

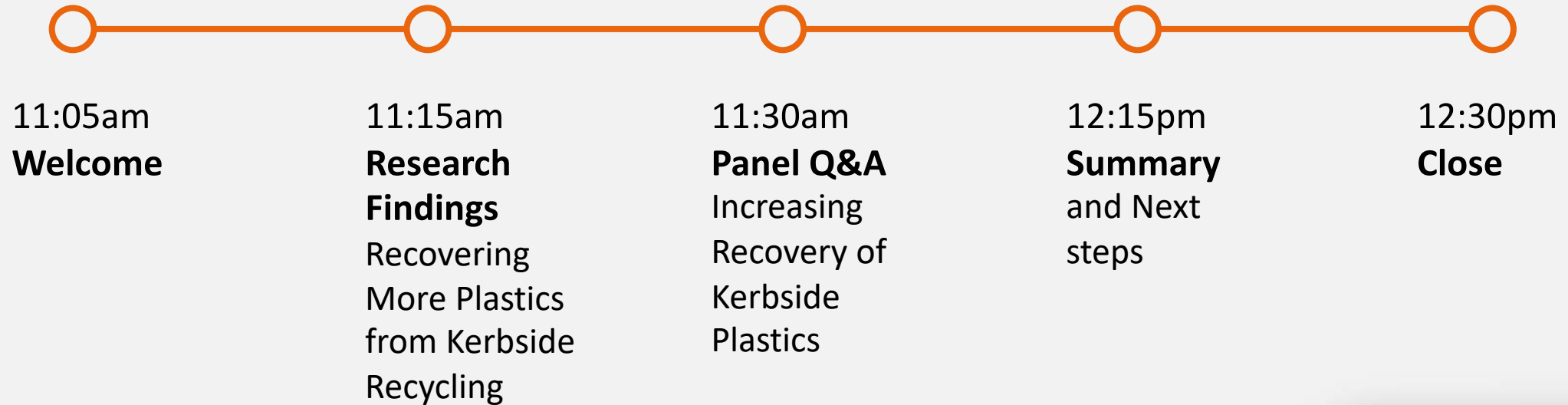
Recovering More Plastic From Kerbside Recycling

Circular Economy Plastic Manufacturing Webinar

Participant List

- Anders Hallgren, NSW Circular
- Annie Walker, SSROC
- Austen Ramage, Martogg
- Belinda Barnard, VISY
- Belinda Koytz, City of Canada Bay
- Beth Kasumovic, Waverly Council
- Colin Barker, Newtecpoly
- Dane, ThinkPlace
- David Clancy, Cleanaway
- David Eckstein, City of Sydney
- David Kuhn, City of Sydney
- Delphine Anatole, City of Sydney
- Farshid Pahlevani, UNSW SMaRT Centre
- Flavia Evans, Inner West Council
- Gayle Sloan, WMRR
- Graham Knowles, iQRenew
- Grahame Aston, Plastics Industry Manufacturing Association
- Hazel Storey, The Storey Agency
- Helen Bradley, Inner West Council
- Helen Sloan, SSROC
- Helene Forsythe, SSROC
- Ivon Sebastian, City of Canterbury Bankstown
- Jason Tune, City of Sydney
- Jenny Gustafson, SSROC
- Jeremy Biggs, Curbcycle
- Jodie Larsen, City of Sydney
- John Carse, NSROC
- John Whelan, Inner West Council
- Jonathan Wood, DPIE
- Justin Bonsey, SSROC
- Justin Koek, NSW DPIE
- Keith Monaghan, NSW Circular
- Loredana Guisa, Sutherland Council
- Louie Leung, SSROC
- Mandy Allemann, City of Canterbury Bankstown
- Marjia
- Mei Li Quah, SSROC
- Monica Barone, City of Sydney
- Natalie, ThinkPlace
- Narelle Bowly, City of Canterbury Bankstown
- Neil Henderson, Astor Industries
- Omar Roxas, Socially Plastic
- Paul Abram, Integrated Recycling
- Peter Brisbane, APCO
- Rey Behboudi, WSROC
- Richard Collins, Arcadis
- Ryan Collins, Planet Ark
- Sally Hill, NSW Circular
- Stephen Webster, Integrated Recycling
- Susy Cenedese, LGNSW
- Talebul Islam, Randwick Council
- Tania Lalor, LGP Sustainable Choice
- Tiffany Correggia, NSW EPA
- Tony Khoury, WCRA
- Veena Sahajwalla, UNSW SMaRT Centre
- Wendy Xing, WSROC

Agenda Overview



Dane Galpin

ThinkPlace Sydney
General Manager

Welcome



Monica Barone
Chief Executive Officer at
the City of Sydney

Research Findings: Recovering Plastics From Kerbside Recycling



Annie Walker
SSROC

Increasing recovery



HDPE
High density
polyethylene



PP
Polypropylene



PS & EPS
Polystyrene and
Expanded
polystyrene

Needs analysis

Collection



Councils need:

- Data
- ↓ Contamination
- Recycling campaigns
- Packaging designed for recyclability
- Buy back products made from kerbside recycling.

Sorting



Sorting facilities need:

- ↓ Contamination
- No PVC, PS & EPS
- Recycling campaigns
- Packaging designed for recyclability
- Shorter planning approval processes.

Plastics recovery



Plastic recyclers and manufacturers need:

- Clean feedstock
- No PVC
- Prefer single polymer streams
- Consistent quality
- ↓ Price of recycled plastic
- ↑ Purchasing demand

Barriers

01

Quality of the plastic

02

Contamination of recycled plastics

03

Low value of recycled plastics

04

Availability of end markets

05

Limited end markets for coloured plastics

06

Current licensing and regulations

Opportunities

Preferencing recycled plastic from Australian sourced feedstock



Post consumer HDPE stormwater pipes.
Source: The Green Pipe



Car bumps made from recycled plastic.
Source: Closed Loop



Hand sanitiser station.
Source: Replas



Shade structures with recycled plastic.
Source: Integrated Recycling

Opportunities

Supply chain collaboration



01

Trial on kerbside PP for use in remanufacturing.

02

Recovering PP pot plant containers from council nurseries, milk & bread crates from the clean up stream.

03

Trial aggregating collection of PS & EPS from council drop off locations.

04

Trial aggregating collection of soft plastics from council drop off locations.

Opportunities

Education and advocacy



01

Recycling campaigns

02

State/national
recycling campaigns

03

Incentives for
packaging companies
to design for
recyclability.

Guest Speaker Panel



Veena Sahajwalla

Director for SMaRT Centre at UNSW
Director for NSW Circular
Director ARC Green Manufacturing Hub



Grahame Aston

President, Plastics Industry
Manufacturers of Australia



Tony Khoury

Executive Director at Waste
Contractors and Recyclers
Association of NSW



Justin Koek

Director, Circular Economy
Policy and Markets at NSW
Department of Planning,
Industry and Environment



Peter Brisbane

Government Partnership
Manager at Australian
Packaging Covenant
Organisation

Panel Discussion Summary

Recycled polypropylene:

- There is increasing demand for recycled polypropylene (PP) from some plastic manufacturers, and that there should be applications where even coloured PP from kerbside recycling could be used.
- Discussion on how a lot of MRFs are not currently capable of separating PP as its often sorted into mixed plastic bales so some form of secondary processing /sorting is needed and someone needs to bear that cost.

Coloured plastics:

- Whilst there are challenges with coloured plastics (can be streaky and hard to replicate exact copies and may have more limited end uses) it all comes down to the design and application needs of the recycled plastic product.

Labelling and consumer education:

- Different messages across Australia leads to confusion and poor recycling outcomes, we need consistent messaging nationwide.
- Launch of national consumer education campaign in October that APCO, Planet ark and Horizon Communications will be running funded by the federal government.
- Australasian Recycling Label (ARL) is used by currently 400 companies and hopefully that will increase.

General Commentary (From the chat box):

The use of coloured materials is really dependant on the application. Our experience at Integrated Recycling is that charcoal is our most popular colour that permits use of coloured materials. Many of our applications are for landscaping and infrastructure and less for architectural uses.

I don't think consumers necessarily understand the plastic code numbers.

But this is why it's important to have better symbols and design for recyclability.

Even if the customers would understand the codes properly, each code in different products/packaging may have different recyclability features.

Education is a key once clear, tested and valid guidance is existing out there.

Panel Discussion Summary

Collection systems:

- Container Deposit Scheme (CDS) – cleaner streams has helped create some good supply chain agreements.
- There are challenges with increasing source separation in kerbside recycling (creates cost for rate payers and the practicalities of housing extra bins), so drop off collections where it is feasible are practical.
- If there are robust end markets it can offset the costs of additional source separation however, the markets for some recycled polymers are still developing.
- Discussion on whether CDS should be expanded beyond beverage containers to other types of recyclable packaging. CDS works well because there are clearly defined types of products that can be recycled, consumer awareness of the types of polymers that can be recycled may be a barrier to address if CDS was expanded.

Reusable take back packaging:

- Woolworths is trialing a reusable packaging scheme called [Loop](#), in some areas. Using higher quality packaging that can be washed and reused again and is part of the home delivery service.

General Commentary:

CDS works, because of the incentive, but has the effect of changing behaviour, particularly children.

Would including aseptic containers in CDS create the necessary incentive for food businesses and consumers to separate them, and create a higher volume of clean containers for processors and remanufacturers to use as feedstock?

Interested in the cost trade off in reducing volume of commingled in a "premium recycling" configuration (higher collection costs per unit) versus the reduced contamination/residual at the MRF. Net win or loss?

Designing drop-off options for plastics is part of the nudge toward normalisation of new behaviours. The designed drop-off is the engagement and education. It will take a few years to normalise, and sort contamination - but we can't wait for consumer education on plastics to land without linking to actions.

Panel Discussion Summary

Designing out waste:

- All products should be designed and manufactured so that at the point of disposal all of the raw material in the product can be recycled.
- [Packaging Recyclability Evaluation Portal \(PREP\)](#) is an online platform organisations are able to use to verify if their packaging is or isn't recyclable in Australia, need to see more designers and brand owners using it.
- Need for further research on some of the composite materials to see if you can get the same performance with a simpler material.
- Product Stewardship scheme for packaging sits under the *National Environment Protection (Used Packaging Materials) Measure 2011*; which is up for review soon.

General Commentary:

A large issue is that a lot of brands use materials such as PVDC particularly in food packaging as it improves the appearance of the packaging through its gloss, transparency, print-adhesion, and scratch resistance. However, it is an environmental issue as it is generally burnt or sent to land fill.

How about retailers stating what percentage of the products they sell are actually recycled? Would be nice and clear for consumers.

I'd venture that most retailers don't know whether their products or packaging are recycled given the poor data on material flows beyond MRFs. Even councils struggle to get clear data on kerbside recycling streams. The Protection of the Environment Operations Act protects the confidentiality of MRF data for commercial reasons, which is a major gap in our system.

Panel Discussion Summary

Next Steps:

- All got to work together to find closed loop solutions for plastic packaging; it's not just a problem for resource recovery industry, but all levels of government, other sectors and consumers.
- Relationships between brand owners, packaging companies, manufacturers and the resource recovery sector need to be strengthened.
- Potential for recyclers and/or manufacturers to provide a service where they come in at the beginning of the supply chain and talk about the things that would limit end use. Particularly for higher valuable materials.
- Call for the NSW Government led China Sword working groups to be started again to deal with the major challenges facing the industry.
- Need for stronger federal policies /regulations to specify that finished goods are made with materials that are easily recyclable. Voluntary schemes may not create the level of change needed. Need a national system of what is recyclable at the kerbside.
- High potential for job creation in remanufacturing these materials.
- SSROC councils have already signed a commitment to prioritise recycled content in procurement and we are now undertaking the largest local government-led procurement of asphalt and concrete with recycled crushed glass in NSW history. We will be next focusing on opportunities for recycled plastic products.

General Commentary:

Aust Fin Review Tuesday this week had article about Sims Metal moving into plastic recycling space with new facility in Melbourne - where does this fit ? Will there be long haul of compacted plastics to Melbourne if no NSW facility is developed at the same time? Encouraging to see proven at scale recycler (Sims) moving into this space. Thoughts?

What do the panel think is the next action to make progress after this presentation? (especially in light of Justin's comments about the nexus between packaging and brand owners) Is there a need for govt to re-introduce the multi-sectoral working groups that were introduced post China Sword?

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