

DON'T WASTE YOUR EDUCATION EFFORTS:

WHAT WORKS TO REDUCE RECYCLING CONTAMINATION



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PROGRAMS



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CIRCULAR ECONOMY





One of Australia's leading environmental behaviour change organisations.

PROVIDING POSITIVE ENVIRONMENTAL ACTIONS, FOR EVERYONE.

Why?

The world must transition to a carbon neutral and circular economy

Established in 1992, Planet Ark Environmental Foundation is an Australian not-for-profit.



OUR PROGRAMS



SUSTAINABLE RESOURCE USE



CONNECTING WITH NATURE



CARBON NEUTRALITY



PRODUCT ENDORSEMENTS



Waste isn't Waste until it's Wasted



**NATIONAL
RECYCLING WEEK**

PLANET ARK

7 - 13 NOVEMBER 2022

Council & community resources available at
<https://nationalrecyclingweek.com.au/councils>

INFORMATION ≠ BEHAVIOUR

“Having the requisite knowledge and ability to recycle does not mean that an individual will recycle”

(Davies et al. 2002)

EXAMPLES OF BEHAVIOUR CHANGE TOOLS



SELF-MOTIVATED CHANGE & CREATING AGENCY

- “Thank you”...
 - Personalising
 - Values people’s role
- Yes/No

EXAMPLES OF BEHAVIOUR CHANGE TOOLS



NEGATIVE SELF-EFFICACY

- Loss aversion
- Personalising



EXAMPLES OF BEHAVIOUR CHANGE TOOLS

GAMIFICATION

HOST A RECYCLING TRIVIA EVENT



Planet Ark has created a Recycling Themed Trivia package for you to use at home or work. Challenge your friends, family, colleagues and bosses to see how much they really know about recycling.

GET YOUR FREE TRIVIA PACK

Available at

<https://recyclingnearyou.com.au/nationalrecyclingweek/trivia>



What works to Reduce contamination of kerbside recycling bin

Jennifer (Downes) Macklin, Research Fellow,
BehaviourWorks Australia

behaviourworksaustralia.org

NRW 2022



There's no
magic pill for
behaviour
change...

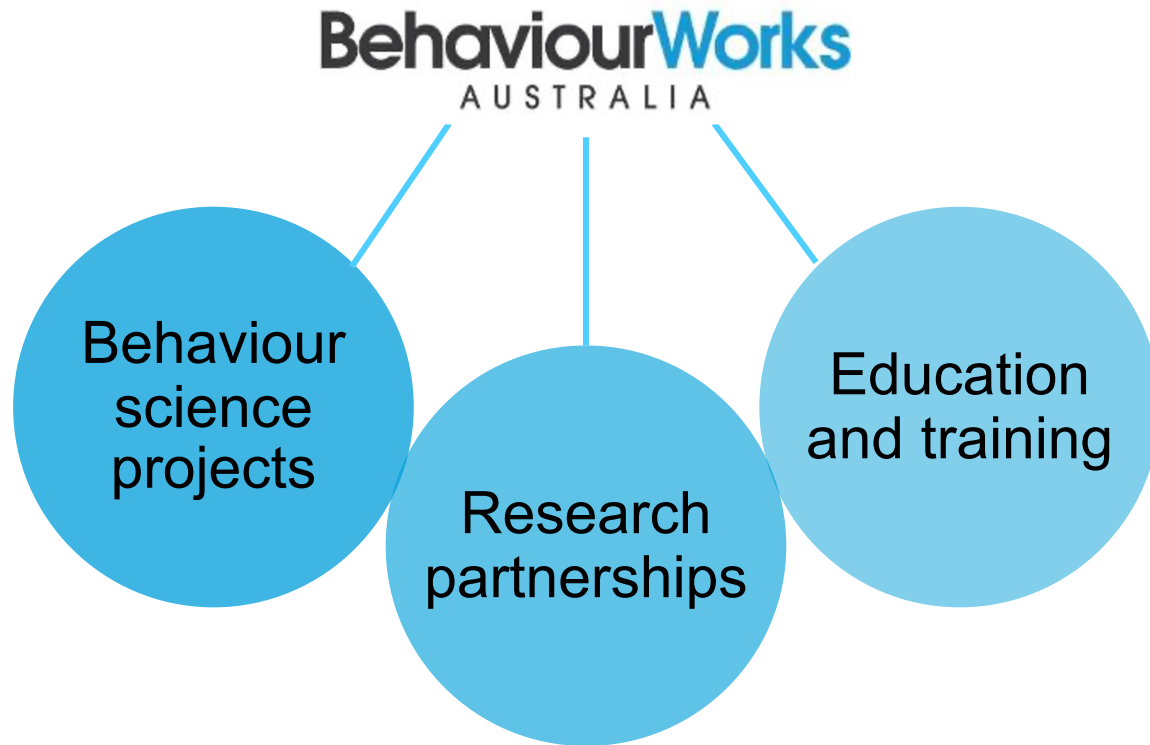




...but we can
increase the
odds of success.

BehaviourWorks
AUSTRALIA

Who we are



Who we are

Consortium partners


BehaviourWorks Australia wouldn't be where it is today without the ongoing support of our consortium partners.

Made up of a group of state and federal government agencies, along with The Shannon Company, the BWA Consortium is the vehicle through which the partners collaborate, share intellectual property and build capacity for behaviour change.

Our Consortium partners



In 2018, BehaviourWorks and our Consortium partners collectively recognised that Australia is facing a major issue...

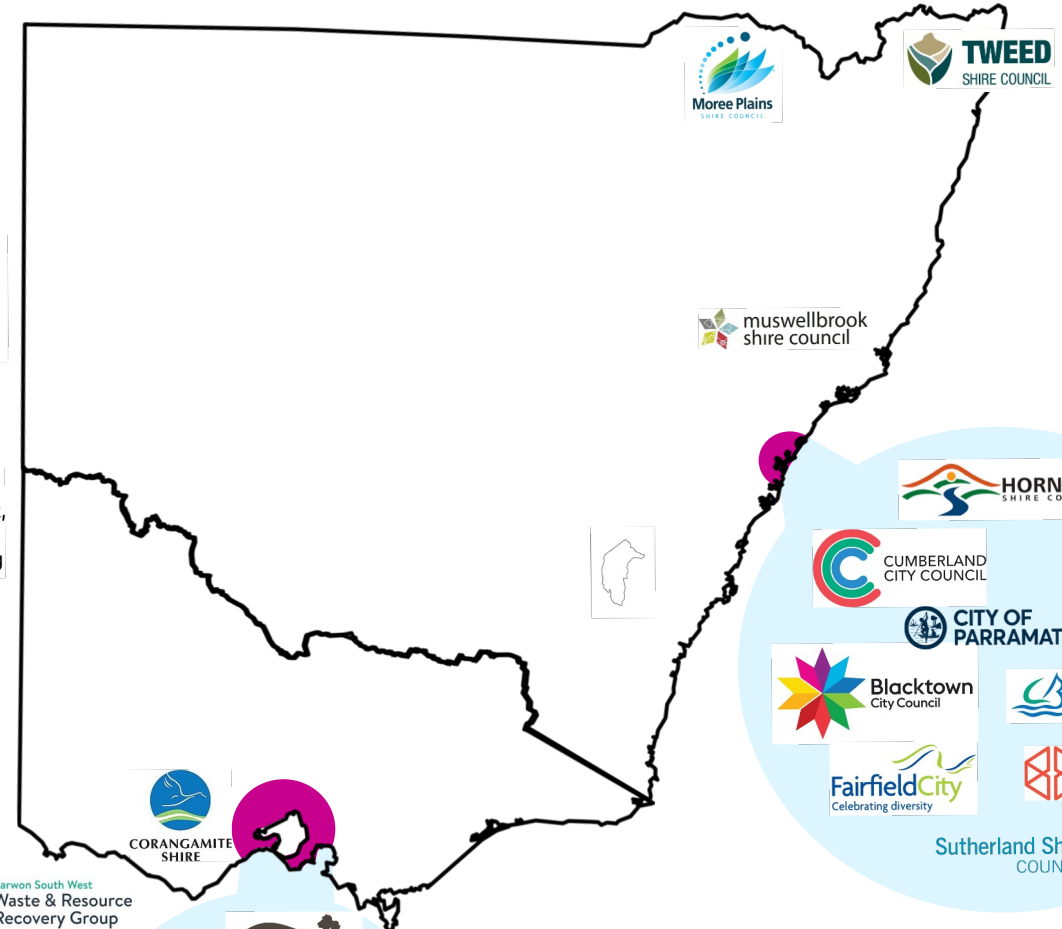
- 
- Waste generation is continuing to grow in Australia
 - Household waste is a major problem for local councils
 - Kerbside recycling is the main opportunity for most councils to divert this waste
 - Contamination is a major headache all across the country
 - Much effort is being spent, often for less than ideal reward

**So the
Waste Collaboration
Kerbside Recycling Trials
were born!**

Governments at all levels got together and worked with BehaviourWorks to learn more and discover what works.



Australian Government
Department of Agriculture,
Water and the Environment



We...



Reviewed literature

Interviewed governments

Conducted experiments

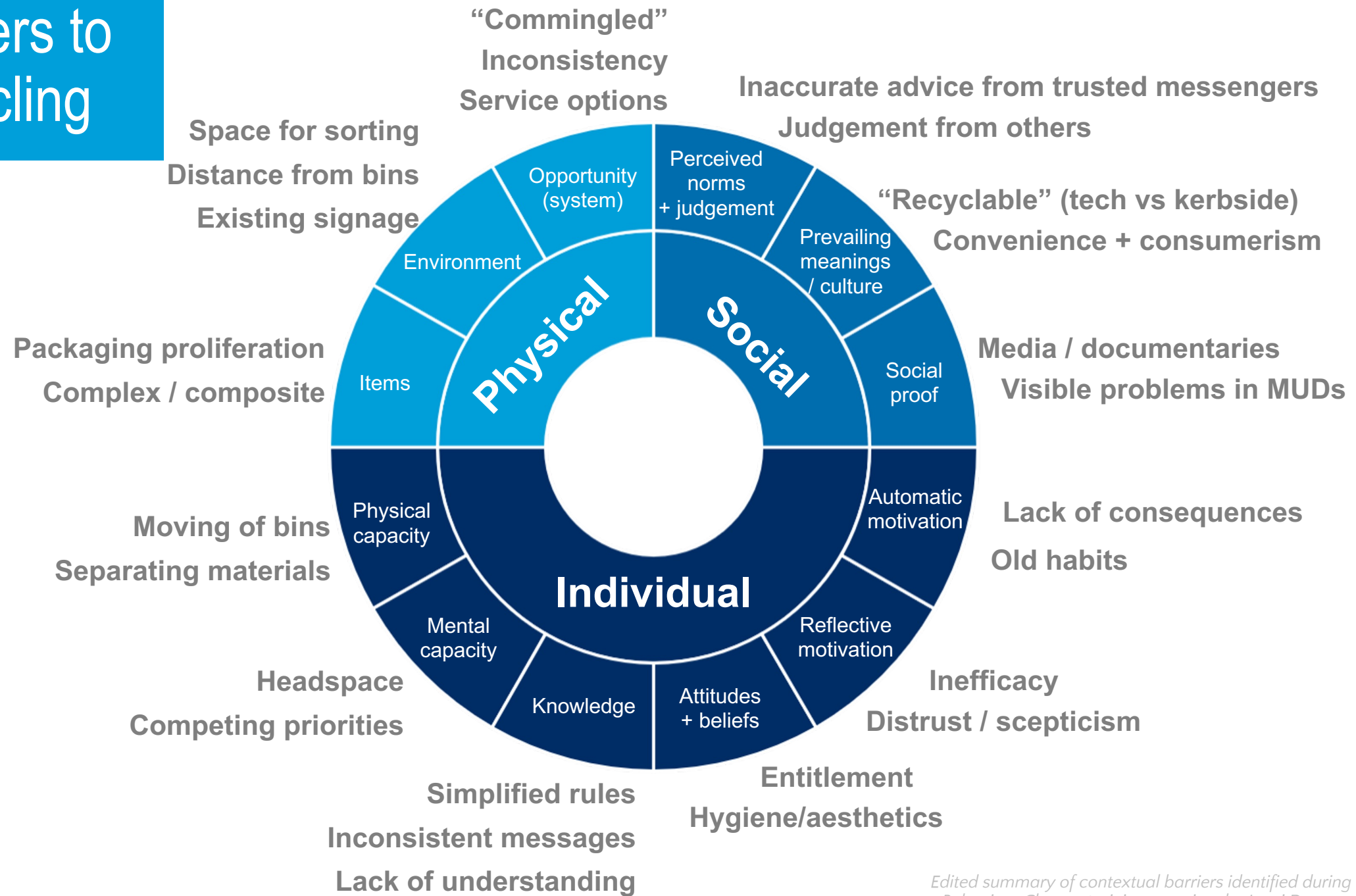
Trialled programs



What we learned about contamination

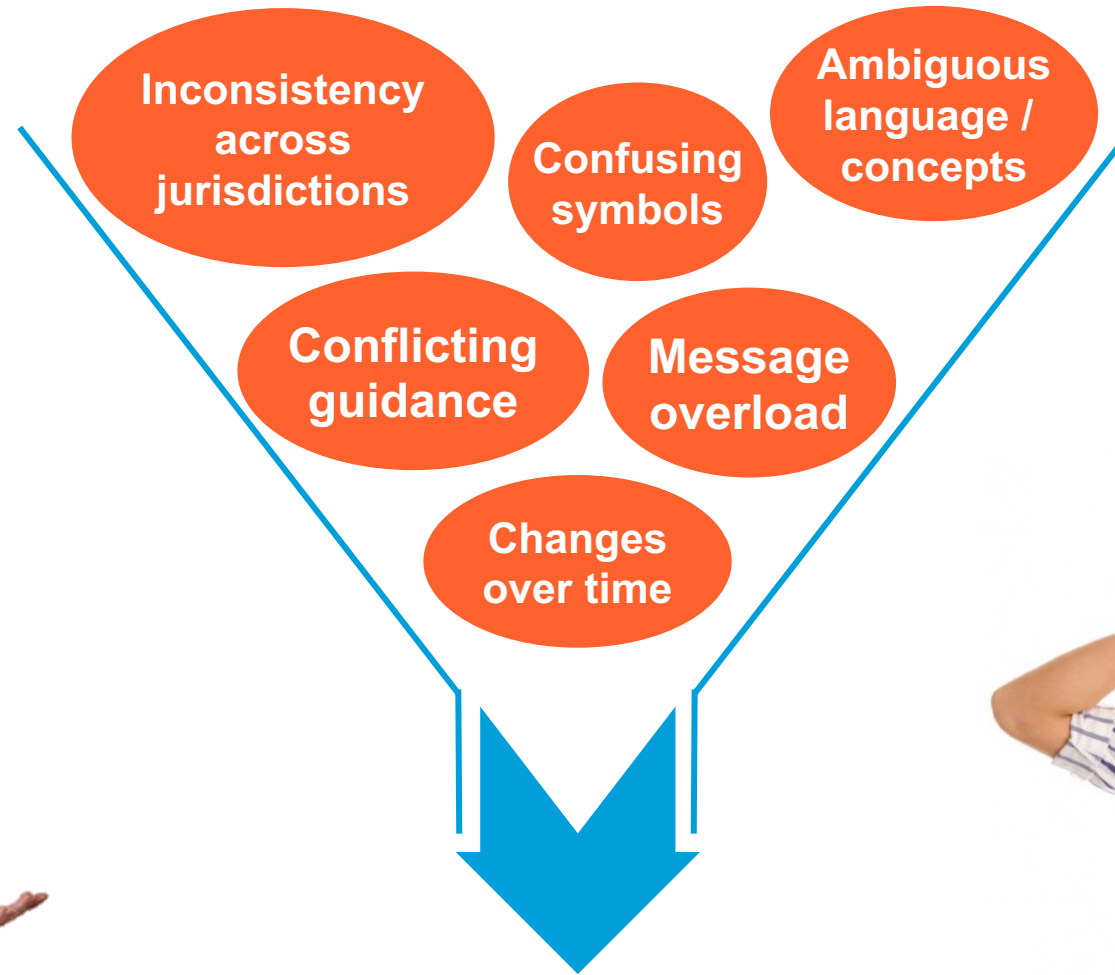


Many barriers to good recycling



Edited summary of contextual barriers identified during Behaviour Change training exercises by Jenni Downes

Most common issue is confusion



Confused, so give up

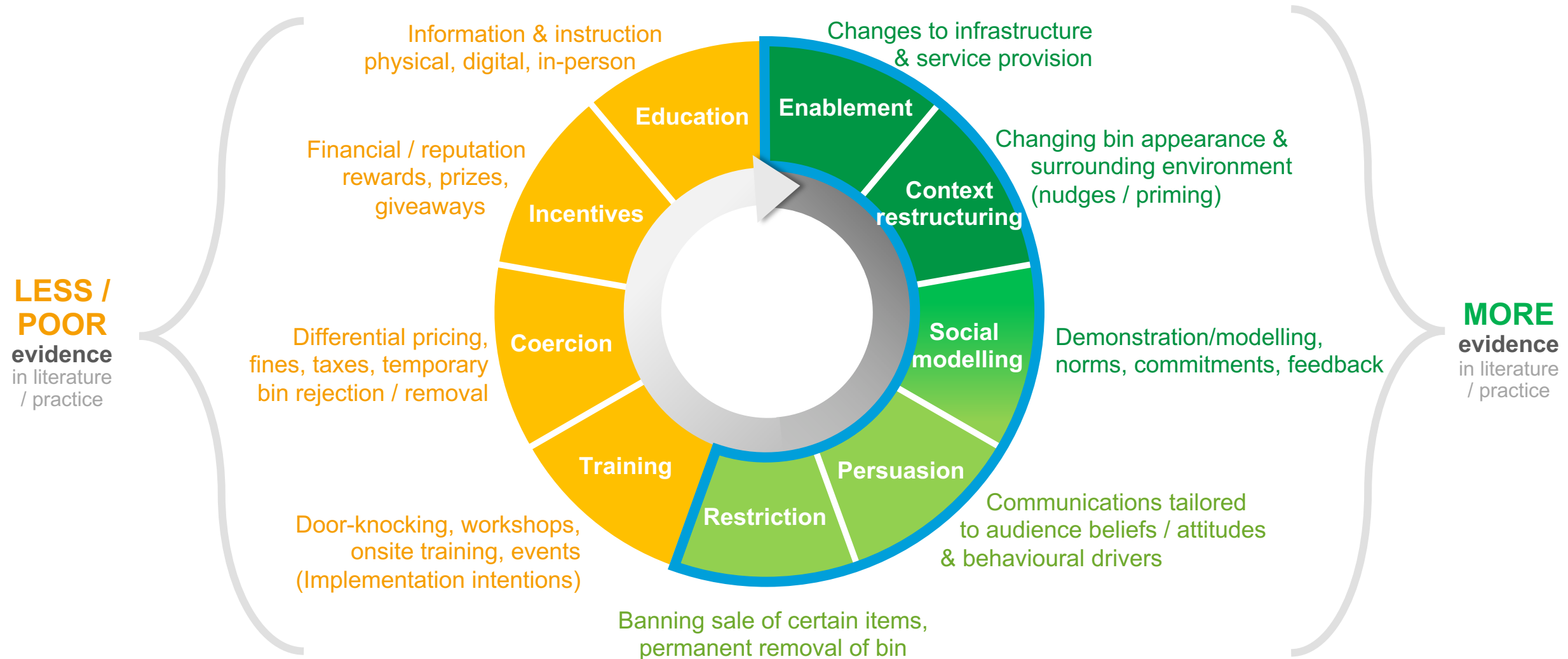
Misinformation & confusion



Think they know (though they don't) so don't pay attention

Limited evidence of what works, but some clues

What works to reduce contamination?



What we did



Co-designed feasible solutions to trial



Survey ~~2~~ ~~3~~ ~~4~~ OPTIONS

'Did you know' question.
A/B/C testing

- 1- Did you know... + Stat...
(social proof)
- 2- Provide info only
- 3- Did you know

- Ask what they do with 'x'
- Provide an image to 2 sets of people
- Ask the question again
- 'Would you'... eg: use a new bin?
- Where do you learn about waste streams?
- Inspire action activity

- Use of celebrity/ambassadors
- Use of "average" resident/household
↳ deliver same video message

- Provide a score - before & after (to residents)

- Test existing collateral eg: "Plastic bags are not allowed in recycling which images best demonstrates this to you?" (pick)

1 (Existing collateral) 2 (Minimal new design) 3 (Partial new design) 4 (Full new design) = not actually labeled

(How do we test the efficacy of our collateral or messaging??) - or behaviour change campaigns/programs?

Probe survey around what people know?

Survey residents to ask demographic info (age, culture, background etc) and also where they receive most waste-related info (facebook, newspaper, app, website, community group, next door, etc) then target certain age groups or demographics in media based on popularity

<p>Bin appearance (Bin stickers, wraps, lids)</p>	<p>Bin bay appearance (Signage, floor decals, whiteboards)</p>	<p>Revealing the system</p>	<p>Personalising the system</p>
<p>Letter boxing (Letters, brochures, flyers, postcards, magnets)</p>	<p>Personalised feedback (Bin tags, stickers, postcards, letters)</p>	<p>(Re)Building trust in system</p>	<p>System is changing (Minimal list of products)</p>
<p>Improving home sorting systems (Giveaways, instructions, discounts)</p>		<p>Recycle Right #1 Keep it simple</p>	

Bin appearance
(Bin stickers, wraps, lids)

Bin bay appearance
(Signage, floor decals, whiteboards)

AUDIENCE: MUDS (small)

WHICH CONTAMINANT: BAGGED RECYCLABLES.

QUESTIONS/CONSIDERATIONS

- what do they do after bag run out
- will it be used for recycling OR general waste OR other things
- how long until it shows up in waste streams
- how to get residents to make connection beyond paper bag to other vessel eg. paper box or Harris farm paper bags

TACTIC/IDEAS

- paper bags "fill me up", "shake me out"
 - * 3-4 bags per lift + recycle bag separate to shoot → extra effort + what
 - * \$3 per bag → Aus made for trial + addresses peoples tendency to avoid re-use/clean
 - * visual assessments of plastic bags + pre/post audits + street engagement.
 - * check to see if bags are still there
 - * only small muds (contemporary CEC city)
 - * development → making space for recycling in units.
- ecobags (GMA)
 - * get shop owners on board for advts.
 - * get them to engage with customers to promote re-use for recycling
 - * paper bags → could have instructions

IMPROVING HOME SORTING SYSTEMS

KEY MESSAGES

- ongoing cost/general cost
- MUDS (vs) SUDS focus
- ↳ unfair?
- Image vs graphics (Printing is high cost)
- Welcome Pack ✓
- Realstate.com ✓
- stay clear of multi-lingual messaging
- SIMPLE + VISUAL

1. FILL ME UP
2. SHAKE ME OUT
3. RE-USE ME

Trial: Bags for muds...
CBL = 3 buildings (3 control) ✓
= 1200 residents/units ✓
RLHban = hard delivering. ✓

2 Bag test?
I'm not plastic vs Contents...

Conducted a series of experiments / trials


What works to...

Grab and hold people's attention ? (Visually)	Improve people's sorting knowledge ? (Short-term)	Improve people's sorting behaviour ? (Actually!)		
Facebook	Survey-based	Context	Systems	Feedback
ONLINE EXPERIMENTS		FIELD TRIALS		

ONLINE EXPERIMENTS


Facebook

Social media posts
(Messages /
images)

 **Fairfield City Council**
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Like Page

Which of these goes in your recycling bin?
Foam products, Clothes, Soft plastics




The answer is NONE!
If that surprises you, find out the right things for your recycling here.

Learn More

 **Fairfield City Council**
Sponsored

Like Page

Common contaminants found in our recycling bins are soft plastics, clothes and foam products. By collecting the right things for your recycling bin, you help ensure more recycling gets turned into new products.



Find out how to stop contaminating your bin here.

Learn More

 **Fairfield City Council**
Sponsored

Like Page

Putting the wrong things in your recycling bin can ruin your recycling efforts. Don't let your recycling go to waste: Find out how.



How to prevent your recycling from going to waste

Learn More

 **Fairfield City Council**
Sponsored

Like Page

Recent waste inspections revealed the main wrong things in the recycling bin are soft plastics, clothes and foam products. You can help improve our recycling: Make a promise to yourself to collect the right things in your recycling bin!



I promise to collect the right things in my recycling bin

Find out the right things for your recycling bin here

Learn More

ONLINE EXPERIMENTS

Facebook	Survey-based
Social media posts (messages / images)	Flyers (lists, images, messages)

Recycling

YES

- Paper, cartons and cardboard (flattened), steel, enamel and aluminium cans, plastic bottles and containers, glass bottles and jars

NO

- Plastic bags, food scraps, gas bottles, nappies, foam and...

Recycling

Keep it simple! Only recycle these items

- Glass bottles & jars
- Plastic bottles & containers
- Paper, cartons & cardboard
- Steel, aerosol & aluminium cans

Why?

- Putting the wrong thing in can:
 - spoil other recycling
 - damage sorting machinery
 - be dangerous for collection vehicles and staff

Recycling

Thanks for getting this right

- Steel, aerosol and aluminium cans
- Plastic bottles and containers
- Glass bottles and jars
- Paper, cartons and cardboard (flattened)

NO

- Plastic bags
- Food scraps
- Gas bottles
- Nappies
- Foam
- Medical waste

recycling

NO PLASTIC BAGS OR NAPPIES

- Glass/bottles & jars
- Steel & aluminium
- Firm plastic bottles & containers
- Paper & cardboard
- Milk & juice cartons

recycling

Please, only these items in your recycling bin

Containers (empty, clean and dry)

- Glass bottles & jars
- Plastic bottles and containers
- Metal tins and cans
- Paper and cardboard (clean and flat)
- Paper and cardboard
- Milk and juice cartons

recycling

Did you know? Putting the wrong thing in your recycling bin costs Council and the environment.

These never go in your kerbside recycling bin:

- Glass:** Drinking glasses, Glass bakeware, Lightbulbs
- Paper:** Paper towels/nappies, Tissues, Shredded paper
- Plastic:** Plastic bags, Soft plastics, Polystyrene
- Metal:** Gas bottles, Pots and pans
- Other:** Bagged items, Nappies, Batteries

Thanks for getting this right!

ONLINE EXPERIMENTS

Facebook	Survey-based
Social media posts (messages / images)	Flyers (lists, images, messages)

FIELD TRIALS

Context
Priming + Bin bay materials + Followup

Recycling works, with your help.

70% of people know that soft, crumchable plastics can't go in your kerbside recycling bin. This includes plastic bags containing recyclable items. But we need everyone to get it right.

Don't let mistakes waste your recycling efforts.
Make sure everyone in your household knows to:



Put soft plastic in the rubbish ✓
or collect and take to your supermarket REDcycle bin



Put your recycling in loose ✓
(to your kerbside yellow recycling bin)

This will help us turn your recycling back into valuable new products, saving energy & raw materials, while creating jobs and reducing landfill.

Did you know? 'Soft plastic' means flexible, crumchable plastic packaging including grocery bags, bread & pasta/rice bags, frozen food & veggie bags, snack wrappers, clear film, bubble wrap, etc.

Recycling right matters.

Help your building get recycling right:
→ keep your recycling loose,
→ keep all soft, crumchable plastics out of the recycling bin.

Putting soft plastics in your recycling causes problems at the sorting facility and can undo some of your recycling efforts.

Did you know!
Recycling that's full-up inside plastic bags can't be opened at the sorting facility due to health risks, and so goes straight to landfill.

Soft plastics in the rubbish



General Waste

Keep recycling LOOSE

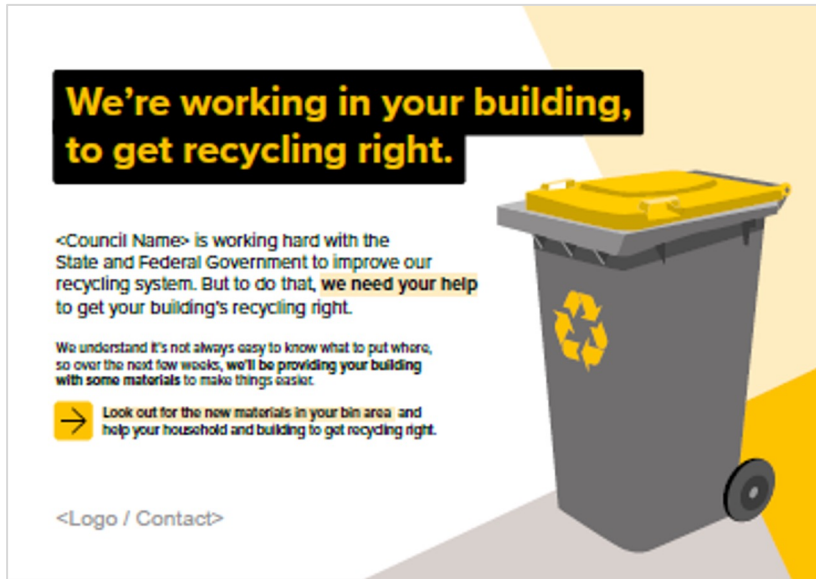


Recyclables

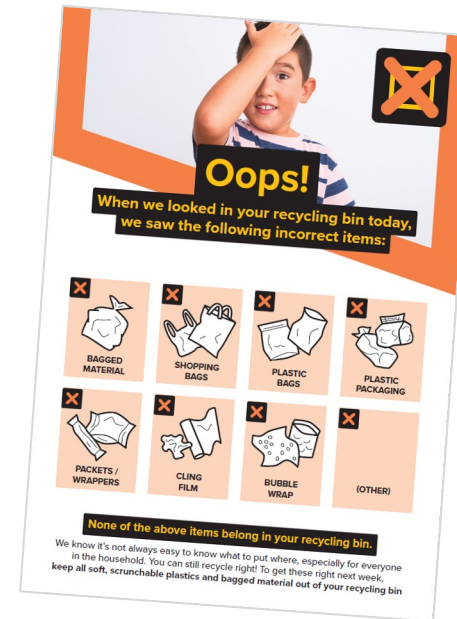
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ONLINE EXPERIMENTS		FIELD TRIALS	
Facebook	Survey-based	Context	Systems
Social media posts (messages / images)	Flyers (lists, images, messages)	Priming + Bin bay materials + Followup	Priming + Reusable bags + Followup



ONLINE EXPERIMENTS		FIELD TRIALS		
Facebook	Survey-based	Context	Systems	Feedback
Social media posts (messages / images)	Flyers (lists, images, messages)	Priming + Bin bay materials + Followup	Priming + Reusable bags + Followup	Priming + Personalised feedback



What we learned about what works



Targeting contamination & leakage at the same time **creates confusion**



Focusing on 'no' items is more effective at getting them out of the bin

Did you know? Putting the wrong thing in your recycling bin costs Council and the environment.

These never go in your kerbside recycling bin:

*** Glass:**



Drinking glasses Glass bakingware Lightbulbs

*** Paper:**



Paper towels / napkins Tissues Shredded paper

*** Plastic:**



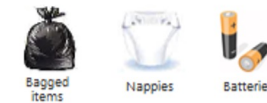
Plastic bags Soft plastics Polystyrene

*** Metal:**



Gas bottles Pots and pans

*** Other:**



Bagged items Nappies Batteries

Thanks for getting this right!

Messaging can affect behaviour for **better or worse**, and we need to know more

Both of these messages *increased* contamination

Australia's recycling system is changing.
Now more than ever, it matters
what you put in the recycling bin.

= **A bit worse**

In NSW, 80% of what goes in
the yellow bin gets recycled.
With your help, we can get this even higher!

= **Much worse**

There are some promising messages

Fairfield City Council Sponsored Like Page

Take a moment to think how you put recyclables in your yellow bin. Tipping items loose matters more than you might realise! Find out why recycling loose matters. ✓

Why recycling loose matters Learn More

CONTAMINATED BINS
WON'T BE COLLECTED
SO RECYCLE RIGHT ✓

Putting the wrong thing in can: ✓

- spoil other recycling
- damage sorting machinery
- be dangerous for collection vehicles and staff

Did you know? Putting the wrong thing in your recycling bin costs Council and the environment. ✓

Traditional approaches (signage / educational materials) are **not sufficient**



Behaviourally-informed, personalised feedback can reduce contamination

Oops!

When we looked in your recycling bin today, we saw the following incorrect items:

- BAGGED MATERIAL
- SHOPPING BAGS
- PLASTIC BAGS
- PLASTIC PACKAGING
- PACKETS / WRAPPERS
- CLING FILM
- BUBBLE WRAP
- (OTHER)

None of the above items belong in your recycling bin.

We know it's not always easy to know what to put where, especially for everyone in the household. You can still recycle right! To get these right next week, keep all soft, scrunchable plastics and bagged material out of your recycling bin.

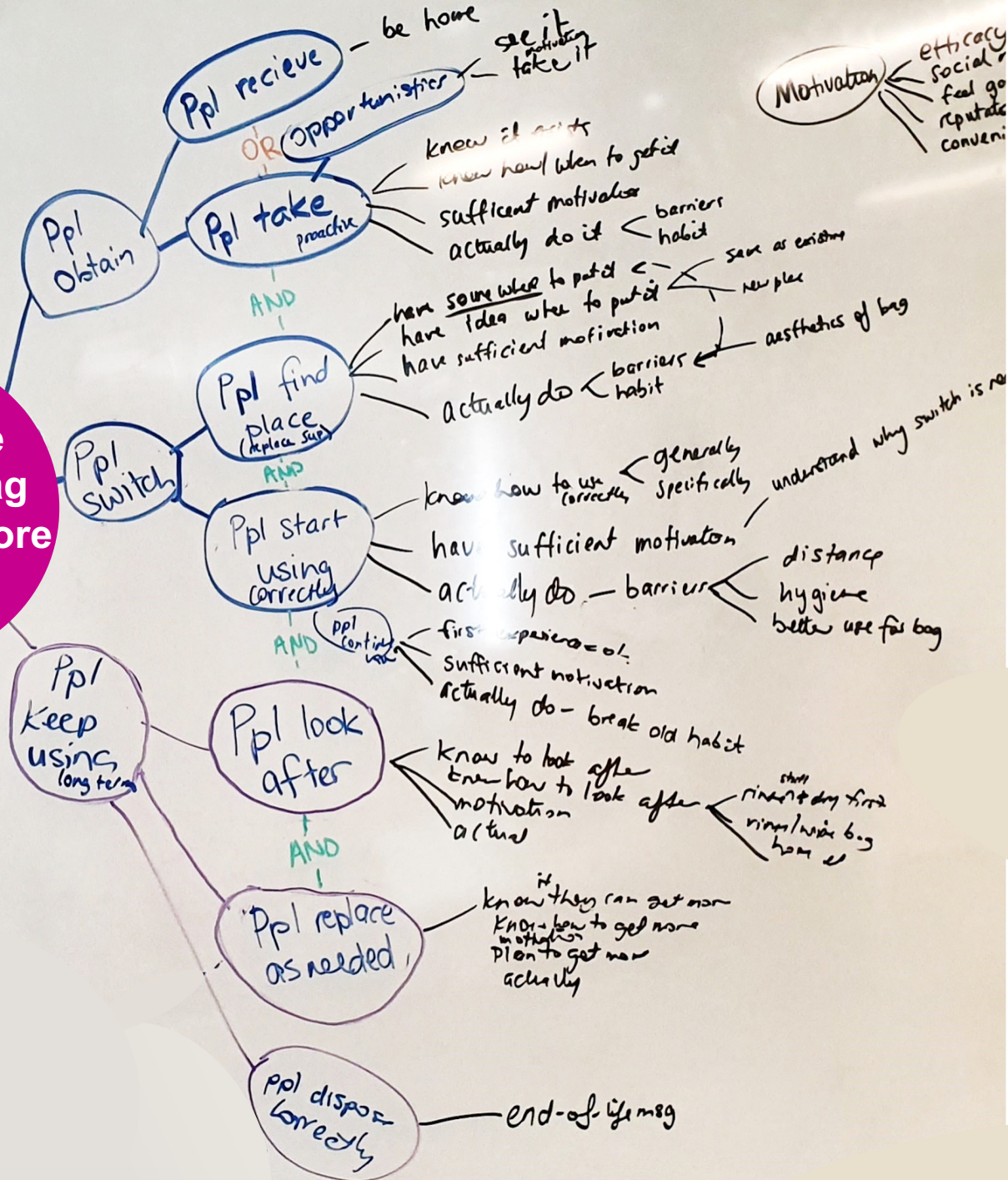
We still need to investigate other less-intensive options

What you can do



Be very clear,
and targeted
on what you
want to achieve

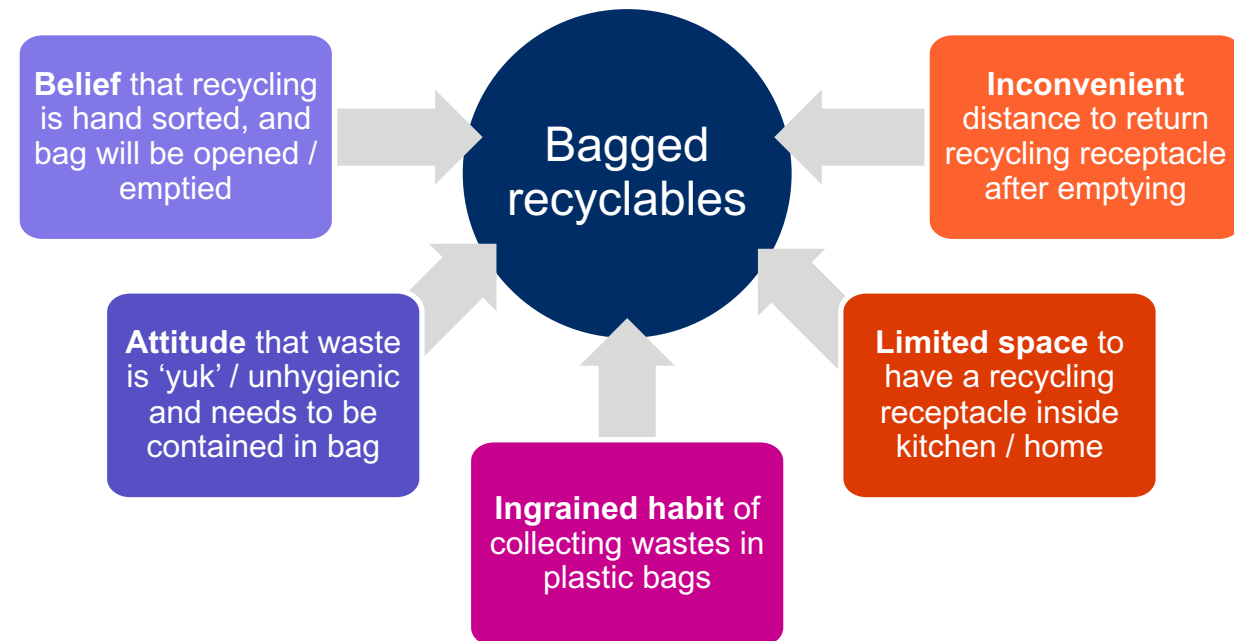
People use
'reusable' bag
to collect / store
recycling



(Just one 'behaviour' has
many steps in the chain)

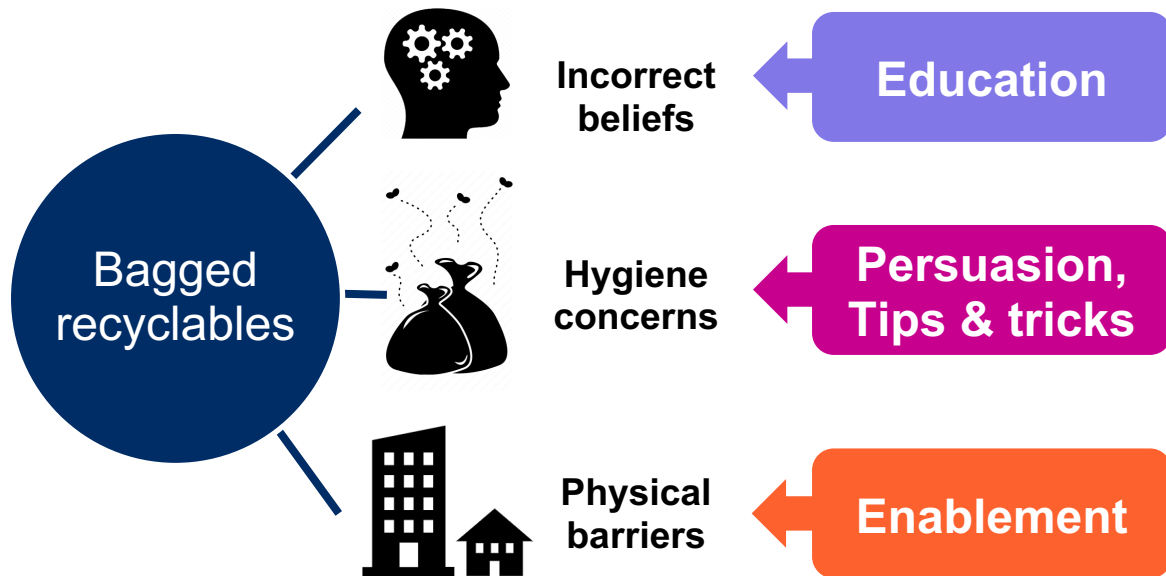
Be very clear,
and targeted
on what you
want to achieve

Understand
the specific issues



Be very clear,
and targeted
on what you
want to achieve

Understand
the specific issues



Match your approach
to the main barriers

Be very clear,
and targeted
on what you
want to achieve

Understand
the specific issues

Test, learn
and adapt

Match your approach
to the main barriers

THANK YOU



JENNIFER (DOWNES) MACKLIN
RESEARCH FELLOW,
BEHAVIOURWORKS AUSTRALIA

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BEHAVIOUR CHANGE TRIAL RESOURCES

Available at the National Recycling Week Resource Hub

We're working in your street, to get recycling right.

<Council Name> is working hard with the State and Federal Government to improve our recycling system. But to do that, we need your help to get your street's recycling right.

We understand it's not always easy to know what to put where, so over the next few weeks, we'll be giving your street some feedback to make things easier.

Look out for our bin tags and posters and help your household and street to get recycling right.

Logo/contact

Our help.

Recyclable plastics can't go in your kerbside recycling bin.

Soft plastics can't go in your kerbside recycling bin.

Put soft plastic in the rubbish

Put your recycling in loose

Put soft plastic in the rubbish

Put your recycling in loose

Thanks for being good sort!

Put any soft plastics and recyclables in your recycling bin when you recycle today.

To continue recycling these items right, make sure everyone in your household keeps:

- Soft plastics in the rubbish
- Keep recycling LOOSE

General Waste

Recyclables

Did you know?

What is recyclable through your kerbside yellow bin differs depending on what Council you're in. Confirm what is and isn't recyclable here in <Council> by visiting <website> or calling <number>.

<Council Logo>

PLANETARK

Oops!

When we looked in your recycling bin today, we saw the following incorrect items:

- BANDED MATERIAL
- SHOPIPING BAGS
- PLASTIC BAGS
- PLASTIC PACKAGING
- PACKETS / WRAPPERS
- CLING FILM
- BUBBLE WRAP
- OTHERS

None of the above items belong in your recycling bin.

We know it's not always easy to know what to put where, especially for everyone in the household. You can still recycle right! To get things right next week, keep all soft, scruncheonable plastics and bagged material out of your recycling bin.

Put recycling in loose

Put soft plastic in the rubbish

Want to recycle soft plastics?

If you want to recycle soft plastics, you need to collect them separately and take them to a REDcycle bin at your local supermarket store.

<Council Logo>

PLANETARK

We're working in your building, to get recycling right.

<Council Name> is working hard with the State and Federal Government to improve our recycling system. But to do that, we need your help to get your building's recycling right.

We understand it's not always easy to know what to put where, so over the next few weeks, we'll be providing your building with some materials to make things easier.

Look out for the new materials in your bin area and help your household and building to get recycling right.

Logo/s/

Our help.

Recyclable plastics can't go in your kerbside recycling bin.

Soft plastics can't go in your kerbside recycling bin.

Put soft plastic in the rubbish

Put your recycling in loose

Put soft plastic in the rubbish

Put your recycling in loose

This will help us turn your recycling back into valuable new products, saving energy & raw materials, while creating jobs and reducing landfill.

Did you know? Soft plastic means flexible, scruncheonable plastic packaging including grocery bags, bread & produce bags, frozen food & veggie bags, snack wrappers, clear film, bubble wrap, etc.

Help me get RECYCLED!

Tip me out

Keep bagged material and all soft plastics out.

Keep soft plastics out

Keep out:

- Plastic shopping bags
- Bread, rice, pasta, and cereal bags
- Biscuit packets (not the trays)
- Frozen food bags
- Cling wrap
- Bubble wrap
- Fruit and veg bags and netting

Help me get RECYCLED!

Tip me out

Keep soft plastics out

Help me get RECYCLED!

Tip me out

Keep soft plastics out

Recycling right matters.

Help your building get recycling right:

- keep your recycling loose,
- keep all soft, scruncheonable plastics out of the recycling bin.

Putting soft plastics in your recycling causes problems at the sorting facility and can undo some of your recycling efforts.

Did you know?

Recycling bins that are under pressure can't be opened at the sorting facility and so plastic items and soft plastics go to landfill.

<Council Logo>

General Waste

Recyclables

Soft plastics in the rubbish

Keep recycling LOOSE

Let's keep the recycling right in your building!

We've given your building's bin area a makeover to make it easier to get recycling right in your building.

Now it's your turn! Make sure you keep bagged recycling and loose soft plastics out of your yellow-lid recycling bin.

Want to recycle soft plastics?

If you want to recycle soft plastics, you need to collect them separately and take them to a REDcycle bin at your local supermarket store.

Logo/s/

Remember...

Soft (scruncheonable) plastics can't be recycled through your kerbside recycling bin. This includes plastic bags containing recyclable items.

When soft plastics and bagged recyclables end up at the recycling sorting facility, they have to be sent to landfill. But they can damage machines and contaminate actual recyclables on the way, wasting time, money and precious resources.

Keep soft plastics out

Did you know?

What is recyclable through your kerbside bin differs depending on what Council you're in. Confirm what is and isn't recyclable here in <Council> by visiting <website> or calling <number>.

BEHAVIOUR CHANGE TRIAL RESOURCES

Available at the National Recycling Week Resource Hub

RESOURCE HUB

National Recycling Week, 7 - 13 November, is reminding Australians this year that **Waste isn't Waste until it's Wasted**. Our resources are FREE to use and designed to help you learn how to recycle right, reduce waste and contamination, and engage with positive sustainable actions at home, work, and in your community.

Councils, schools and community groups can add their logos to our assets for free. If you're a business, please contact us for permission to use your logo on these assets or to use the National Recycling Week logo on your own.

Email recycling@planetark.org

Please feel free to contact us with resource suggestions.

RESOURCES

▼ SOCIAL MEDIA GRAPHICS

▼ INFOGRAPHICS

▼ POSTERS & SPECIAL COLLECTION SIGNS

▼ BEHAVIOUR CHANGE TRIAL RESOURCES

<https://nationalrecyclingweek.com.au/councils/hub>



THANK YOU



**NATIONAL
RECYCLING WEEK**

PLANET ARK

and remember

WASTE ISN'T WASTE UNTIL IT'S WASTED!

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