



# IWMSA Small Waste Contractors Seminar

## THE BUSINESS OF PET COLLECTIONS

10 June 2015



# SA Packaging in Perspective

- Packaging industry in SA worth R39 billion per annum
- Employs 50 000 people
- The recycling sector, *excluding* informal collectors, employs some 10 000 additional people
- Packaging is estimated to be some 6-10% of the household waste stream in South Africa
- Growth rate of global packaging market is 4% per year
- Nearly 60% of packaging is made for food & beverage
- Ever-increasing numbers of plastic containers

# Industry Partnerships:

**PETCO cooperates with relevant national and international organisations.**

- Packaging SA (RAG)
- SA National Bottled Water Association (SANBWA)
- PlasticsISA
- National Recycling Forum (NRF)
- Institute of Waste Management (IWMSA)
- SAPRO
- POLYCO
- PSPC
- PRASA
- FIETA
- Tetra Pak
- Collect-a-can
- The Glass Recycling Company
- Consumer Goods Council of SA (CGCSA)
- European Plastic Recycling and Recovery Organisation
- The Global Alliance for Recycling and Sustainable Development
- RoTG Platform



**Plastics | SA**



# Discussion Topics

**Plastics Identification**

**The Process of PET Recycling**

**PET Collectors' Challenges**

**PET Recyclers Information**

# PETCO's role in collections

Develop End-Product Market

Support Entrepreneurial Growth

Support Recycling Infrastructure

Education & Awareness



PETCO

PLASTICS IDENTIFICATION



# PETCO is...

Extended Producer Responsibility in action, working collectively on behalf of those

- who make the PET raw material (resin producers)
- produce the bottles (convertors)
- fill these bottles (bottling companies)
- own the brands (e.g. Coca Cola)
- and who retail the products packaging in PET to the consumer (e.g. Pick 'n Pay)

This responsibility results in recyclable and energy-efficient PET material being increasingly collected and re-used instead of littering our streets or going into landfill

# Know your plastics





# What is PET



- most common container in the soft drink market today
- polyethylene terephthalate (PET)
- transparent, rigid container used to package bottled water, carbonated soft drinks & numerous other substances
- PET is labelled with the # 1 code
- 100% recyclable.

# Polyethylene terephthalate (PET)





# High density polyethylene (PE-HD)





# Poly(vinyl chloride) (PVC)



Not recycled

Clingwrap



Not recycled



# Low density polyethylene (PE-LD)







# Polypropylene (PP)





# Polystyrene (PS)





# PETCO AND THE PET RECYCLING PROCESS





# Large-scale projects with an end use in their value chain

PETCO spends the large majority of its funding on projects undertaken by recycling partners.

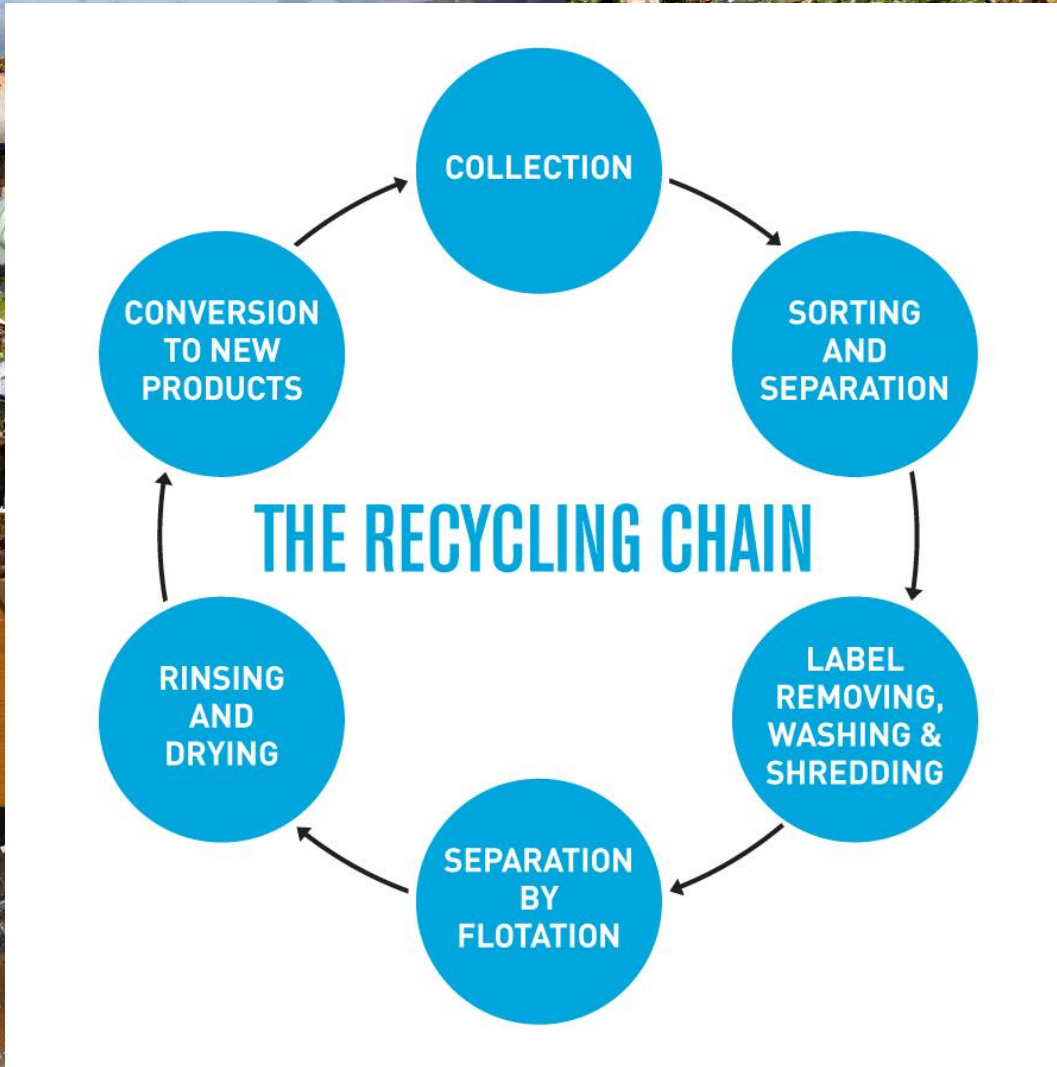
Intended to facilitate and grow collections nationwide

PETCO supports a growing range of end-uses produced by its current partners:

- Extrupet
- Sen li Da
- Kaytech Engineered Fabrics
- Mpact
- Safrepet

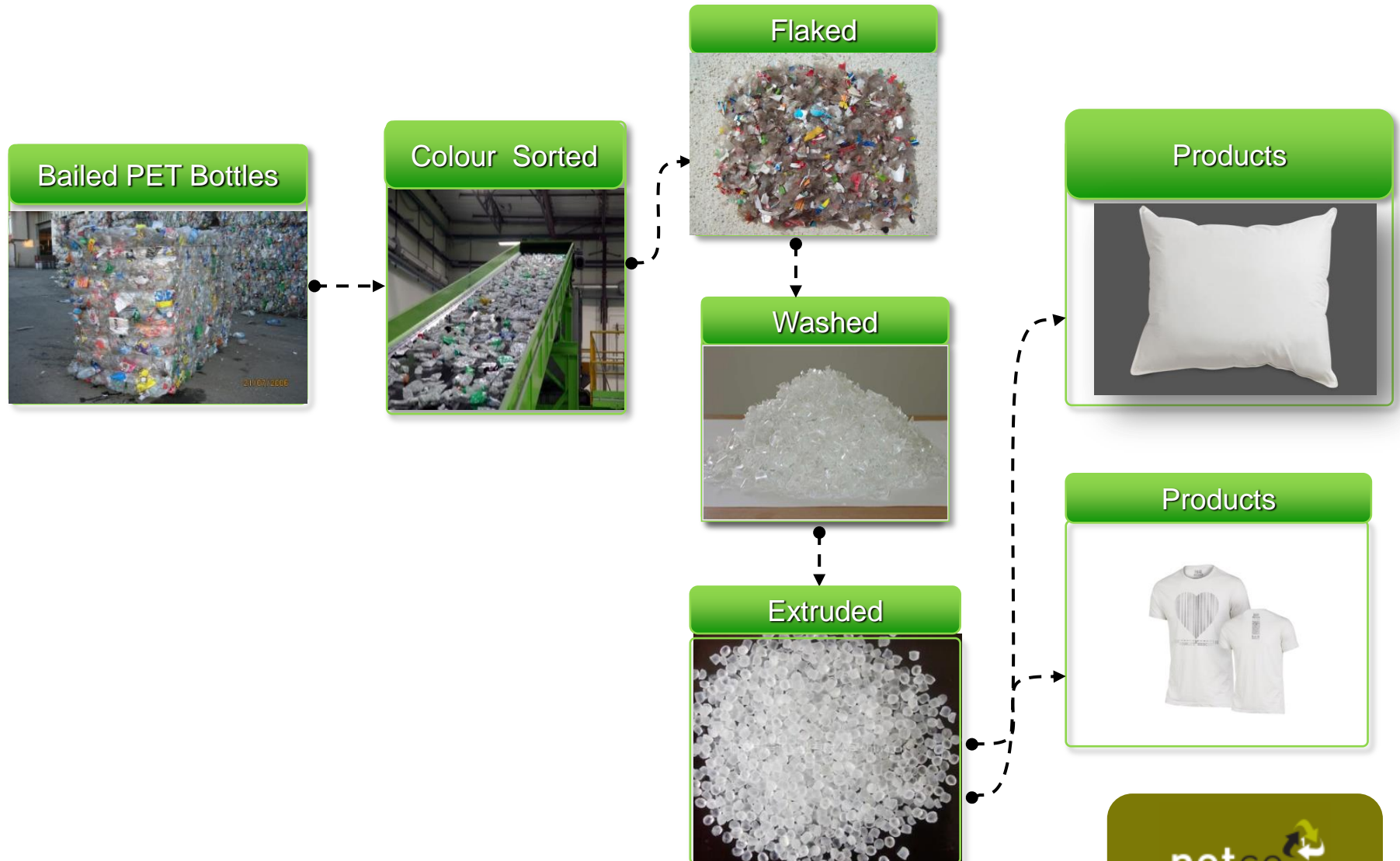
**R650m capital spend to date, R600m planned over next 5 years**

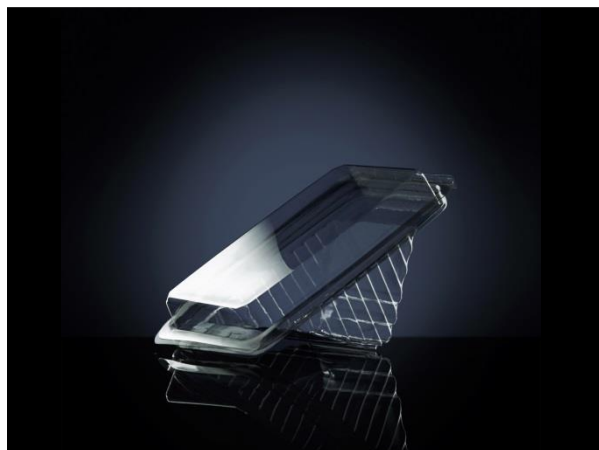
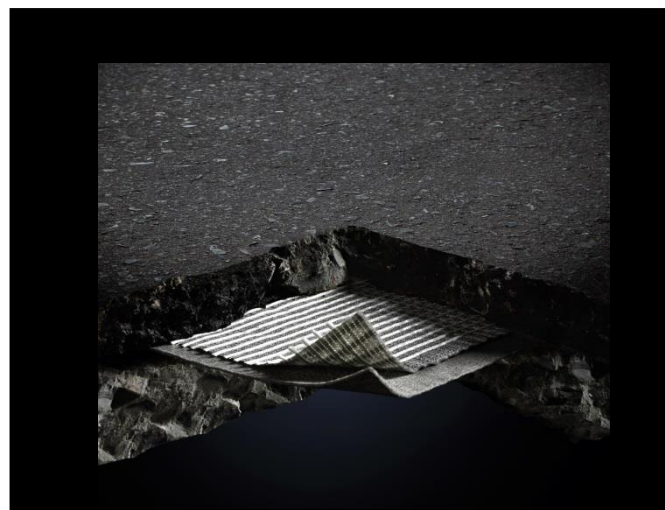






# The Process of PET Recycling





# Products Manufactured using Chemical Fibre



# Visible recycling projects

increase the collection volumes of recycled PET, but contribute to the visible recycling of PET

PETCO spends just under 10% of its budget on Category “B” projects.

Support is provided in the following ways:

- PET infrastructure and equipment provision
- Collector training and development
- Education and awareness
- Special projects and joint ventures
- Fostering government partnerships
- Building the recycling network



# CATEGORY B

VISIBLE RECYCLING PROJECTS

SPONSORSHIP: PET  
INFRASTRUCTURE AND  
EQUIPMENT PROVISION





# CATEGORY B

VISIBLE RECYCLING PROJECTS

## COLLECTOR TRAINING AND DEVELOPMENT





# CATEGORY B

VISIBLE RECYCLING PROJECTS

EDUCATION AND  
AWARENESS



The Story of PET Bottle Collection

[CLICK HERE TO WATCH THE MOVIE](#)



# CATEGORY B

VISIBLE RECYCLING PROJECTS

SPECIAL PROJECTS &  
JOINT VENTURES





# CATEGORY B

VISIBLE RECYCLING PROJECTS

BUILDING THE  
NETWORK



## PLASTICS PACKAGING RECYCLABILITY BY DESIGN

An essential guide for all those involved in development,  
design, marketing and procurement.

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**purple line plastics (pty) ltd**



**PETCO values its  
2014 shareholder  
members**





# Values Our Associate Members



100%

49%

0%

OF ALL POST CONSUMER PET BEVERAGE BOTTLES ARE COLLECTED BY PETCO. THAT'S ALMOST 1 OUT OF EVERY 2 BOTTLES SOLD IN SOUTH AFRICA.

THAT IS BETTER THAN THE USA AND JUST UNDER THE EUROPEAN AVERAGE.

From 9 840 to  
63 951 tonnes  
in only **10** years

# Expand/improve quality of collections

- Problem: poor sorting by collectors, contaminants, dirt etc
- Contributing factors are: Colour, dirt, shrink wrap sleeves, PVC and silicone
- To achieve the targets as well as sustain end markets, the current collection strategy needs to be re-evaluated - bale tag
- Move from landfill reclamation to separation at source supported by network of serviced drop-off facilities & buyback centres
- Vigorous & cost-effective strategy , with in across
  - public & private sector
  - Recycling/ material streams



# Increasing collected PET bottles value

## Remove lids, caps and other closures

- PET bottle caps are polypropylene and other materials and can be sorted and sold separately.

## Sort by colour (where it is practical)

- PETCO's recyclers are happy to pay more for bottles that are sorted and separated by colour (clear, clear blue, clear green and clear brown bottles – do not collect pigmented bottles).
- Make sure the bottles are completely empty
- Some bottles are collected containing water, juice or sand in them.



## Remove PVC liners, labels and safety seals





# High Quality



Clean , colour sorted  
bales get highest price



# Poor Quality



Dirty , unsorted bottles get  
lowest price



# PET Volumes and Financial Return



- 1 ton = 30 000-500ml bottles/ 22 000 -2ltr bottles
- 1 kg = 30 (500 ml)/ 22 (2ltr) bottles
- 1 ton bulk bag = 200 – 300 bottles - equivalent to = 6 - 13 kgs
- To increase weight: bale/ flatten bottles

# Where to start

- As with any business, success depends on good research and planning.
- Build a relationship with local municipality
- Do you need training – SEDA, LED
- Do your homework
- Find answers to all your questions
- Decide what you want to do and what you will need.
- Then you will be ready to prepare your business plan - SEDA.

# Where to start

- Find a covered area or a site
- Engage with the trolley brigade in your area and build a relationship with them (they could be the backbone of your business)
- Get them to commit to bringing their recyclable PET bottles to you
- Keep statistics
- Keep track of your progress
- Include all recyclable packaging materials – paper, glass, cans and other plastics



# Market

- Is there a market for recyclable materials
- Is there a good supply of recyclable materials
- What materials do you accept?
- What don't you accept?
- Can you supply addresses of local depots and branches
- Can you supply name of local agents collectors or buyers

# Infrastructure and Equipment

- Do you supply trolleys for collectors?
- Do you supply bags, drums or containers?
- What do I need to collect, transport, or store materials
- What do I need to set up a buy back centre?

# Planning and permissions

- Can you help me to draw up a site plan?
- What are the health, safety, fire and environmental risks?
- Do I need to register as a collector, transporter or buyback centre operator?
- What documents need?
- Which municipal by laws or other laws apply?
- Do I need a permit, licence or permission?
- How and where do I apply?
- Do I need to fill in any legal documents?
- What documents do I need?
- Do I need to submit building plans?
- Can I start collecting while I wait for my permit or licence?
- Do I need training?





## COLLECTORS' CHALLENGES



# #1: The middleman



## #2: Material pricing



Prices are influenced by:

Quality material.

Weight - loose vs baled bottles.

Distance from Recyclers

End product markets.

Supply Demand

# # 3: Equipment challenges



- Balers
- Scales
- Trucks

## #4: Access to the recycler



- Distance
- Transport costs

# #5: Cash flow control



- Budgeting
- Minimising costs
- Savings
- Long-term thinking
- Accurate record keeping



# #6PET Volumes and Financial Return



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# #7 Maximising Transport



- Big cost in PET and other collections.
- Stock up high volumes before transporting.
- Work out distance covered and how much it will cost.
- Share loads with other Collectors



## PET RECYCLERS



# PET Recyclers

- **Extrupet:** Bottle-2-Fibre



- Location: Wadeville, Germiston
- Contact: Somesh Rastogi
- Contact: 082 883 3483

- **Sen li Da:** Bottle-2-Fibre



- Location: Joburg, Industria
- Contact: Frank Fang
- Contact: 072 713 3116

- **Kaytech Engineered Fabrics:** Geotextile End-Use



- Location: Cape Town
- Contact: Hennie Haas
- Contact: 083 285 6695



# More PET Recyclers

- **Darunfa:** Bottle-2-Fibre



- Location: Alberton
- Contact: Vivian Subramoney
- Contact: 011 864 8687

- **Mpact:** Bottle-2-Fibre



- Location: Wadeville, Germiston
- Contact: Alan de Haas
- Contact: 082 888 5990



# MYWASTE

RECYCLE  
YOUR  
POLYSTYRENE

recycled up to  
without any damage to its

MyWaste

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## Find Your Nearest Recycler

Enter your address, suburb or city

## Choose Your Material

Any material

☐ Select BuyBack centres only

**Search MYWASTE**



1 p t  
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### Home User Information

House hold recycling is easy once you know where. [More info](#)



### Business Information

Does your business need a regular drop off point? [More info](#)



### Recycler Sign

Recyclers and bu your address need [More info](#)

**POLYSTYRENE COUNCIL ESTABLISHES COLLECTION POINTS**



# Thank you.

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