putting something in recycling that cannot go in there*** and ***having support from other members in my household*** makes it easier to recycle household items. The main driver, ***all members in my household support recycling,*** is a **normative belief**. According to Theory of Planned

Behaviour[6], normative beliefs would result in perceived norms. For example, these people are also driven to recycle by the desire to do the right thing to preserve resources for future generations.

They are also twice as likely to agree that they *understand very or fairly well what can go in the recycling bin.*

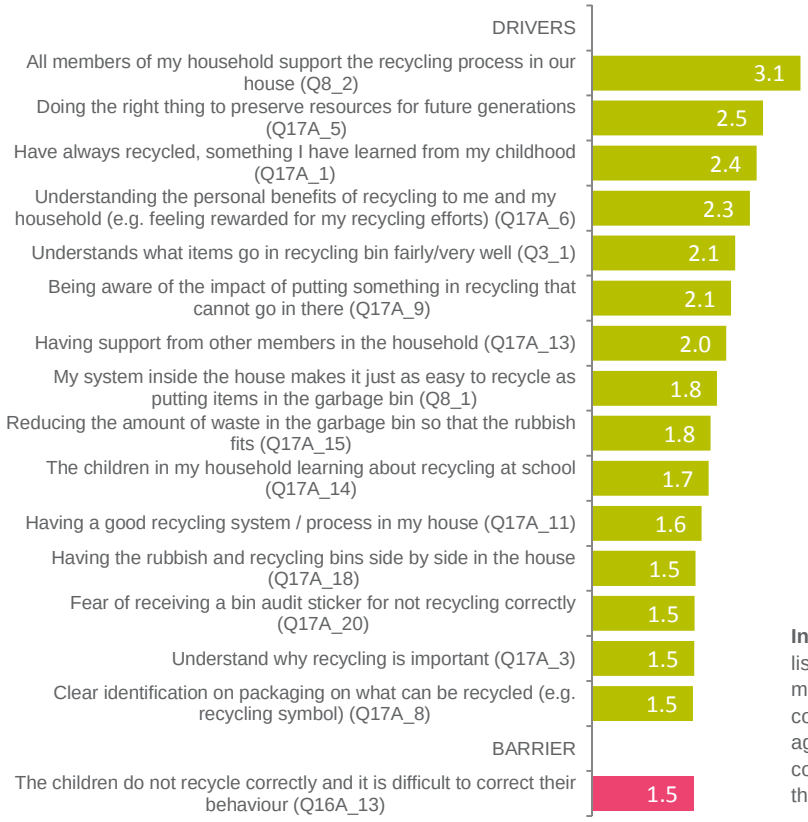
Barriers to recycling for those who do not always recycle all these containers with food:

Those who do not always recycle all of these containers with food are seven times more likely, compared to those who always recycle all of these items to indicate that a *lack of visual reminders (e.g. signs about recycling) in my house* makes it more difficult for them to recycle household items. This main barrier may be described as a **control belief** which would give rise to lower perceived behavioural control. For instance these people are more likely to indicate being unsure about what can and cannot be recycled makes it harder for them to recycle.

A number of other barriers to recycling for those who do not consistently recycle containers with food include them being four to five times more likely, compared to those who always recycle all of these items to indicate that it *taking up too much time to recycle*, and *bins inside the house being too small* makes it more difficult for them to recycle household items. Furthermore, they are two to three times more likely to indicate that the following make it more difficult for them to recycle household items: *lack of a process for recycling in home, it being too much effort to rinse or wash items before recycling, it is too much of an effort to recycle, it is easier to just put items in the bin, the chemicals in some household bottles prevent them from recycling these items*, and *not wanting to waste too much water to clean*.

[6] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

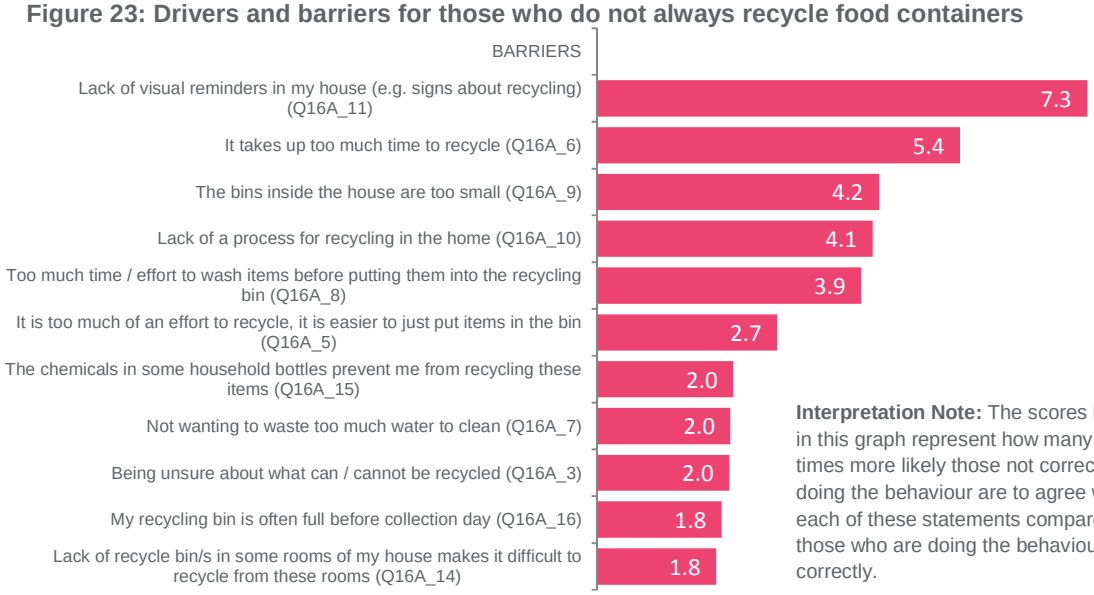
Figure 22: Drivers and barriers for those who always recycle food containers



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents (n=456)

Figure 23: Drivers and barriers for those who do not always recycle food containers



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents (n=456)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of recycling, whilst focusing on the key motivational drivers.

Table 14: Recycling of containers with food summary

Target audience	Drivers of recycling	Barriers to recycling
Those who are not always recycling **food containers** are more likely to be: • Younger – aged 18-24 years • Living in group / share household	Two to three times more likely to indicate: • All members in my household ***support*** recycling • Doing the ***right thing*** to preserve resources for future generations • Having always recycled or it being something ***learned from childhood*** • Understanding the ***personal benefits*** of recycling to me and my household (e.g. feeling rewarded for my recycling efforts) • Being aware of the ***impact of putting something*** in recycling that cannot go in there • Having support from ***other members*** in my household • Understand ***very or fairly well*** what can go in the recycling bin	Seven times more likely to indicate: • Lack of ***visual reminders*** in my house (e.g. signs or fridge magnets) Four times more likely to indicate: • Taking up ***too much time*** to recycle • Bins inside the house are ***too small*** Two to three times more likely to indicate: • ***Lack of a process*** for recycling in home • Being too much effort ***to rinse or wash items*** before recycling • It is ***too much of an effort*** to recycle • It ***is easier to just put*** items in the bin • ***Chemicals*** in some household bottles prevent them from recycling these items • Not wanting to ***waste too much water*** to clean

3.2.4. Recycling of items from the bathroom and laundry

Frequency of recycling items from the bathroom and laundry

Just over a quarter (27%) of Victorians are currently always recycling all of the recyclable items from these rooms that we asked about (toilet paper rolls, laundry powder boxes, plastic shampoo and conditioner bottles, washing detergent bottles, plastic bottles for cleaning and aerosol cans from the bathroom). Thus seven in ten people (73%) are not always recycling these items.

People are most commonly always recycling toilet paper rolls (67%), laundry powder boxes (67%) and plastic shampoo and conditioner bottles (65%), washing detergent bottles (62%) and plastic cleaning bottles (61%). Fewer are always recycling aerosol cans from the bathroom (39%).

There are a number of people who never recycle aerosol cans from the bathroom, with 17% of Victorians never recycling these items. In addition, over one in ten (11%) people are not aware that aerosol cans from the bathroom can be recycled.

Table 15: Recycling items from the bathroom and laundry

	Always	Often	Sometimes	Rarely	Never	I am not aware this item can be recycled	I do not have this in my house
Toilet paper rolls	67%	14%	5%	6%	6%	2%	0%
Laundry powder boxes	67%	15%	5%	5%	3%	1%	5%
Plastic shampoo / conditioner bottles	65%	19%	5%	2%	5%	3%	1%
Washing detergent bottles	62%	19%	8%	3%	4%	3%	2%
Plastic bottles for cleaning	61%	21%	6%	3%	4%	4%	1%
Aerosol cans from the bathroom	39%	16%	7%	8%	17%	11%	3%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Younger Victorians are less inclined to recycle items from the bathroom and laundry. Those aged 18-34 years are less likely to always recycle toilet paper rolls (55%), laundry boxes (55%), shampoo or conditioner bottes (52%), washing detergent bottles (46%) and aerosol cans from bathrooms (26%). Communications targeting this demographic are needed.

Table 16: Recycling items from the bathroom and laundry by demographics

Agree always recycle each item.	Total N=456	Male N=221	Female N=235	18-34 N=125	35-54 N=145	55+ N=186	Metro N=228	Regional N=228
Toilet paper rolls	67%	68%	67%	**55%**	72%	73%	66%	73%
Laundry powder boxes	67%	64%	69%	**55%**	70%	73%	65%	71%
Plastic shampoo / conditioner bottles	65%	67%	63%	**52%**	**74%**	67%	64%	66%
Washing detergent bottles	62%	60%	63%	**46%**	66%	**71%**	59%	69%
Plastic bottles for cleaning	61%	59%	63%	55%	63%	66%	60%	64%
Aerosol cans from the bathroom	39%	40%	38%	**26%**	41%	**49%**	37%	47%

Q10 How often do you recycle each of these items? (SC)
Base: All respondents (n=456)

Although only 27% of Victorians are always recycling all of the recyclable items listed above, about half believe they are recycling every item they can from the bathroom or toilet (48%) and laundry (48%). This indicates that not every item that can be recycled is being recycled from these rooms. However, few do not recycle at all from the bathroom or toilet (4%) and from the laundry (4%). This means that most people are doing the behaviour at least sometimes but not all the time.

Those aged 55 years and over are more likely to recycle every item that can be recycled from the bathroom or toilet (63%) and laundry (65%) compared to 18-34 year olds (30% bathroom or toilet & 26% laundry). Refer to Appendix D for additional demographic splits.

Figure 24: How much household waste is recycled from each room

Q11 Thinking about each of the following rooms in your home which of the following statements best describes **how much** of your household waste is recycled from **each room**? (SR)
Base: All respondents (n=456)

Key target audience to address regarding recycling items from the bathroom and laundry

Further investigation of the demographics of those always doing the behaviour compared to those that don't always do the behaviour highlights that there are demographic skews among these audiences.

Those currently not recycling all items from the bathroom and laundry are more likely to be younger (38% aged 18-34 years for those not doing the behaviour compared to 13% of those who are doing the behaviour). Those who are recycling all items from the bathroom and laundry are more likely to be aged 55-64 years (23%) than those who are not (12%).

Geographic differences also exist with those not recycling all items from the bathroom and laundry more likely to be living in Melbourne (79% vs 64% those who are recycling all items from the bathroom and laundry).

Significant differences also exist by dwelling type and household structure. Those who are not recycling all items from the bathroom and laundry are less likely to be living in detached / separate house (68% vs 81%) and more likely to be living in a semi-detached house, terrace or townhouse (12% vs 4%). Additionally, they are less likely to be living alone (9% vs 20%) and more likely to be living in a group or shared household (10% vs 5%). This means targeting those in apartments or units to encourage behaviour. It is suggested that letters in the mail or a pamphlet drop aimed at these types of dwellings.

Table 17: Target audience for recycling items from bathroom and laundry

Recycles items from the bathroom and laundry	Total n=456	Not always n=313	Always n=143
Age (S4)			
18-24	12%	**16%**	**4%**
25-34	18%	**22%**	**9%**
35-44	19%	19%	19%
45-54	18%	15%	23%
55-64	15%	**12%**	**23%**
65+	18%	17%	23%
Gender (S3)			
Male	49%	49%	48%
Female	51%	51%	52%
Location (S2)			
Melbourne Metro	75%	**79%**	**64%**
VIC Regional	25%	**21%**	**36%**
Property type (D4)			
Separate / detached house	72%	**68%**	**81%**
Semi-detached house, terrace or townhouse	10%	**12%**	**4%**
Household structure (D1)			
Single person living alone	12%	**9%**	**20%**
Group /shared household	9%	**10%**	**5%**
Recycling system (Q8_1) *Strongly agree* that system inside the house makes it just as easy to recycle as putting items in the garbage bin	33%	**29%**	**44%**
Attitude to recycling of household waste (Q5)			
I nearly always recycle even if it requires additional effort	80%	**75%**	**93%**
Amount of household waste is recycled (Q6)			
I/we recycle almost every item that can be recycled (over 90%)	59%	**52%**	**79%**
Awareness of what can and cannot be recycled (Q4)			
Information provided by local council	68%	**64%**	**77%**
Local newspaper	21%	**17%**	**32%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who do and do not always recycle items from the bathroom and laundry

Additional analysis conducted has identified factors which have a greater impact on those who do and do not always recycle items from the bathroom and laundry. Those who always recycle all of the items from the bathroom and laundry we asked about (toilet paper rolls, laundry powder boxes, plastic shampoo and conditioner bottles, washing detergent bottles, plastic bottles for cleaning and aerosol cans from the bathroom) are more likely to indicate that they agree with more of the positive statements 'drivers' of behaviour, while those who do not always recycle all of these containers with food, are more likely to agree with negative statements 'barriers' to recycling. These drivers and barriers can be used to develop messages and programs to encourage greater recycling of items from the bathroom and laundry.

Drivers of recycling for those who always recycle all these items from the bathroom and laundry:

Those who always recycle all of these items from the bathroom and laundry are three to four times more likely, compared to those who do not always recycle all of these items to indicate that ***they understand very or fairly well what can go in the organics bin for garden waste***, and that ***they understand very or fairly well what can go in the recycling bin.*** These main drivers may be described as **perceived behavioural control**. According to Theory of Planned Behaviour[7], such positive perceived behavioural control is a result of positive control beliefs such as clear identification on packaging on what can be recycled.

Those who always recycle all items from the bathroom and laundry are also two to three times more likely, compared to those who do not always recycle all of these items to indicate that ***recycling is very or fairly important to them personally, doing the right thing to preserve resources for future generations, fear of receiving a bin audit sticker for not recycling correctly, clear identification on packaging on what can be recycled (e.g. recycling symbol), understanding the benefits of recycling to themselves and their household e.g. feeling rewarded for recycling*** makes it easier to recycle household items.

Barriers to recycling for those who do not always recycle all these items from the bathroom and laundry:

Those who do not always recycle all of these items from the bathroom and laundry are almost three times more likely, compared to those who always recycle all of these items to indicate that ***the bins inside the house being too small and lack of recycle bin/s in some rooms of their house makes it difficult to recycle from these rooms*** makes it more difficult for them to recycle household items. These can be described as **control beliefs** and accordingly may lead to lower perceived behavioural control making it more difficult for people to recycle.

Those who do not always recycle all of these items from the bathroom and laundry are also two to three times more likely, compared to those who always recycle all of these items to mention that ***the chemicals in some household bottles prevent them from recycling these items, lack of a process for recycling in the home, not understanding the need or benefit of recycling, being unsure about what can / cannot be recycled*** and ***too much time or effort to wash items before putting them into the recycling bin*** makes it more difficult for them to recycle household items.

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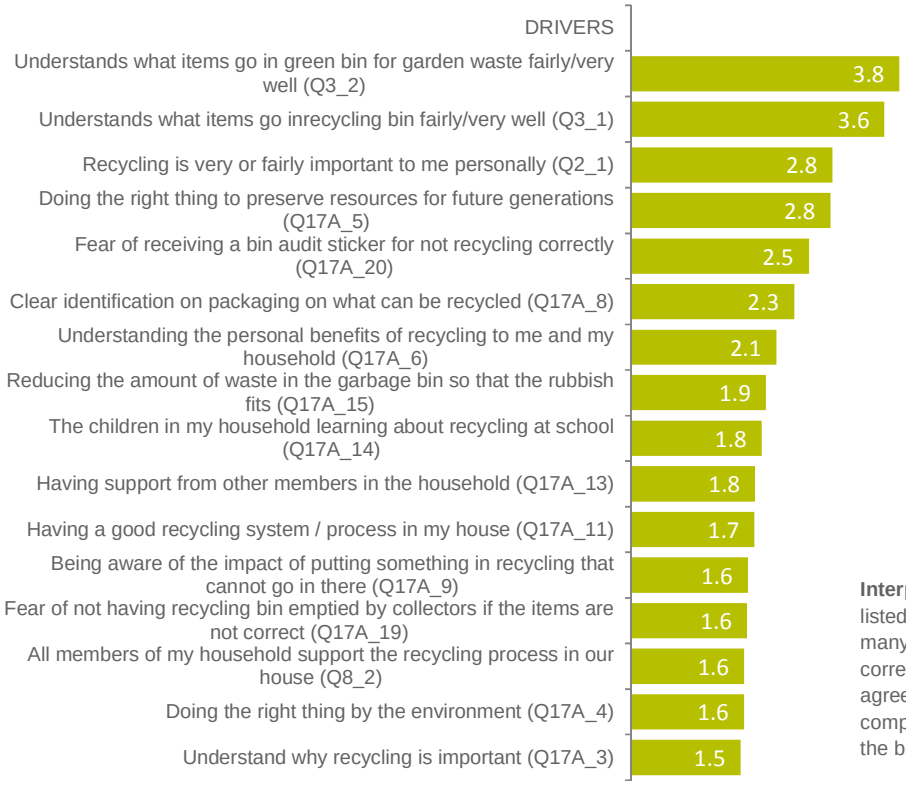
[7] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

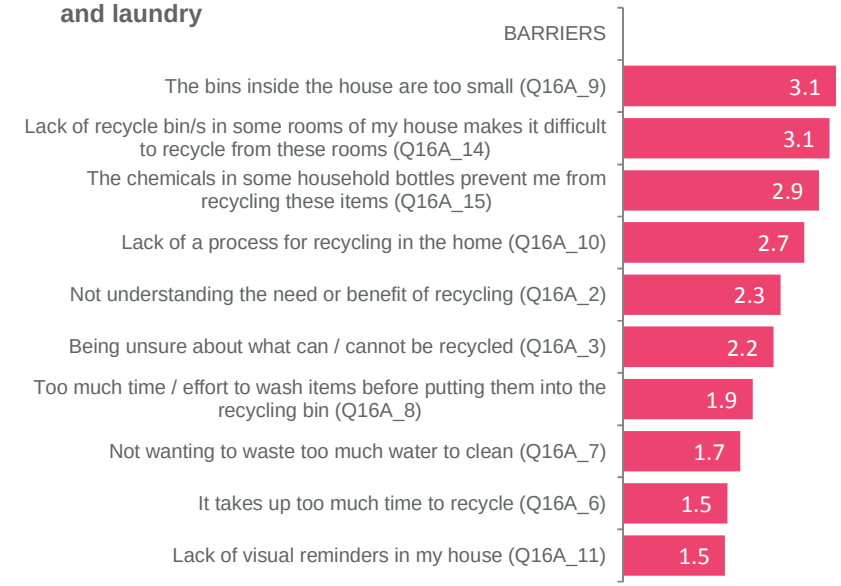
Figure 25: Drivers and barriers for those who always recycle items from the bathroom and laundry



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents (n=456)

Figure 26: Drivers and barriers for those who do not always recycle items from the bathroom and laundry



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents (n=456)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of recycling, whilst focusing on the key motivational drivers.

Table 18: Recycling from bathroom and laundry summary

Target audience	Drivers of recycling	Barriers to recycling
Those who are not always recycling **items from the bathroom and laundry** are more likely to be: • Living in Melbourne Younger – aged 18-34 years They are also less likely to be: • Live in a separate / detached house • Single person living alone	Three to four times more likely to indicate: • Understand ***very or fairly well*** what can go in the recycling bin. • Recycling is very or fairly important to them personally Two to three times more likely to indicate: • Doing the ***right thing*** to preserve resources for future generations • Fear of receiving a ***bin audit sticker*** for not recycling correctly • ***Clear identification*** on packaging on what can be recycled (e.g. recycling symbol) • Understanding the ***benefits*** of recycling to themselves and their household e.g. feeling rewarded for recycling	Two to three times more likely to indicate: • Bins inside the house being ***too small*** • ***Lack of recycle bin/s*** in some rooms of their house makes it difficult to recycle from these rooms • ***Chemicals*** in some household bottles prevent them from recycling these items • ***Lack of a process*** for recycling in the home • Not ***understanding*** the need or benefit of recycling • ***Being unsure*** about what can / cannot be recycled • ***Too much time or effort*** to wash items before putting them into the recycling bin

3.2.5. Collecting recyclables from different locations in the house

Investigating how Victorians collect recyclables from different locations in their house has identified some interesting in home behaviours about recycling. Victorians are most likely to collect recyclables in a bin from the kitchen (33%), bathroom or toilet (30%), dining room (21%), bedroom (24%) and study (25%). However, it is difficult to capture whether respondents mean they collect recyclables in a separate bin from this room meaning it could be shared with garbage or resorted from other rooms.

A fifth of Victorians collect items loose in the lounge (22%) and in the bedroom (21%) and take recyclables to another room within the house.

Approximately a quarter (26%) of Victorians collect items loose in the laundry, whilst three in ten (31%) collect items from outdoor areas and take items straight out to recycling bin outside the house. This may indicate that larger items from these locations are taken out directly to the recycling bin outside of the house.

Plastic bags are being used to collect some recyclables in different rooms of the house. Just over one in ten (13%) Victorians use a plastic bag in the kitchen to collect items for recycling, a further 8% of Victorians are using plastic bags for collection in the bedroom and bathroom or toilet.

Few Victorians are using paper bags to collect recyclables in home, it is likely that they do not have access to these in the home.

Table 19: Location of recycling in home

	In a bin	In a box	In a plastic bag	In a paper bag	Collect items loose in this room	Collect items loose and take to another room within the house for collection	Collect items loose in this room and take straight out to recycling bin outside	We do not collect recyclables from this room
Kitchen	33%	13%	13%	1%	12%	9%	18%	0%
Bathroom/toilet	30%	8%	8%	1%	11%	20%	19%	2%
Laundry	22%	10%	6%	3%	13%	19%	26%	1%
Lounge	20%	9%	6%	3%	12%	22%	20%	9%
Dining room	21%	10%	7%	2%	10%	19%	20%	11%
Bedroom	24%	9%	8%	3%	9%	21%	14%	11%
Study	25%	10%	6%	3%	8%	18%	17%	12%
Garage/shed/outdoor	21%	11%	5%	1%	8%	10%	31%	12%

Q12 Thinking about each of the following rooms, how do you collect items for recycling?
Base: All respondents (n=456)

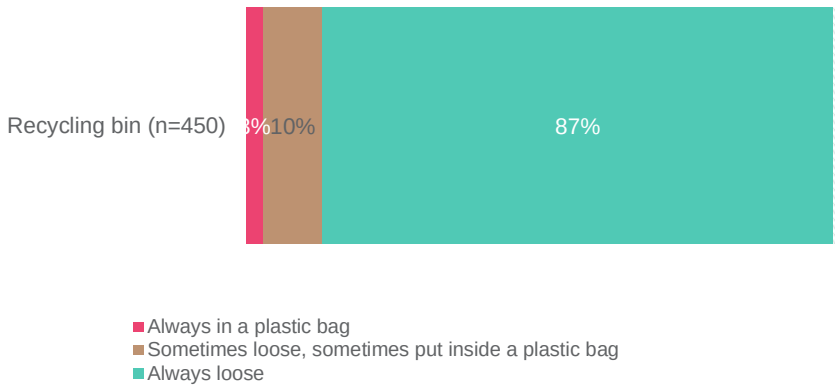
3.2.6. Keep recyclables out of plastic bags

Frequency of placing recyclables in plastic bags

Almost nine in ten (87%) of Victorians are currently doing the correct behaviour by always putting items loose into the recycling bin. A small proportion of Victorians (13%) are incorrectly putting plastic bags into the recycling bin. A similar portion of people are collecting recyclables in plastic bags from the kitchen who would be emptying items or putting plastic bags straight into the recycling bin.

Further investigation highlights that when putting items into a recycling bin more people in regional Victoria (93%) and those aged 55 years and over (93%) are significantly more likely to always put in items loose. Compared to their counterparts, 18-34 year olds are less likely to place items always loose in the recycling bin (74%) and more likely to place them sometimes loose, sometimes put inside a plastic bag (21%). Refer to Appendix D.

Figure 27: How items are placed in the recycling bin

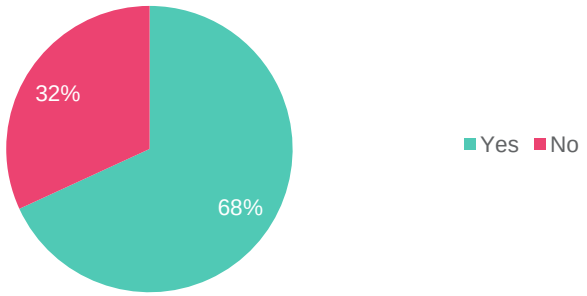


Q7 When putting items in your recycling bin/s, are items **put in loose** or **inside a plastic bag**? (SR)
Base: All respondents with recycling bin (n=450)

Almost a third (32%) of Victorians are unaware of the impact of plastic bags placed in recycling bins and garden or food waste. Knowledge that recyclables in plastic bags end up in landfill is understood by approximately seven in ten Victorians (68%) with three in ten (32%) having no knowledge of this. This means that further education is necessary to ensure that all Victorians are informed of that recyclables in plastic bags do not get recycled and end up in landfill.

Further investigation on the demographic differences that exist highlights that more people aged 55 years and over (77%) and those living in regional Victoria (79%) are aware that recyclables in plastic bags end up in landfill, whereas less 18-34 year olds are aware that recyclables in plastic bags end up in landfill (57%). This indicates that any communication aimed at increasing the knowledge that recyclables in plastic bags end up in landfill needs to be aimed at younger Victorians.

Figure 28: Knowledge that recyclables in plastic bags end up in landfill

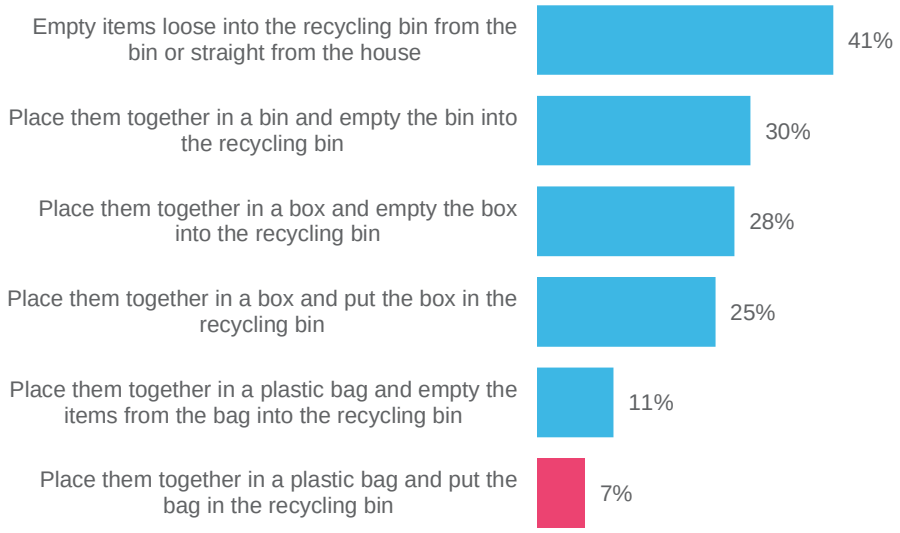


Q27 Did you know that **recyclables in plastic bags end up in landfill**? (SC)
Base: All respondents (n=456)

When asked directly how people were putting items into their recycling bin, the process is varied across households. When placing items in the recycling bin two in five (41%) Victorians empty items loosely into the recycling bin from the bin or straight from the house. Many place items together in a bin (30%) or box (28%) and empty them into the recycling bin.

When asked directly how people were putting items into their recycling bin, seven percent of Victorians place items together in a plastic bag and put the bag in the recycling bin. This means that even though overall 13% of people are always or sometimes putting recyclables in plastic bags 7% have a process in home that encourages this behaviour. This behaviour needs to be discouraged in households. Those aged 18-34 years are more likely to place items together in a plastic bag and put the bag in the recycling bin (13%), whereas more people aged 55 years and over (55%) and individuals living in regional Victoria (56%) empty items loose into the recycling bin from the bin or straight from the house.

Figure 29: Placing items in recycling bin



Q13 When putting items in the recycling bin, which of the following do you do? (MR)
Base: All respondents (n=456)

Key target audience to address regarding placing recyclables in plastic bags

Further investigation of the profile of who is putting plastic bags in the recycling bin or organics bin indicates that of the 13% of Victorians who do not always put items in the recycling bin loose are more likely to be from Melbourne (87% vs 73%), be younger as they are more likely to be aged 25-34 years of age (44% vs 14%) and less likely to be aged 65 years or over (5% vs 20%). Those who do not always put items in the recycling bin loose are also more likely to collect recyclables in the house by placing items together in a plastic bag and then putting the bag in the recycling bin (30% vs 3%) and less likely to live in a separate or detached house (52% vs 74%). This indicates that those doing the incorrect behaviour are more likely to be living in apartments and units, which suggests communication targeting these types of dwellings through either direct mail or pamphlets in the mailbox.

Conversely, of the 87% of Victorians who always put items in the recycling bin loose are more likely to recycle almost every item that can be recycled (62% vs 41%), strongly agree that the system inside their house makes it just as easy to recycle as putting items in the garbage bin (36% vs 9%) and that all members of their household support the recycling process in their house (42% vs 19%).

Table 20: Demographics and attitudes of those who always and do not always put recycling in the recycling bin loose

	Puts recycling in the recycling bin loose		
	Total n=450	Not always n=55	Always n=395
Age (S4)			
18-24	2%	15%	12%
25-34	18%	**44%**	**14%**
35-44	23%	13%	20%
45-54	14%	10%	19%
55-64	17%	12%	15%
65+	25%	**5%**	**20%**
Gender (S3)			
Male	49%	50%	49%
Female	51%	50%	51%
Location (S2)			
Melbourne Metro	75%	**87%**	**73%**
VIC Regional	25%	**13%**	**27%**
Property type (D4)			
Separate / detached house	71%	**52%**	**74%**
Flat, unit or apartment - that's one or two stories	11%	**25%**	**9%**
Recycling system (Q8_1) *Strongly agree* that system inside the house makes it just as easy to recycle as putting items in the garbage bin	33%	**9%**	**36%**
Support for recycling process (Q8_2) *Strongly agree* that all members of household support the recycling process	39%	**19%**	**42%**
Amount of household waste is recycled (Q6)			
I/we recycle almost every item that can be recycled (over 90%)	59%	**41%**	**62%**
Adoption of food waste in organics bin (Q21)			
Very likely to adopt food waste in organics bin if available	24%	**12%**	**26%**
Awareness of contamination (Q28)			
Aware that plastic bags can contaminate garden/food waste	68%	**47%**	**71%**
Recycling actions (Q3) Place items together in a plastic bag and put the bag in the recycling bin	7%	**30%**	**3%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who always and do not always place recycling in the recycling bin loose

Additional analysis conducted has identified factors which have a greater impact on those who always and do not always place recycling in the recycling bin loose. Those who always place recycling in the recycling bin loose are more likely to indicate that they agree with more of the positive statements 'drivers' of behaviour, while those who do not always recycle all of these containers with food, are more likely to agree with negative statements 'barriers' to recycling. These drivers and barriers can be used to develop messages and programs to encourage placing recycling in the recycling bin loose.

Drivers of recycling for those who always place recycling in the recycling bin loose

Those who always place recycling in the recycling bin loose are six times more likely, compared to those who do not always place recycling in the recycling bin loose to agree that they *understand very or fairly well what can go in the organics bin for garden waste*, which suggests they have a greater general awareness of recycling practices, whether this be regarding the recycling bin or organics bin. This main driver may be described as a **behavioural belief**. According to Theory of Planned Behaviour[8], such a positive behavioural belief would also lead to more positive attitudes towards recycling, such as recycling being very or fairly important to these people personally.

Those who always place items in the recycling bin loose are also two to three times more likely to indicate that *clear identification on packaging of what can be recycled*, and *doing the right thing to preserve resources for future generations, and all members of their household supporting the recycling process in the house* makes it easier to recycle household items.

Furthermore, they are twice as likely to agree *recycling is very or fairly important to them personally*, and to *agree or strongly agree their system inside the house makes it as easy to recycle as putting items in the garbage bin.*

Barriers to recycling for those who do not always place recycling in the recycling bin loose:

Those who do not always place recycling in the recycling bin loose are almost seven times more likely, compared to those who always place recycling in the recycling bin loose to indicate that *the time it takes to recycle* makes it more difficult for them to recycle household items. This main barrier may be described as a **control belief** because the negative perception that it takes up too much time to recycle is associated with making recycling harder. According to Theory of Planned Behaviour[9], such negative control beliefs would also give rise to lower perceived behavioural control.

Furthermore, those who do not always place recycling in the recycling bin loose are also five to six times more likely to indicate that *a lack of recycle bins in some rooms of the house makes it difficult to recycle from these rooms, recycling not being that important, not understanding the need or benefit of recycling* and *children not recycling correctly and difficulty correcting behaviour* makes it more difficult for them to recycle household items.

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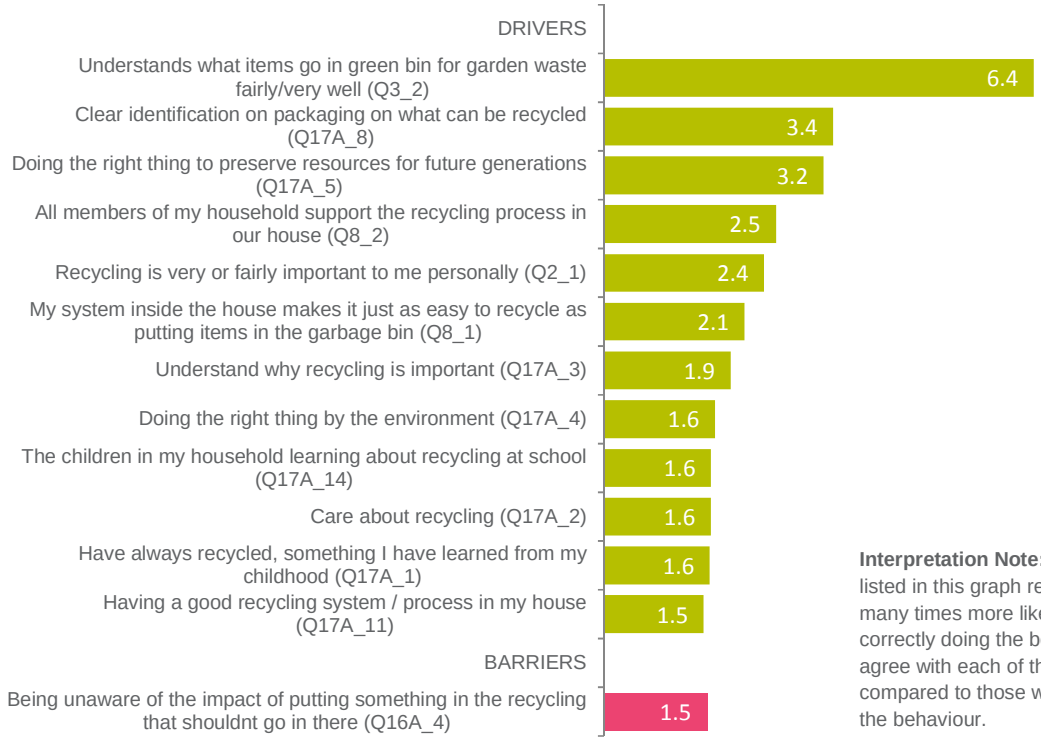
[8] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

[9] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

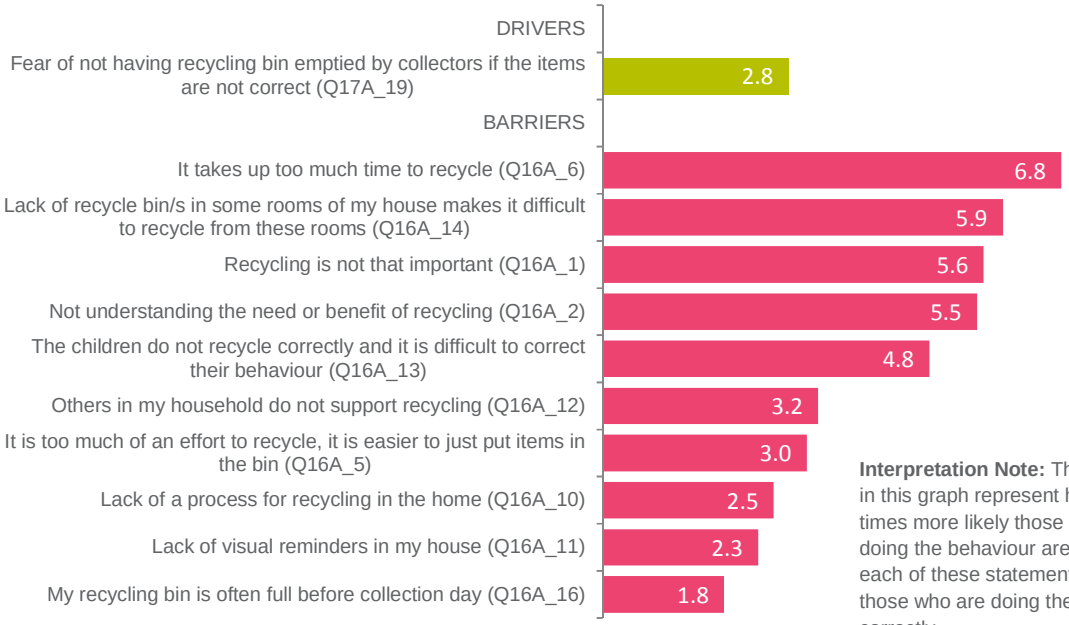
Figure 30: Drivers and barriers for those who always put items in the recycling bin loose



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents (n=456)

Figure 31: Drivers and barriers for those who do not always put items in the recycling bin loose



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents (n=456)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of recycling, whilst focusing on the key motivational drivers.

Table 21: Keep recyclables out of plastic bags summary

Target audience	Drivers of recycling	Barriers to recycling
Those who are not always keeping recyclables out of plastic bags are more likely to be: • Younger – aged 25-34years • Living in Melbourne • Live in one to two storey unit / flat / apartment Less likely to be: • Older • Live in separate / detached house • Live regional Victoria	Five to six times more likely to indicate: • Understand ***very or fairly well*** what can go in the organics bin for garden waste Two to three times more likely to indicate: • ***Clear identification*** on packaging of what can be recycled • Doing the ***right thing*** to preserve resources for future generations • All members of their household ***supporting the recycling process*** in the house • Recycling is ***very or fairly important*** to them personally • Agree or strongly agree their system inside the house makes it as ***easy to recycle as putting items in the garbage bin***	Seven times more likely to indicate • The ***time it takes*** to recycle Five to six times more likely to indicate: • A ***lack of recycle bins in some rooms*** of the house makes it difficult to recycle from these rooms • Recycling ***not being that important*** • ***Not understandin***g the need or benefit of recycling • ***Children not recycling correctly*** and difficulty correcting behaviour

3.3. Organic (garden and food) recycling

Research objective addressed in this section:

To determine baseline figures for attitudes and key behaviours and identify key drivers and barriers and the target audience that addresses: contamination of organic collections; and participation in food waste collection.

The key behaviours to investigate are:

- include food waste (hypothetical behaviour)
- keep organics out of plastic bags; and
- keep inorganic backyard detritus (plastic bags, beer bottles, toys, gardening debris (e.g. garden tools, garden hose) etc.) out of the organics bin.

Key findings

Consideration of a food waste recycling system:

- Half of respondents (52%) are likely to consider a food waste recycling system such as a compost, worm farm or other system in their household, although a quarter (26%) are unlikely to do so. The remainder are unsure. Younger Victorians are less likely to consider a food waste recycling system.

Inclusion of food waste in the organics bin:

- Among those with access to an organics bin six in ten people are likely to consider putting food waste in their organics bin if this was available to them. Females are more likely than males to be very likely to consider putting food waste in an organics bin if this was available to them.
- Those who are likely to consider including food waste in the organics bin in the future are almost three times more likely, compared to those who are unlikely to consider including food waste in the organics bin to indicate that *being able to wrap food waste in paper rather than placing loose in the green bin* and a *free container provided by the council* makes it easier to recycle food waste. These main drivers are positive control beliefs perceived as making recycling food waste easier.
- Compared to those who are likely to consider including food waste in the organics bin in the future, those who are unlikely to consider including food waste in the organics bin in the future are five times more likely to indicate that they *don't see the point of recycling food waste.* This barrier is an attitude towards recycling food waste leading to negative attitudes towards recycling food waste.

Keep organics out of plastic bags:

- The majority of Victorians who have access to an organics bin are always putting in items loosely. A total of 9 in 10 Victorians are correctly keeping items out of plastic bags in the organics bin.
- Those who do not put plastic bags in the organics bin are ten times more likely, compared to those who do put plastic bags in the organics bin to indicate that *they understand what items go in the organics bin for garden waste fairly or very well* makes it easier to keep inorganic backyard items out of the organics bin. This main driver may be described as a **behavioural belief** which can lead to more positive attitudes towards keeping inorganic items out of the recycling bin.

- Those who do put plastic bags in the organics bin are three times more likely, compared to those who do not put plastic bags in the organics bin to indicate that *when entertaining beer bottles may end up in the organics bin* makes it more difficult for them to keep inorganic backyard items out of the organics bin. This is a control believe perceived to make keeping inorganic items out of the organics bin harder.

Keep inorganic backyard detritus (plastic bags, beer bottles, toys, gardening debris (e.g. garden tools, garden hose) etc.) out of the organics bin:

- Almost two thirds (64%) of people with an organics bin have indicated they have ever put any of the inorganic items we asked about into their organics bin.
- Among those who have access to an organics bin the inorganic item most likely to have placed in the organics bin is soil, with four in ten (43%) having done so.
- About one in ten (12%) have put a plastic bag containing garden waste in their organics bin and a similar proportion (10%) have put plastic pots in the organics bin.
- Inorganic items less likely to be put in the organics bin are gardening debris (e.g. garden tools, garden hose) (8%), loose plastic bags (5%) beer bottles (4%) DIY waste (3%) and children's toys (1%).
- Those who do not put inorganic items in the organics bin are five times more likely, compared to those do put inorganic items in the organics bin to indicate that *they understand what items go in the organics bin for garden waste fairly or very well* makes it easier for them to keep inorganic backyard items out of the organics bin. This main driver is a behavioural belief leading to more positive attitudes towards keeping inorganic items out of the organics bin.
- Those who do put inorganic items in the organics bin are two to three times more likely, compared to those who do not put inorganic items in the organics bin to indicate that *backyard materials getting mixed up with the garden waste* and *too much effort to correctly check what goes in the bin* makes it more difficult for them to keep inorganic backyard items out of the organics bin. The main barrier, backyard materials getting mixed up with garden waste, is a **control belief** perceived as making it harder to keep inorganic items out of the organics bin.

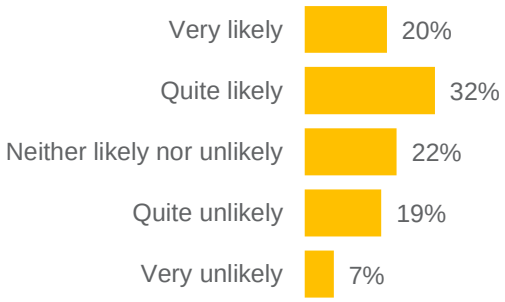
3.3.1. Include food waste in organics bin

Frequency of including food waste in organics bin

Half of respondents (52%) are either very likely or quite likely to consider a food waste recycling system such as a compost or worm farm in their household. This indicates that a large number of Victorians are interested in a food wastage system.

Further investigation on geographic differences highlights that those living in regional Victoria (35%) are more likely than those in Melbourne (15%) to be very likely to consider a food wastage recycling system such as a compost, worm farm or other recycling system in the household. Differences also exist by age, with those aged 55 years and over significantly more likely to be very likely (29%) to consider a food wastage adoption system than those aged 18-34 years (11%). This means younger Victorians have less interest in this type of food wastage system.

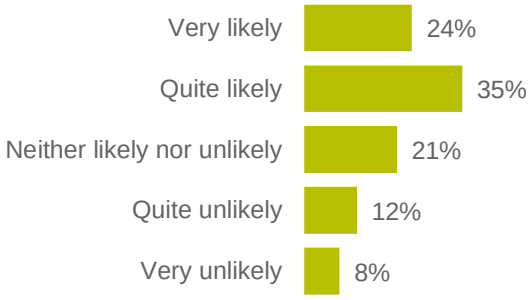
Figure 32: Adoption of food wastage recycling system



Q20 Which best describes how likely you are to consider a **food waste recycling system** such as **compost, worm farm** or **other recycling system** in your household? (SR)
Base: All respondents (n=456)

A total of six in ten Victorians are likely to consider the adoption of food waste in the organics bin. A quarter of Victorians with access to an organics bin (24%) are very likely to consider putting food waste in their organics bin if this was available to them. However, 20% are quite unlikely or very unlikely to put food waste in an organics bin. This means that at an overall level there is resistance to putting food waste in the organics bin. Females are more likely than males to be very likely to consider putting food waste in an organics bin if this was available to them (34% vs. 14%).

Figure 33: Adoption of food waste in organics bin



Q21 How **likely or unlikely** are you to consider putting food waste in an organics bin if this was available to you within your council? (SC)
Base: Respondents with an organics bin (n=316)

Drivers and barriers of recycling food waste

Those with access to an organics bin were asked about the hypothetical reasons they would find it difficult and what would make it easy for them to recycle food waste.

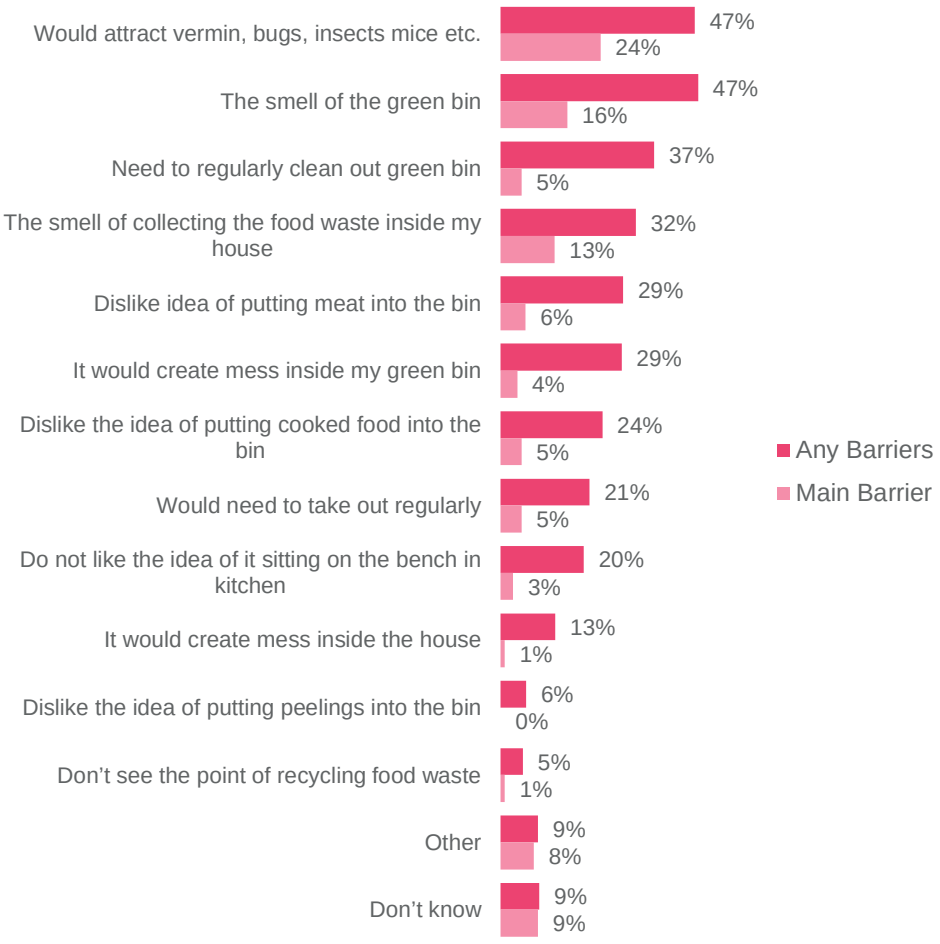
Attracting vermin and the smell of the organics bin are the main reasons preventing people from recycling food waste. Almost half of Victorians with an organics bin (47%) are put off putting food waste in the organics bin as they believe it would attract vermin, bugs, insects, mice and 47% believe that the smell of the organics bin would make it difficult to recycle food waste.

In addition to these challenges, four in ten (37%) believe that they would need to clean out their organics bin regularly, whilst a third (32%) cite that the smell of collecting food within the house would act as a deterrent. Three in ten (29%) people do not like the idea of putting meat into their organics bin. Others see it as a hassle as it would create mess inside the organics bin (29%) and inside the house (13%).

Encouragingly, a smaller number of Victorians (5%) didn't see the point of recycling food waste suggesting that most would support the introduction to food waste collection.

When prompted about the main barrier that would make it most difficult to recycle food waste a quarter of all people believe that attracting vermin, bugs and mice within their house is considered the biggest deterrent. The second most common barrier is the potential smell of the organics bin (16%) and the smell of collecting food waste in home (13%). This indicates the fear of food waste smelling in home or in the organics bin accounts for the biggest barrier for food waste collection. This means for this to be successful, fears around smell need to be reduced by implementing strategies to ensure smell or odour is kept to a minimum.

Figure 15: Barriers that would make it difficult to recycle food waste



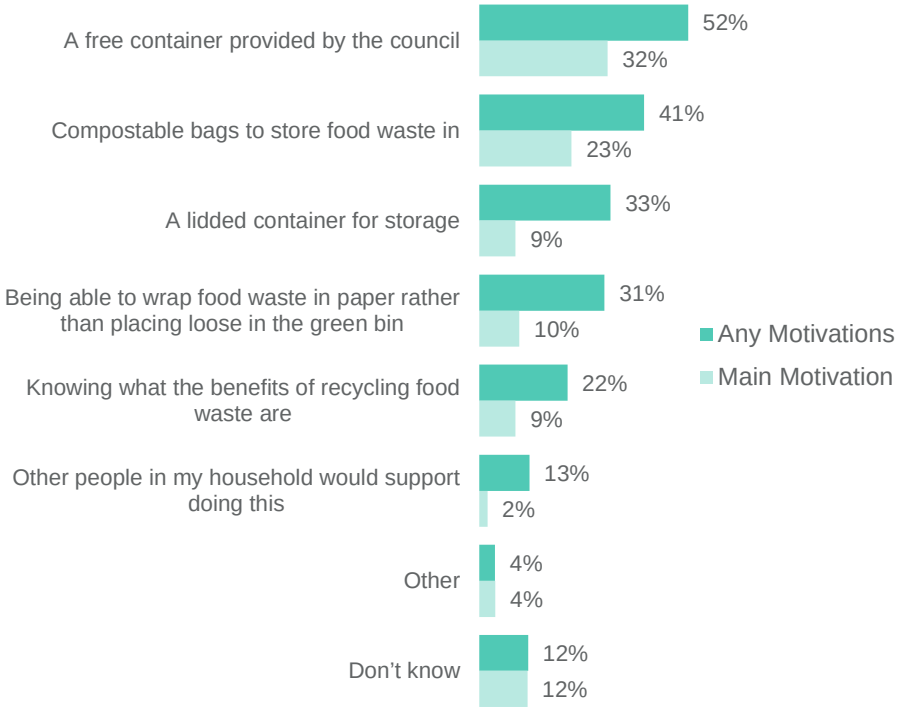
Q22A Which of the following would make it **difficult for you to recycle food waste**? (MR)
Q22B What is the **MAIN** factor that would make it **difficult to recycle food waste**? (SC)
Base: Respondents with an organics bin (n=316)

A free container provided by the council would be a main motivator of recycling organic food waste. A free container provided by the council would motivate half of Victorians with an organics bin (52%) to make it easier to recycle organic food waste, followed by compostable bags to store food waste in (41%) and a lidded container for storage (33%).

The most motivating actions that would make it easier to recycle food waste would be a free container provided to households by local councils. A third (32%) of all people with access to an organics bin agree they would be most motivated by the provision of a free container from their local council. Roughly a quarter (23%) of people indicate that compostable bags to store food waste in the home would make it easier for them to recycle food waste. This means that it is essential that local councils support initiatives that encourage food waste collections by providing free containers and the distribution of compostable bags to overcome barriers with collecting food waste for recycling.

One in ten (12%) Victorians were unsure of what would make it easier for them to recycle food waste, suggesting they may need further encouragement about the idea of recycling food waste once the system has been implemented or may need to see others in their community doing the behaviour.

Figure 16: Motivations that make it easier to recycle organic food waste



Q23A Which of the following would make it **easier** for you to **recycle organic food waste**? (MR)
Q23B What is the **MAIN** factor that would make it **easier** for you to **recycle organic food waste**? (SC)
Base: Respondents with an organics bin (n=316)

Key target audience to address regarding including food waste in organics bin

Further investigation of those people who would consider recycling food waste in their organics bin highlight they are more likely to be female: total of 58% of people who would consider recycling food waste in the organics bin are female, whilst the remaining 42% are male. No other age or geographic skews exist.

Table 22: Demographics and attitudes of those who always and do not always put food waste in their food waste organics bin

	Has a food waste organics bin and puts food waste in it		
	Total	Unlikely	Likely
	n=316	n=121	n=195
Age (S4)			
18-24	11%	12%	11%
25-34	18%	16%	19%
35-44	18%	16%	19%
45-54	19%	17%	19%
55-64	16%	15%	16%
65+	19%	24%	16%
Gender (S3)			
Male	49%	**58%**	**42%**
Female	51%	**42%**	**58%**
Location (S2)			
Melbourne Metro	77%	79%	76%
VIC Regional	23%	21%	24%
Recycling system (Q8_1) *Strongly agree* that system inside the house makes it just as easy to recycle as putting items in the garbage bin	32%	30%	33%
Support for recycling process (Q8_2) *Strongly agree* that all members of household support the recycling process	37%	33%	40%
Amount of household waste is recycled (Q6) I/we recycle almost every item that can be recycled (over 90%)	58%	**49%**	**64%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who would consider including food waste in the organics bin in the future

Additional analysis has identified factors which have a greater impact on those who are likely to consider including food waste in the organics bin in the future. Those who are likely to consider including food waste in the organics bin are more likely to indicate that they agree with more of the positive statements 'drivers' of behaviour, while those who are unlikely to consider including food waste in the organics bin, are more likely to agree with negative statements 'barriers' to recycling food waste.

These drivers and barriers can be used to develop messages and programs to encourage recycling of food waste.

Drivers of recycling for those who are likely to consider including food waste in the organics bin in the future

Those who are likely to consider including food waste in the organics bin in the future are almost three times more likely, compared to those who are unlikely to consider including food waste in the organics bin to indicate that *being able to wrap food waste in paper rather than placing loose in the green bin* and a *free container provided by the council* makes it easier to recycle food waste. These main drivers are positive **control beliefs**. According to Theory of Planned Behaviour[10], such positive control beliefs would also lead to more positive perceived behavioural control making recycling food waste easier.

Those that are likely to consider including food waste in the organics bin are also twice as likely to indicate that *compostable bags to store food waste in and knowing what benefits of recycling food waste are* would make it easier to recycle food waste.

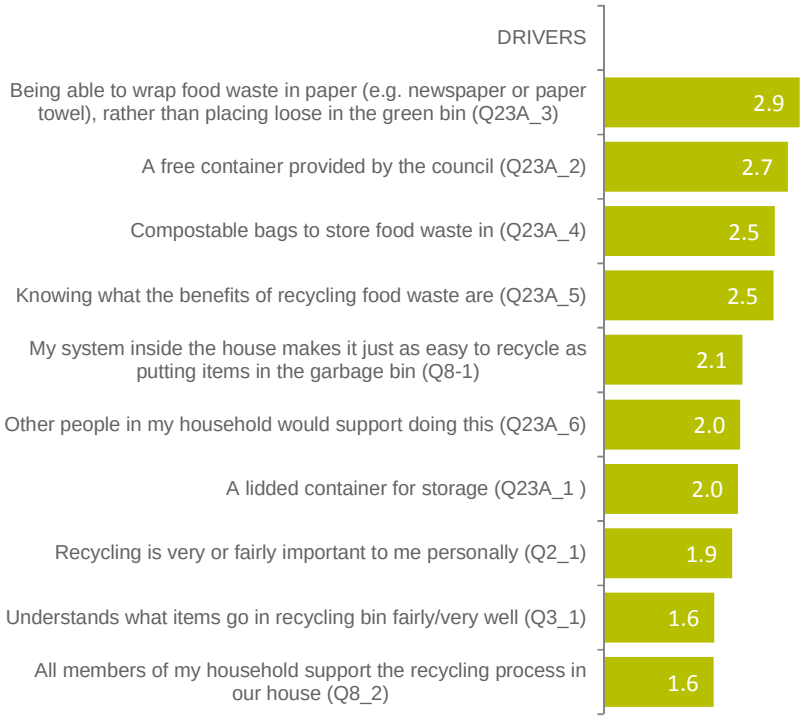
Barriers to recycling for those who are unlikely to consider including food waste in the organics bin in the future

Compared to those who are likely to consider including food waste in the organics bin in the future, those who are unlikely to consider including food waste in the organics bin in the future are five times more likely to indicate that they *don't see the point of recycling food waste.* This main barrier is an **attitude towards recycling** food waste. According to Theory of Planned Behaviour[11], such a negative attitude would be produced by negative behavioural beliefs.

They are also almost three times as likely to indicate that they *dislike the idea of putting cooked food into the bin.*

[10] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.
[11] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

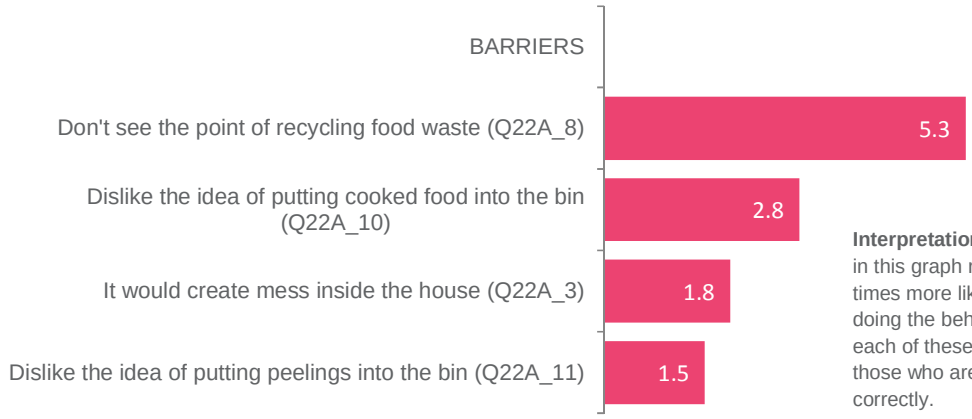
Figure 34: Drivers and barriers for those who consider putting food waste in the organics bin



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents with an organics bin (n=316)

Figure 35: Drivers and barriers for those who would not consider putting food waste in the organics bin



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents with an organics bin (n=316)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of recycling organic food waste, whilst focusing on the key motivational drivers.

Table 23: Include food waste in organics bin summary

Target audience	Drivers of recycling food waste	Barriers to recycling food waste
Those who would consider including **food waste in the organics bin** are more likely to be: • Female (58% vs 42%)	Two to three times more likely to indicate: • Being able to ***wrap food waste in paper*** (e.g. newspaper or paper towel), rather than placing loose in the organics bin • A ***free container*** provided by the council • ***Compostable bags*** to store food waste in • Knowing what the ***benefits*** of recycling food waste are • My system inside the house makes it just as ***easy to recycle*** as putting items in the garbage bin • Other people in my household would ***support*** doing this	Five times more likely to indicate: • Not ***seeing the point*** of recycling food waste Two to three times more likely to indicate • Dislike the idea of putting ***cooked food*** into the bin • It would ***create mess*** inside the house • Dislike the idea of putting ***peelings*** into the bin

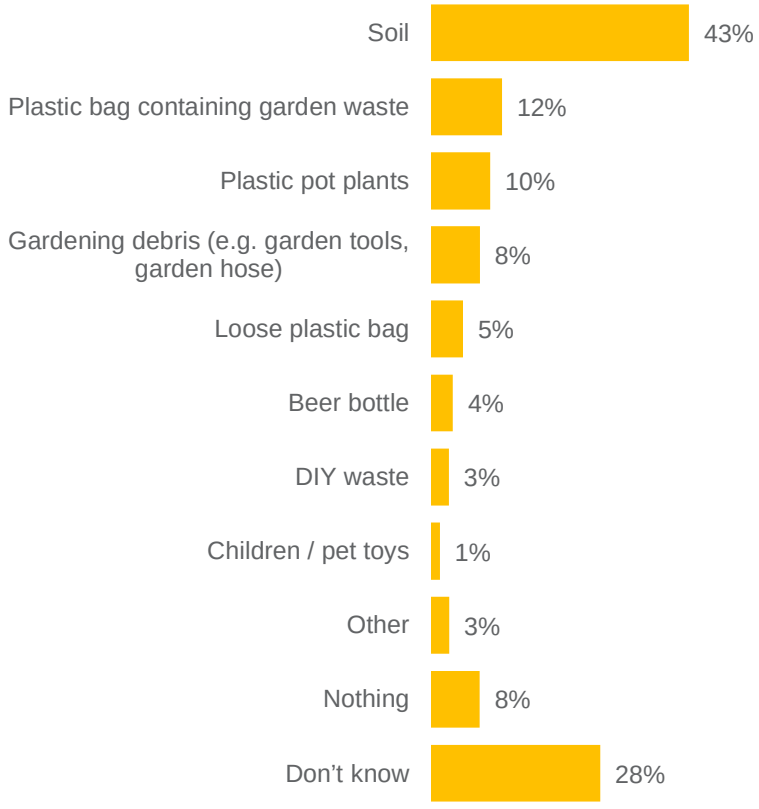
3.3.2. Keep organics out of plastic bags and inorganic backyard detritus out of the organics bin

Frequency of keeping organics out of plastic bags and inorganic backyard detritus out of the organics bin

Almost two thirds (64%) of people with an organics bin have indicated they have ever put any of the inorganic items listed below in the organics bins. This means a third (36%) of people do not believe or are not sure if they have put any of these inorganic items in the organics bin.

The item most commonly put in the organics bin is soil, with four in ten (43%) people claiming to have put soil in their organics bin. Roughly one in ten people have put a plastic bag containing garden waste (12%) or plastic pots (10%) in the organics bin. Fewer people have put items such as gardening debris (8%), loose plastic bags (5%) beer bottles (4%), DIY waste (3%) and 1% children's toys. Overall, Victorians are conscious of using the organics bin for a broad range of items that should not be put in the organics bin.

Figure 17: Items put in an organics bin



Q24 Which of the following have you ever intentionally or unintentionally put in your green / garden bin? (MR)
Base: Respondents with an organics bin (n=316)
* Nothing has been recoded based on the comments mentioned in other.

Drivers and barriers of keeping inorganic backyard items out of the organics bin

Backyard materials mixed with the garden waste makes it difficult to keep inorganic backyard items out of the organics bin.

A quarter (24%) of Victorian's backyard materials are getting mixed up with the garden waste making it the main barrier (19%) to keeping backyard items out of the organics bin. The second most commonly cited reason for difficulties keeping inorganic material out of the organics bin is being unsure about what can and cannot go in this bin for one in five (19%) Victorians.

It is recommended that more community understanding is needed so Victorians understand the do's and don'ts of recycling in the organics bin.

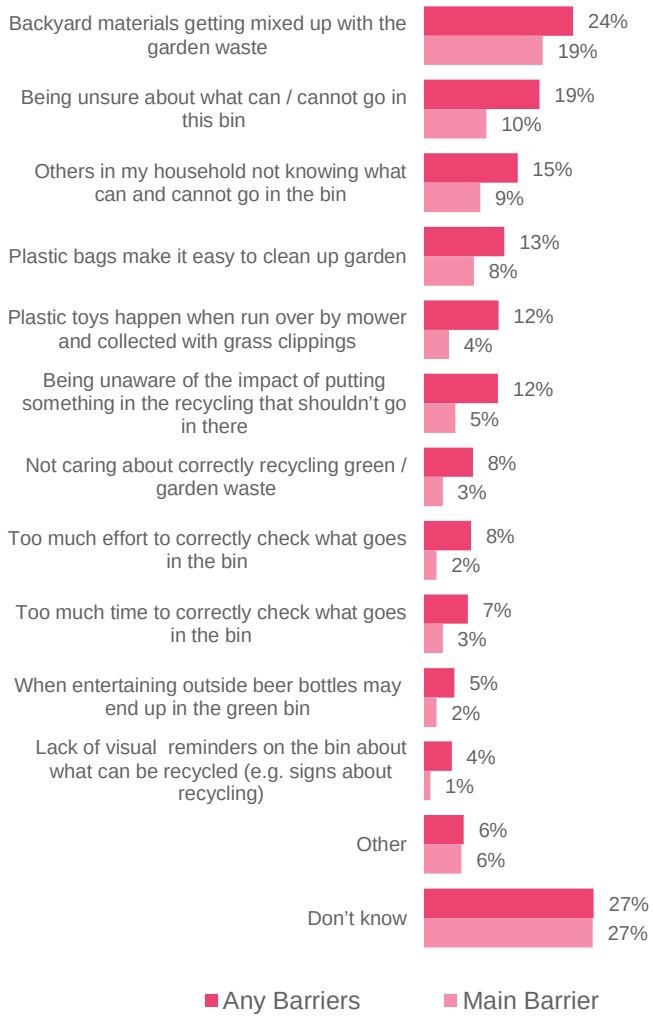
More 18-34 year olds are likely to indicate that too much time to correctly check what goes in the bin (16%) and when entertaining outside beer bottles may end up in the organics bin (14%), are barriers to keeping backyard items out of the organics bin.

Investigation of the main barriers indicates that a fifth of all Victorians with access to an organics bin believe that backyard materials being mixed up with the garden waste is the main barrier for keeping inorganic items out of the organics bin. This means that the majority believe that these items are unintentionally being mixed up with garden waste.

Fewer than one in ten Victorians cite the main barriers as being unsure of what goes into the organics bin (10%), others in household not knowing (9%) and plastic bags make it easier for clean up around the garden (8%).

Just over a quarter (27%) of Victorians are unsure of any barriers to keeping inorganic backyard items out of the organics bin, this indicates that for some they are unable to articulate the reasons why this behaviour occurs.

Figure 18: Barriers that make it difficult to keep inorganic backyard items out of the organics bin



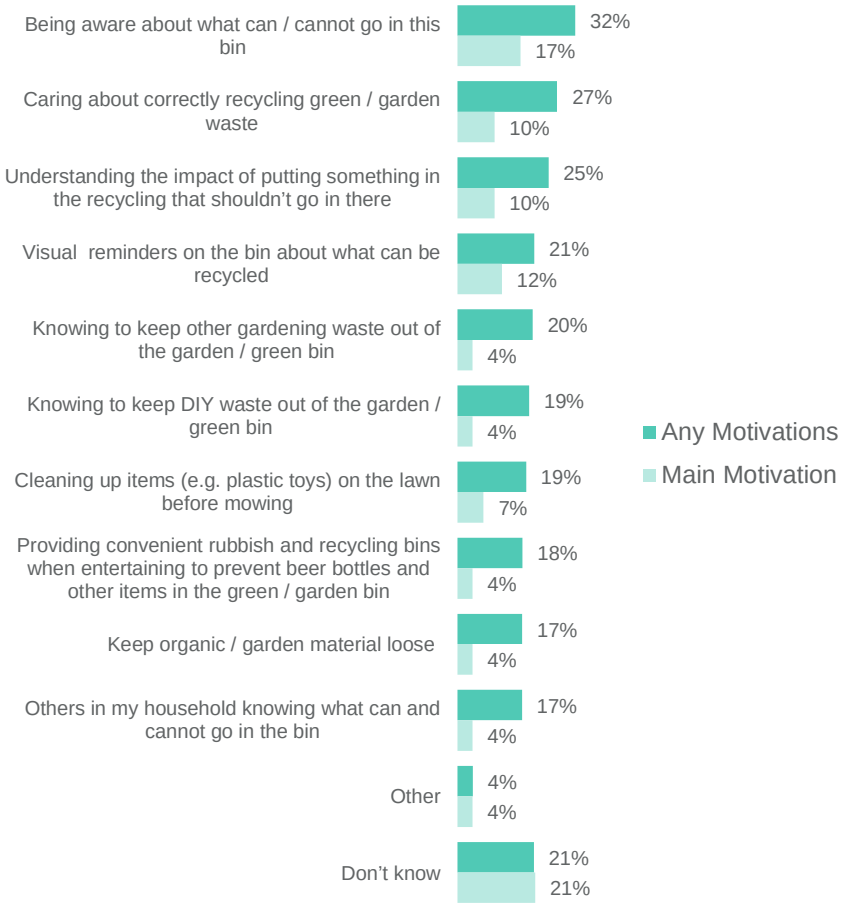
Q25A Which of the following would make it **difficult to keep inorganic backyard items out of the organics bin** (such as plastic items, DIY waste, bottles etc.)? (MR)
Q25B What is the **MAIN** factor that would make it **difficult to keep inorganic backyard items out of the organics bin**? (SC)
Base: Respondents with an organics bin (n=316)

Being aware of what can and cannot go in the organics bin makes it easier to keep inorganic items out. For approximately one in three (32%) Victorians with an organics bin, being aware of what can and cannot go in the organics bin makes it easier to keep inorganic backyard items out of the organics bin. This is followed by caring about correctly recycling green/garden waste (27%) and understanding the impact of putting something in the recycling that shouldn't go in there.

The main factor that would make it easier for more people to keep inorganic backyard material out of the organics bin is the knowledge of what can go in there. Almost one in five (17%) cite this being the main reason for making the correct behaviour easy. One in ten Victorians cite the main reason for having visual reminders on the bin (12%), caring about correctly recycling (10%) and understanding the impact of not doing the right behaviour (10%).

A fifth of all Victorians are unsure of what would motivate them to keep inorganic backyard items out of the organics bin. This suggests that further education and encouragement is required to ensure that people are doing the right behaviour.

Figure 19: Motivations that make it easier to keep inorganic backyard items out of the organics bin

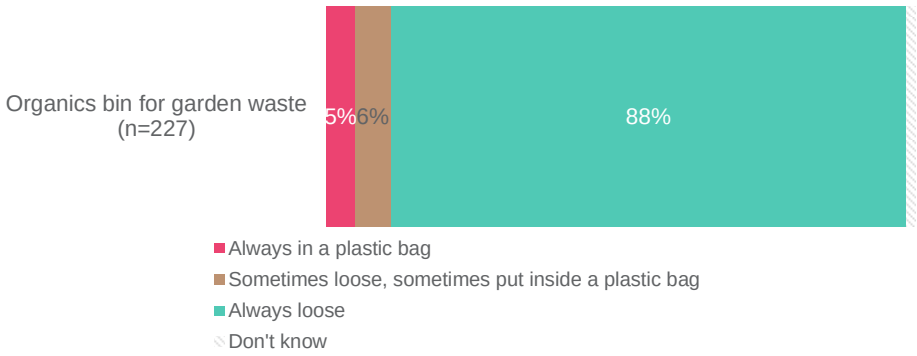


Q26A Which of the following would make it **easier** for you **keep inorganic backyard items out of the organics bin**? (MR)
Q26B What is the **MAIN** factor that would make it **easier** to **keep inorganic backyard items out of the organics bin**? (SC)
Base: Respondents with an organics bin (n=316)

3.3.2.1. Keeping organics out of plastic bags

The majority of Victorians who have access to an organics bin are always putting in items loosely. A total of 9 in 10 Victorians are correctly keeping items out of plastic bags in the organics bin. This means, one in ten (11%) are not doing the right thing.

Figure 36: How items are placed in organics bin.

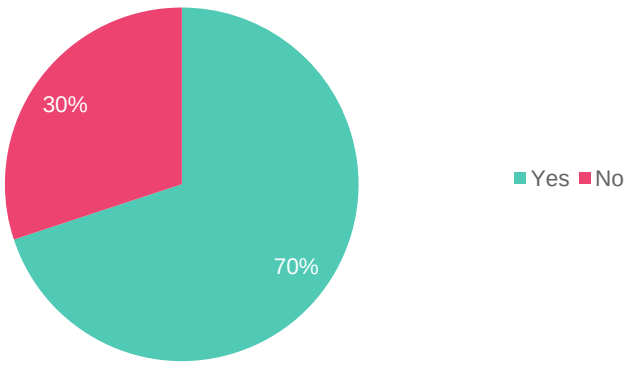


Q7 When putting items in your recycling bin/s, are items **put in loose** or **inside a plastic bag**? (SR)
Base: All respondents with organics bin for garden waste (n=227)

Three in ten (30%) people are not aware that plastic bags can contaminate garden or food waste. This means the majority are aware of contamination however more encouragement is needed to reduce plastic bags in recycling bins.

More people aged 55 years and over (79%) and less 18-34 year olds (60%) are aware that plastic bags can contaminate garden/food waste. This indicates that communication aimed at building knowledge should be aimed at 18-34 year olds who have lower understanding that plastic bags can contaminate garden or food waste.

Figure 37: Knowledge that plastic bags can contaminate garden/food waste



Q28 Before today, did you know that plastic bags can contaminate your garden / food waste? (SC)
Base: All respondents (n=456)

Further investigation highlights that there is a great deal of overlap in knowledge that plastic bags can contaminate organic waste and that recyclables in plastic bags end up in landfill.

Table 24: Knowledge of plastic bag contamination

	Know plastic bags contaminate organic waste	Do not know plastic bags contaminate organic waste
Know recyclables in plastic bags end up in landfill	56%	13%
Do not know recyclables in plastic bags end up in landfill	14%	17%

Key target audience to address regarding keeping organics out of plastic bags

Firstly those who have an organics bin and put plastic bags in it are more likely to be aged 25-34 years old (30% vs 13%) and less likely to be aged 55-64 years old (6% vs 19%). Those who have an organics bin and always do not put plastic bags are equally likely to be male or female and from metropolitan Melbourne and regional Victoria as those who do not. Those who may put plastic bags in the organics bin are less likely to be a couple with no children (22% vs 40%) and more likely to be a couple with dependent children at home (41% vs 18%). Furthermore, those more likely to put plastic bags in the recycling bin are less aware that plastic bags contaminate garden and food waste (56%) compared to those that always do not put plastic bags in the organics bin (72%). Therefore people need to be made more aware of the impacts of plastic bags in garden and food waste bins.

Table 25: Profile of those who do and do not put plastic bags in organics bin

Have an organics bin and do not put plastic bags in it	Total n=316	Not always n=80	Always n=236
Age (S4)			
18-24	1%	16%	10%
25-34	19%	**30%**	**13%**
35-44	21%	16%	19%
45-54	15%	19%	18%
55-64	18%	**6%**	**19%**
65+	26%	13%	21%
Gender (S3)			
Male	49%	41%	52%
Female	51%	59%	48%
Location (S2)			
Melbourne Metro	77%	76%	77%
VIC Regional	23%	24%	23%
Household structure (D1)			
Couple with no children	35%	**22%**	**40%**
Couple with dependent children at home (17 years and under)	24%	**41%**	**18%**
Awareness of contamination (Q28)			
Aware that plastic bags can contaminate garden/food waste	68%	**56%**	**72%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who have an organics bin and do and do not put plastic bags in it

Additional analysis has identified factors which have a greater impact on those who do and do not put plastic bags in the organics bin. Those who do put plastic bags in the organics bin are more likely to indicate that they agree with more of the positive statements 'drivers' of keeping inorganic backyard items out of the organics bin, while those who do put plastic bags in the organics bin, are more likely to agree with negative statements 'barriers' to keeping inorganic backyard items out of the organics bin.

These drivers and barriers can be used to develop messages and programs to encourage placing recycling in the organics bin loose.

Drivers of recycling for those who have an organics bin and do not put plastic bags in it:

Those who do not put plastic bags in the organics bin are ten times more likely, compared to those who do put plastic bags in the organics bin to indicate that *they understand what items go in the organics bin for garden waste fairly or very well* makes it easier to keep inorganic backyard items out of the organics bin. This main driver may be described as a **behavioural belief**. Given the positive nature of the behavioural belief, according to Theory of Planned Behaviour[12], such positive behavioural beliefs would also lead to more positive attitudes towards keeping inorganic backyard items out of the organics bin.

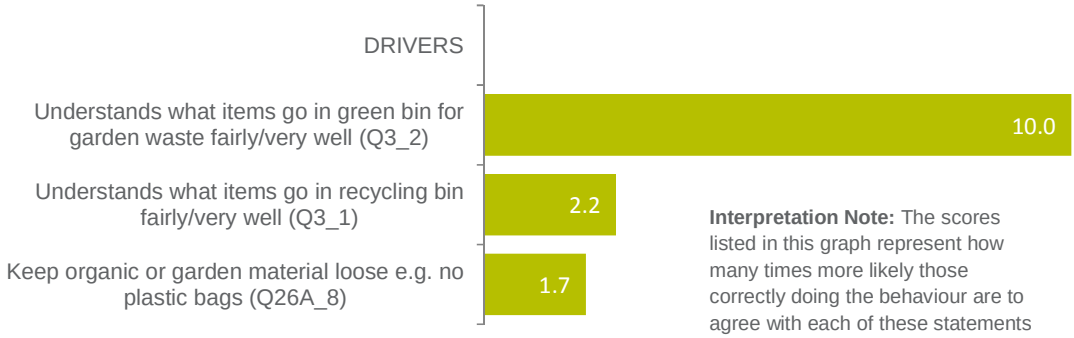
Barriers to recycling for those who have an organics bin and put plastic bags in it:

Those who do put plastic bags in the organics bin are two to three times more likely, compared to those who do not put plastic bags in the organics bin to indicate that *when entertaining beer bottles may end up in the organics bin, too much effort to correctly check what goes in the bin, plastic bags make it easier to clean up the garden and being unsure about what can or cannot go in this bin* makes it more difficult for them to keep inorganic backyard items out of the organics bin.

The main barrier may be described as a **control belief** because the perception that when entertaining beer bottles may end up in the organics bin is associated with making keeping inorganic backyard items out of the organics bin harder. According to Theory of Planned Behaviour[13], such negative control beliefs would also give rise to lower perceived behavioural control.

[12] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.
[13] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

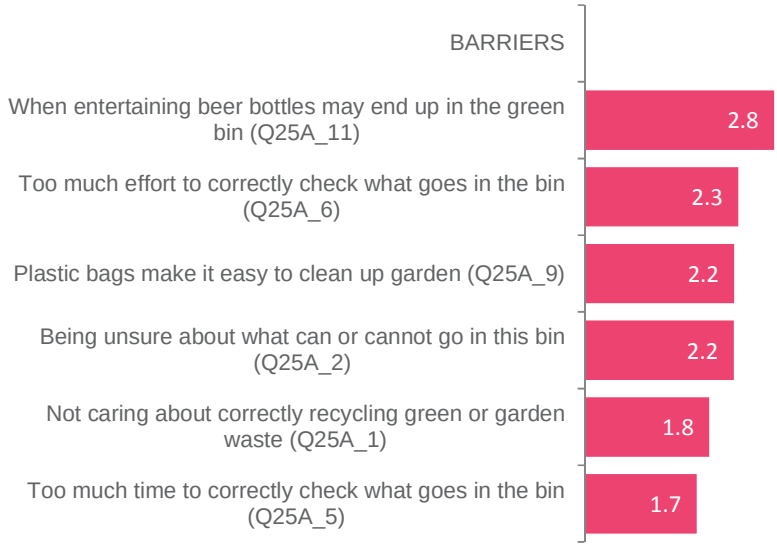
Figure 38: Drivers and barriers for those who have organics bin and do not put plastic bags in



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents with an organics bin for waste (n=316)

Figure 39: Drivers and barriers for those who have organics bin and put plastic bags in



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents with an organics bin for waste (n=316)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of keeping inorganic backyard items out of the organics bin, whilst focusing on the key motivational drivers.

Table 26: Keep organics out of plastic bags out of the organics bin summary

Target audience	Drivers of keeping inorganic items out of the green bin	Barriers to keeping inorganic items out of the green bin
Those who would consider including **food waste in the organics bin** are more likely to be: • Female (58% vs 42%)	Ten times more likely to indicate: • ***Understand what items go*** in the organics bin for garden waste ***fairly or very well***	Two to three times more likely to indicate: • ***Beer bottles*** may end up in the organics bin when entertaining • ***Too much effort to correctly check*** what goes in the bin • Plastic bags make it ***easier to clean up*** the garden • ***Being unsure*** about what can or cannot go in this bin

3.3.2.2. Keeping inorganic backyard detritus out of the organics bin

Key target audience to address regarding keeping inorganic backyard detritus out of the organics bin

Those who have an organics bin and always do not put inorganic items in it are less likely to be aged 18-34 years (16% vs 37%) and more likely to be aged 55 years or over (53% vs 24%). Additionally, they are less likely to be male (36% vs 56%) and more likely to be female (64% vs 44%). Those individuals who are less likely to not put inorganic items in the organics bin are more likely to be from metropolitan Melbourne (56% vs 36%) and more likely to be a couple with dependent children (30% vs 15%).

Table 27: Profile of those who do and do not put inorganic items in organics bin

Have an organics bin and does not put inorganic items in it	Total n=316	Not always n=188	Always n=128
Age (S4)			
18-24	12%	**14%**	**6%**
25-34	18%	**23%**	**10%**
35-44	19%	18%	17%
45-54	18%	21%	15%
55-64	15%	**10%**	**25%**
65+	18%	**14%**	**28%**
Gender (S3)			
Male	49%	**56%**	**36%**
Female	51%	**44%**	**64%**
Location (S2)			
Melbourne Metro	75%	**81%**	**71%**
VIC Regional	25%	**19%**	**29%**
Amount of household waste is recycled (Q6)			
I/we recycle almost every item that can be recycled (over 90%)	59%	**52%**	**69%**
Household structure (D1)			
Couple with dependent children at home (17 years and under)	24%	**30%**	**15%**

* All data has been weighted to reflect Victorian ABS statistics for age, gender and location.

Key drivers and barriers for those who have an organics bin and do and do not put inorganic items in it

Additional analysis has identified factors which have a greater impact on those who do and do not put inorganic items in the organics bin. Those who do not put inorganic items in the organics bin are more likely to indicate that they agree with more of the positive statements 'drivers' of keeping inorganic backyard items out of the organics bin, while those who do put inorganic items in the organics bin, are more likely to agree with negative statements 'barriers' to keeping inorganic backyard items out of the organics bin.

These drivers and barriers can be used to develop messages and programs to encourage keep inorganic backyard items out of the organics bin.

Drivers for those who have an organics bin and do not put inorganic items in it:

Those who do not put inorganic items in the organics bin are five times more likely, compared to those do put inorganic items in the organics bin to indicate that ***they understand what items go in the organics bin for garden waste fairly or very well*** makes it easier for them to keep inorganic backyard items out of the organics bin. This main driver may be described as a **behavioural belief**. According to Theory of Planned Behaviour[14], such positive behavioural beliefs would also lead to more positive attitudes towards keeping inorganic materials out of the organics bin.

Barriers for those who have an organics bin and put inorganic items in it:

Those who do put inorganic items in the organics bin are two to three times more likely, compared to those who do not put inorganic items in the organics bin to indicate that ***backyard materials getting mixed up with the garden waste, too much effort to correctly check what goes in the bin, plastic bags make it easier to clean up the garden and plastic toys accidently get mowed over and collected with grass clippings*** makes it more difficult for them to keep inorganic backyard items out of the organics bin.

The main barrier, backyard materials getting mixed up with garden waste, may be described as a **control belief** because the perception that materials getting mixed up with garden waste is associated with making it harder to keep inorganic items out of the organics bin. According to Theory of Planned Behaviour[15], such negative control beliefs would also give rise to lower perceived behavioural control.

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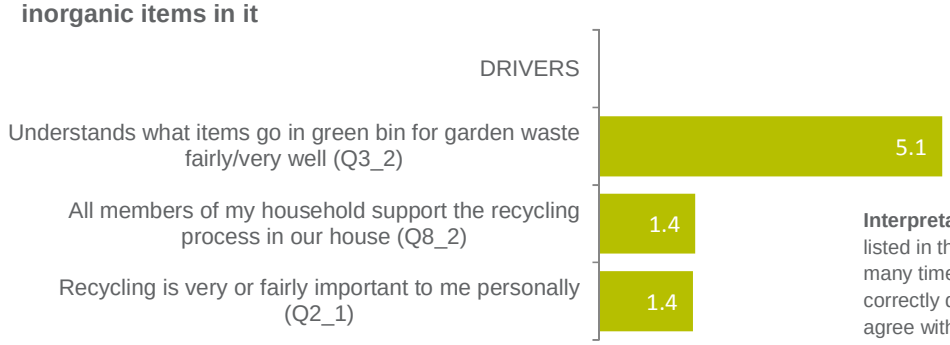
[14] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

[15] Ajzen, I., Behavioural Interventions on the theory of Planned Behaviour: Brief description of the theory of Planned Behaviour.

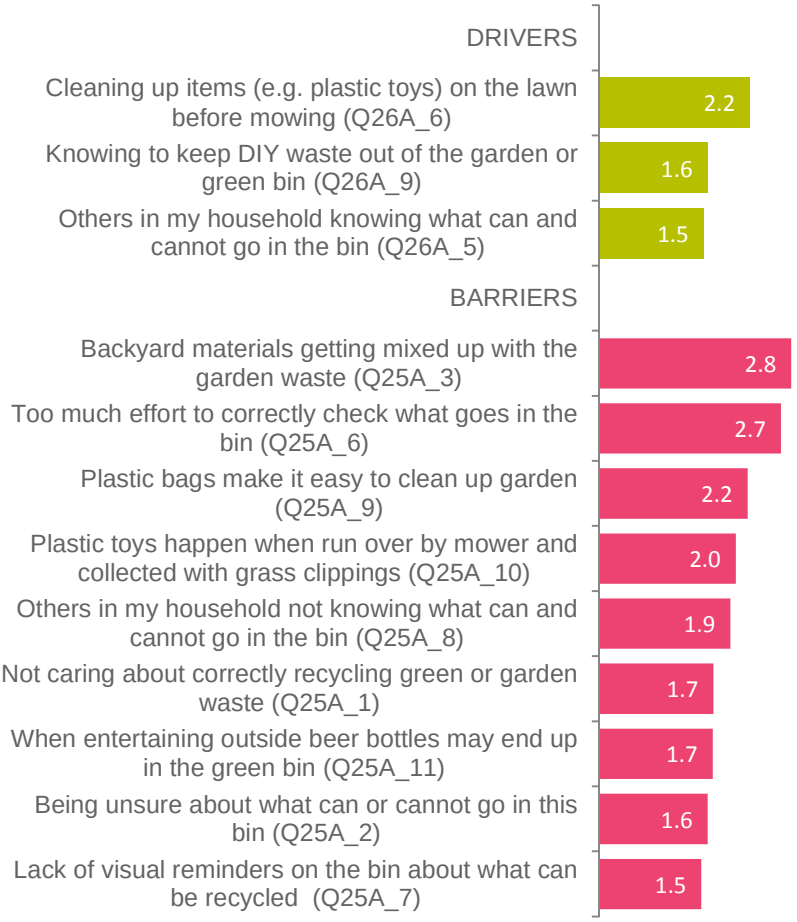
Figure 40: Drivers and barriers for those who have organics bin and always do not put inorganic items in it



Interpretation Note: The scores listed in this graph represent how many times more likely those correctly doing the behaviour are to agree with each of these statements compared to those who are not doing the behaviour.

Base: All respondents with an organics bin for waste (n=316)

Figure 41: Drivers and barriers for those who have organics bin and do not always not put inorganic items in it



Interpretation Note: The scores listed in this graph represent how many times more likely those not correctly doing the behaviour are to agree with each of these statements compared to those who are doing the behaviour correctly.

Base: All respondents with an organics bin for waste (n=316)

It is recommended to target communications or education initiatives at those not always doing the correct behaviour. It will be important to create messages to reduce the barriers of keeping inorganic backyard items out of the organics bin, whilst focusing on the key motivational drivers.

Table 28: Keep inorganic backyard detritus out of the organics bin summary

Target audience	Drivers of keeping inorganic items out of the green bin	Barriers to keeping inorganic items out of the green bin
Those who do not keep inorganic materials out of plastic bags are more likely to be: • Younger aged 18-34 years • Male • Live in Melbourne • Couple with dependent children at home This means they are less likely to be: • Older aged 55+ years • Female • Live in regional Victoria	Five times more likely to indicate: • Understand what items go in the organics bin for garden waste ***fairly or very well***	Two to three times more likely to indicate: • Backyard materials getting ***mixed up*** with the garden waste • ***Too much effort*** to correctly check what goes in the bin • Plastic bags make it ***easier to clean up*** the garden • ***Plastic toys accidently*** get mowed over and collected with grass clippings

3.4. Understanding recycling language

Research objective addressed: To test the community's understanding of the language currently used for waste education (particularly garden/food organics) and identify more appropriate alternatives where required.

Key Findings:

A number of terms cause confusion and as such are recommended to be avoided in communications about recycling without further explanation and education of the meaning.

Terms currently well understood include:

- Recycling bin
- Compost
- Food waste
- Green waste
- Garden waste

Terms requiring further explanation and/or education include:

- Organics
- Co-mingled
- Residual waste
- Contamination
- Biodegradable
- Hard plastic
- Soft plastic

Understanding of key terms

Understanding of the terms compost, green waste, garden waste, organics, recycling bin, contamination, hard plastic, rigid plastic, recycling symbol with codes 1-7, residual waste, food waste, biodegradable, co-mingled, and soft plastic were tested qualitatively. Understanding of the term hard plastic container was further tested quantitatively due to its importance and identification of confusion in interpretation.

Compost
Those with a compost or organics system at home believe it is food waste (limited to fruit and vegetable peelings, unprocessed, and raw food) that can be used in their compost system. Those without a compost system are less sure about how to interpret the term compost, however are generally aware it is food related waste (peelings most commonly mentioned).

Green waste and garden waste
The terms green waste and garden waste are generally understood to be interchangeable. However, there is some confusion around the term green waste. After consideration, most interpret the term green waste as waste from the garden. However garden waste produces more clear and automatic responses.

Organics
Any term with the mention of “organics” causes confusion for the vast majority. It is predominantly interpreted as being food grown without pesticides.

It is recommended that Sustainability Victoria do not use the term “organics” in communications targeted to the public without a clear definition accompanying the use of the word. An explanation such as “plant or animal waste that was once living, for example food or garden waste” would be more effective.

Recycling bin
The term recycling bin is easily and accurately interpreted by all.

Contamination
The term “contamination” generally requires consideration to interpret. Not all people develop an accurate interpretation and some simply cannot envisage how it relates to recycling. This term, if used in educational material, would be better as an expanded explanation, such as “products in the wrong bins”.

Recycling symbol with codes 1-7
Some people are not aware of the recycling symbol at all. Those that are aware do not know what the codes mean. Understanding the recycling symbol often causes confusion when dealing with plastic products that do not have the symbol. These people often treat plastic products without the symbol as rubbish (e.g. take away containers). To ease this confusion, education is required to teach people about what to do when the symbol is not present.

Residual waste
The public are highly confused by this term. Very few know that it could mean items you can’t do anything with. If this term is to be used, in communications, it needs to be accompanied by an explanation. Currently, the term is not suitable for use in communications where a definition cannot be provided.

Food Waste
This term is interpreted as food that is thrown away. It is seen as anything that could have been eaten but is thrown away. Not necessarily understood to include compostable food items (i.e. peelings). This is a very consistent interpretation.

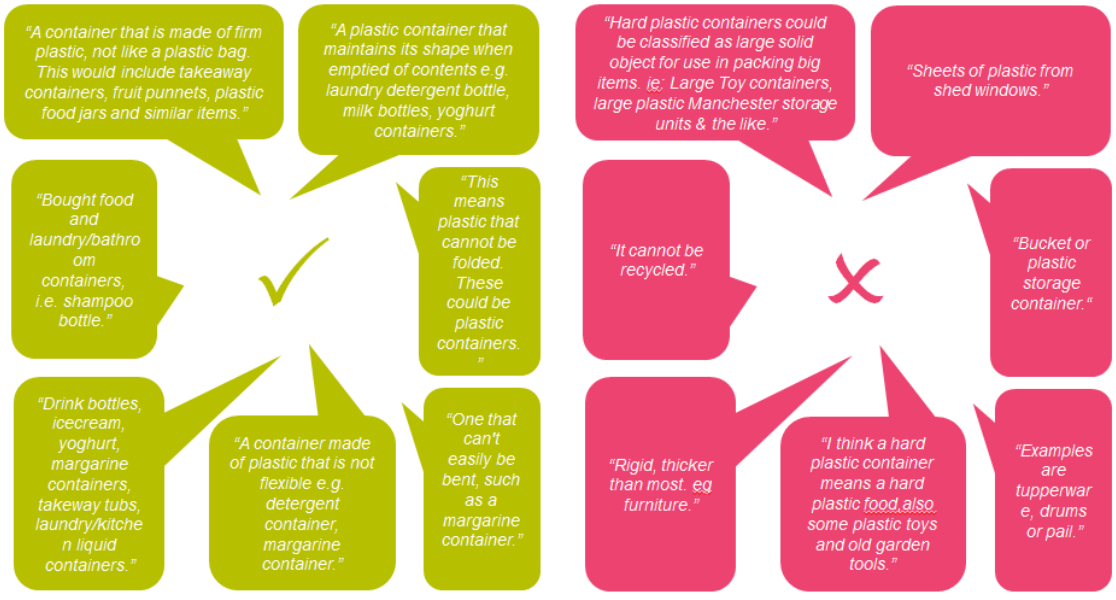
Biodegradable
Generally there is apprehension in coming to a definition for the term biodegradable. People have usually heard of the term, but aren't sure what it means. Many describe it as a product that breaks down. Used in communications, the term biodegradable requires explanation. People generally understand that if a plastic bag is biodegradable, it still does not go in the recycling bin.

Co-mingled
This term generates mixed responses. Some are completely baffled, while others, with consideration, can hazard a guess. Those who guess generally interpret co-mingled as mixed together. This is often likened to their recycling bin which has paper, glass and plastic products in it. It is recommended that this term is explained if used in communications as significant extrapolation from current knowledge of the two parts of the term is required to come to an estimation of its definition.

Soft plastic
Many interpret soft plastic as plastic that can be squashed. This includes water drinking bottles. Generally, the term is not interpreted as meaning plastic bags. This term needs to be clarified if used in communications.

Hard plastic and ridged plastic
Most believe that the terms hard plastic and ridged plastic are interchangeable. Some believe that rigid plastic is more firm than hard plastic. Most people believe that to be rigid plastic and/or hard plastic it cannot be pushed out of shape and therefore products such as water bottles are not classified in this category. Education is required to help people understand the hard plastic concept.

Figure 42: Understanding of hard plastic container is mixed

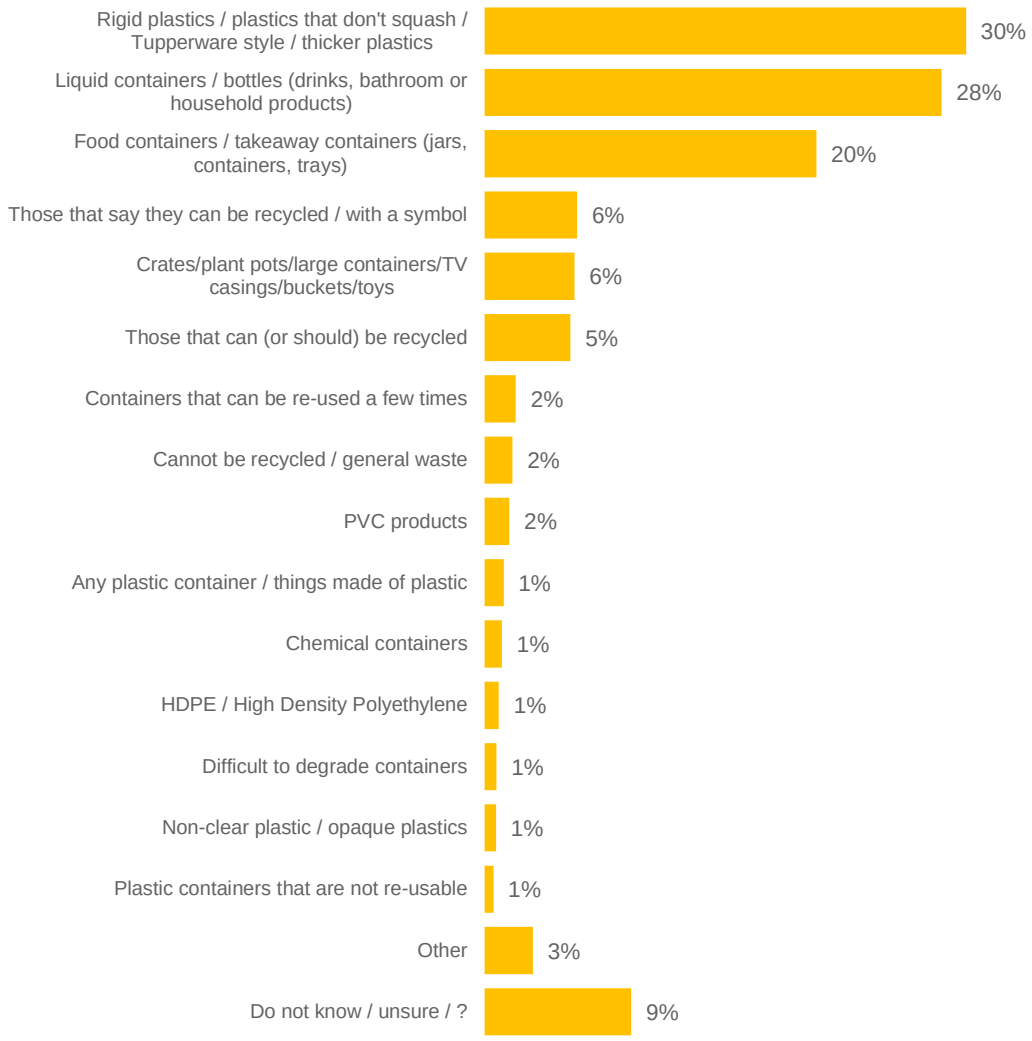


Q19 What is your understanding of **hard plastic container**? Please provide a short description of what you think this means and some examples of items in your household (OE)
Base: All respondents (n=456)

Hard plastic containers are most often described as a rigid plastic/plastics that don't squash (30%), followed by liquid containers/bottles (28%) or food/takeaway containers (20%). A small proportion (2%) define a hard plastic container as something that cannot be recycled/general waste.

Therefore, although some understand the meaning of a hard plastic container the range of responses suggests that understanding can be further improved through a clearer description of the definition.

Figure 43: Understanding of hard plastic containers



Q19 What is your understanding of **hard plastic container**? Please provide a short description of what you think this means and some examples of items in your household (OE)
Base: All respondents (n=456)

4. Recommendations

4.1. Attitudes towards recycling and waste management

Improve knowledge and understanding of those aged 18-34 years as they are less informed than other Victorians. It will be important to build awareness and understanding of what can and cannot be recycled to encourage the correct recycling behaviour. As younger Victorians are more likely to learn how to correctly recycle as part of their childhood, it will be important to educate future generations correctly through correct recycling in home from their parents or through systems, education and processes through schools. Sustainability Victoria needs to focus on strategies to build awareness of young Victorians about the correct recycling behaviour.

4.2. Recycling Behaviours

Most Victorians have a good idea of what can and cannot be recycled, there are a number of specific household items that can often be overlooked and placed in the garbage bin rather than being recycled. A number of key recommendations have been identified around the five desired recycling behaviours:

General recycling behaviours:

- Encourage households to actively evaluate the system or process they have in place for recycling in their house. It is important for people to evaluate if their system or process makes it just as easy to recycle the item as it does put it in the garbage bin. Also help people to identify if there are any improvements that can be made in order to make recycling easier. For example, potentially a household may find it easier to have more than one recycling bin (e.g. one in kitchen and one in laundry), to have larger bins or dual systems to better suit their recycling needs and increase the likelihood of items being recycled.

Recycling of hard plastic items:

- Plastic items such as biscuit trays and plastic punnets are items less frequently recycled. It will be important to remind Victorians that these items should always be recycled and further encouragement is needed to ensure that Victorians are always recycling these items.
- To further encourage those who are not always recycling hard plastic items, it is important to build an understanding of what can and cannot be recycled, whilst reducing the barrier of bin size. Encourage Victorians to increase the size of the recycling bin in the home to accommodate larger items. This would encourage more to recycle more hard plastic items.
- Target communication and recycling programs or initiatives at younger Victorians (18-34 years) in metropolitan areas to encourage more to always recycle hard plastics.

Recycling of aluminium items:

- Remind Victorians that you can recycle aerosol cans and aluminium foil. These items are not recycled as frequently as other aluminium items. Encourage Victorians to always recycle these items.
- Focus on communication aimed at educating Victorians that aluminium cans do not have to be washed or rinsed before recycling to encourage more people to recycle these items. Informing people that no additional effort is necessary (with the exception of being free from

food). In addition it is important to build personal importance of recycling to encourage more to always do the behaviour.
- Target communication and recycling programs or initiatives at younger Victorians (18-34 years) in metropolitan areas to encourage more to always recycle aluminium items.

Emptying and recycling of containers with food:

- Further encouragement is needed to recycle food containers, especially plastic takeaway containers. It will be important to remind Victorians that containers can be recycled without having to rinse or wash. Educate Victorians that extra effort is not required to recycle these items.
- To reduce the barriers among those who are not always recycling food containers it is recommended to provide visual reminders in home (e.g. signs about recycling or fridge magnet) or on packaging to encourage more people to recycle household items. An initiative should be aimed at providing in home materials that remind people of the correct recycling behaviour.
- Target communication and recycling programs or initiatives at younger Victorians (18-24 years) across Victoria to encourage more to always recycle food containers. Those living in shared households also need encouragement.

Recycling of items from the bathroom and laundry:

- Just over a quarter of Victorians are always recycling every item they can from the bathroom and laundry. Items such as aerosol cans from the bathrooms (e.g. deodorant) and plastic bottles for cleaning are items that should be focussed on. Having a recycling bin in a location such as the laundry may encourage more people to recycle from this room.
- To encourage people to always recycle items from the bathroom and laundry it will be important to build an understanding of what items from these rooms can be recycled and reduce barriers associated with bin sizes in home being too small. Encourage households to have a second recycling bin stored in the laundry. Educate that chemicals in cleaning products (e.g. bleach) do not cause an issue when items are recycled.
- Target communication and recycling programs or initiatives at younger Victorians (18-34 years) and those living in Melbourne to encourage more people to recycle items from the bathroom and laundry.

Keeping recyclables out of plastic bags:

- Most Victorians are correctly putting recyclables loose in the recycling bin, free from plastic bags. However, for those incorrectly putting recyclables into plastic bags there needs to be targeted communication to encourage this behaviour to stop. It is extremely important to educate on why the correct behaviour is important and the consequences of the incorrect behaviour (i.e. that recyclables in plastic bags do not get recycled and end up in landfill) to encourage people to do the right thing.
- To encourage more people to keep recyclables out of plastic bags it will be important to reduce the perceived barrier of taking too much time to recycle. Educate on the benefits of recycling and remind people why it is important to do the behaviour. Educate that recyclables in plastic bags end up in landfill and are not recycled to communicate a clear message. Continue to educate on why plastic bags cannot be recycled.
- Target communication and recycling programs or initiatives at younger Victorians (25-34 years) across Victoria to encourage more to always recycle recyclables loose from plastic bags. Furthermore, those living in apartments or units need to be encouraged to avoid using plastic bags to carry recyclables to recycling bins. Working with councils and building management to ensure that residents are aware of the correct recycling behaviours.

4.3. Organic (garden and food) recycling

Inclusion of food waste (hypothetical behaviour):

- Opportunities exist to further expand the areas with Victoria where food waste is accepted in the organics bin. It will be important to educate on the benefits of recycling food waste to the household and the impact this has on the local community.
- Offering households plastic containers to store food waste inside the house would encourage people to recycle food waste. It is recommended that Sustainability Victoria work closely with local councils to set up an initiative that could be implemented in those areas where food waste is accepted. Furthermore it will be important to reduce the perceived barriers that recycling food waste would create a mess.
- With females more interested in food waste inclusion, indicates that communication aimed at women and those responsible for food preparation in the home would be essential for the introduction of this program to other councils.

Keep organics out of plastic bags:

- To ensure plastic bags are not placed in the organics bin, it will be important for Sustainability Victoria to increase the understanding of what items can be put into the organics bin. Educate that organic and garden waste needs to be emptied out of plastic bags before going into the organics bin.
- Target communication and recycling programs at Victorians aged 25-34 years across Victoria to encourage more to always keep organics out of plastic bags. In addition, it will be important to target communication at couples with dependent children at home to reduce the number of people incorrectly putting plastic bags in the organics bin.

Keep inorganic backyard detritus (plastic bags, beer bottles, toys, gardening debris etc.) out of the organics bin:

- To ensure inorganic backyard detritus is not placed in the organics bin, it will be important for Sustainability Victoria to increase the understanding of what the consequences are of putting foreign items into the organics bin. Educate that soil is not an appropriate item for the organics bin and communicate better channels to dispose of unwanted soil.
- Target communication and recycling programs or initiatives at men, those aged 18-34 years and those living in Melbourne to encourage more to keep inorganic items out of the organics bin.

4.4. Understanding recycling language

It is recommended that Sustainability Victoria avoid terms in communication such as;

- Organics
- Co-mingled
- Residual waste
- Contamination
- Biodegradable
- Hard plastic
- Soft plastic

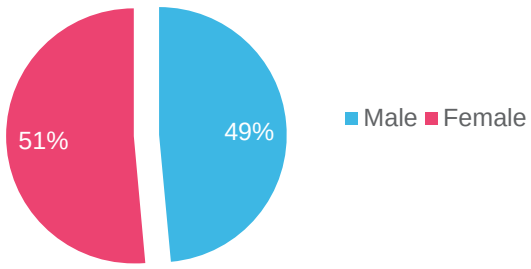
It is strongly advised that the term organics is not used within any communication as this term was frequently misunderstood. Food waste, green waste or garden waste are terms that would be more

widely recognised and correctly understood. It is recommended that Sustainability Victoria do not use the term “organics” in communications targeted to the public without a clear definition accompanying the use of the word. An explanation such as “plant or animal waste that was once living, for example food or garden waste” would be more effective.

To encourage more people to recycle hard plastics it is firstly important to ensure that people have the correct understanding of the term. Most people believe that to be rigid plastic and/or hard plastic it cannot be pushed out of shape and therefore products such as water bottles are not classified in this category. Education is required to help people understand the hard plastic concept. The term hard plastics does require some explanation as there is confusion that it does not include all types of hard plastics. Some people easily misunderstood softer style hard plastics.

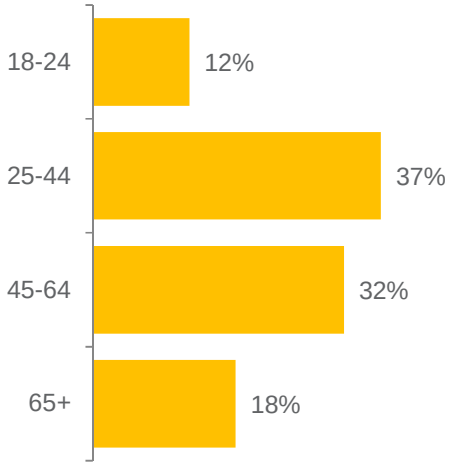
5. Sample Profile

Figure 44: Gender



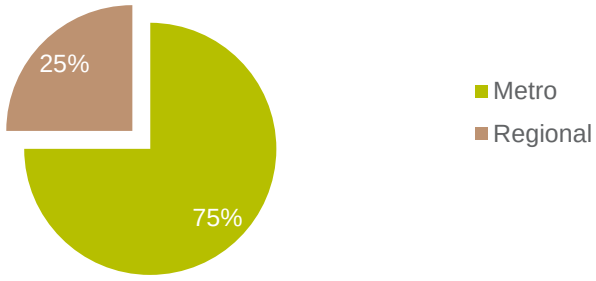
S3. Please indicate your gender: (SR)
Base: All respondents (n=456)

Figure 45: Age



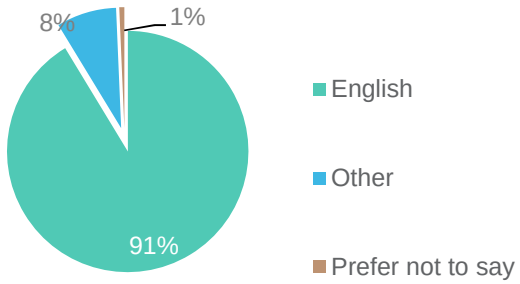
S4. What is your age? (NUMERIC OE)
Base: All respondents (n=456)

Figure 46: Location



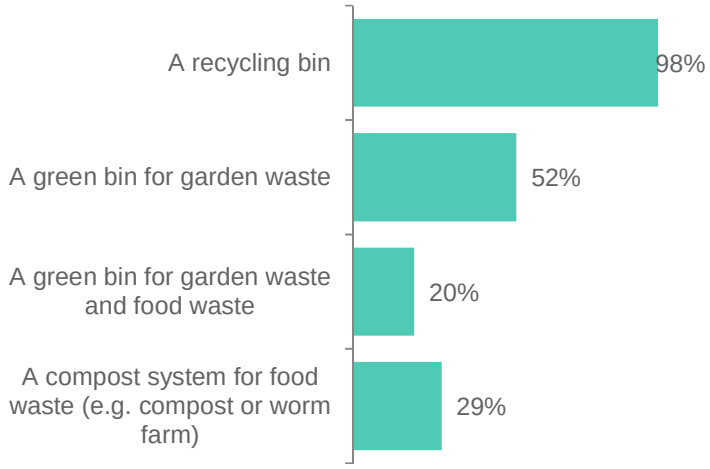
S2. Please type in your postcode. (NUMERIC OE)
Base: All respondents (n=456)

Figure 47: Language at home



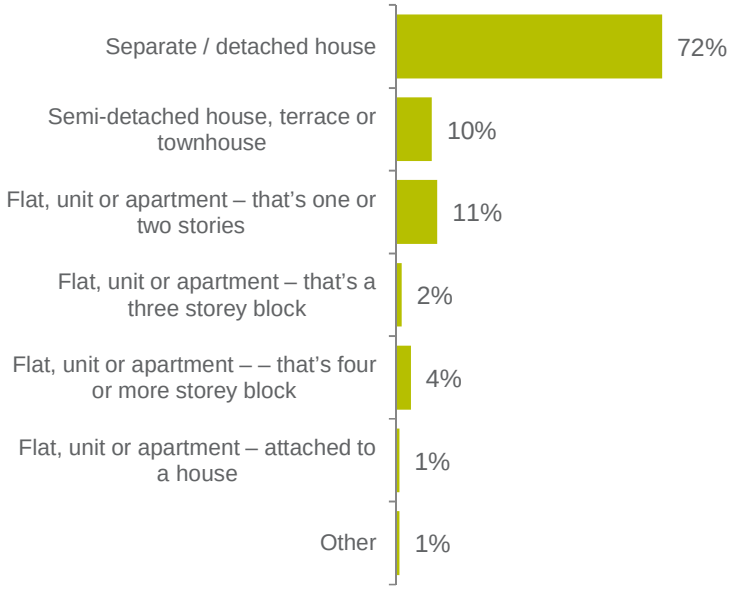
D5. What is the main language your household usually speaks at home? (SR)
Base: All respondents (n=456)

Figure 48: Kerbside recycling bins



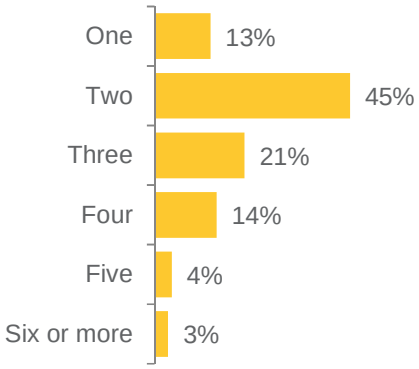
S5. Which of the following do have access to at your household? (MR)
Base: All respondents (n=456)

Figure 49: Property type



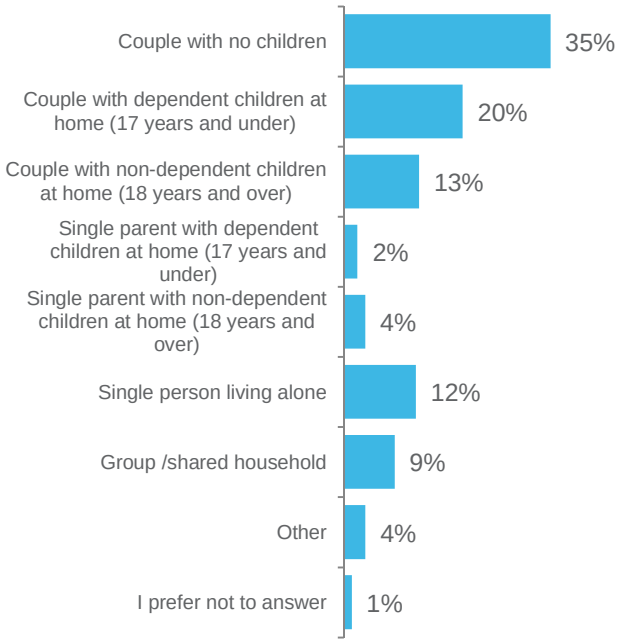
D4. What type of property do you live in? (SR)
Base: All respondents (n=456)

Figure 50: Number of people in household



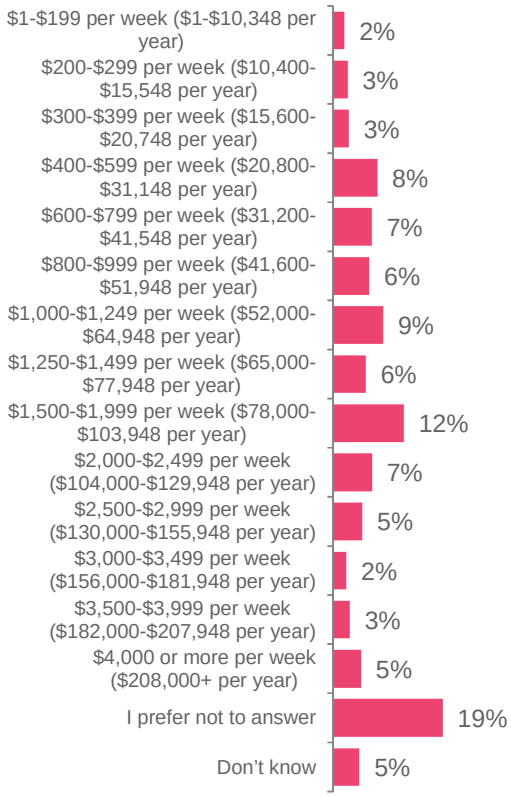
D2 How many people usually live in your home? (SC)
Base: All respondents (n=456)

Figure 51: Household structure



D1. Which of the following best describes your household? (SR)
Base: All respondents (n=456)

Figure 52: Income



D3. What is the total of all wages/salaries, Government benefits, pensions, allowances and other income that YOUR HOUSEHOLD usually receives on a **weekly basis** (Gross – before tax and superannuation deductions)? **(SR)**
Base: All respondents (n=456)

6. Appendix A: Technical notes

6.1. Weighting

To ensure the survey results are representative of the Victorian population, they were adjusted, or **weighted**, using population information from the Australian Bureau of Statistics. This is done because the sample data on its own is biased. For example, we included a higher proportion of people living in regional Victoria, when compared to the proportion of those living in regional areas in the population. Weighting adjusts the proportions of these demographics in the sample so they are the **same** as the proportions in the wider population.

The results from this survey were weighted by age, gender and location using rim weighting techniques. The weighting made the sample equal to that of details on Australian Bureau of Statistics as follows:

	Melbourne		Regional Victoria	
	Males	Females	Males	Females
18-24 years	5%	5%	1%	1%
25-34 years	7%	7%	2%	2%
35-44 years	7%	7%	2%	2%
45-54 years	6%	7%	2%	2%
55-64 years	5%	5%	2%	2%
65+ years	6%	7%	3%	3%

6.2. Error

All surveys are subject to errors. There are two main types of errors: sampling errors and non-sampling errors.

6.2.1. Sampling error

The sampling error is the error that arises because not every single member of the population was included in the survey. Colmar Brunton employs many techniques to minimise the impact of sampling error on the data. Techniques used in this study included randomising those contacted from the online panel.

Naturally it is simply not feasible to survey the whole population to avoid this type of error. One can, however, estimate how big this error component is, using statistical theory. This theory indicates that with a sample of 1,000 people from a population of 100,000 people or more, the maximum margin of sampling error on an estimate of a proportion is 3.1%.

The way this can be interpreted is as follows. The survey results estimate that 50% of respondents always recycle. The maximum margin of error on this estimate of 456 survey participants is 4.59%.

Hence, one can be 95% confident that the actual proportion of people in the population that always recycle is 50% +/- 4.59%, i.e. it is between 45.41%% and 54.59%.

In all tables in this report, groups are compared against each other and, where possible, differences are tested for statistical significance at the 95% confidence level.

6.2.2. Non-sampling error

All surveys, regardless of whether they are samples or censuses, are subject to other types of error called non-sampling error. Non-sampling error includes things like interviewer keying errors and respondents misunderstanding a question.

Every attempt has been made to minimise the non-sampling error in this study. For example, responses within questions are randomised for each respondent. However, some types of error are out of the control of the researcher. In particular, the study is reliant on accurate reporting of behaviours and views by respondents. For example, a respondent may forget that they played tennis nine months ago and fail to report this activity.

6.3. Technical Analysis

Statistical associations are the way the relationships between categorical variables are understood. Categorical variables may be nominal e.g. experienced problems, or ordinal e.g. satisfaction or dissatisfaction groups. There are various measures and statistical tests which can be used to understand whether a significant association exists such as the chi-squared test for independence. The chi-squared test in isolation can be impacted by large sample sizes showing significant results regardless of the underlying association.

As a way around this issue, odds ratio analysis can be particularly useful in understanding and quantifying the level of association. This technique is also applied when the sample of the population is non-random. The odds ratio is a measure of the strength of the association between two or more variables (X the determinant and Y being the outcome and Z being a possible stratification variable), which is not affected by sample size.

7. Appendix B: Quantitative Questionnaire

A. SURVEY INTRODUCTION

Hello and thanks for agreeing to do this survey! We appreciate your time and value your answers. Please click on “next” to enter the survey.

B. SCREENER

S1. SCREENER
S1. Firstly, could you please indicate if you, or anyone you know well, are employed by… (MR)

1. An ad agency or are involved in advertising in anyway
2. A company involved in public relations or marketing
3. A company involved in banking & finance
4. A local, state or federal government department involved in garbage disposal, waste management or recycling
5. A company involved in waste management / recycling / rubbish collection
6. A local, state or Federal government department involved in developing policies for education
7. A market research company
99. None of the above

IF 4 OR 5 OR 7 AT S1 ABORT

S2. POSTCODE
S2. Please type in your postcode. (NUMERIC OE)

PROGRAMMING NOTE: AUTOCODE ALL POSTCODES INTO METRO VS REGIONAL

S2_HIDDEN
1. Metro
2. Regional

CHECK QUOTAS

ASK ALL
S3. GENDER
S3. Please indicate your gender: (SR)
1. Male
2. Female

CHECK QUOTAS

ASK ALL
S4. AGE
S4. What is your age? (NUMERIC OE)

PROGRAMMING NOTE: CREATE AUTO-RECODE S4_HID FROM RESPONSES AT S4

HIDDEN QUESTION
S4_HID AGE GROUP

1. 16-19 years
2. 20-29 years
3. 30-39 years
4. 40-49 years
5. 50-59 years
6. 60+

S4_HID AGE GROUP 2
1. 16-34 years
2. 35-54 years
3. 55+years

CHECK QUOTAS

S5 KERBSIDE RECYCLING BIN
S5. Which of the following do have access to at your household? (MR. CODE 2 & 3 MULTIALLY EXCLUSIVE)
Please select all that apply.
1. A recycling bin
2. A green bin for garden waste
3. A green bin for garden waste and food waste
4. A compost system for food waste (e.g. compost or worm farm)
97. Don't know
99. None of these

MUST CODE 1 OR 2 OR 3 TO BE SUCCESSFUL

IF UNSUCCESSFUL
Unfortunately for this particular survey, we need responses from people who suit specific criteria.
Thank you for your participation and we will contact you again shortly for another Research Now survey!
Regards
Research Now

IF SUCCESSFUL, CONTINUE

RECYCLING BEHAVIOUR

Q1. RESPONSIBILITY
Q1. How would you describe your **level of responsibility** in managing your household's waste and recycling? (SR)
Please select one answer.

1. Other people in my home are mostly responsible
2. It is an evenly shared responsibility between me and other household members
3. I am mostly responsible

Q2. IMPORTANCE
Q2. How **important** is recycling to you personally? (SR)
Please select one answer.

1. Very important
2. Fairly important
3. Not very important
4. Not at all important
97. Don't know

Q3. UNDERSTANDING
Q3. How well do you **understand what items** can be placed each of the bins in your household? (SR, ONLY SHOW CODES 1,2,3 IF SELECTED AT S5)
Please select one answer.

COLUMNS

1. Recycling bin
2. Green bin for garden waste
3. Green bin for garden waste and food waste

ROWS

1. Very well
2. Fairly well
3. Not very well
4. Not at all
97. Don't know

Q4 AWARENESS
Q4 Which of the following best describes **how you became of aware** of what items **can** and **cannot** be recycled? (MR, RANDOMISE. ANCHOR CODES 96 & 97)
Please select all that apply.

1. Learned from my childhood
2. My parents taught me
3. Information provided by local council (e.g. pamphlets, leaflets flyers in the mail)
4. Information provided through schools (e.g. kids brought home)
5. Council websites
6. Friends/family
7. Neighbours
8. Social media sites (e.g. facebook)
9. Internet search engines (e.g. Google)
10. Other websites on the internet (please specify)
11. Local newspapers
12. TV
13. Radio
14. Community groups
96. Other (please specify)
97. Don't know

Q5. ATTITUDE

Q5. Which of the following statements best describes your **attitude to recycling** of household waste? (SR)

Please select one answer.

1. I nearly always recycle even if it requires additional effort
2. I usually recycle if it does not require additional effort
3. I sometimes recycle but only if it does not require additional effort
4. I do not recycle
5. Can't say

Q6 AMOUNT RECYCLED

Q6. Thinking about your household overall, which of the following statements best describes **how much** of your household waste is recycled? (SR)

Please select one answer.

1. I/we recycle almost every item that can be recycled (over 90%)
2. I/we recycle a lot but not every item that can be recycled (more than 70%)
3. I/we recycle some items (between 30-70%)
4. I/we do not recycle very much at or at all (less than 30%)

Q7 LOOSE OR INSIDE

Q7 When putting items in your recycling bin/s, are items **put in loose** or **inside a plastic bag**? (SR. SHOW COLUMNS IF CODES SELECTED IN S5)

Please select one answer per bin.

COLUMNS

1. Recycling bin
2. Green bin for garden waste
3. Green bin for garden waste and food waste

ROWS

1. Always loose
2. Sometimes loose, sometimes put inside a plastic bag
3. Always in a plastic bag
97. Don't know

Q8 ATTITUDES TOWARDS RECYCLING

Q8 How much do you agree or disagree with each of the following statements? (SC PER ROW)

Please select one answer per statement.

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	My system inside the house makes it just as easy to recycle as putting items in the garbage bin	1	2	3	4	5
2	All members of my household support the recycling process in our house	1	2	3	4	5
3	I support the need for a waste management system, including landfills and recycling plants, in areas where they are needed	1	2	3	4	5

Q9A FULL

Q9A How often is your **recycling bin** full **before** collection day? (SR)

Please select one.

1. Always
2. Often
3. Sometimes
4. Rarely
5. Never

ASK IF CODES 1-4 SELECTED AT Q9A
Q9B FULL - ACTIONS
Q9B If your recycling bin is full, what do you do? (MR)
Please select all that apply.

1. Put recyclables in the garbage bin
2. Put recyclables in a neighbours bin
3. Store recyclables until the bin is empty
4. Other (please specify)

Q10. FREQUENCY
Q10. How often do you recycle each of these items? (SC. DRAG & DROP FUNCTIONALITY)
Please drag each item onto your response.
RANDOMISE ROW STATEMENTS.

ROWS

1. Batteries
2. Aerosol cans from the kitchen (e.g. fly spray, olive oils)
3. Aerosol cans from the bathroom (e.g. deodorants)
4. Plastic shampoo / conditioner bottles
5. Plastic punnets (e.g. used to hold strawberries, tomatoes etc.)
6. Plastic margarine containers
7. Pizza boxes
8. Yoghurt containers
9. Toilet paper rolls
10. Laundry powder boxes
11. Magazines
12. Plastic shopping bags
13. Aluminium cans
14. Aluminium foil
15. Plastic takeaway containers
16. Cardboard takeaway containers (e.g. noodle boxes, pasta boxes etc.)
17. Aluminium baking trays
18. Washing detergent bottles
19. Plastic biscuit trays
20. Biscuit packets
21. Plastic packets or bags for food
22. Plastic bottles for cleaning (e.g. bleach, toilet cleaner etc.)
23. Chip packets

COLUMNS

1. Always
2. Often
3. Sometimes
4. Rarely
5. Never recycle this item
6. I am not aware this item can be recycled
7. I do not have this in my house

RECYCLING IN THE HOME

The following questions are about **recycling in the home**.

Q11. RECYCLING IN THE HOME
Q11. Thinking about each of the following rooms in your home which of the following statements best describes **how much** of your household waste is recycled from **each room**? (SR RANDOMISE STATEMENTS)
Please select one answer per statement.

ROWS
A. Kitchen
B. Bathroom / toilet
C. Laundry

COLUMNS
1. I/we recycle every item that can be recycled from this room
2. I/we recycle a lot but not every item that can be recycled from this room
3. I/we recycle some items from this room
4. I/we do not recycle at all from this room
5. I/we do not have this room in the house

Q12 LOCATION OF RECYCLING IN HOME
Q12. Thinking about each of the following rooms, how do you collect items for recycling?
Please select one answer per room
(SC per ROW)

COLUMN
1. In a bin
2. In a plastic bag
3. In a paper bag
4. Box (e.g. cardboard box)
5. Collect items loose in this room (e.g. on floor / benchtop counter)
6. Collect items loose in this room and take straight out to recycling bin outside the house
7. Collect items loose and take to another room within the house for collection
8. We do not collect recyclables from this room

ROWS
1. Kitchen
2. Bathroom / toilet
3. Laundry
4. Lounge
5. Dining room
6. Bedroom
7. Study
8. Garage / shed / outdoor

Q13 RECYCLING ACTIONS
Q13. When putting items in the recycling bin, which of the following do you do? (MR)
Please select all that apply.
1. Place them together in a box and put the box in the recycling bin
2. Place them together in a box and empty the box into the recycling bin
3. Place them together in a bin and empty the bin into the recycling bin
4. Place them together in a plastic bag and put the bag in the recycling bin
5. Place them together in a plastic bag and empty the items from the bag into the recycling bin
6. Empty items loose into the recycling bin from the bin or straight from the house
7. Other (please specify)

8. None of these

Q14 KNOWLEDGE OF CLEANILINESS

Q14 Thinking about **items that contained food**, which of the following do you believe to be true? (SC)

Please select only one.

1. All containers need to be completely clean from any food / anything else inside
2. All containers need to be quickly rinsed to remove food / anything else
3. All containers need to be emptied of food/anything else inside, but do not need to be clean
4. All containers do not need to be clean from any food / anything else inside
97. Don't know

Q15 RECYCLING ACTIONS

Q15. Before placing items in your recycling bin, which of the following do you do? (MR, RANDOMISE)

Please select all that apply.

1. Rinse items that contained liquids
2. Rinse items that contained food
3. Scrape/wipe items that contained liquids
4 .Scrape/wipe items that contained food
99. None of the above

Q16A. PROMPTED BARRIERS ANY

Q16A. Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it **difficult for you to recycle** household items? (MR, RANDOMISE)

Please select all that apply.

1. Recycling is not that important
2. Not understanding the need or benefit of recycling
3. Being unsure about what can / cannot be recycled
4. Being unaware of the impact of putting something in the recycling that shouldn't go in there
5. It is too much of an effort to recycle, it is easier to just put items in the bin
6. It takes up too much time to recycle
7. Not wanting to waste too much water to clean
8. Too much time / effort to wash items before putting them into the recycling bin
9. The bins inside the house are too small
10. Lack of a process for recycling in the home
11. Lack of visual reminders in my house (e.g. signs about recycling)
12. Others in my household do not support recycling
13. The children do not recycle correctly and it is difficult to correct their behaviour
14. Lack of recycle bin/s in some rooms of my house makes it difficult to recycle from these rooms
15. The chemicals in some household bottles prevent me from recycling these items
16. My recycling bin is often full before collection day
96. Other (please specify)
99. None of these

ASK Q16B IF DO NOT CODE 99 AT Q16A. IF ONLY ONE RESPONSE SELECTED AT Q16A PREPOPULATE RESPONSE FOR Q16B)

Q16B. PROMPTED BARRIERS MAIN

Q16B. What is the **MAIN** factor that makes it **difficult** for you to recycle household items?

Please select only one. (*SC*, SAME ORDER AS Q16A, ONLY SHOW CODES SELECTED AT Q16A)

1. Recycling is not that important
2. Not understanding the need or benefit of recycling
3. Being unsure about what can / cannot be recycled
4. Being unaware of the impact of putting something in the recycling that shouldn't go in there
5. It is too much of an effort to recycle, it is easier to just put items in the bin
6. It takes up too much time to recycle
7. Not wanting to waste too much water to clean

8. Too much time / effort to wash items before putting them into the recycling bin
9. The bins inside the house are too small
10. Lack of a process for recycling in the home
11. Lack of visual reminders in my house (e.g. signs about recycling)
12. Others in my household do not support recycling
13. The children do not recycle correctly and it is difficult to correct their behaviour
14. Lack of recycle bin/s in some rooms of my house makes it difficult to recycle from these rooms
15. The chemicals in some household bottles prevent me from recycling these items
16. My recycling bin is often full before collection day
96. Other [PIPE IN OTHER RESPONSE FROM Q16A]

Q17A. PROMPTED MOTIVATIONS - ANY
Q17A. Below is a list of statements that some people have mentioned it makes it **easy to recycle**. Which of the following make it **easier** to recycle household items? (MR, RANDOMISE)
Please select all that apply.

1. Have always recycled, something I have learned from my childhood
2. Care about recycling
3. Understand why recycling is important
4. Doing the right thing by the environment
5. Doing the right thing to preserve resources for future generations
6. Understanding the personal benefits of recycling to me and my household (e.g. feeling rewarded for my recycling efforts)
7. Having more information about what can/cannot be recycled
8. Clear identification on packaging on what can be recycled (e.g. recycling symbol)
9. Being aware of the impact of putting something in recycling that cannot go in there
10. Not having to rinse/wash items before putting them into the recycling bin
11. Having a good recycling system / process in my house
12. Visual cues that act as a reminder (e.g. magnet on the fridge / stickers on bin)
13. Having support from other members in the household
14. The children in my household learning about recycling at school
15. Reducing the amount of waste in the garbage bin so that the rubbish fits
16. Having a larger or additional kerbside recycling bin
17. Having additional recycling bins in my house (in more than one location)
18. Having the rubbish and recycling bins side by side in the house
19. Fear of not having recycling bin emptied by collectors if the items are not correct
20. Fear of receiving a bin audit sticker for not recycling correctly
96. Other (please specify)
99. None of these

ASK Q17B IF DO NOT CODE 99 AT Q17A. IF ONLY ONE RESPONSE SELECTED AT Q17A PREPOPULATE RESPONSE FOR Q17B)
Q17B. PROMPTED MOVATIAVTIONS MAIN
Q17B. What is the **MAIN** factor that makes recycling easier for you? *(SC*, SAME ORDER AS Q17A, ONLY SHOW CODES SELECTED AT Q17A)
Please select only one.

1. Have always recycled, something I have learned from my childhood
2. Care about recycling
3. Understand why recycling is important
4. Doing the right thing by the environment
5. Doing the right thing to preserve resources for future generations
6. Understanding the personal benefits of recycling to me and my household (e.g. feeling rewarded for my recycling efforts)
7. Having more information about what can/cannot be recycled
8. Clear identification on packaging on what can be recycled (e.g. recycling symbol)
9. Being aware of the impact of putting something in recycling that cannot go in there
10. Not having to rinse/wash items before putting them into the recycling bin

11. Having a good recycling system / process in my house
12. Visual cues that act as a reminder (e.g. magnet on the fridge / stickers on bin)
13. Having support from other members in the household
14. The children in my household learning about recycling at school
15. Reducing the amount of waste in the garbage bin so that the rubbish fits
16. Having a larger or additional kerbside recycling bin
17. Having additional recycling bins in my house (in more than one location)
18. Having the rubbish and recycling bins side by side in the house
19. Fear of not having recycling bin emptied by collectors if the items are not correct
20. Fear of receiving a bin audit sticker for not recycling correctly
96. Other [PIPE IN TEXT FROM OTHER AT Q17A]

Q18. FOOD CONTANIERS
Q18 You **can recycle food containers without needing to clean them** (e.g. just empty them not wash them). Knowing this how likely are you to recycle these items in the future? (SC)
Please select one.

1. Much more likely
2. Slightly more likely
3. Same amount
4. Slightly less likely
5. Much less likely

Q19 HARD PLASTIC CONTAINER
Q19 What is your understanding of **hard plastic container**? *Please provide a short description of what you think this means and some examples of items in your household*

FOOD / ORGANICS WASTE

The next few questions relate to **food waste in your household**.

Q20. APOPTION
Q20. Which best describes how likely you are to consider a food waste recycling system such as compost, worm farm or other recycling system in your household? (SR)
Please select one.

1. Very likely
2. Quite likely
3. Neither likely non unlikely
4. Quite unlikely
5. Very unlikely

ASK ONLY TO THOSE WITH GREEN BIN (2 OR 3 AT S5)
Q21. ADOPTION FOOD WASTE IN GREEN BIN
Some councils in Victoria are currently trialling the collection of food waste within the green / garden waste bin. This would mean that any food waste including fresh/raw, cooked, fruit/vegetable scraps, meat bones, dairy etc. could be put in this bin. We would like to know what you think about this idea.

Q21 How likely or unlikely are you to **consider putting food waste in a green bin** if this was available to you within your council? (SC)
Please select only one.

1. Very likely
2. Quite likely
3. Neither likely nor unlikely
4. Quite unlikely
5. Very unlikely

ASK ONLY TO THOSE WITH GREEN BIN (2 OR 3 AT S5)
Q22A. PROMPTED BARRIERS – FOOD WASTE RECYCLING - ANY
Q22A. Which of the following would make it **difficult for you to recycle food waste**? (MR, RANDOMISE)
Please select all that apply.

1. The smell of the green bin
2. The smell of collecting the food waste inside my house
3. It would create mess inside the house
4. It would create mess inside my green bin
5. Would attract vermin, bugs, insects mice etc.
6. Do not like the idea of it sitting on the bench in kitchen
7. Would need to take out regularly
8. Don't see the point of recycling food waste
9. Dislike idea of putting meat into the bin
10. Dislike the idea of putting cooked food into the bin
11. Dislike the idea of putting peelings into the bin
12. Need to regularly clean out green bin
96. Other (please specify)
99. Don't know

ASK Q22B IF DO NOT CODE 99 Q22A. IF ONLY ONE RESPONSE SELECTED AT Q22A PREPOPULATE RESPONSE FOR Q22B)
Q22B. PROMPTED BARRIERS – FOOD WASTE RECYCLING - MAIN
Q22B. What is the **MAIN** factor that would make it **difficult to recycle food waste**? (SC, SAME ORDER AS Q22A, ONLY SHOW CODES SELECTED AT Q22A)
Please select only one.

1. The smell of the green bin
2. The smell of collecting the food waste inside my house
3. It would create mess inside the house
4. It would create mess inside my green bin
5. Would attract vermin, bugs, insects mice etc.
6. Do not like the idea of it sitting on the bench in kitchen
7. Would need to take out regularly
8. Don't see the point of recycling food waste
9. Dislike idea of putting meat into the bin
10. Dislike the idea of putting cooked food into the bin
11. Dislike the idea of putting peelings into the bin
12. Need to regularly clean out green bin
96. Other [PIPE IN OTHER RESPONSE FROM Q22A]

ASK ONLY TO THOSE WITH GREEN BIN (2 OR 3 AT S5)
Q23A. PROMPTED MOTIVATIONS – FOOD WASTE RECYCLING
Q23A. Which of the following would make it **easier** for you to **recycle organic food waste**? (MR, RANDOMISE. ANCHOR CODES 96 & 99)
Please select all that apply.

1. A lidded container for storage
2. A free container provided by the council
3. Being able to wrap food waste in paper (e.g. newspaper or paper towel), rather than placing loose in the green bin
4. Compostable bags to store food waste in
5. Knowing what the benefits of recycling food waste are
6. Other people in my household would support doing this

96. Other (please specify)
99. Don't know

ASK Q23B IF DO NOT CODE 99 AT Q23A. IF ONLY ONE RESPONSE SELECTED AT Q23A PREPOPULATE RESPONSE FOR Q23B)

Q23B. PROMPTED MOTIVATIONS MAIN REASON – FOOD WASTE RECYCLING
Q23B. What is the **MAIN** factor that would make it **easier** for you to **recycle organic food waste**? (SC, SAME ORDER AS Q23A, ONLY SHOW CODES SELECTED AT Q23A)
Please select only one.

1. A lidded container for storage
2. A free container provided by the council
3. Being able to wrap food waste in paper (e.g. newspaper or paper towel), rather than placing loose in the green bin
4. Compostable bags to store food waste in
5. Knowing what the benefits of recycling food waste are
6. Other people in my household would support doing this

96. Other [PIPE IN TEXT FROM OTHER AT Q23A]

BACKYARD DETRITUS AND OTHER INORGANIC MATERIAL (ONLY ASK THIS SECTION TO THOSE WITH GREEN BIN (2 OR 3 AT S5)

The next few questions relate to **outdoor green / garden waste**.

ASK ONLY TO THOSE WITH GREEN BIN (2 OR 3 AT S5)
Q24. EVER DONE
Q24. Which of the following have you ever intentionally or unintentionally put in your green / garden bin ? (MR, RANDOMISE)
Please select all that apply.

1. Loose plastic bag
2. Plastic bag containing garden waste (e.g. glass clippings, pruning etc.)
3. Beer bottle
4. Children / pet toys
5. Gardening debris (e.g. garden tools, garden hose)
6. Plastic pot plants
7. Soil
8. DIY waste e.g. plasterboard, construction timber, cement sheeting

96. Other (please specify)
97. Don't know

ASK ONLY TO THOSE WITH GREEN BIN (2 OR 3 AT S5)
Q25A. PROMPTED BARRIERS ANY – INORGANIC MATERIAL
Q25A. Which of the following would make it **difficult to keep inorganic backyard items out of the green bin** (such as plastic items, DIY waste, bottles etc.)? (MR, RANDOMISE. ANCHOR CODE 96 & 99)
Please select all that apply.

1. Not caring about correctly recycling green / garden waste
2. Being unsure about what can / cannot go in this bin
3. Backyard materials getting mixed up with the garden waste
4. Being unaware of the impact of putting something in the recycling that shouldn't go in there
5. Too much time to correctly check what goes in the bin
6. Too much effort to correctly check what goes in the bin
7. Lack of visual reminders on the bin about what can be recycled (e.g. signs about recycling)
8. Others in my household not knowing what can and cannot go in the bin
9. Plastic bags make it easy to clean up garden
10. Plastic toys happen when run over by mower and collected with grass clippings
11. When entertaining outside beer bottles may end up in the green bin

96. Other (please specify)
99. Don't know

ASK Q25B IF DO NOT CODE 99 AT Q25A. IF ONLY ONE RESPONSE SELECTED AT Q25A PREPOPULATE RESPONSE FOR Q25B)

Q25B. PROMPTED BARRIERS MAIN – INORGANIC MATERIAL
Q25B. What is the **MAIN** factor that would make it **difficult to keep inorganic backyard items out of the green bin**? (SC, SAME ORDER AS Q25A, ONLY SHOW CODES SELECTED AT Q25A)
Please select only one.

1. Not caring about correctly recycling green / garden waste
2. Being unsure about what can / cannot go in this bin
3. Backyard materials getting mixed up with the garden waste
4. Being unaware of the impact of putting something in the recycling that shouldn't go in there
5. Too much time to correctly check what goes in the bin
6. Too much effort to correctly check what goes in the bin
7. Lack of visual reminders on the bin about what can be recycled (e.g. signs about recycling)
8. Others in my household not knowing what can and cannot go in the bin
9. Plastic bags make it easy to clean up garden
10. Plastic toys happen when run over by mower and collected with grass clippings
11. When entertaining outside beer bottles may end up in the green bin
96. Other [PIPE IN TEXT FROM OTHER AT Q25A]

ASK ONLY TO THOSE WITH GREEN BIN (2 OR 3 AT S5)
Q26A. PROMPTED MOTIVATIONS ANY – INORGANIC MATERIAL
Q26A. Which of the following would make it **easier** for you **keep inorganic backyard items out of the green bin**? (MR, RANDOMISE. ANCHOR CODES 96 & 99)
Please select all that apply.

1. Caring about correctly recycling green / garden waste
2. Being aware about what can / cannot go in this bin
3. Understanding the impact of putting something in the recycling that shouldn't go in there
4. Visual reminders on the bin about what can be recycled (e.g. signs about recycling)
5. Others in my household knowing what can and cannot go in the bin
6. Cleaning up items (e.g. plastic toys) on the lawn before mowing
7. Providing convenient rubbish and recycling bins when entertaining to prevent beer bottles and other items in the green / garden bin
8. Keep organic / garden material loose e.g. no plastic bags.
9. Knowing to keep DIY waste out of the garden / green bin
10. Knowing to keep other gardening waste (e.g. garden hose, soil etc.) out of the garden / green bin
96. Other (please specify)
99. Don't know

ASK Q26B IF DO NOT CODE 99 AT Q26A. IF ONLY ONE RESPONSE SELECTED AT Q26A PREPOPULATE RESPONSE FOR Q26B)
Q26B. PROMPTED MOTIVATIONS MAIN– INORGANIC MATERIAL
Q26B. What is the **MAIN** factor that would make it **easier** to **keep inorganic backyard items out of the green bin**? (SC, SAME ORDER AS Q26A, ONLY SHOW CODES SELECTED AT Q26A)
Please select only one.

1. Caring about correctly recycling green / garden waste
2. Being aware about what can / cannot go in this bin
3. Understanding the impact of putting something in the recycling that shouldn't go in there
4. Visual reminders on the bin about what can be recycled (e.g. signs about recycling)
5. Others in my household knowing what can and cannot go in the bin
6. Cleaning up items (e.g. plastic toys) on the lawn before mowing
7. Providing convenient rubbish and recycling bins when entertaining to prevent beer bottles and other items in the green / garden bin
8. Keep organic / garden material loose e.g. no plastic bags.
9. Knowing to keep DIY waste out of the garden / green bin
10. Knowing to keep other gardening waste (e.g. garden hose, soil etc.) out of the garden / green bin

97. Other [PIPE IN TEXT FROM OTHER AT Q26A]

ASK ALL
Q27 AWARENESS LANDFILL
Q27 Did you know that **recyclables in plastic bags end up in landfill**? (SC)
Please select one.
1. Yes
2. No

Q28 AWARENESS CONTAMINATE
Q28 Before today, did you know that plastic bags can contaminate your garden / food waste? (SC)
Please select one.
1. Yes
2. No

DEMOGRAPHICS

We require some personal details from you so that we can review the results to this survey by different groups. The answers you give will remain completely confidential.

D1. HOUSEHOLDSTRUCTURE
D1. Which of the following best describes your household? (SR)
Please select one.

1. Couple with no children
2. Couple with dependent children at home (17 years and under)
3. Couple with non-dependent children at home (18 years and over)
4. Single parent with dependent children at home (17 years and under)
5. Single parent with non-dependent children at home (18 years and over)
6. Single person living alone
7. Group /shared household

96. Other (please specify)
97. I prefer not to answer

D2 RESIDE HOUSEHOLD
D2 How many people usually live in your home? (SC)
Please select one.

1. One (yourself)
2. Two
3. Three
4. Four
5. Five
6. Six or more

D3 INCOME
D3. What is the total of all wages/salaries, Government benefits, pensions, allowances and other income that YOUR HOUSEHOLD usually receives on a **weekly basis** (Gross – before tax and superannuation deductions)? **(SR)**

1. $1-$199 per week ($1-$10,348 per year per year)
2. $200-$299 per week ($10,400- $15,548 per year)
3. $300-$399 per week ($15,600- $20,748 per year)
4. $400-$599 per week ($20,800- $31,148 per year)
5. $600-$799 per week ($31,200- $41,548 per year)
6. $800-$999 per week ($41,600- $51,948 per year)
7. $1,000-$1,249 per week ($52,000- $64,948 per year)
8. $1,250-$1,499 per week ($65,000-$77,948 per year)
9. $1,500-$1,999 per week ($78,000-$103,948 per year)
10. $2,000-$2,499 per week ($104,000-$129,948 per year)
11. $2,500-$2,999 per week ($130,000-$155,948 per year)
12. $3,000-$3,499 per week ($156,000-$181,948 per year)
13. $3,500-$3,999 per week ($182,000-$207,948 per year)
14. $4,000 or more per week ($208,000+ per year)
15. No income
16. Negative income

95 I prefer not to answer
97 Don't know

D4. PROPERTY TYPE
D4. What type of property do you live in? (SR)
Please select one.

1. Separate / detached house
2. Semi-detached house, terrace or townhouse
3. Flat, unit or apartment – that's one or two stories

4. Flat, unit or apartment – that's a three storey block
5. Flat, unit or apartment – that's four or more storey block
6. Flat, unit or apartment – attached to a house
96. Other (please specify)

D5. LANGUAGE
D5. What is the main language your household usually speaks at home? (SR)
Please select one.

1. English
2. Greek
3. Italian
4. Vietnamese
5. Mandarin
6. Cantonese
7. Arabic
96. Other – please specify
99. I prefer not to answer

DEMOGRAPHICS

Great. That's it.

Thank you so much for completing our survey today.

CONCLUSION

As this is market research, it is carried out in compliance with the Privacy Act and the information you provided will be used only for research purposes. The research project is being conducted on behalf of Sustainability Victoria.

FINAL CLOSE/TERMINATION

Again, thank you for your patience in answering these questions. This research has been conducted by Research Now.

For questions about the Market Research Industry as a whole, you can call the Market and Social Research Society's Survey Line on 1300 364 830.

Thank you for your opinions.

Please click "NEXT" to send through your responses.

8. Appendix C: Qualitative Discussion Guide

SECTION A: INTRODUCTION

TOPIC 1: Background & Privacy Act	Outcome/Objective
2 minutes (0-2 of 120 minutes)	

Introduce name and company and thank participants for their interest and involvement.
PRIVACY ACT REQUIREMENTS
• Our discussion topic today is broadly about recycling in your home.
• **Reveal Client identity**
  ◦ We are doing this research on behalf of Sustainability Victoria.
  ◦ Give assurance that information and opinions will be used for research purposes only and that there are no right or wrong answers
  ◦ This is a relaxed discussion and should be like a conversation, more than questions and answers.
  ◦ State that answers will be combined with other participants to and will remain confidential
• **Observation**
  ◦ If applicable – explain how & who
• **Recording**
  ◦ Explain recording audio and /or video
  ◦ Give assurance that tapes will only be used for research purposes by the research organisation and the organisation sponsoring the research only.
• **Other information**
  ◦ Toilets
  ◦ Mobile phones to silent
  ◦ Refreshments to enjoy
• **Any questions before we begin?**
	• Give background to the research
	• Advise respondent of Privacy Act details
	• Set expectations of the interview outcome

SECTION B: INDIVIDUAL PROJECT REQUIREMENTS

TOPIC 2: Warm up and getting to know you and your attitudes towards recycling	Outcome/Objective
8 minutes	**(2-10 of 120 minutes)**
OK let's just start off by talking about some of the things that are happening in your life right now… • Name, age, occupation • Tell me a bit about your household, who lives there, what sort of property do you live in, how many rooms? • What did you do today? • How do you feel about recycling? Firstly, what type of recycle bins do you have access to at your house? PROBE: what colour lids are these? What do you call each type of bin/s? Who in your household is responsible for recycling? In this discussion when we talk about "recycling" sometimes we mean "recycling bin and organics bin". PROBE: On how this is shared? Is the same person doing rubbish, recycling, garden/organics? Who is doing what? How do you typically find out information about what can and cannot be recycled? PROBE: How good do you feel your knowledge is about what can and cannot be recycled? Where would you look for more information about recycling?	• To relax the respondent and understand their background. • Begin to get an understanding about their personality and who they are • Access to bins and responsibility for household recycling • Understand sources of information and knowledge and attitudes towards recycling.

TOPIC 3: Recycling behaviour	Outcome/Objective
Household items and recycling behaviour (20 minutes)	**(20-40 of 120 minutes)**
Today we will be talking about items in your household that can and cannot be recycled. Firstly, we would like to understand what type of items you need to dispose of in your household. I would like you to talk me through about the types of items you typically buy that have packaging (including supermarket or any other shops) or other items that you need to dispose of, including food and non-food items. I would like you to think about these items that you need to get rid of, either in the bin, recycle, reuse or dispose of in another way. Let's make a list of all the items that you normally have in your house that you need to dispose of. Let's start with the **kitchen**. I will write these down as you talk. **INTERVIEWER TO RECORD ON SHEET**	In this section we will aim to; • Understand what items are in the household • Understand what items are being recycled and which are not • Understand recycling behaviour from different rooms of the house

PROBE IF NOT MENTIONED SPONTANEOUSLY • Any other plastics? (If not mentioned what about plastic bags?) • Any other paper/cardboard? • Any other aluminium? • Any other containers? • Any food? • Any others items you can think of? That's great now let's move onto another room of your house. Let's create a similar list for the **bathroom**. What are the items from your **bathroom** that you normally need to dispose of… **INTERVIEWER TO RECORD ON SHEET** **PROBE IF NOT MENTIONED SPONTANEOUSLY** • Any other plastics? (If not mentioned what about plastic bags?) • Any other paper/cardboard? • Any other aluminium/steel? • Any other containers? • Any others items you can think of? That's great now let's move onto another room of your house. Let's create a similar list for the **laundry.** What are the items from your **laundry** that you normally need to dispose of… **INTERVIEWER TO RECORD ON SHEET** **PROBE IF NOT MENTIONED SPONTANEOUSLY** • Any other plastics? (If not mentioned what about plastic bags?) • Any other paper/cardboard? • Any other aluminium/steel? • Any other containers? • Any others items you can think of? That's great now let's move onto another room of your house. Let's create a similar list for the **all other rooms** in your house? Let's think about the bedroom, study, garage etc. What items can you think of that you would normally need to dispose of from all the other rooms in your house? **INTERVIEWER TO RECORD ON SHEET** **PROBE IF NOT MENTIONED SPONTANEOUSLY** • Any other plastics? (If not mentioned what about plastic bags?)	

• Any other paper/cardboard? • Any other aluminium/steel? • Any other containers? • Any others items you can think of? **ASK IF HAVE AN OUTDOOR AREA** That's great now let's move onto the **outside of your house**…. What items do you normally need to dispose of from your outdoor area? **INTERVIEWER TO RECORD ON SHEET** **PROBE IF NOT MENTIONED SPONTANEOUSLY** • Any green waste – e.g. clippings, twigs, branches etc.? • Any other plastics – e.g. used pots? • Any other paper/cardboard? • Any other aluminium/steel? • Any other containers? • Any others items you can think of? That's a great list! **ASK FOR EACH ROOM /LOCATION** Now I would like to know what you do with these items once you have finished using them. Let's talk about what your process is of getting rid of these items. Firstly, let's start by identify what you do with each of these. Let's create a new column for each type of action. We can then tick which ones go where and we can talk about how often you dispose of these items this way **PROBE ON SPCECIFC LOCATIONS / ACTIONS FOR EACH ITEM:** Great, let's quickly go through each of these items and tell me what you do with each of these. • Into the garbage bin? • Into the recycling bin? • Into the green / organics recycling bin? • Reuse items? • Give away to others / charity? • Take to the rubbish dump? How often do you put these types of items in this location/bin? PROBE: always, regularly, sometimes, rarely, never? What do you do with the item before you dispose of it …e.g. rinse it, squash it, fold it, stack it, wash it, wipe it, tear it etc. How do you get it to the bin from each room? In a bag? Tip into outside bin? Have a recycle and garbage bin in the bathroom/laundry or how do	

they separate?	
TOPIC 4: Key Recycling Behaviours	**Outcome/Objective**
Understanding of key recycling behaviours (40minutes)	**(40-80 of 120 minutes)**
Ok we've talked about all the items in your home and the ways in which you dispose of these. I would like you to take a few moments to think about all the items you put into the recycle bin… **RECAP ON WHAT THEY RECYCLE FROM SHEETS** • Typically what items do you **always** recycle? • What items do you **sometimes** recycle? • Do you recycle from **all rooms of the house**? Is there anything here that you could recycle that you are currently not? Why is that? Is there any you are unsure of whether they can be recycled? Is there any rooms you could be recycling from and currently aren't? **INTERVIEWER TO IDENTIFY ANY HARD PLASTICS FROM LIST THAT ARE NOT BEING RECYCLED BUT COULD BE** I've got a list here of things that can be recycled, let's talk about items that could be recycled that currently aren't. Firstly let's talk about **hard plastics….** • Do you know what I mean when I refer to hard plastics? What type of items in your household are hard plastics? • Can all hard plastics be recycled? How do you know which can / cannot be recycled? • Did you know you could recycle this? **FOR HARD PLASTICS THEY RECYCLE** • What are all the things that influenced you to recycle these items? • Please describe how you recycle these? PROBE: Understand process i.e. from use to disposal? Wash? Wipe? Scrap? Bin in kitchen? Put in a bag? • How easy or difficult is it to recycle? • What are the things that make it easy? • What are the things that make it difficult? • What would make it easier to recycle these? • Who would support recycling hard plastics?	In this section we will aim to; 8 Understanding items that are always / regularly / sometimes being recycled 8 Identify items that are not being recycled but could be – understand why 8 Understanding recycling behaviour towards hard plastics 8 Understanding recycling behaviour towards aluminium 8 Understanding recycling behaviour towards food containers 8 Understanding recycling behaviour from the bathroom and laundry

FOR HARD PLASTICS THEY DO NOT RECYCLE

- How come you did not recycle these items?
  - Did you want to recycle these?
  - How come?
- How would you go about recycling these?
- What are all the things that stop you from recycling these?
- What would encourage you to recycle these items/more?
- What would make it easier for you to recycle these?
- What would it take for you to recycle these?
- Who would disapprove of recycling hard plastics?

INTERVIEWER TO IDENTIFY ANY ALUMINIUM/STEEL FROM LIST THAT ARE NOT BEING RECYCLED BUT COULD BE

Let's talk specifically about **aluminium** items.

- Do you know what I mean when I refer to aluminium? What items in your household are aluminium? (IF DON'T KNOW – GIVE EXAMPLES – foil, trays, soft drink cans)

FOR ALUMINIUM THEY RECYCLE

- What are all the things that influenced you to recycle these items?
- Please describe how you recycle these? PROBE: Understand process i.e. from use to disposal? Wash? Wipe? Scrap? Bin in kitchen? Put in a bag?
- How easy or difficult is it to recycle these?
- What are the things that make it easy?
- What are the things that make it difficult?
- What would make it easier to recycle these?
- Who would support recycling aluminium items?

FOR ALUMINIUM THEY DO NOT RECYCLE

- How come you did not recycle these items?
  - Did you want to recycle these?
  - How come?
- How would you recycle these?
- What are all the things that stop you from recycling these?
- What would encourage you to recycle these items/more?
- What would make it easier for you to recycle?
- What would it take for you to recycle?
- Who would disapprove recycling aluminium items?

INTERVIEWER TO IDENTIFY ANY FOOD CONTANIERS FROM LIST THAT ARE NOT BEING RECYCLED BUT COULD BE

Let's talk about the **food containers** on the list.
 	
FOR FOOD CONTAINERS THEY RECYCLE
 	
• What are all the things that influenced you to recycle these items?
• Please describe how you recycle these? PROBE: Understand process i.e. from use to disposal? Wash? Rinse? Wipe? Scrap? Bin in kitchen? Put in a bag?
• How easy or difficult is it to recycle these?
• What are the things that make it easy?
• What are the things that make it difficult?
• What would make it easier to recycle these?
• Who would support recycling food containers?
 	
FOR FOOD CONTAINERS THEY DO NOT RECYCLE
 	
• How come you did not recycle these items?
  o Did you want to recycle these?
  o How come?
• How would you recycle these?
• What are all the things that stopped you from recycling these?
• What would encourage you to recycle these items/more?
• What would make it easier for you to recycle these?
• What would it take for you to recycle these?
• Who would disapprove recycling food containers?
 	
INTERVIEWER TO IDENTIFY ANY ITEMS FROM BATHROOM AND LAUNDRY FROM LIST THAT ARE NOT BEING RECYCLED BUT COULD BE
 	
Let's now talk about recyclables **from the bathroom and laundry.**
 	
FOR ITEMS THEY RECYCLE
 	
• What are all the things that influenced you to recycle these items?
• Please describe how you recycle these? PROBE: Understand process i.e. from use to disposal? Wash? Wipe? Scrap? Have bin in this room? Put in kitchen bin? Put in a bag? Take straight to bin? PROBE: Do you have a bin in these rooms? One / Two bins? Or use another bin in the house or go straight outside to kerbside bin? How do you carry items to the recycle bin / rubbish?
• How easy or difficult is it to recycle items from these rooms?
• What are the things that make it easy?
• What are the things that make it difficult?
• What would make it easier to recycle items from these rooms?
• Who would support of recycling from the bathroom and laundry?
 	
FOR ITEMS THEY DO NOT RECYCLE
 	
• How come you did not recycle these items?
  o Did you want to recycle these?	

o How come? • How would you recycle these? • What are all the things that stop you from recycling these? • What would encourage you to recycle these items/more? • What would make it easier for you to recycle these? • What would it take for you to recycle these? • Who would disapprove of recycling from the bathroom and laundry?	

TOPIC 5: Key Behaviours	Outcome/Objective
Understanding triggers and barriers to key recycling behaviours – green / organic recycling (15 minutes)	**(80-95 of 120 minutes)**
I would now like to talk about green waste, organic and food waste. Firstly I want to get an understanding of what you know about these. 8 Do you know what we mean by green waste? 8 What about when we refer to organics? What does this mean to you? 8 What about food waste? What does this refer to? What items do you know **can** go in the green / organics recycle bin? What items do you know **cannot** go in the green / organics recycle bin? Firstly, let's talk more about **food waste.** **INTERVIEW NOTE: ONLY HUME & NULLIMBEK COUCILS ACCEPTING FOOD WASTE IN ORGANICS BIN. ONLY ASK ABOUT CURRENT BEHAVIOUR** • Do you currently recycle or compost food waste? If so how? Why / Why not? INTERVIEWER NOTE: FOOD CAN INCLUDE PEELINGS, BONES & MEAT. **FOR FOOD WASTE THEY RECYCLE OR COMPOST** 8 What are all the things that influence you to recycle food waste? 8 Please describe how you recycle these? PROBE: Container in the kitchen? On the bench? 8 How easy or difficult is it to recycle food? 8 What are the things that make it easy? 8 What are the things that make it difficult? 8 What would make it easier to recycle these? 8 Who would support of recycling food waste? **FOR FOOD ITEMS THEY DO NOT RECYCLE OR COMPOST** 8 How come you did not recycle food waste? o Did you want to recycle this? How come? 8 Did you know how to recycle this? 8 What are all the things that stop you from recycling this? 8 What would encourage you to recycle food waste more? 8 What would make it easier for you to recycle? 8 What would it take for you to recycle food waste? 8 Who would disapprove of recycling food waste?	In this section we will aim to; 8 What are the barriers to for each of the desired recycling behaviour. 8 What are the triggers for each of the desired recycling behaviour.

ASK IF NOT IN HUME & NULLIMBEK Now I would like you to think about if your council were to accept food waste in the green / organics bin. Just imagine that it was possible for you to recycle food items. 8 What are all the things that could influence you to recycle food waste? 8 Please describe how you would recycle food waste. 8 How easy or difficult do you think it would be to recycle food waste? 8 What are the things that could make it easy? 8 What are the things that could make it difficult? 8 Who would support of recycling food waste? Who would disapprove What are your feelings towards recycling food items such as peelings vs meat? What about other food waste?	

TOPIC 5: CONTAMINATION – PLASTIC AND OTHER ITEMS	**Outcome/Objective**
Understanding triggers and barriers to putting plastic bags in the recycling and inorganic materials out of the organics bins. **(20 minutes)**	**(95-115 of 120 minutes)**
Let's talk specifically about **plastic bags.** **INTERVIEWER TO IDENTIFY IF ANY PLASTIC BAGS ARE BEING PUT IN THE RECYCLE OR GREEN / ORGANICS BIN IE LOOSE OR WITH RECYCABLES IN THEM.** 8 When you put the **recyclable items** in the bin – is it still in the bag or do you empty items loosely into this bin? Do you use a plastic bag? 8 When you put the **green waste/ organics** in the bin – is it still in the bag or do you empty items loosely? If not in the bin, what do you do with the plastic bag? Did you know that plastic bags are not generally accepted as a recyclable item and should be kept out of the recycle bin? **FOR THOSE WHO ARE PUTTING PLASTIC BAGS IN RECYCLING / ORGANIC BIN (ASK FOR EACH BIN - RECYCLING VS ORGANIC)** So thinking about the times you do put your recycling in a plastic bag in the bin… 8 When would you tend to do this? Why? 8 What are the things that made it difficult for you to avoid putting plastic bags in the recycling / organics bin? IF THEY DID NOT KNOW THEY SHOULD NOT PUT RECYCLING IN PLASTIC BAG 8 Now knowing that you shouldn't put your recyclables in a plastic bag,	In this section we will aim to; 8 Understanding recycling behaviour and plastic bags 8 What are the barriers to for each of the desired recycling behaviour. 8 What are the triggers for each of the desired recycling behaviour.

how likely are you to keep plastic bags out of the recycling in the future? ASK ALL WHO ARE PUTTING PLASTIC BAGS IN RECYCLING BIN. 8 What would make it easier for you to avoid putting plastic bags in the recycling / organics bin? 8 What would influence you to a avoid putting plastic bags in the recycling / organics bin? **FOR THOSE WHO ARE NOT PUTTING PLASTIC BAGS IN RECYCLING / ORGANIC BIN (ASK FOR EACH BIN – RECYCLING VS ORGANIC)** So thinking about the times you don't put you recycling in a plastic bag in the bin… 8 How do you avoid putting plastic bags in the recycle / organics bin? 8 What are all the things that stop you from putting these into the recycle / organics bin? 8 What encourages you to not put them in the recycle / organics bin? 8 What makes it easier for you to not put these in the recycle / organics bin? Did you know how to correctly recycle plastic bags? PROBE: supermarket bins? Now let's talk about **keeping inorganic backyard materials (plastic bags, beer bottles, toys, gardening debris etc.) out of the organics bin**…. 8 What would make it easier for you to avoid putting these items in the organics bin? 8 What would make it difficult for you to avoid putting these items in the organic bin? 8 What encourages you to not put them in the organics bin? INTERVIEWER NOTES: TOYS OFTEN MOWN OVER AND COLLECTED AS GRASS CLIPPINGS. GARDEN DEBIS CAN INCLUDE GARDEN HOSE, BROKEN GADEN TOOLS, POT PLANTS, STAKES, PAVERS, BRICKS ETC	

TOPIC 6: LANGUAGE	Outcome/Objective
To understand meaning of recycling terms (10 minutes)	**(10-20 of 120 minutes)**
I would now like get an understanding of what you know about different **recycling terms.** What do you think [INSERT WORD] means? PROBE ON SPECIFIC WORDS IF NOT MENTIONED SPONTANEOUSLY IN PREVIOUS SECTION 1. compost 2. green waste or organics bin 3. garden waste or garden bin 4. organics waste or organics bin 5. garden organics 6. food and garden organics 7. organics 8. Recycling bin 9. Contamination/contaminants 10. rigid plastic containers 11. hard plastic containers 12. plastic containers with codes 1-7 13. residual waste 14. food waste 15. biodegradable 16. compostable 17. comingled 18. soft plastics PROBE: Would you refer to this in this way? Do you have any other term?	In this section we will aim to; - Understanding of recycling terms and language

SECTION C: CONCLUSION (MANDATORY QMS REQUIREMENTS)

TOPIC 7: CLOSING AND THANK YOU (115-120 of 120 minutes)

- Inform respondents that it is the end of the discussion and thank them for their time and opinions.
- State that as this is market research, it is carried out in compliance with the Privacy Act / information provided will only be used for research purposes.
- Reveal Client Identity if not revealed during intro [unless there is a valid reason not to do so. Should not be done without the client's permission].
- Remind them that you are from Colmar Brunton. Advise if any queries, call the Market Research Society's free Survey Line on 1300 364 830 or CBR on (Melb:1800 555 145).
- Ask for any final comments?
- Issue incentives - ensure respondent signs "Qual Validation Report & Acknowledgement of Reimbursement".
- Complete comments section of "Qual Validation Report & Acknowledgement of Reimbursement".

9. Appendix D: Analysis by demographics

Significantly Higher @ 95% confidence level	Total	Gender		Age			Location	
Significantly Lower @ 95% confidence level		Male	Female	18-34 years	35-54 years	55+ years	Melbourne Metro	VIC Regional
Q3 How well do you understand what items can be placed in each of the bins in your household?								
Recycling bin n=	450	219	231	123	144	183	223	227
Very well	43%	44%	42%	28%	43%	56%	42%	44%
Fairly well	54%	54%	54%	67%	54%	42%	54%	54%
Not very well	3%	2%	4%	5%	2%	2%	3%	2%
Not at all	0%	0%	1%	0%	1%	0%	0%	0%
Don't know	0%	0%	0%	0%	0%	0%	0%	0%
Organics bin for garden waste n=	227	123	104	55	72	100	124	103
Very well	56%	59%	52%	30%	57%	73%	54%	62%
Fairly well	40%	36%	44%	57%	41%	26%	41%	34%
Not very well	2%	2%	3%	6%	2%	0%	3%	1%
Not at all	2%	3%	1%	7%	0%	1%	2%	2%
Don't know	0%	0%	0%	0%	0%	0%	0%	0%
Q4 Which of the following best describes how you became aware of what items can and cannot be recycled?								
n=	456	221	235	125	145	186	228	228
Learned from my childhood	16%	15%	18%	31%	11%	9%	14%	23%
My parents taught me	20%	20%	20%	44%	15%	2%	22%	14%
Information provided by local council (e.g. pamphlets, leaflets flyers in the mail)	68%	69%	67%	54%	68%	81%	66%	72%
Information provided through schools (e.g. kids brought home)	4%	3%	5%	6%	5%	3%	4%	7%
Council websites	32%	34%	31%	25%	37%	34%	33%	29%
Friends/family	19%	18%	21%	33%	15%	12%	20%	19%
Neighbours	4%	4%	4%	4%	3%	5%	3%	6%
Social media sites (e.g. facebook)	3%	3%	2%	4%	3%	0%	3%	2%
Internet search engines (e.g. Google)	9%	10%	8%	15%	9%	3%	9%	9%
Other websites on the internet (please specify)	0%	0%	0%	0%	0%	0%	0%	0%
Local newspapers	21%	24%	19%	12%	22%	29%	19%	28%
TV	16%	17%	15%	19%	18%	12%	14%	22%
Radio	5%	5%	4%	8%	4%	2%	5%	4%
Community groups	4%	4%	3%	3%	4%	3%	3%	5%
Other	7%	6%	8%	4%	8%	9%	7%	6%
Don't know	3%	5%	1%	3%	5%	2%	4%	2%
Q5 Which of the following statements best describes your attitude to recycling of household waste?								
n=	456	221	235	125	145	186	228	228
I nearly always recycle even if it requires additional effort	80%	79%	81%	69%	80%	90%	80%	79%
I usually recycle if it does not require additional effort	19%	21%	17%	29%	19%	10%	19%	20%
I sometimes recycle but only if it does not require additional effort	1%	0%	1%	2%	0%	0%	1%	1%
I do not recycle	0%	0%	1%	0%	1%	0%	1%	0%
Can't say	0%	0%	0%	0%	0%	0%	0%	0%
Q6 Thinking about your household overall, which of the following statements best describes how much of your household waste is recycled?								
n=	456	221	235	125	145	186	228	228
I/we recycle almost every item that can be recycled (over 90%)	59%	52%	65%	44%	60%	72%	57%	64%
I/we recycle a lot but not every item that can be recycled (more than 70%)	35%	43%	27%	44%	37%	23%	35%	33%
I/we recycle some items (between 30-70%)	6%	4%	8%	12%	2%	4%	7%	3%
I/we do not recycle very much at or at all (less than 30%)	1%	1%	1%	0%	1%	1%	1%	0%
Q7 When putting items in your recycling bin/s, are items put in loose or inside a plastic bag?								
Recycling bin n=	450	219	231	123	144	183	223	227
Always loose	87%	86%	87%	74%	92%	93%	85%	93%
Sometimes loose, sometimes put inside a plastic bag	10%	11%	9%	21%	5%	5%	12%	5%
Always in a plastic bag	3%	2%	4%	5%	3%	2%	3%	2%
Don't know	0%	0%	0%	0%	0%	0%	0%	0%
Organics bin for garden waste n=	227	123	104	55	72	100	124	103

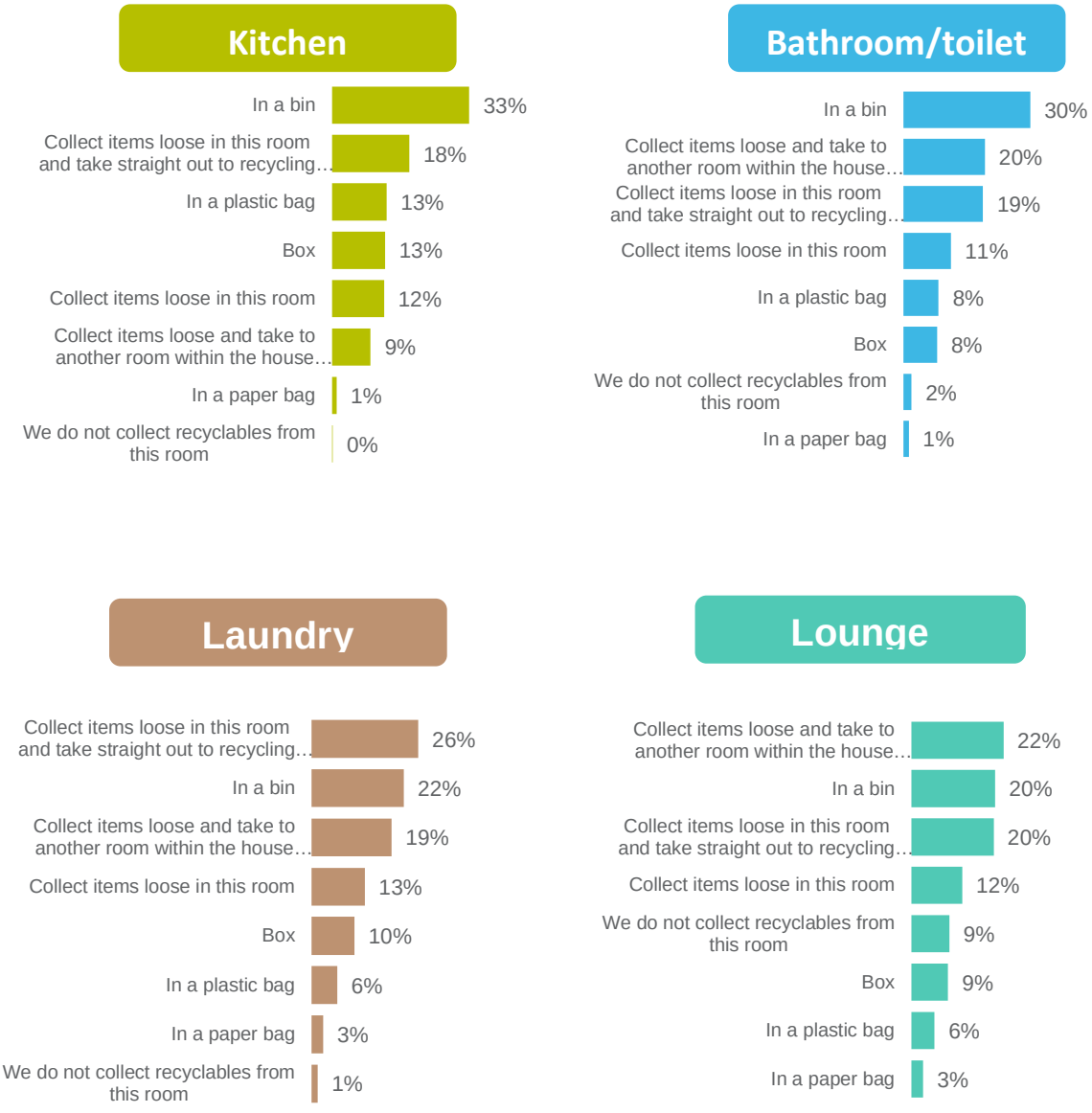
Always loose	88%	85%	91%	76%	86%	98%	87%	90%
Sometimes loose, sometimes put inside a plastic bag	6%	8%	4%	10%	7%	2%	6%	6%
Always in a plastic bag	5%	6%	4%	11%	5%	0%	6%	1%
Don't know	1%	1%	2%	3%	2%	0%	1%	3%
Q9B If your recycling bin is full, what do you do?								
n=	444	213	231	124	144	176	223	221
Put recyclables in the garbage bin	14%	14%	14%	17%	16%	8%	14%	15%
Put recyclables in a neighbours recycling bin	30%	35%	25%	33%	30%	27%	32%	25%
Store recyclables until the recycling bin is empty	67%	64%	69%	63%	65%	72%	66%	69%
Other	4%	3%	5%	3%	2%	7%	4%	5%
Q11 Thinking about each of the following rooms in your home which of the following statements best describes how much of your household waste is recycled from each room?								
Kitchen n=	456	221	235	125	145	186	228	228
I/we recycle every item that can be recycled from this room	51%	48%	54%	34%	50%	68%	51%	52%
I/we recycle a lot but not every item that can be recycled from this room	36%	36%	35%	45%	34%	28%	34%	41%
I/we recycle some items from this room	11%	12%	9%	17%	13%	2%	12%	7%
I/we do not recycle at all from this room	2%	4%	1%	4%	2%	2%	3%	0%
I/we do not have this room in the house	0%	0%	0%	0%	0%	0%	0%	0%
Bathroom / toilet n=	456	221	235	125	145	186	228	228
I/we recycle every item that can be recycled from this room	48%	46%	49%	30%	50%	63%	46%	53%
I/we recycle a lot but not every item that can be recycled from this room	28%	28%	28%	33%	26%	26%	28%	29%
I/we recycle some items from this room	20%	21%	18%	33%	19%	8%	21%	15%
I/we do not recycle at all from this room	4%	4%	4%	5%	4%	3%	5%	3%
I/we do not have this room in the house	0%	0%	0%	0%	0%	0%	0%	0%
Laundry n=	456	221	235	125	145	186	228	228
I/we recycle every item that can be recycled from this room	48%	42%	53%	26%	51%	65%	47%	52%
I/we recycle a lot but not every item that can be recycled from this room	32%	35%	29%	43%	26%	28%	32%	33%
I/we recycle some items from this room	16%	16%	15%	23%	19%	5%	16%	14%
I/we do not recycle at all from this room	4%	6%	3%	7%	4%	2%	6%	1%
I/we do not have this room in the house	0%	0%	0%	0%	0%	0%	0%	0%
Q13 When putting items in the recycling bin, which of the following do you do?								
n=	456	221	235	125	145	186	228	228
Place them together in a box and put the box in the recycling bin	15%	16%	14%	23%	11%	13%	18%	8%
Place them together in a box and empty the box into the recycling bin	28%	27%	29%	34%	28%	21%	28%	26%
Place them together in a bin and empty the bin into the recycling bin	30%	28%	31%	29%	28%	32%	30%	31%
Place them together in a plastic bag and put the bag in the recycling bin	7%	7%	7%	13%	4%	4%	8%	3%
Place them together in a plastic bag and empty the items from the bag into the recycling bin	11%	9%	12%	15%	7%	11%	10%	11%
Empty items loose into the recycling bin from the bin or straight from the house	41%	42%	41%	31%	38%	55%	37%	56%
Other	0%	1%	0%	1%	0%	0%	0%	2%
None of these	0%	1%	0%	0%	0%	1%	0%	0%
Q16A Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to recycle household items?								
n=	456	221	235	125	145	186	228	228
Recycling is not that important	3%	5%	1%	7%	1%	0%	3%	2%
Not understanding the need or benefit of recycling	3%	5%	2%	5%	3%	1%	4%	2%
Being unsure about what can / cannot be recycled	31%	34%	28%	42%	33%	19%	32%	27%
Being unaware of the impact of putting something in the recycling that shouldn't go in there - (Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to recyc	13%	13%	13%	16%	11%	13%	13%	13%
It is too much of an effort to recycle, it is easier to just put items in the bin - (Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to recycle househol	3%	3%	3%	6%	4%	1%	4%	2%
It takes up too much time to recycle	4%	2%	5%	8%	3%	0%	4%	1%
Not wanting to waste too much water to clean	16%	17%	15%	16%	18%	15%	17%	15%

Too much time / effort to wash items before putting them into the recycling bin - (Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to recycle household	15%	15%	14%	26%	13%	6%	16%	10%
The bins inside the house are too small	6%	5%	7%	8%	5%	6%	6%	7%
Lack of a process for recycling in the home	4%	3%	5%	6%	3%	4%	4%	3%
Lack of visual reminders in my house (e.g. signs about recycling)	3%	5%	2%	6%	3%	1%	3%	4%
Others in my household do not support recycling	4%	4%	4%	7%	4%	1%	4%	4%
The children do not recycle correctly and it is difficult to correct their behaviour - (Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to recycle hous	3%	4%	2%	3%	5%	1%	3%	2%
Lack of recycle bin/s in some rooms of my house makes it difficult to recycle from these rooms - (Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to re	5%	3%	7%	7%	3%	5%	6%	1%
The chemicals in some household bottles prevent me from recycling these items - (Below is a list of statements that some people have mentioned it makes it difficult to recycle, which of the following make it difficult for you to recycle household i	25%	25%	25%	28%	20%	28%	27%	20%
My recycling bin is often full before collection day	16%	17%	16%	20%	17%	11%	15%	18%
Other	2%	2%	2%	2%	2%	2%	1%	5%
None of these	29%	29%	28%	15%	29%	41%	26%	38%
Q17A Below is a list of statements that some people have mentioned it makes it easy to recycle. Which of the following make it easier to recycle household items?								
n=	456	221	235	125	145	186	228	228
Have always recycled, something I have learned from my childhood	26%	27%	25%	35%	27%	17%	25%	30%
Care about recycling	47%	42%	52%	39%	43%	58%	48%	44%
Understand why recycling is important	42%	43%	41%	40%	35%	52%	41%	47%
Doing the right thing by the environment	52%	51%	53%	47%	48%	61%	49%	59%
Doing the right thing to preserve resources for future generations	38%	33%	43%	31%	35%	47%	36%	44%
Understanding the personal benefits of recycling to me and my household (e.g. feeling rewarded for my recycling efforts) - (Below is a list of statements that some people have mentioned it makes it easy to recycle. Which of the following make it eas	26%	25%	26%	19%	25%	32%	24%	30%
Having more information about what can/cannot be recycled	31%	27%	34%	20%	29%	42%	28%	38%
Clear identification on packaging on what can be recycled (e.g. recycling symbol)	47%	47%	46%	35%	51%	53%	45%	51%
Being aware of the impact of putting something in recycling that cannot go in there	24%	25%	24%	17%	20%	35%	21%	33%
Not having to rinse/wash items before putting them into the recycling bin	22%	19%	24%	26%	23%	17%	22%	21%
Having a good recycling system / process in my house	39%	34%	44%	27%	35%	55%	39%	39%
Visual cues that act as a reminder (e.g. magnet on the fridge / stickers on bin)	10%	13%	7%	11%	6%	12%	10%	11%
Having support from other members in the household	25%	20%	29%	20%	26%	28%	23%	29%
The children in my household learning about recycling at school	7%	6%	7%	8%	10%	2%	6%	9%
Reducing the amount of waste in the garbage bin so that the rubbish fits	23%	23%	23%	21%	20%	27%	21%	29%
Having a larger or additional kerbside recycling bin	20%	24%	17%	23%	23%	16%	19%	24%
Having additional recycling bins in my house (in more than one location)	11%	12%	9%	11%	13%	8%	11%	10%
Having the rubbish and recycling bins side by side in the house	30%	30%	29%	25%	30%	34%	28%	36%
Fear of not having recycling bin emptied by collectors if the items are not correct	7%	7%	6%	10%	6%	4%	7%	6%
Fear of receiving a bin audit sticker for not recycling correctly	6%	6%	6%	8%	4%	6%	6%	4%
Other	0%	1%	0%	0%	1%	0%	0%	0%
None of these	3%	4%	3%	3%	5%	2%	3%	3%
Q20 Which best describes how likely you are to consider a food waste recycling system such as compost, worm farm or other recycling system in your household?								
n=	456	221	235	125	145	186	228	228
Very likely	20%	18%	22%	11%	20%	29%	15%	35%
Quite likely	32%	28%	35%	38%	30%	27%	33%	28%

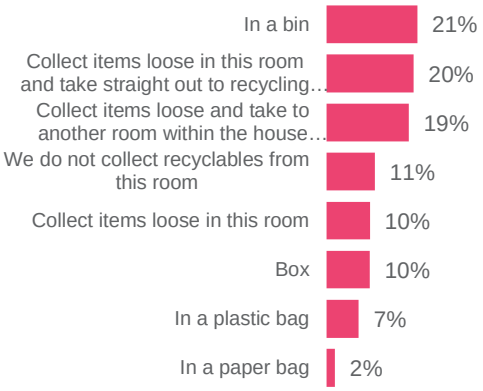
Neither likely nor unlikely	22%	24%	21%	28%	18%	22%	24%	17%
Quite unlikely	19%	22%	16%	14%	27%	14%	19%	18%
Very unlikely	7%	9%	5%	9%	5%	8%	8%	3%
Q21 How likely or unlikely are you to consider putting food waste in an organics bin if this was available to you within your council?								
n=	316	158	158	82	104	130	170	146
Very likely	24%	14%	34%	22%	28%	22%	24%	23%
Quite likely	35%	37%	34%	39%	36%	32%	34%	39%
Neither likely nor unlikely	21%	23%	19%	20%	21%	21%	21%	18%
Quite unlikely	12%	17%	7%	15%	12%	9%	12%	12%
Very unlikely	8%	9%	7%	5%	3%	15%	8%	7%
Q25A Which of the following would make it difficult to keep inorganic backyard items out of the organics bin (such as plastic items, DIY waste, bottles etc.)?								
n=	316	158	158	82	104	130	170	146
Not caring about correctly recycling green / garden waste	8%	7%	9%	10%	10%	4%	7%	10%
Being unsure about what can / cannot go in this bin	19%	20%	17%	28%	16%	13%	20%	15%
Backyard materials getting mixed up with the garden waste	24%	28%	20%	27%	23%	22%	24%	22%
Being unaware of the impact of putting something in the recycling that shouldn't go in there	12%	12%	11%	16%	12%	9%	12%	12%
Too much time to correctly check what goes in the bin	7%	10%	4%	16%	3%	4%	7%	6%
Too much effort to correctly check what goes in the bin	8%	8%	7%	15%	4%	5%	8%	5%
Lack of visual reminders on the bin about what can be recycled (e.g. signs about recycling)	4%	6%	3%	5%	5%	4%	3%	9%
Others in my household not knowing what can and cannot go in the bin	15%	16%	14%	17%	15%	13%	14%	17%
Plastic bags make it easy to clean up garden	13%	15%	11%	20%	12%	8%	14%	9%
Plastic toys happen when run over by mower and collected with grass clippings	12%	13%	11%	17%	8%	12%	12%	13%
When entertaining outside beer bottles may end up in the organics bin	5%	4%	6%	14%	2%	1%	4%	7%
Other	6%	7%	6%	0%	1%	17%	5%	10%
Don't know	27%	22%	32%	24%	25%	33%	26%	30%
Q27 Did you know that recyclables in plastic bags end up in landfill?								
n=	456	221	235	125	145	186	228	228
Yes	68%	66%	71%	57%	70%	77%	65%	79%
Q28 Before today, did you know that plastic bags can contaminate your garden / food waste?								
Yes	70%	70%	70%	60%	69%	79%	68%	75%

10. Appendix D: Analysis by recycling in home

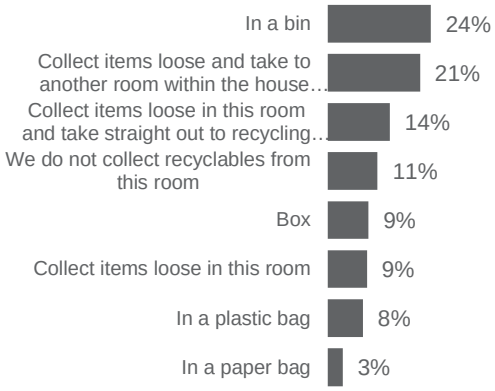
Figure 53: Location of recycling in home



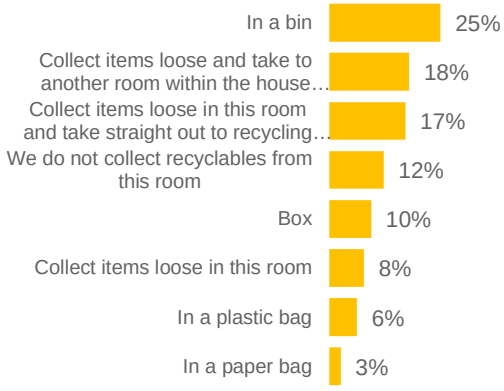
Dining room



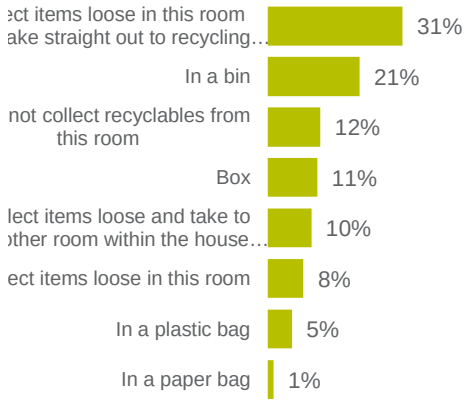
Bedroom



Study



Garage/shed/outdoor



Q12 Thinking about each of the following rooms, how do you collect items for recycling?
Base: All respondents (n=456)