



Waste Strategy Summit Barangaroo South

June 2018

lendlease

BARANGAROO SOUTH



STATE SIGNIFICANT DEVELOPMENT



- . 23,000 office workers
- . 80+ retailers
- . Approx. 1,800 residents
- . Hotel complex
- . 18 million visitors / year
- . \$6 billion investment





A world map showing the locations of various urban development projects. The map is light gray with white outlines of continents and countries. A large green-to-blue gradient circle is overlaid on the left side of the map, containing the text 'Climate Positive Development Program'. Several green and blue crosses are placed on the map, with lines connecting them to labels for specific projects in different cities and countries. The projects are: S. Waterfront Ecodistrict, Portland; Docksider Green, Victoria; Project Zero, Sonderborg; Stockholm Royal Seaport, Stockholm; Nordhavn, Copenhagen; Elephant & Castle, London; New Shougang Comprehensive High-End Industry Service Park, Beijing; Magok Urban Development Project, Seoul; Shinagawa Project, Tokyo; Mahindra World City, Jaipur; Godrej Garden City, Ahmedabad; Menlyn Maine, Tshwane; Pedra Branca Sustainable Urbanism, Palhoça; Barangaroo South, Sydney; and Victoria Harbour Docklands, Melbourne.

Climate Positive Development Program

S. WATERFRONT
ECODISTRICT, PORTLAND

DOCKSIDE
GREEN, VICTORIA

PROJECT ZERO,
SONDERBORG

STOCKHOLM ROYAL
SEAPORT, STOCKHOLM

NEW SHOUGANG COMPREHENSIVE
HIGH-END INDUSTRY SERVICE PARK,
BEIJING

NORDHAVN,
COPENHAGEN

MAGOK URBAN
DEVELOPMENT PROJECT,
SEOUL

ELEPHANT & CASTLE,
LONDON

SHINAGAWA PROJECT,
TOKYO

MAHINDRA WORLD CITY,
JAIPUR

GODREJ GARDEN CITY,
AHMEDABAD

MENLYN MAINE,
TSHWANE

PEDRA BRANCA
SUSTAINABLE URBANISM,
PALHOÇA

BARANGAROO
SOUTH, SYDNEY

VICTORIA HARBOUR
DOCKLANDS,
MELBOURNE



ENERGY

Zero net operational carbon emissions



WATER

Capable of being water positive



WASTE

97% recovery of construction waste
80% diversion of operational waste from landfill

A WORLD CLASS SUSTAINABILITY PLAN

FOR A WORLD CLASS PRECINCT



BARANGAROO SOUTH

- . 20% reduction in embodied carbon
- . 6,000 sqm solar PV
- . Climate Change Adaptation Plan
- . Harbour Heat Rejection system
- . Carbon Community fund



Waste Diversion

Prevent

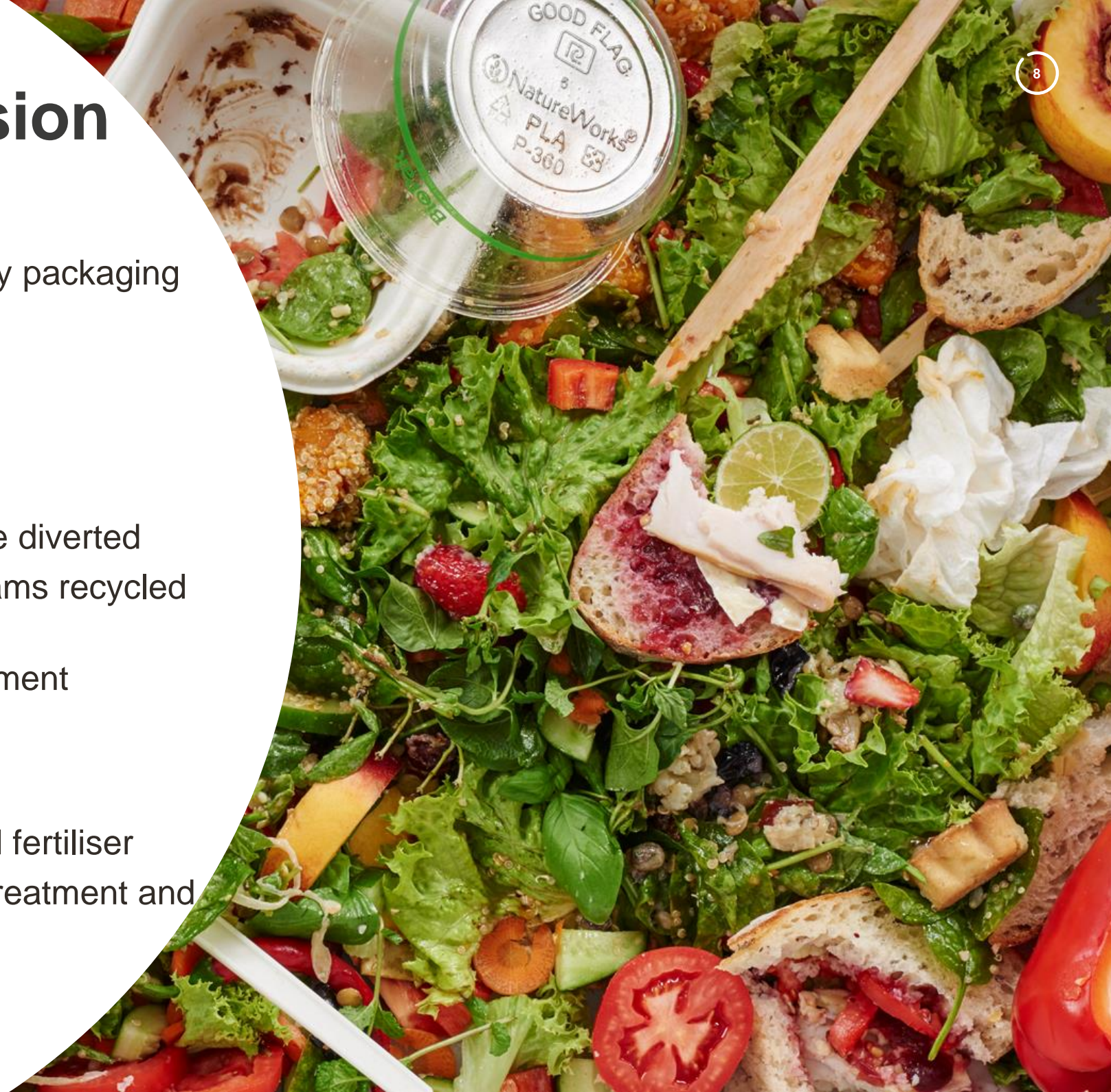
- Compostable take away packaging
- Plastic bag free
- Tenant support

Recycle

- 97% construction waste diverted
- 20 different waste streams recycled or reused
- Advanced Waste Treatment

Zero emissions

- Organics to energy and fertiliser
- Carbon neutral waste treatment and transportation



Construction

97% diversion of waste from landfill

- Clear target
- Source separation
- Space
- Focus on safety
- Limited waste types

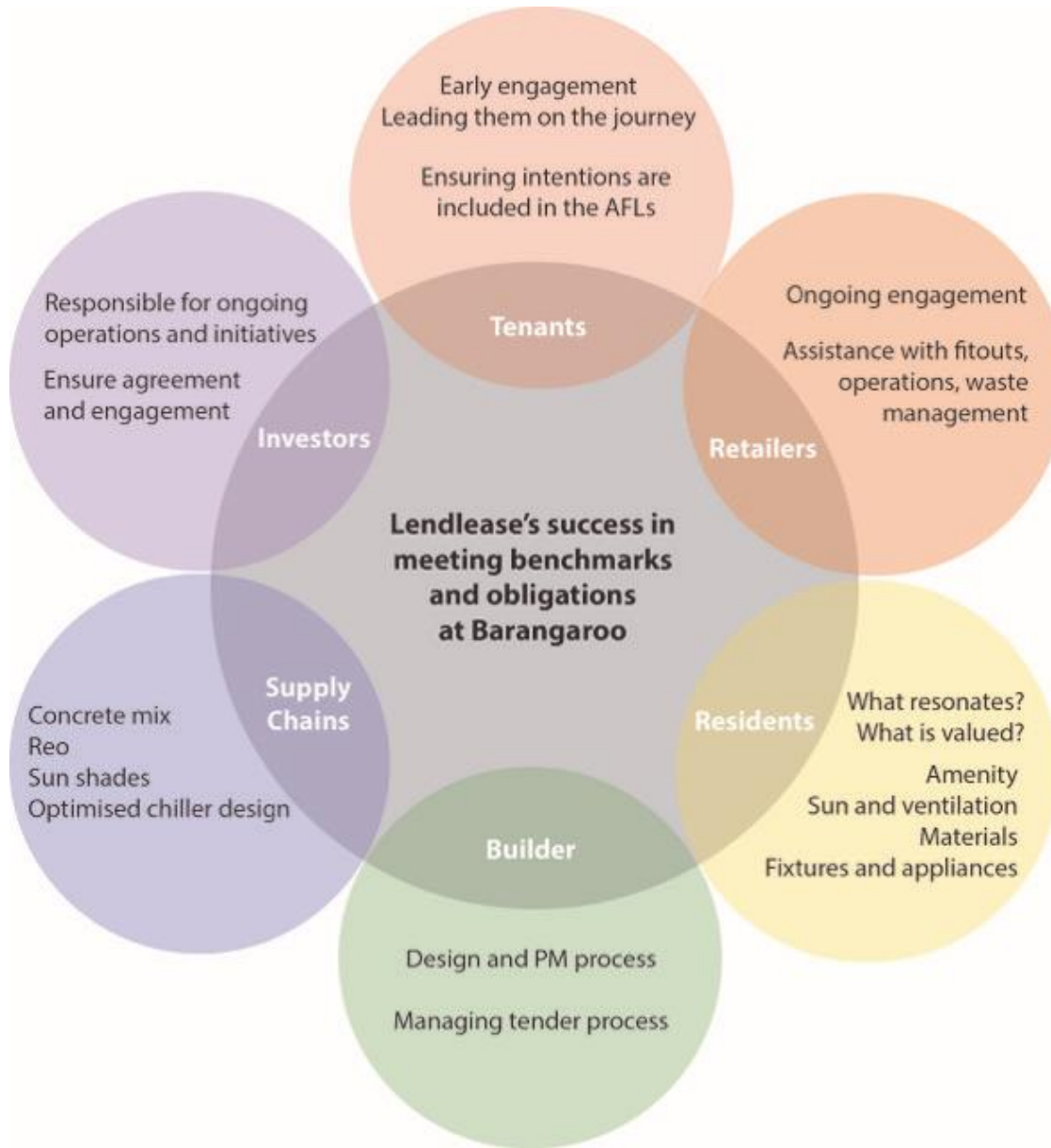




Operations
80% diversion

4,376 t diverted from landfill
...or 970+ elephants
...or 337 garbage trucks

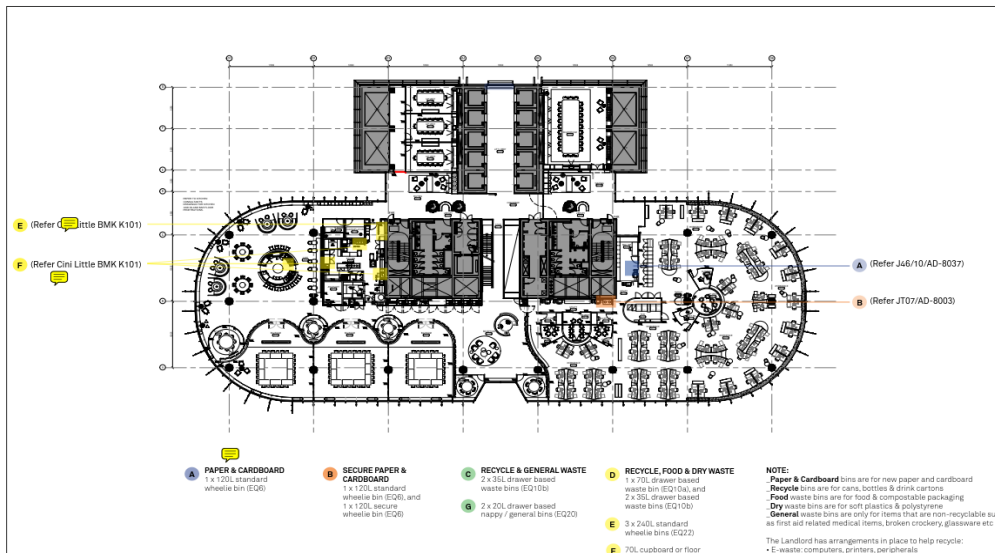
...integration



Sustainability clauses built into contracts and leases

All parts of the team working towards a unified goal

The same vision / conversations with all stakeholders



Barangaroo lendlease

Commercial Waste Fit Out Guide: Barangaroo South

PACKAGING AT BARANGAROO SOUTH

AT BARANGAROO SOUTH, WE ARE TARGETTING:

- Being carbon neutral in operation
- Diverting 90% of operational waste from landfill
- Sending net zero waste to landfill by 2020; and
- Being capable of exporting more recycled water than we use potable water

If food and packaging waste is sent to landfill it creates toxic liquid and gases.

Instead, food retailers at Barangaroo South will be using take away packaging that is fully compostable. This will allow us to convert packaging and food waste to into green energy and rich fertilizer. Creating a valuable product – instead of an environmental pollutant.

Every retailer will be doing their bit to make Barangaroo South the premier sustainability destination, where visitors, residents and workers know that just by buying in the precinct they are contributing to a better environment.

IS MY EXISTING PACKAGING COMPOSTABLE?

In many instances the packaging you already have may already be compostable or recyclable.

Compostable packaging has advanced significantly in the last ten years to deliver high performing, cost effective and beautiful products. If you need to change your packaging, our guide will help you pick the right product for your business.

Material	Description	Uses
Bagasse – sugar cane	A by product from the sugar cane industry. The fibres are formed into clam shells, plates and bowls and can be white bleached or have a natural look.	• Compostable • Heat resistant • Used for hot or cold foods • Can be embossed
PLA - polylactic acid	This is a clear and sturdy longshore made from corn starch. Used for cold cups, straws, cell containers, windows and to line coffee cups.	• Compostable • Printable • Suitable for cold foods • Not suitable for hot foods
CPLA - crystallized polylactic acid	This is PLA that has been modified to make it resistant to heat. Used for coffee and soup containers lids and sleeves. CPLA is opaque.	• Compostable • Printable • Used for hot foods

If you can't find the right product for you, please call our Ecoconierge who will help you find what you need.
Contact: Lucy Shaman
P: 9392 4454 M: 0407 013 424 E: lucy.shaman@lendlease.com

Barangaroo lendlease



cans, bottles, drink cartons



NO PLASTIC BAGS

soft plastics & coffee cups



NO FOOD

food scraps & Barangaroo packaging



NO PLASTIC BAGS



WELCOME TO BARANGAROO

GIVING WASTE A SECOND LIFE

Did you know that Barangaroo South is one of the most sustainable precincts in the world.

We are targeting:

- Being carbon neutral in operation;
- Diverting 80% of operational waste from landfill;
- Sending net zero waste to landfill by 2020; and
- Recycling our water for reuse.

Tenants and visitors to the precinct are vital partners in helping us achieve our sustainability goals.

How can you help? - To turn waste into a resource - it needs to be separated into the right bin.



Packaging made from corn starch.

WHAT GOES IN THE BIN...

DO YOU HAVE A CAN, BOTTLE OR CARTON?
Put it in the yellow bin and we'll get it recycled into new containers.

DO YOU HAVE FOOD SCRAPS OR A TAKE AWAY CONTAINER FROM THE PRECINCT?
Put it in the green bin and we'll turn it into fertiliser and green energy.

CLEAN OFFICE PAPER AND CARDBOARD?
It belongs in the blue bin and gets turned into paper towels and new cardboard.

IF IT CAN'T GO IN OTHER BINS?
It belongs in the brown bin and we'll use it as an alternative fuel in cement manufacturing.

DID YOU KNOW...
In the first 12 months we prevented 500 tonnes of waste from going to landfill. That's the equivalent weight of around 113 adult elephants!

Take away food packaging from anywhere in the Barangaroo precinct can be recycled through the green bin. All packaging from our retailers is made from plant based materials so it can be composted with food scraps and turned into fertiliser.

Since becoming operational in 2015 Barangaroo has recycled more than 80% of its waste. By comparison commercial buildings usually recover 5% and retail only 4%.

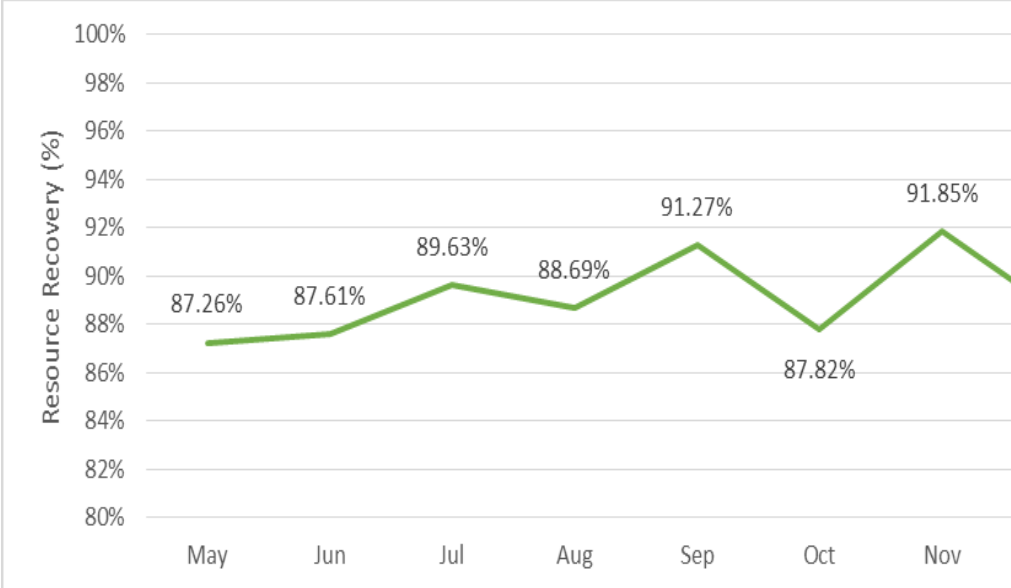
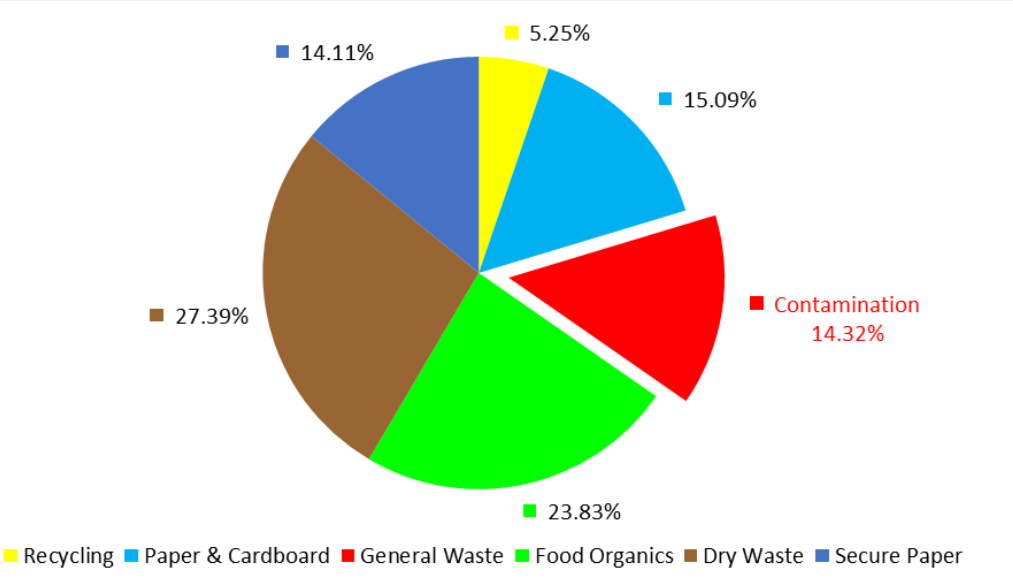
WHAT CAN I DO?
Please put your rubbish in the correct bin. Rubbish that ends up in the wrong bin cannot be recycled. More than that, it contaminates the rest of the bin and nothing in that bin can now be recycled. Clearly separating your waste means we are able to recycle your rubbish and give it a second life.

To learn more or get extra support in managing waste, please contact Eco-concierge Lucy Sharmain on 0407 013 424 or lucy.sharmain@lendlease.com

Barangaroo 



Data collection and reporting



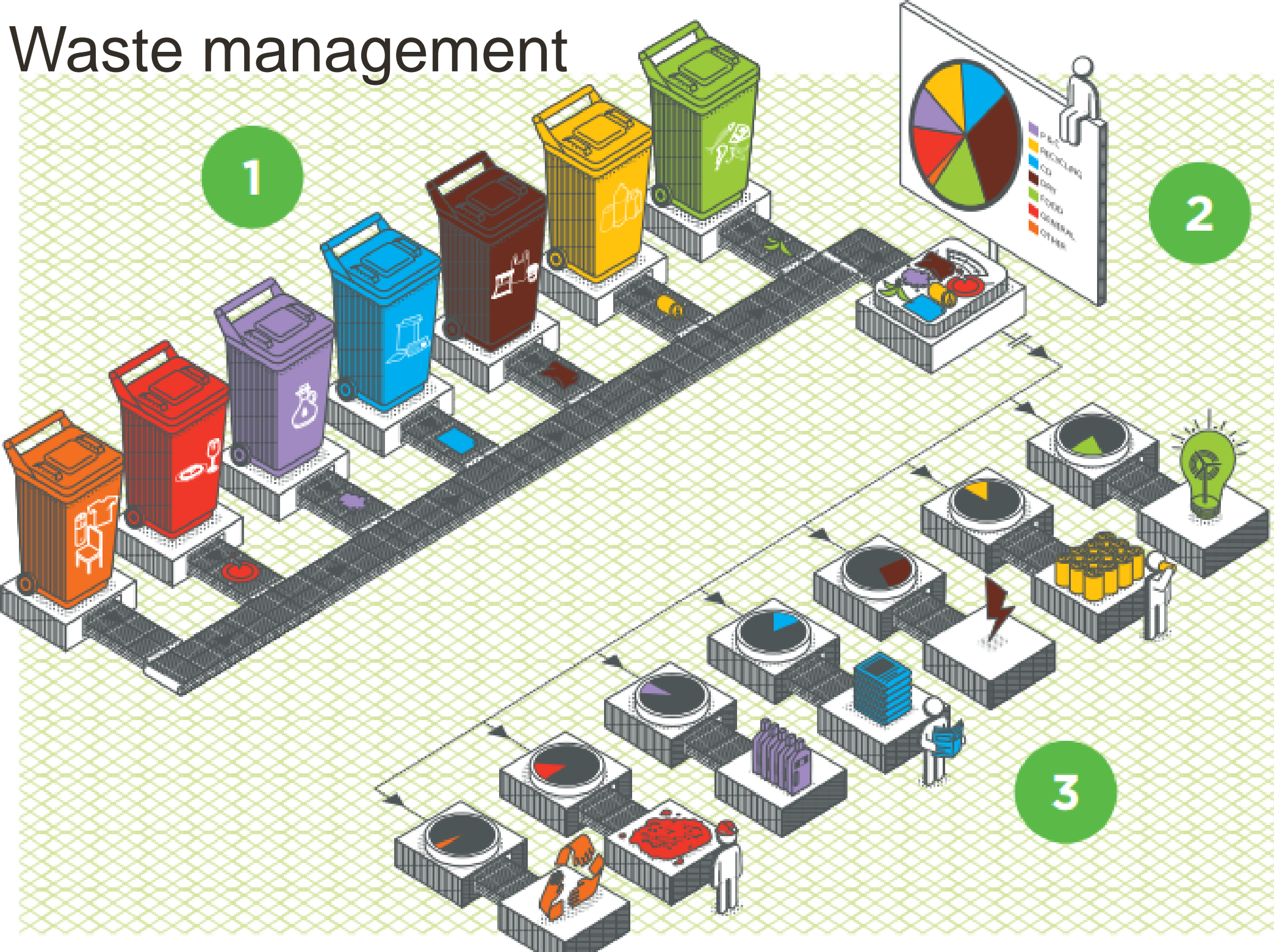
	Produced (kg)	Recovery rate	Recovered (kg)
Comingled Recycling*	294.69	75.79%	223.35
Dry Waste^	1,537.12	92.00%	1,414.15
Food & Organics*	1,337.12	99.77%	1,334.05
Paper & Cardboard*	846.62	80.23%	679.24
General Waste^	803.64	64.13%	515.37
Secure Paper*	792.00	99.50%	788.04
Totals	5,611.19		4,954.20

Waste management

1

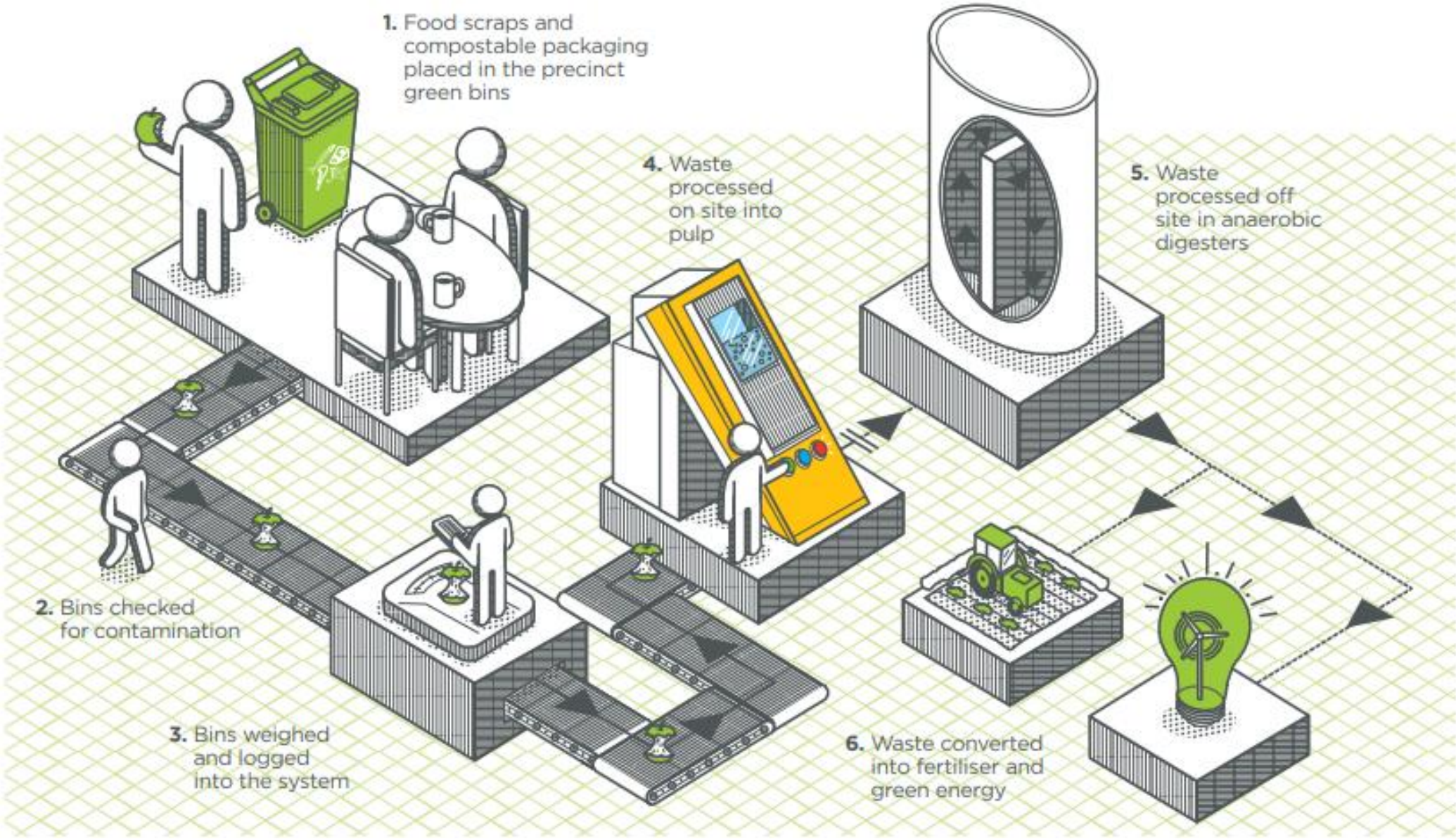
2

3





Food to fuel





...the human element

Eco-concierge

Supporting commercial, retail and residential tenants – to align their operations to precinct-wide sustainability targets



More work needed

Source separation

Waste industry immaturity

Designers

Consumers

Leaders



Keepers...

- Unambiguous targets
- Cleaner engagement
- Common positive vision
- 'Unobtainable' targets
- Focus on people – constant engagement





Thank you

Lucy.Sharman@Lendlease.com