

SO YOU THINK  
YOU CAN

# Recycle?



Produced by  
Planet Ark for  
National Recycling  
Week 2016



Major  
Sponsor



Associate  
Sponsors



# At a Glance

## State of the Nation ...



- > **647kg**  
Annual kerbside waste created by every Australian
- > **90%**  
Of Australians think recycling is the right thing to do.
- > **13th**  
Australia's OECD recycling rank - behind UK and ahead of USA

## At home ...



- > **8 out of 10**  
Councils report plastic bags as their biggest recycling problem
- > **150 million**  
Pieces of plastic diverted from landfill though REDGroup recycling
- > **6%**  
Increase in people who know aerosol cans are recyclable
- > **55,000 tonnes**  
Office paper saved if every house used Naturale in one bathroom

## Demographic Differences ...



- > **57%**  
'Committed' recyclers who wrongly recycle old drinking glasses (44% of 'disengaged' recyclers)
- > **48%**  
50-65 year old who know aerosol cans are recyclable (30% 14-24 year olds)

## At work ...



- > **72%**  
Workplaces that recycle paper, 46% recycling cartridges, 25% mobile phones
- > **7 out of 10**  
People unsure or not confident in choosing between sheets of virgin and 100% recycled paper



## A technology fix ...

- > **25.5 million**  
Unwanted mobile phones in Australia
- > **80,000 tonnes**  
E-waste recycled though TechCollect
- > **9 out of 10**  
Australians willing to pay extra for battery recycling



## Out In the Garage ...



- > **50 million**  
Tyres used in Australia
- > **150 million**  
Litres of paint and solvents sold in Australia

## Constructive Recycling ...



- > **\$2,000-3,000**  
Cost of land filling a demolished house
- > **218,000 tonnes**  
Bricks and concrete recycled by Bingo in six months

## Into the future ...

- > **1,000**  
Number of products displaying the Australian Recycling Label
- > **70%**  
Australians with access to container deposits by 2018



## High Achievers ...

- > **406 tonnes**  
Plastic saved by redesigning Lipton Ice Tea Bottle
- > **\$68,500**  
Saved by Blackmores by changing waste disposal practices
- > **92.3%**  
Recycling rate at Smiths manufacturing facilities
- > **62 tonnes**  
Mobiles recycled though Australia Post





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# About This Report...

This report draws on information and statistics from a wide range of internal and external sources and includes the results of independent research commissioned by Planet Ark and conducted by Pollinate. 1007 Australians aged between 14 and 64 were surveyed online from 23 September to 4 October 2016. The sample was representative of the Australian population in terms of age, gender and location. Data is also drawn from a Planet Ark administered survey of 152 councils across Australia as well as the Paper Challenge for which 130 consumers were asked to choose between sheets of recycled or new paper.

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Photo Credits: Ryan Collins, Brad Gray, Bruce Usher and Mark Donaldson Photography.  
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## Acknowledgements

Planet Ark gratefully acknowledges the support of our National Recycling Week contributors, partners and sponsors including:

### Major Sponsor

- Naturale Toilet Tissue

### Supporting Sponsors

- Bingo Bins
- The Australian Packaging Covenant and its high performing signatories
- The 'Cartridges 4 Planet Ark' participating manufacturers – Brother, Canon, Epson, HP, Konica Minolta, Océ and Kyocera and resource recovery partner Close the Loop

### Supporting Sponsors

- MobileMuster
- Australian Paper

### Contributors

- REDCycle
- Australia Post
- TechCollect



# Foreword

**- 100% Recycled, 100% Soft**



Naturale Toilet Tissue

Naturale is proud to be the Major Sponsor of the 21st National Recycling Week.

It seems only natural to us that the best-selling recycled toilet tissue in Australia should be aligned with an event of such national significance.

Whilst we all do a good job of recycling so many things, we could definitely do better with further encouragement and indeed clarity about how to best go about it.

That's why a week of celebrating recycling is such a smart idea and one that can benefit us all.

In particular, Naturale hopes its participation can help focus our behaviour on buying the by-products of recycling, so we learn to more and more complete the "recycle cycle".

Toilet tissue is something we all use and something we are probably all guilty of taking very much for granted. Together with Planet Ark we believe it can be the gateway to better environmental behaviour.

It's staggering to think that if we all used 100% recycled toilet tissue in just one bathroom of our homes then together we would save 55,000 tonnes of paper every year. Enough to fill 100 Olympic swimming pools!

But why don't we?

It seems to be because we think "recycled" paper is somehow inferior to virgin paper. Certainly this might have been the case years ago.

The fact is, used and discarded every day office paper is a highly refined and valuable resource that should never end up as landfill. With the latest technology in play, it can be used to make recycled tissue that's almost indistinguishable from new tissue.

Naturale is proudly Australian owned and predominately made at our advanced recycling plant in Brisbane. The plant is FSC certified and currently produces more than 2.4 million packs of Naturale per year. Recycled toilet tissue never felt this soft.

By choosing Naturale you can be confident you are taking positive environmental action to complete the 'recycle cycle' and that's going to benefit all of us.

Making good use of the by-products of the things we recycle is a no brainer really. And if they happen to be Australian owned and made, then all the better.

That's the message Naturale hopes to reinforce as an integral part of the wonderful initiative that is National Recycling Week.

**Loretta Lau**

**Brand Manager, ABC Tissue Products**



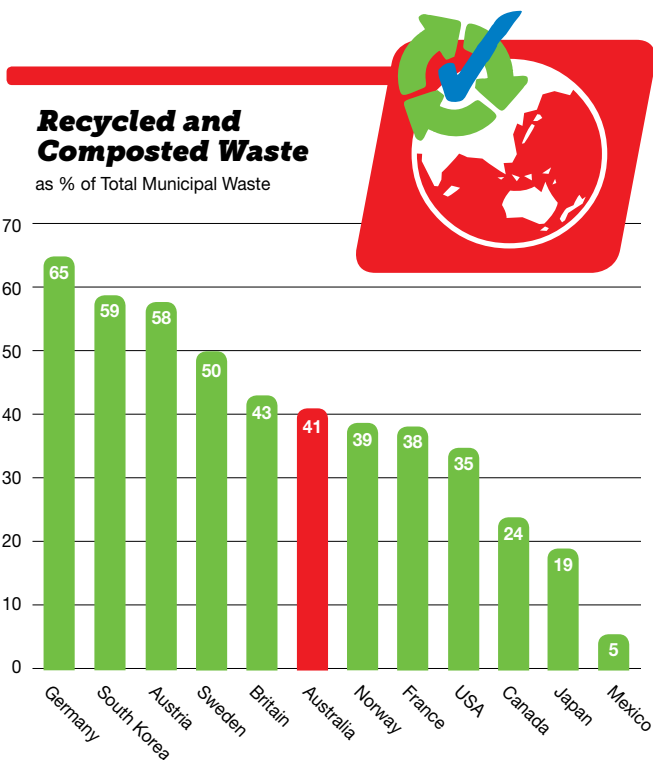
# Planet Ark Foreword



Australians are among of the most prolific consumers in the world. Between 1996, when we launched National Recycling Week, and 2015, the waste generated in Australia grew by 170%<sup>1</sup>, while the population

increased by just 28%<sup>2</sup>. Currently, the average Australian produces 647kg of municipal (kerbside) waste per annum<sup>3</sup>.

There have also been positive changes too. Over 90% of Australians believe that recycling is the right thing to do and the



In 2015, the World Economic Forum estimated that a circular economy could be worth \$26 billion to Australia.

per capita recycling rate in has increased from 1.0 tonnes to 1.2 tonnes<sup>4</sup>.

Australia currently sits in 13th place on the OECD recycling rankings behind countries such as Germany, South Korea and Britain and ahead of France, the United States and Canada<sup>5</sup>.

We recognise that recycling makes environmental and economic sense. We also see that it is an essential part of the circular economy, in which waste is seen as a resource and used as the input for further economic activities.

In 2015, the World Economic Forum at Davos estimated that a circular economy could be worth \$26 billion to Australia<sup>6</sup>. A circular economy is already showing localised benefits in Australia. For example, for every 10,000 tonnes of waste recycled, there are 9.2 direct full-time equivalent jobs in Australia<sup>7</sup>.

Which is why during our 21st National Recycling Week we are so pleased to be launching two new initiatives that fit within the circular model.

First, is our new endorsement of the Nature Toilet Tissue range, which is

100% recycled and manufactured in Brisbane. Toilet tissue is one of the few products that is found in every house in the country. It is also one of the most common products made with recycled material. Our endorsement aims to bring recycled toilet tissue into the mainstream.

Second, is the launch of our own branded 100% recycled Planet Ark Paper. Workplaces are good at recycling office paper but less good and buying it back. Our new paper aims to address this imbalance.

Recycled paper makes both environmental and economic sense, particularly when manufactured here in Australia. Throughout Recycling Week we will be highlighting these benefits.

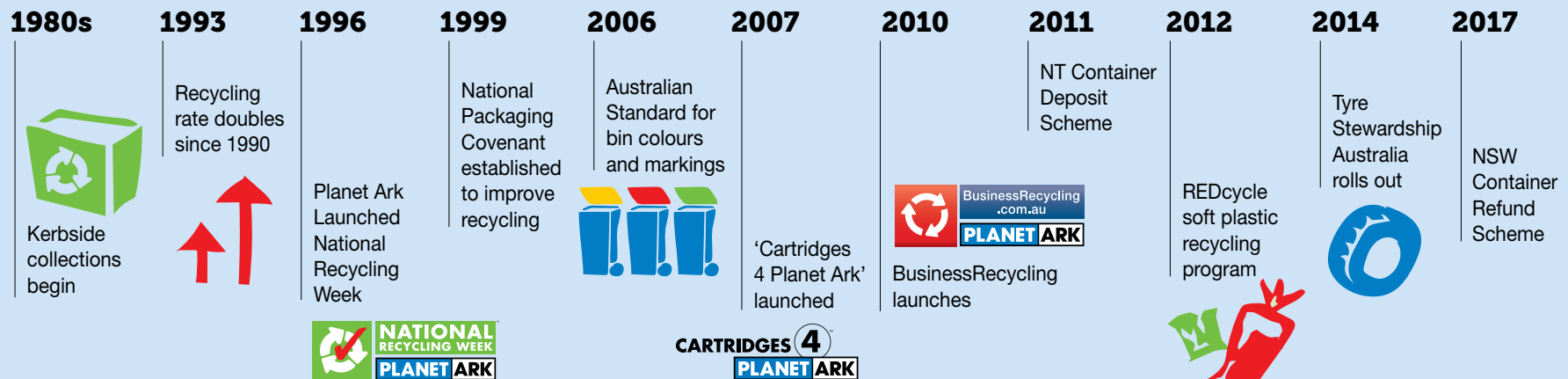
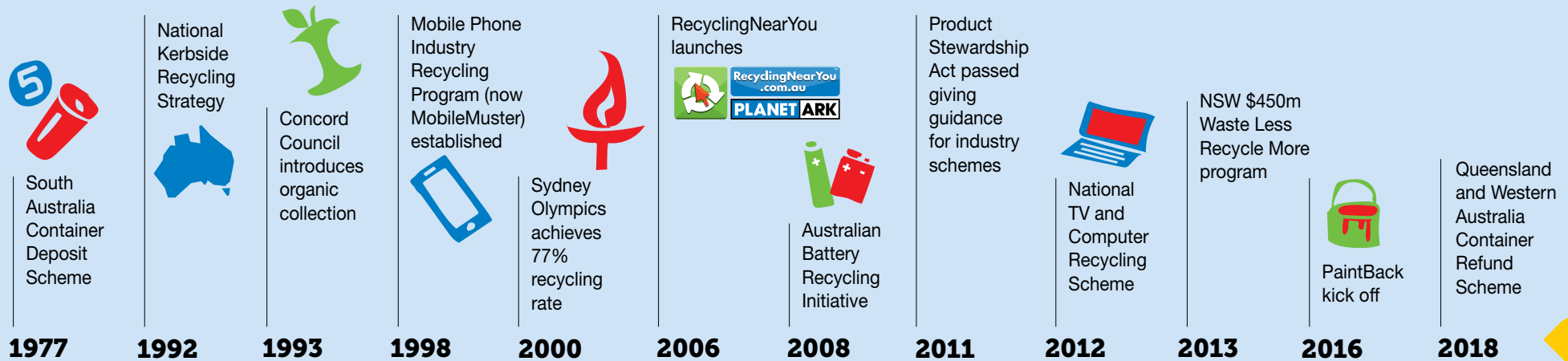
Planet Ark would not be able to facilitate National Recycling Week without the generous support of our great sponsors. So I extend my personal thanks to them as well as the many councils, school, community groups and workplaces that get involved every year.

**Paul Klymenko**  
CEO  
Planet Ark

# Two Decades of Action

A lot has changed in the recycling sphere in the last couple of decades. When National Recycling Week was launched in 1996 kerbside recycling had recently made its way into most homes but the range of materials collected was limited, desktop computers were large, e-mail was new and smart phones were a decade away.

Since then the range of products and materials that can be recycled has grown significantly councils, state and federal governments, and industry all taking action to reduce waste and increase recycling.

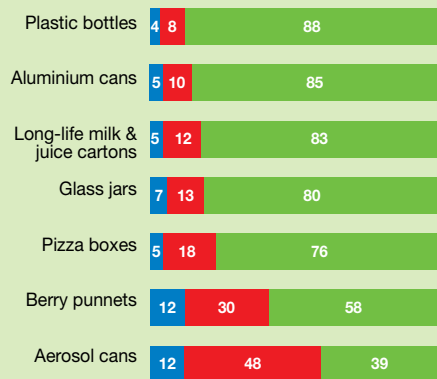


# SO YOU THINK YOU CAN Recycle? At Home ...

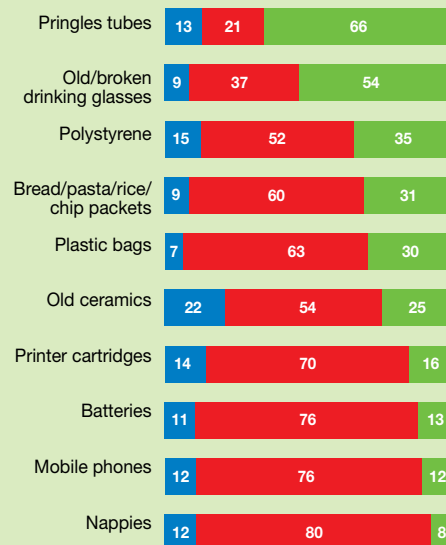
## Can You Put These Items In Your Kerbside Recycling Bin?

■ Don't Know 
 ■ No 
 ■ Yes

### Recyclable at Home



### Not Recyclable at Home



## Where Does It Go?

Knowing which items can be recycled at the kerbside is the first step in recycling right. Contamination in recycling bins is not always due to a lack of care or concern by residents, but is often based on a misunderstanding of what can be recycled.

## Getting It Right

### Easy Does It

Commonly used and materially simple items like plastic bottles, aluminium cans, milk and juice cartons and glass jars are correctly identified as recyclable. Even though 90% of people live in a council that accepts aerosols almost 1 in 2 people say they aren't recyclable and a further 1 in 10 say they don't know.

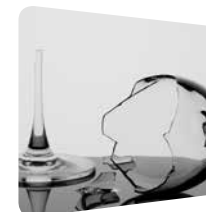


### It's Complicated

More than 6 in 10 people incorrectly say Pringles tubes are recyclable. The materials used to make these tubes are too complicated to be separated and recycled.

### Stay Loose

Almost 1 in 3 people say that both plastic bags and bread, pasta, rice and chip packets can go in the recycling bin. Councils identify these types of plastics as the biggest problem in the recycling system as they get caught in the sorting machines.



### Into the Garbage

More than 1 in 2 people think old drinkware glass is recyclable, however, as it is made from heat-tempered glass it prevents the recycling of bottles and jars.

### Drop 'Em Off

A small but important minority of respondents incorrectly think that printer cartridges (16%), batteries (13%) and mobile phones (12%) can go in their kerbside-recycling bins. Recycling facilities are not able to identify and separate these materials but they can be dropped off in free collection programs.







## Scrunch and Recycle

For a household that recycles its paper and containers and composts its food and garden scraps, soft plastics are likely to be the most common material left in the garbage bin.

A soft plastic is any type of plastic that can be scrunched into a ball. Single use shopping bags are the most obvious types of soft plastic but the average household is filled with lots of other examples including bread, pasta, rice, lolly, cereal and frozen food bags, biscuit packets (wrapper only), bubble wrap, dry cleaning bags and old green shopping bags.

The good news is these plastics can be recycled at many supermarkets. The bad news, as revealed in research done for Recycling Week, is that only 22% of people know about the program!

This free program is made possible through REDcycle, which has worked with Coles and Woolworths/Safeway supermarkets to set up collection bins in stores across most of metro-

Australia. The program is financially supported by some of Australia's best known manufacturers, including the Planet Ark endorsed Naturele Toilet Tissue....

The plastic is reprocessed here in Australia and made into furniture for schools and kindergartens among other things.

Since the program was launched in 2012, it has diverted more than 150 million pieces of plastic from landfill<sup>1</sup>.

Planet Ark's research showed that eight out of ten councils consider soft plastics in the recycling bin as a major problem.



Find a soft plastic recycling option near you 



## In the Bathroom

Planet Ark research found that less than one in five (18%) Australian households have recycling bins in the bathroom<sup>9</sup>. Just like kitchens, there are many products in the bathroom that can be recycled. These include; aerosol cans, shampoo and conditioner bottles, soap packets (both soft plastic and paper) and the cardboard toilet paper rolls.

Australians purchase over 250 million aerosol cans each year<sup>10</sup>, many of these are used in the bathroom for products like deodorant and shaving foam, while others like spray oil and paint are used in the kitchen or shed. Planet Ark's research showed that aerosols are the most misunderstood recyclable item in the house.

Despite the fact that almost all Australians (90%) live in a council that collects aerosols almost one in two

Despite almost all Australians (90%) living in a council that collects aerosols six out of ten people are probably not recycling them.




(48%) believe they are not recyclable and a further 12% 'don't know' if they are. So six out of ten people are probably not recycling their aerosol cans.

On the positive side these figures represent a 6% improvement in people understanding that aerosols are recyclable since 2014.



**YOU CAN**



Find out if you are among the 90% of Australian who can recycle aerosol cans. 

# It's the Right Thing to Do

Toilet tissue is one of the few products that can be found in every house in the country. It is also one of the most common products made with recycled material: most supermarkets stock it.

Planet Ark's research found that one in five people (20%) say they always buy recycled toilet paper. Men (23%) are more likely than women (17%) to always buy recycled. Not surprisingly people who have a greater concern for the environment are twice as likely to always buy recycled (41%).

The reasons people give for choosing recycled toilet paper are: it's good for the environment (44%); and it's the right thing to do (33%).

But there is significant room for growth in the recycled paper area. When asked why they don't buy recycled paper almost one in two (47%) people said the quality of recycled paper isn't as good. Older people aged 50-64 were much more likely to have concerns about the quality (62%). This is likely a hang over from the 1980s and 1990s when recycled toilet paper was first

introduced. Since that time, the paper making technology has improved significantly.

One in three (27%) people said they have never really thought about buying recycled toilet paper with one in two people (48%) under 24 reporting this as the reason they don't use it.

## The Recycle Cycle

Almost every house in Australia and most workplaces have paper recycling. Office paper, for example has a high recycling rate, but unless people are purchasing products with recycled content the job is only being half done. Choosing Australian made recycled toilet tissue helps divert waste from local landfills, gives good quality paper a second use and supports local jobs.

44% of people say choosing recycled paper is good for the environment.



YOU CAN



Find out more about recycled toilet tissue 

# The Recycle Cycle

The making of  
Naturale Toilet Tissue

If every Australian household used Naturale Toilet Tissue in just one bathroom they would save 55,000 tonnes of office paper every year. That's enough paper to fill 100 Olympic swimming pools!



## Step One

High quality office paper is collected from offices.



## Step Two

The high quality paper is mixed with water to create pulp which is then cleaned through a series of filters.

## Step Four

Manufacturing temperatures over 400 degrees Celsius creates soft and hygienic jumbo rolls that are then made into individual rolls.



## Step Three

Specialised rollers remove moisture from the fibres to form sheet paper in an elemental chlorine free process.



**Naturale Toilet Tissue Is ...**

FSC Certified



RedCycle Program Partner



100% Biodegradable



Australian Owned



Addressing organic waste was seen as one of the biggest issues by two out of five councils.



## Garden Gold

It is estimated that 13 million tonnes organic<sup>11</sup> material is sent to landfill each year. Much of the organic waste found in kerbside bins originates in the kitchen with Australian households throwing away \$1,000 worth of food each year<sup>12</sup>. This represents a waste of money, nutrients and all of the inputs used to grow, distribute and process the food including land, water, fertilizer and energy.

It also has a number of direct negative environmental impacts, particularly the production of methane, a potent 'heat-trapping' greenhouse gas with a global warming potential 25 times greater than carbon dioxide<sup>13</sup>. Decomposing organic matter also produces leachate, an acid, which can leak from landfill sites into surrounding land and waterways.



Two out of five councils surveyed by Planet Ark identified addressing organic waste as the biggest waste priority over the coming years. Composting and worm farming, on both a household and commercial

level, reduce or eliminate these issues. For every tonne of organic waste recycled, between 0.25 – 0.33 tonnes of carbon dioxide are avoided<sup>14</sup>.

On a commercial scale, organic and food waste can be used to recover valuable products such as phosphate and soil conditioners<sup>15</sup>. Organic waste can also be turned into mulches, potting mixes and garden soil as well. Some facilities are also capturing methane to use as a clean energy source<sup>16</sup>.

An increasing number of councils are rolling out organic kerbside collections for either or both garden cuttings and kitchen scraps.



Find out if your council provides a garden  or food recycling   
Set up a compost bin or worm farm at home.

# THE 6

## GOLDEN RULES OF

# Kerbside Recycling



## So you think you can recycle, right?

Follow these Six Golden Rules to make sure you're doing the right thing.



# 1

### Stay Loose

Recycling goes into the bin loose – never in a plastic bag, and keep other soft plastic out too\*#.



# 2

### Easy Does It

Paper, cardboard, glass jars and bottles, metal cans and aerosols, cartons and rigid plastics are easy to recycle and accepted in almost all kerbside collections.



# 3

### Into the Garbage

Crockery, window and drink-ware glass, polystyrene, plastic bags, nappies and food are the big baddies in the recycling – put them in the garbage\*.



# 4

### Keep It Clean-ish

Recycling does not need to be spotless – just scrape of solid food and give it a quick rinse.



# 5

### Drop 'Em Off

Kerbside systems cannot separate items like mobiles, computers, batteries and printer cartridges – **find local drop off services\***.



# 6

### If in doubt

Leave it out! Putting the wrong thing in the wrong bin can ruin your good recycling efforts.

These rules apply to almost everyone but of course some people have to bend 'em!

\* A handful of councils have special kerbside systems for these items.

# Soft plastics and bags can be **dropped off at many supermarkets.**

To find out what's in and what's out in your area visit



**RecyclingNearYou.com.au**

or download the free App



**BONUS RULE**



### Buy It Back

Look for **Planet Ark Paper** and **Naturele Toilet Tissue** to close the recycle cycle.





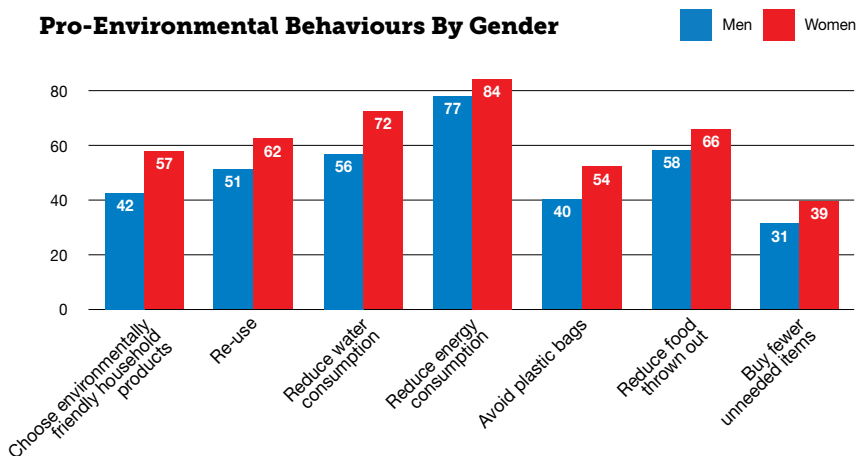
# Doing it Differently ...

When it comes to recycling in Australia, there are some interesting dynamics at play, particularly, when it comes to behaviour and environmental consciousness between men and women. Research by the NSW Government for example found that men showed 'greater knowledge of environmental issues', however, women were more likely to believe that their actions make a difference to environmental outcomes'. Overall, women outperformed men when it

came to individual behaviours that have positive environmental impacts.

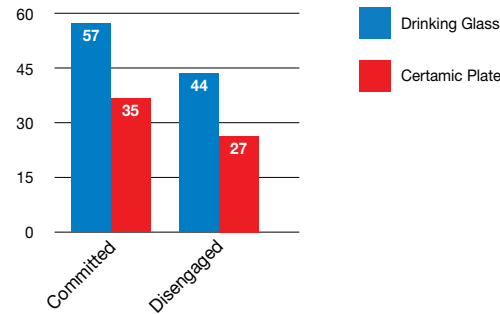
NSW EPA social research# showed there are differences between groups when it comes to recycling attitudes and behaviours. Almost everyone thinks they understand the recycling process. People who would be classified as resistant recyclers rate their knowledge at 88%, while those classified as committed rate theirs at 98%. However, all groups make some of the most common mistakes.

**Pro-Environmental Behaviours By Gender**



Interestingly people classified as committed were more likely than disengaged recyclers to make mistakes when faced with tricky questions. More committed recyclers (57%) say they always recycle drinking glasses than disengaged recyclers (44%). Drinkware glass melts at a different temperature than bottles and jars so interferes with recycling. Similarly the committed (35%) are more likely to always recycle ceramic plates than the disengaged (27%). Ceramic interferes with glass recycling.

**I Always Recycle (Even Though I Shouldn't)**



The type of home a person lives in also impacts recycling. A key difference is the amount of time it takes to recycle. Only 16% of residents in single unit dwellings (freestanding homes) take longer than three minutes to take the recycling out while more than double that number (33%) of multi-unit dwellings takes longer than three minutes. This time difference means that residents in units are more likely to report that recycling takes considerable effort.

## Demographic Differences

Planet Ark's research showed a number of differences between groups including:

- Women (69%) are more willing than men (59%) to recycle batteries at the supermarket.
- Under 24s are more willing to pay extra to ensure batteries are recycled.
- More women (63%) than men (53%) know that berry punnets are recyclable in kerbside bins.
- More 50-64 year olds (48%) than 14-24 year olds (30%) know that aerosol cans are recyclable in kerbside bins.
- More 50-64 year olds (87%) than 14-24 year olds (74%) know that long life milk and juice cartons can be recycled at home.
- More metropolitan residents (39%) wrongly believe that polystyrene can go in the kerbside-recycling bin than rural residents (28%).



Check that you are doing the right thing and following the Golden Rules of Kerbside Recycling. 🗑️



## At Work...

Recycling at home is an ingrained habit for most Australians. Over the past few years recycling in the workplace has improved but there is room for improvement.

By far, the most commonly recycled material in the workplace, as reported in the Planet Ark survey, is paper (72%). Common packaging items are recycled by about half of workplaces. Printer cartridges are the most commonly recycled form of e-waste with just under half (46%) of workplaces reporting that they have a program in place. More than a third of workplaces (36%) recycle computers and accessories, and one in five (25%) recycle mobile phones.

Workplaces can participate in free product stewardship programs such as **MobileMuster** and **'Cartridges 4 Planet Ark'** to divert waste from landfill and as education and engagement activities for their staff.

### Paper Go Round

Even though paper is the most commonly recycled material in the workplace choosing to use recycled office paper is still not commonplace. When asked why their workplace didn't use recycled paper almost one in two people (48%) said they didn't know. The other key reasons for not using it were it was too expensive (15%) and it was of lower quality (13%) than new paper.

The quality issue is a hang over from the early days of recycled office paper. The technology of paper production has changed significantly over the past few years.

In a test of 130 people when asked to choose between a sheet of 100% virgin paper and a sheet of 100% recycled paper almost 7 in 10 people (68.5%) were unsure or not at all confident in their choice.

Choosing Australian made recycled office paper has environmental benefits in keeping waste out of local landfill sites and displacing imported paper and the carbon emissions associated with shipping it into the country. It also has economic benefits in supporting local green manufacturing jobs.

Almost 7 in 10 people (68.5%) were unsure or not at all confident in choosing between a sheet of virgin paper and a sheet of 100% recycled paper.

### Changing Behaviour

For recycling to be effective it depends upon efficient recycling systems being in place and people trained and willing to use them. One of the issues with workplace recycling, especially in smaller businesses, is sourcing suitable services and educating staff.

Planet Ark's **BusinessRecycling.com.au** site provides both.



YOU CAN

Make the switch to 100% recycled, carbon neutral, FSC certified and Australian made Planet Ark Paper.



# Benefits of Planet Ark Paper

Planet Ark Paper is manufactured at Australian Paper's Maryvale recycling plant which can divert up to 80,000 tonnes of waste paper from Australian landfill. Choosing it is good for our local environment, the economy and you.



**Made with 100% Australian** waste paper, keeping it from local landfill.



**Supports green manufacturing jobs** here in Australia.



**It's Carbon Neutral** contributing to reducing your emissions



**Paper is FSC Certified** chain of custody for recycled paper.



**The wrap is recyclable** in kerbside and mixed paper bins.



**Reduces emissions** from shipping imported paper from overseas.





# A Technology Fix ...



Technology is everywhere these days, breaking down geographical barriers and while providing instantaneous access to information. One of the greatest challenges of living in such a 'device-dominated' world is their end of life cycle disposal. The United Nations estimated that over 40 million tonnes of electronic waste (e-waste) was generated around the world in 2014<sup>33</sup>.

Australians produce an estimated 25kg of e-waste each every year<sup>34</sup> and they are increasingly using the range of industry led programs to responsibly recycle that waste.



# From a Printer to Newcastle



SO YOU THINK YOU CAN Recycle?



Millions of printer cartridges are used each year in Australian homes and workplaces. Cartridges are made up of a number of complex materials such as plastics, toner, ink, metals and foam. If sent to landfill, it is estimated that cartridges can take between 450 to 1000 years to breakdown.

Research shows that one in three people (34%) are sending their used cartridges to landfill. This is despite the fact there are literally thousands of drop-off locations in retail outlets and workplaces.

Since 2003, 'Cartridges 4 Planet Ark' has diverted more than 32 million printer cartridges from landfill<sup>36</sup>. This is the equivalent of recycling over 14,000 tonnes of plastics, toners, metals and ink.

'Cartridges 4 Planet Ark' is a great example of an extended producer responsibility program as the participating manufacturers - Brother, Canon, Epson, HP, Konica Minolta, Océ and Kyocera – cover the cost of collecting and processing their cartridges.

Materials recovered from the recycling process are being used to develop TonerPave™, an environmentally friendly additive for asphalt. TonerPave™ has been found to reduce the carbon footprint of a road by 23%<sup>37</sup>. Currently, over 200,000 tonnes of TonerPave™ have been used for roads in Australia<sup>38</sup> enough to pave the road from Sydney to Newcastle and back.



Since 2003 Close the Loop has processed more than 32 million cartridges with zero waste sent to landfill.



Find recycling options for home, school and work

# More Phones Than People

Just over two decades ago, there were roughly 600,000 mobile phones in use in Australia<sup>37</sup>. According to new research, the number of old and unused mobiles being stored in Australian homes has now grown to 25.5 million. On average, Australians replaces their mobiles every 18 to 24 months. This means that for the first time ever, there are more old and unused mobiles than there are people in Australia<sup>38</sup>. The research also found that 4 million of these mobiles phones are broken and no longer working.

Recycling these unwanted mobile phones and accessories offers significant environmental benefits. For example;

- Over 95% of the materials used in mobile phones and accessories can be recovered
- Recovered materials can be used to make everything from stainless steel to plastic pallets
- Recycling 50,000 handsets can remove the need to mine over 330 tonnes of precious ore

- Recycling mobile phones for precious ore is environmentally friendly. One tonne of mobile phone handsets could yield 340 grams of gold.<sup>39</sup>
- For every tonne of mobile phone materials recovered, 10 tonnes of greenhouse gas emissions are avoided

Recycling unwanted mobile phones is easy. MobileMuster, the mobile industry-recycling program, is the only government-accredited phone recycling service available in the country. It has around 8,000 recycling locations (including retailers and Australia Post outlets) and accepts phones, chargers, batteries and accessories.

There are more unwanted mobile phones in Australia than people.



Recycling mobiles is easy.



Dig out and recycle your old mobiles and accessories

# Get Into the Habit

Recycling of e-waste has seen a massive growth since the 2012 launch of the National Television and Computer Recycling Scheme, the first co-regulated program to operate under the 2011 Product Stewardship Legislation. Under this scheme manufacturers and importers of TVs take responsibility for recycling electronic waste.

A key element of the legislation is that it levels the playing field between responsible companies and those that will only take responsibility when compelled.

Research conducted by TechCollect, a collection and recycling program run by the not-for-profit co-regulatory arrangement Australia and New Zealand Recycling Platform, shows that despite this growth in recycling there are still a number of significant knowledge gaps and barriers to increased TV and computer recycling. Almost everyone (95.7%) believed that e-waste recycling is important but almost one in every two respondents (45%) admitted they didn't recycle their old electronics.

About half of respondents had three or more unused devices at home.

The biggest barriers to recycling e-waste include:

- Not knowing where to recycle (46%)
- Concerns about data security (38%) and
- A few people (15%) even admitted to being too lazy to bother.

As e-waste recycling locations become established in the community and more people get into the habit of recycling computers, as they have with printer cartridges and mobile phones, these barriers will begin to fall. Choosing reputable recyclers and deleting data before dropping it for recycling are the best ways to remove security fears.

In the four years since it was established TechCollect has recycled more than 80,000 tonnes of e-waste. That represents a huge environmental and economic benefit.



**YOU CAN**

Find TV and computer recycling services near you



# Willing to Pay – Battery Recycling

90% of Australians would be willing to pay extra for rechargeable batteries to cover their recycling.

Batteries are surprisingly common in Australian households being found in toys, electronic gadgets, remotes, alarm clocks and watches, handheld tools and cameras. Batteries come in two forms – single use and rechargeable. In Australia, it is estimated that over 350 million handheld batteries are used each year<sup>40</sup>.



The ABRI power tool battery trial in Brisbane collected more than 2 tonnes of batteries for recycling.

Unlike cartridges, mobiles and computers, there is no industry-led recycling program for batteries. As a result of this, recycling rates are low, sitting at around 5%<sup>41</sup>. Sending them to landfill represents a waste of resources as well as introducing potential toxic materials, like cadmium, to the environment. Kerbside waste facilities are unable to separate them from other materials<sup>42</sup>.

Research carried out by Pollinate for Recycling Week showed that consumers are willing to contribute to the responsible recycling of the rechargeable batteries they purchase. Overall, 90% of Australians would be willing to pay extra for rechargeable batteries to cover their recycling. More than one in two people (56%) are willing to pay an additional 10c on a pack of 4 AA rechargeable batteries valued at \$20 to cover their recycling. 65% of those people who say they are 'extremely concerned' about the environment are prepared to pay an additional 50c to cover the cost of



recycling. Almost one in two people (48%) were prepared to pay an extra \$1 to cover the recycling of a \$50 laptop battery. Under 24s were the age group most prepared to pay extra, with 60% saying they would be willing to pay between \$2.00 and \$2.50.

Not surprisingly, two out of three people (63%) said they were willing to drop their used rechargeable batteries off for recycling at a supermarket. Almost one in two were willing to drop them off at hardware stores and public buildings (like libraries and council offices). Women (69%) were more willing than men (59%) to recycle at a supermarket, while people over 50 were more willing than other age groups to use any of the suggested locations.

In the absence of a national industry-led program, retailers and councils are taking the lead in offering recycling options and the [Australian Battery Recycling Initiative \(ABRI\)](#) is working with governments and industry to improve options.





## Out In the Garage ...

Planet Ark found that only one in three Australian households have a recycling receptacle bin in the garage<sup>43</sup> or shed even though there are a number of recyclable items found there including tyres, paint and building materials.

Over 50 million tyres were used on passenger vehicles in 2013-14.



### Treading More Lightly

In 2013-14, over 50 million tyres were used for passenger vehicles in Australia<sup>44</sup>. However, only 5% of tyres are currently recycled in Australia and a large proportion are either sent to landfill, illegally dumped or stockpiled<sup>45</sup>. Tyres can have a range of environmental impacts including releasing toxic fumes when inappropriately burnt, taking excess space in landfill and providing breeding spaces for pests such as mosquitoes<sup>46</sup>.

To address this poor recycling rate, Tyre Stewardship Australia (TSA) was launched in 2014. Around one in two respondents who had recycled a tyre in the past 12 months used a retail or council service. There is no shortage of tyres but finding markets for the outputs of the recycling process is a significant issue. Therefore, a major focus of TSA is to find, and if necessary, develop these markets. Each passenger tyre is made up of 1.5kg of steel, 0.5kg of textiles and 7kg of rubber<sup>47</sup>, which can be made into filler for road construction, paving material for basketball courts and artificial turf for soccer fields.

### Painting the Town Greener

Half-empty tins of paint can be found in garages and sheds across Australia. Over 150 million litres of water and solvent-based paint was sold in Australia between 2012 and 2013<sup>48</sup>. Paint is a hazardous product as it is made up of components such as; acrylic plastic, thinners and solvents. Additionally, some types of paint (pre-1970s) can also contain lead in varying concentrations<sup>49</sup>.

Keeping paint out of landfill, where it can leak and drain directly into the environment, is important in limiting its environmental impact.

PaintBack is the new industry not-for-profit recycling and safe disposal scheme that launched in 2016. It is establishing a network of permanent collection sites across Australia and is funded by a 15c levy on the sale of eligible products between one and 20 litres.



Find responsible recyclers for: Tyres 🐾 and Paint 🐾

# Constructive Recycling

In Australia, it is estimated that over 20 million tonnes of Construction and Demolition (C&D) waste are produced each year<sup>50</sup>. This includes waste generated from the demolition, destruction and excavation of homes and buildings.

Some of the most common C&D waste can include pipes, electrical wires, concrete, sand and gravel, wood, windows and door frames<sup>51</sup>. The cost of disposing of the material taken from an average house is estimated to be between \$2000 to \$3000<sup>52</sup>.

Of the 20 million tonnes of C&D waste produced in Australia, just over half is either recycled or recovered<sup>53</sup>. Much of the C&D waste can be turned into useful products. Bricks and concrete for example can be recycled into road and paving materials, while steel can be turned into the production of reinforced concrete<sup>54</sup>. Plasterboards (gypsum) on the other hand can be ground and applied to soil to improve its structure<sup>55</sup>.

C&D waste has a significant advantage over the municipal and industrial waste streams in that it is generated from a relatively limited number of sites. It is also highly recyclable when sent to



In six months  
Bingo Bins  
recycled  
218,000 tonnes  
of bricks and  
concrete.

state of the art recovery centres like the new Bingo Bins facility at Minto which recycles up to 80% of C&D waste. Some materials are picked out of the process by hand while magnets pick up the ferrous metals, trommels (rotating or shaking screens with various size holes) separate rocks, stones and sand based on their size.

At the end of the process the newly separated materials are sold as mulch, garden beds, pipe bedding, road base and many other uses.



Find C&D recyclers near you 



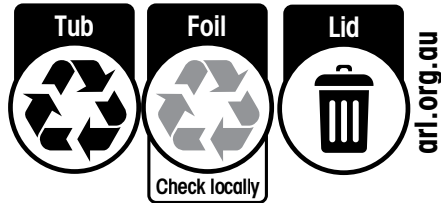


# Into The Future ...

## Right Label Right Bin

Almost everyone has had the experience of standing in the kitchen with a piece of packaging in hand wondering which bin it should go in. In research done for Recycling Week 2014 two out of three (63%) people said they looked on the pack for recycling information. However, until recently there was no established standard for on-pack recycling information.

The Australian Recycling Label launched in late 2015 by Planet Ark, has been designed to address consumer confusion and provide simple, on-pack disposal instructions for all the different components of a pack.



The Label is evidence based. Recyclability is determined by combining the proportion of the population with access to a kerbside system that collects particular materials as well as the technical recyclability of those items when they enter the sorting system. Robust tools like the **Packaging Recyclability Evaluation Portal** (PREP) are essential in ensuring the Label provides accurate information.

Around a thousand different products currently display the label. Officeworks and Blackmores, the two early Label adopters, have more recently been joined by T2 Tea, Planet Ark Paper and Australia Post in displaying the Label.



Look for the Label and follow the instructions when disposing of packaging items. ➡

# Leveraging Its Network

With its unparalleled network of 4,000+ post offices and 15,000+ street posting boxes Australia Post is perfectly positioned to make it easier for Australians to collect and return items that would otherwise go to landfill.



## Five Million and Counting

More than 5 million printer cartridges have been collected through Australia Post's participating outlets. They've been turned into pens, rulers, outdoor furniture and even roads.



## Capsule Postage

Australia Post has teamed up with Nespresso to provide a postage paid recycling option for their coffee capsules. Envelopes, which hold up to 130 capsules, can be purchased from Nespresso for \$1.90 then dropped into any post box. The aluminium and grounds are separated and recycled.



## Mustering Mobiles

Customers can pick up recycle MobileMuster satchels at post offices. More than 71 tonnes of phones, batteries and accessories have been collected since 2008.



## Zero Waste Box

What happens with tricky things like piles of pens, unwanted lever arch files, old gloves and hair nets and more? They can go into TerraCycle Zero Waste boxes - for sale from Australia Post - and be made into new products.



## Mailing Satchel Recycling Program

Australia Post's products now feature the Australian Recycling Label meaning customers can now easily recycle satchels free of charge. **Find out more** →



## Paper for the Planet

Customers can complete the recycling loop and pick up a ream of the new 100% recycled, FSC certified, carbon neutral and Aussie made Planet Ark Paper.

# Depositing Less Litter



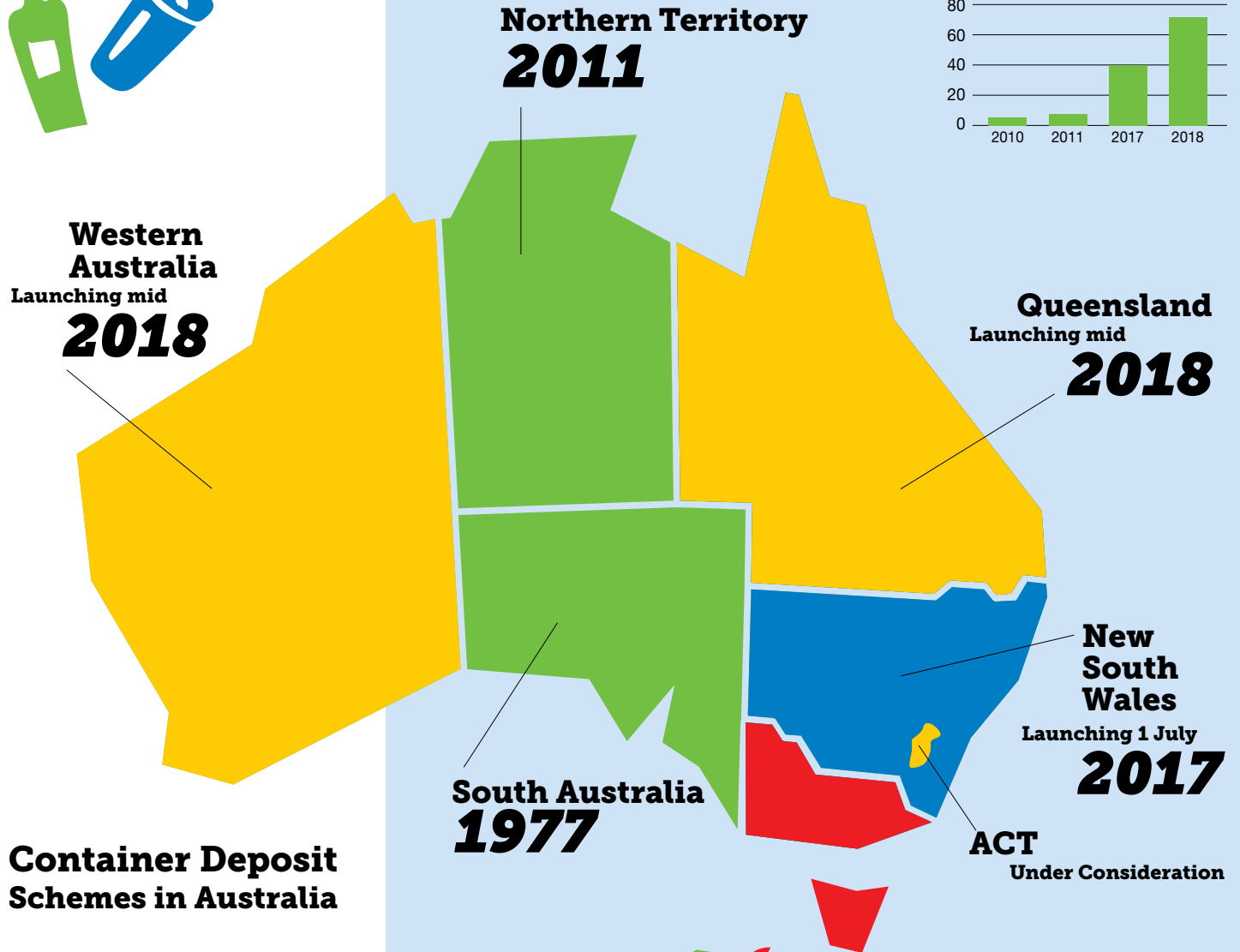
In 1977 South Australia became the first state to introduce a container deposit scheme; it was joined by the Northern Territory in 2011. The aim of the deposit is to reduce litter, which in turn increases recycling by providing an economic incentive for people to return eligible containers.

Generally speaking eligible containers in all jurisdictions will include drinks between 150ml and 3 litres that display the correct label. Plain milk, cordial, casks and wine and spirit bottles will be exempted from the schemes.

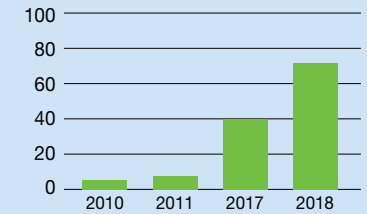
In 2015 the NSW government committed to launching a refund scheme on 1 July 2017. Since then the state governments in Queensland and Western Australia have committed to establishing their own schemes by 2018 while the ACT is also considering one.

The implementation of these schemes means that in the space of around eight years the percentage of the population with access to a refund program has increased from 7% in 2010 when SA was the lone state to more than 70% when NSW, Queensland and WA come on board.

## Container Deposit Schemes in Australia



% of Australian Population Covered By CDS



YOU CAN



Find out more about container refund schemes around Australia



## Australian Packaging Covenant

The Australian Packaging Covenant (APC) is a sustainable packaging initiative, which aims to change the culture of business to design more sustainable packaging, increase recycling rates and reduce packaging litter. Each year the Australian Packaging Covenant celebrates the waste, recycling and packaging achievements of their signatories and bestows awards for ongoing commitment to drive packaging sustainability and meet the goals of the APC.

Redesigning the 500ml Lipton Ice Tea bottle saved 343 tonnes of PET and 60 tonnes of polypropylene each year.

# Unilever Australia

Unilever Australia received the APC award for Outstanding Achievement in Recycling. As a consistent high performing APC signatory, Unilever Australia has been committed to packaging sustainability, waste reduction and education campaigns to help increase recycling rates in Australia. Unilever's goal to decouple environmental impact and business growth while increasing its positive social impact are governed by its Sustainable Living Plan (2010).



Redesigning the Iced Tea bottle saved 404 tonnes of plastic a year.

## Key Achievements

- In 2015 Unilever achieved its goal of zero non-hazardous waste sent to landfill across its manufacturing networks, warehouses and offices in Australia
- Redesigned the 500ml Lipton Ice Tea bottle, saving 343 tonnes of PET and 60 tonnes of polypropylene a year
- Removed the foil wrapping from Lipton Black Tea bags saving an estimated 41 tonnes of material a year
- Created shorter ice-cream sticks for popular products like Gaytime & Paddle Pop, saving 16 tonnes of wood annually

## Key Actions

- Reducing, reusing, recovering or recycling waste across its Australian operations through upcycling packaging materials, converting factory waste into soil and compost as well as using organic waste for green energy generation
- Redesigning the packaging of Lipton Ice Tea and Black Tea bags
- Returning materials such as cardboard boxes and plastic rewind cores to suppliers for reuse
- Developing guidelines that allowed Unilever to work with packaging engineers to design sustainable packaging materials



Unilever

**"While we are incredibly proud of what we have achieved over the last few years we know there is still more to do to inspire a wide-scale movement and create a brighter future for our planet. Resource sustainability and eliminating waste are among our biggest global challenges and tackling these issues is not only the right thing to do but it also makes business sense. We'd like to see more businesses across Australia to commit to a zero waste model and work towards packaging solutions that will enable us to be more resource efficient. Collaboration is key to tackling these unprecedented challenges."**

Clive Stiff  
Chairman & CEO  
Unilever Australia & New Zealand



Australian Packaging Covenant

**High Performer**

# Blackmores

At the 2016 Awards event Blackmores was awarded APC Signatory of the Year. The award recognises the outstanding contributions of Blackmores' commitment towards achieving environmental sustainability across four APC categories. These include: packaging design and innovation, partner collaboration, employee engagement and recycling and reuse.

Blackmores has been a high performing APC signatory for several years and led the way by continuously developing and improving sustainability outcomes across its operations.

Blackmores saved \$68,500 per annum on waste disposal.



Blackmores was one of the first companies to display the Australian Recycling Label on pack.



## Key Achievements

- In 2015, Blackmores' Closed Loop process has helped divert 3.3 tonnes of plastic, 56 tonnes of cardboard and 76,000 metres of tape per annum
- The Closed Loop process has helped Blackmores save \$68,500 on waste disposal per annum
- In 2015, Blackmores increased the amount of waste diverted from landfill from 43% to 67%

## Key Actions

- In 2015, Blackmores was one of the first companies to display Planet Ark's Australian Recycling Label on pack and used the Packaging Recyclability Evaluation Portal to ensure disposal instructions were based on evidence
- Continuously reviewed and assessed its packaging use against the Sustainable Packaging Guidelines
- Introduced a tamper ring that is secured to the product to keep it from entering the waste stream and harming wildlife
- Installed a baler for plastics and a compactor for cardboard, provided an organic waste collection for food scraps and trained staff on waste reduction and recycling



*"Our focus on sustainability is a defining part of who we are as an organisation. Maurice Blackmore, the pioneering naturopath and natural health advocate who founded Blackmores in the 1930s, had views on recycling that were considered radical at the time. He understood that healthy people and a healthy planet are inextricably linked and we have a passionate and committed team who continue to build on this legacy."*

Richard Henfrey  
Blackmores Chief Operating Officer



Australian Packaging Covenant

**High Performer**

# The Smith's Snackfood Company and Sakata Rice Snacks

At this year's awards event, PepsiCo's Smith's Snackfood Company and Sakata Rice Snacks received the APC high performer award in the Large Food and Beverage category. The company's commitment to packaging sustainability has been recognised with several APC awards in recent years.

Smith's increased plastic recycling by 47% up to 97 tonnes.



Smiths office recycling station.



## Key Achievements

- In 2015 Smith's achieved a recycling rate of 92.3% for their manufacturing facilities
- Increased plastic recycling by 47% up to 97 tonnes
- Between 2014 and 2015, Smith's collected 655 tonnes of paper and cardboard for recycling

## Key Actions

- Improved packaging efficiencies by optimising bag and carton sizes, resulting in less packaging
- Ongoing engagement and education of team members about waste and litter reduction
- Collaborated with contractors to improve the separation of packaged food waste
- Engaged a new contractor who was able to accept a wider range of plastics
- Exploring and testing bio-based, compostable films for packaging materials



"We are proud signatories to the Australian Packaging Covenant, and are always looking for innovative ways to cut packaging waste and to recycle. We use a lifecycle approach to improve sustainability, such as reducing packaging material through design, responsible sourcing, improving efficiencies in manufacturing and distribution, and working collaboratively with others in the supply chain.

Recycling promotes the sustainable use of resources, keeps waste out of landfills and reduces greenhouse gas emissions. By recycling, each PepsiCo team member individually makes a difference to our environment and helps to deliver PepsiCo Performance With Purpose."

Janine Cannell  
PepsiCo ANZ Environment Manager





Australian Packaging Covenant

**High Performer**

# Australia Post

At this year's event Australia Post won the APC award for Outstanding Achievement in Packaging Stewardship. Australia Post is an excellent example of sustainability through collaboration with suppliers, customers and not-for-profits. Australia Post's unrivalled national network puts it in a unique position to act as an enabler for a range of Product Stewardship Programs.

Australia Post has enabled customers to recycle more than 5 million printer cartridges through 'Cartridges 4 Planet Ark' and over 71 tonnes of mobile handsets, batteries and chargers through MobileMuster.

62 tonnes of mobiles have been recycled through Australia Post.



## Key Achievements

- In 2015, Australia Post reduced the volume of its waste sent to landfill by 17% or 1,700 tonnes
- Achieved a total of more than 5 million printer cartridges recycled through the 'Cartridges 4 Planet Ark' program
- Recycled a total of 62.6 tonnes of mobile handsets, batteries and chargers diverted from landfill through MobileMuster

## Key Actions

- Producing international mailbags using recycled polypropylene which are also recyclable
- Developing new recycled content and recycled letter tray design which will significantly reduce landfill in 2017
- Partnering with global recycler TerraCycle, enabling customers to repurpose products such as toothbrushes, cosmetic items, coffee capsules and satchels by redirecting them through its network for recycling



*"One of the great opportunities we see as a business is leveraging our network to make it easier for Australians to collect and return items that would otherwise go to landfill. For example, we have recently partnered with Nespresso to develop a prepaid satchel that allows their customers to collect and return used aluminium coffee capsules to be recycled simply by posting the satchel in any street posting box or any post office. As companies increasingly look for ways to reduce their environmental footprint Australian Post is perfectly positioned to help them do this via our unrivalled network."*

Andrew Sellick  
Head of Environmental Sustainability





# Get Involved ...

Planet Ark's National Recycling Week is an annual opportunity for individuals, workplaces, councils, governments and the industry to reflect on the question 'So you think you can recycle?'. Answering that question give everyone a chance to think about their beliefs and attitudes and make sure their recycling efforts are having a positive impact.

It's also a great time to get involved:

- **Workplaces can host a Friday File Fling** ➡
- **Schools can participate in the Schools Recycle Right Challenge** ➡
- **Councils can run community events like MRF and facility tours or Big Aussie Swap Parties** ➡
- **Residents can look for local events** ➡

## References

See the Recycling Week website for references from this report ➡



Facility tours are a great way to learn about recycling.

