The SA Plastics Pact

Baseline Report 2020/21


SPAR
TOASTED
GRANOLA

CONTENTS

FOREWORD

Mike Mulcahy, GreenCape CEO

The South African Plastics Pact is an accord struck in the context of a developing economy. South Africa has dramatic inequality and quite staggering unemployment. This context creates powerful economic needs and a strong imperative for job creation.

GreenCape, the secretariat of the SA Plastics Pact, has had a consistent focus toward creating an enabling environment for the green economy to succeed. By focusing on economic viability we have narrowed our scope within the green economy deliberately to drive toward increased job creation and a more socially just society.

The developing world context necessitates that countries like South Africa and accords like the SA Plastics Pact must work harder, faster and more deliberately than in the developed world. It is our challenge to solve both for immediate developmental needs, as well as a path to a circular economy that fundamentally alters our relationship with the material flows in the economy.

The members of the SA Plastics Pact have committed to the following targets by 2025:

1. **To take action against problematic and unnecessary plastic packaging**
2. **100% of plastic packaging to be reusable, recyclable or compostable**
3. **70% of plastic packaging effectively recycled**
4. **30% (minimum) average recycled content across all plastic packaging**

In pushing to achieve these targets we will stimulate innovation and dialogue, we will unlock collaborations across country boundaries towards circularity. We will create the context for the new businesses that will be needed for the circular economy, creating new, decent and sustained jobs.

None of these objectives can be achieved alone– and I am tremendously grateful to the SA Plastics Pact founding members, its early adopters, and champions, for the support of our partners, funders and collaborators. I am grateful to the team that is working on this within GreenCape, and the teams we learn from across many global Plastics Pacts. The challenge of moving towards a circular economy requires solving a collective action problem across our planet. The collective effort required is at a scale we have not yet experienced as the human race. This effort requires of us to make partnerships and forge collaborations that we have not previously considered · I look forward to working with you.

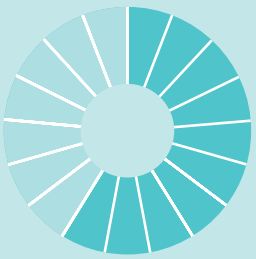
Driving a circular economy for plastics in South Africa through collaboration

Our members have committed to achieve 4 ambitious targets by 2025:

1. Taking action on problematic or unnecessary plastic packaging through elimination, redesign, innovation or alternative (re-use) delivery models
2. 100% of plastic packaging to be reusable, recyclable or compostable
3. 70% of plastic packaging effectively recycled
4. 30% average recycled content across all plastic packaging

During the 2020 reporting year, the SA Plastics Pact had 22 business members. A member requirement is submitting data annually on the organisation's plastic packaging portfolio and actions taken to achieve the four targets.

19 out of the 22 business members submitted data



10 out of the 17 supporting members submitted data for the 2020 reporting year

Business Members

Myplas
CLICKS
UPMRAFLATAC
homechoice for the home you love
Coca-Cola Beverages South Africa
DISTELL
extrupet recycling your world (Pty) Ltd
TIGER BRANDS
Unilever
TFG
W WOOLWORTHS
SAFRIPOL shaping your world, responsibly Let's plastic responsibly
POLYOAK PACKAGING
SPUR CORP.
Berry
RCL FOODS
tuffy
DANONE ONE PLANET. ONE HEALTH
mpact smarter, sustainable solutions
CCL
PnP
SPAR
ADDIS

Supporting Members

CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
AFRICAN CIRCULAR ECONOMY NETWORK
SST SUSTAINABLE SEAS TRUST AFRICAN marine waste NETWORK A programme of Sustainable Seas Trust
forestry, fisheries & the environment Department: Forestry, Fisheries and the Environment REPUBLIC OF SOUTH AFRICA
Plastics|SA
petco PET plastic recycling south africa
SAPRO South African Plastics Recycling Organisation
Institute of Waste Management of Southern Africa
Polyco Making waste work
LIBERTY two°degrees
SAN BWA
WWF
FRUIT South Africa
AFRICAN RECLAIMERS ORGANISATION Reclaiming The future
IUCN
CropLife SOUTH AFRICA SUID-AFRIKA
UNIVERSITY OF JOHANNESBURG

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The SA Plastics Pact team and membership have benefitted greatly from the expertise and guidance of the WRAP team, who are not only the Secretariat for both the UK and European Plastics Pacts but have been instrumental in developing Plastics Pacts in Kenya and India

SUMMARY OF PROGRESS

Brand owner and retailer members account for **29.0%**[1] of plastic packaging placed on the market in South Africa

Converter members· account for **27.6%**[1] of plastic packaging placed on the market in South Africa

[1]Excluding nett import of filled plastic packaging

Targets and Data

1 ELIMINATE

Taking action on problematic or unnecessary plastic packaging through elimination, redesign, innovation or alternative (re-use) delivery models.

108 MILLION ITEMS

Problematic or unnecessary items were sold by Pact members in 2020.

2 100%

100% of plastic to be reusable, recyclable or compostable.

80.7%

80.65% of plastic packaging placed on the market by Pact members is currently recyclable in South Africa.

3 70%

70% of plastic packaging effectively recycled or composted.

45.7%

The amount of plastic packaging collected for recycling in South Africa is 45.7% of the total packaging produced.

4 30%

30% average recycled content across all plastic packaging.

19.0%

Average recycled content across all member packaging is 7.63%.

Average recycled content across retailer/ secondary packaging is 37.0%.

INTRODUCTION

The targets to 2025

The South African Plastics Pact was launched in January 2020 with GreenCape as the secretariat. In the year since inception the members have been busy collaborating on virtual platforms to discuss and problem solve for many of the major challenges on the road towards a circular economy for plastics. Our action groups have been diligent in moving towards the targets and our expert webinars have increased knowledge and skills sets in our key focus areas.

What is in this report?

This document captures the activities and outputs from the first operational year of the South African Plastics Pact, sharing actions, achievements and learnings.

Further to this, all business and supporting members were requested to submit specific information in relation to the targets. Data reporting and measurement is a key aspect to drive change and track progress across business members, who sell products in plastic packaging (either as a product manufacturer or a retailer).

This report is a summary of the total packaging usage by these members for the 2020 reporting year and serves as a baseline against a measurable set of targets. The baseline will assist us in steering our progress over the coming years.

Perspective on Progress- are we on track towards our 2025 targets?

A good baseline to build on:

Target 2: 100% of plastic packaging to be reusable, recyclable or compostable

69.9% of consumer/primary plastic packaging placed on the market by Pact members is currently recyclable in South Africa

80.7% of plastic packaging placed on the market by Pact members is currently recyclable in South Africa - this includes consumer/ primary packaging and retailer/ secondary and tertiary packaging

Recyclability of SA Plastics Pact members' packaging portfolios - across consumer packaging (the packaging on goods), as well as retailer packaging (collation and logistics packaging)

80.7% of plastic packaging placed on the market by SA Plastic Pact members is recyclable in practice and at scale in South Africa. This percentage is very high, when compared to other Plastic Pacts in the network and other global initiatives. The high recyclability percentage can be attributed to the large quantity of PET in our members' packaging portfolio. In comparison to other polymer types, PET has the most developed collection and recycling mechanisms in the South African market.

A packaging type is termed 'adequately recycled' if the threshold output recycling rate of 30% is achieved on average across the country. Therefore, this means that more than 30% of a packaging stream (eg PET beverage bottles) placed on the market in South Africa, is recycled into new products.

To drive progress towards Target 2, the SA Plastics Pact members will focus on collaborative solutions for the packaging streams in member portfolios that are currently not recycled or recycled at less than the 30% output recycling rate nationally. Since the high recyclability is driven mainly by the dominance of PET in members' portfolios, making other packaging categories recyclable by 2025 will require huge effort & investment.

Reuse/Refill models replacing single-use plastic packaging

The SA Plastics Pact Reuse Innovation Challenge, funded by the MAVA Foundation, has resulted in three SA Plastics Pact retailer members forming partnerships with the winners i-Drop Water and Sonke Retail. These initiatives will reduce single-use water bottles as well as home care product packaging on the South African market. The impact of the refill stations in reducing plastic packaging placed on the market in South Africa will be tracked for future reporting.

Bolder ambition needed:

Target 1: Eliminate problematic or unnecessary single-use packaging through elimination, redesign, innovation or alternative (reuse) delivery models by 2025

108 million problematic or unnecessary items were sold by Pact members in 2020

48 million problematic or unnecessary items are on track to be phased out by the end of 2021

SA Plastics Pact members have agreed on a Phase 1 list of problematic and unnecessary items for phase out by the end of 2022, and 44% of the 108 million items reported will no longer be for sale by the end of 2021. Although this is good news, the scale of the leakage of plastic packaging and small plastic products into the environment, requires more investment and bold commitments to address our currently not recyclable (in practice and at scale) and often littered types of plastic packaging and products.

Target 4: 30% average recycled content across all plastic packaging

Average recycled content across consumer/primary packaging is 7.63%

Average recycled content across retailer/secondary packaging is 37.0%

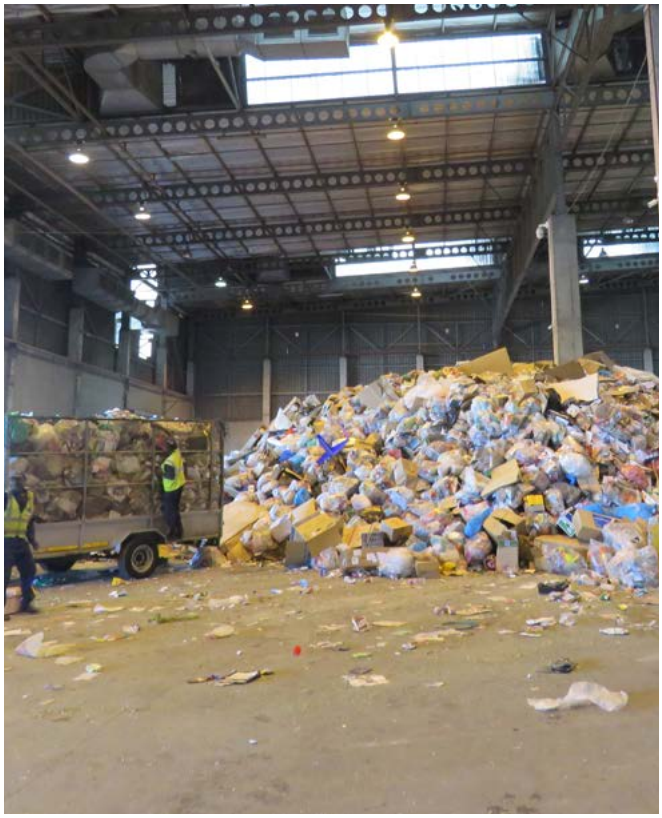
Significantly greater focus on increasing recycled content in packaging portfolios is needed, not only to achieve Target 4, but also to drive progress towards Target 3 (70% of plastic packaging recycled in South Africa). The recycling rate for plastic packaging has slightly decreased over the last few years, largely due to a lack of demand for recycled material into products.

Increasing recycled content in retailer (collation and logistics packaging) has not been a focus for many brand owners and retailers, but in general can be described as a quick win to increase the demand for recycled plastics.

Increasing recycled content into consumer (or primary) packaging is more challenging, although home and personal care packaging is a simpler process for inclusion than for food and some beverage (non-PET) packaging. Innovation is needed in the South African context to increase the recycled content of food and beverage packaging.

Improved accuracy and detail in reporting

The SA Plastics Pact collects plastic packaging data and insights from both business and supporting members annually, with 2020 being the first reporting year. Based on the quantitative data received only 18% of brand owners that submitted data reported a high confidence in their data. It is expected that the first year of reporting will be challenging. Rapid improvements in the accuracy and completeness of data from brand owners and retailers is expected in future reports, due to the reporting requirements of the National Extended Producer Responsibility Regulations.



Target 1

Taking action on problematic or unnecessary plastic packaging through elimination, redesign, innovation or alternative (re-use) delivery models

Under Target 1, SA Plastics Pact members have pledged to take action to eliminate problematic or unnecessary packaging items by 2025. Members are required to develop and adopt the best solutions to eliminate the identified problem plastics, through phasing out of the items deemed as unnecessary; substitution with a material that is well recycled in practice; innovation for reuse of the item; or redesign of the product to eliminate the need for packaging. When eliminating these items, the consequences of the change must be considered and mitigated against. Specifically, substituting another material should not create any additional negative environmental impacts nor should food waste be increased as a result of changes in packaging for the South African market.

Definitions

One of the first steps was to define what is meant by unnecessary or problematic single-use packaging.

Plastic was defined as unnecessary if:

- Items can be avoided (or replaced by a reuse model) while maintaining utility.
- They have limited social utility and can be phased out without significant behavioural or infrastructural change.

Plastic was defined as problematic if:

- It is not reusable, recyclable (technically and/or economically not recyclable) or compostable.
- It comprises, or its manufacturing requires, hazardous chemicals that pose a significant risk to human health or the environment.
- It hinders or disrupts the recyclability or compostability of other items.
- It has a high likelihood of being littered or ending up in the natural environment.

Identified Items to be Eliminated in Phase 1 List

Pact members worked together to identify 12 plastic items to be placed on the Phase 1 list of items for elimination by the end of 2022. A more detailed analysis can be viewed in the publication, 'Addressing problematic and unnecessary plastics'.

Twelve problematic or unnecessary items were included on the phase 1 list to be eliminated by the end of 2022.

1. Oxo-degradable plastics
2. PVC bottles, pallet wrap and labels
3. PET and PVC shrink sleeves on PET bottles
4. Plastic stickers on fruit and vegetables
5. Thin filmed barrier bags for fruit and vegetables
6. Thin (barrier) bags at tills
7. Plastic straws
8. Plastic stirrers
9. Single-use plastic picnic cutlery and plastic plates and bowls
10. Cotton buds with plastic stems
11. Plastic lollipop sticks
12. Plastic microbeads in cosmetics

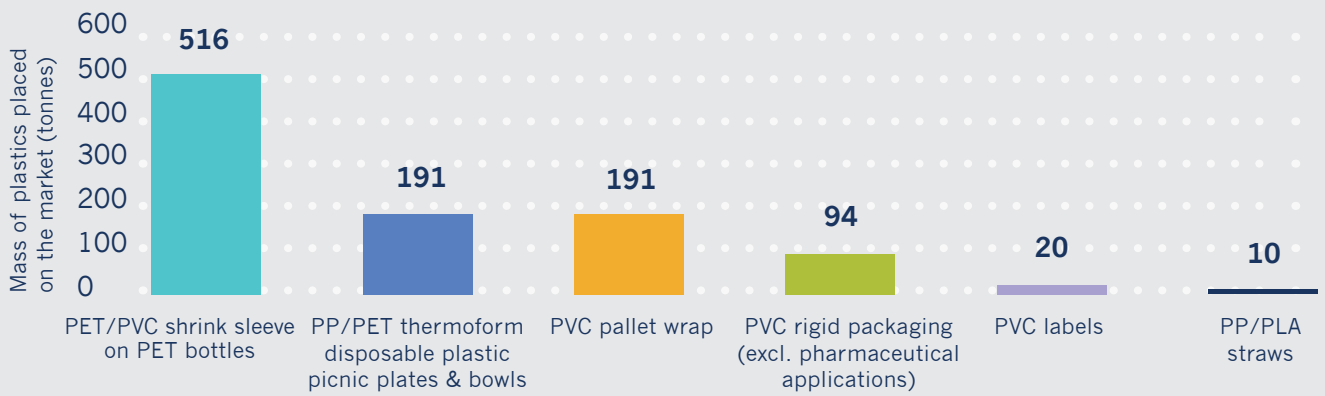
The plastic items in the list of twelve problematic or unnecessary items makes up **108 million individual units** sold in 2020 and will be eliminated by the end of 2022.

In total, the problematic or unnecessary items make up **1029 tonnes** of plastic packaging items placed on the market by Pact members. The main constituent of the total mass is **PET or PVC shrink sleeves on PET bottles**, which makes up **50.1%** of the total problematic or unnecessary items reported by mass.

Target 1: Taking action on problematic or unnecessary plastic packaging through elimination, redesign, innovation or alternative (re-use) delivery models

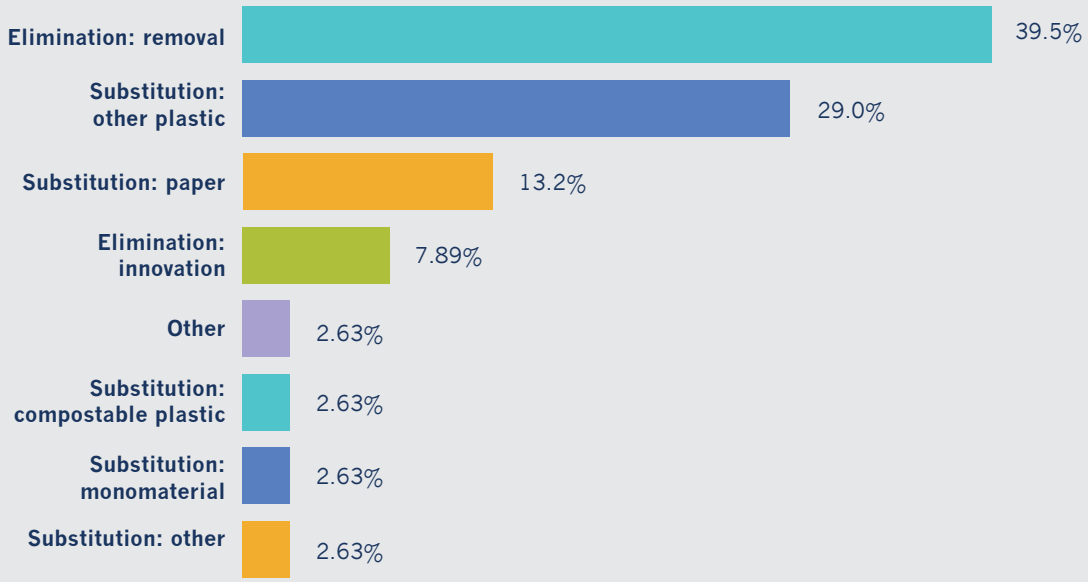
Of the twelve retailers, brand owners and food service organisations that contributed, there were 45 listings of problematic and unnecessary plastic packaging and product items recorded. From the 45 listings, only 15 items were specified by the number of units sold and 17 items by the tonnages placed on the South African market. The quantity, in tonnes, specified per format can be seen in the figure below.

1029 tonnes of problematic or unnecessary plastics placed on the SA market in 2020



Members reported methods of elimination, substitution and reduction activities which are displayed as a % of business members reporting specific examples of items on the phase 1 list.

Method of elimination for examples specified by members



Elimination by removal was the most widely stated method of elimination with common examples being the elimination of LDPE microbeads in cosmetics, oxo-degradable plastics with prodegradant additives, PP stickers on fruit and vegetables and PP/PS/PLA plastic stirrers. **Substitution with other plastics** was the most popular option for PET/PVC shrink sleeves on PET bottles and beverage bottles and PVC rigid packaging.

The Pact urges members to consider upstream innovation solutions, such as direct elimination of problematic or unnecessary packaging. However, when packaging is essential, members are advised to make wise material choices that follow a life cycle approach, while taking into account the recyclability of materials in a local context.

Discussions continue to be held to ensure a systems approach to elimination and substitution of material is pursued. As such, various comparisons have been made for shrink sleeves with both local recyclers and converters and international packaging experts to find a solution that minimises unintended consequences of substitution and elimination.

A retailers' discussion group was also convened, with the attendance of three major South African retailers, to discuss the most appropriate transition away from LLDPE barrier bags at tills. It was decided that a research-based approach would be adopted, noting that consumers' perspectives and communication to the consumer are vital elements to be investigated.

Next steps

We applaud members taking action on items identified in the phase 1 list, while acknowledging that with the magnitude of problematic and unnecessary plastic packaging placed on the market, it will not be possible to capture every type on these lists. The onus lies on Pact members to identify packaging in their portfolio that falls within the definition of problematic or unnecessary and work towards elimination or substitution. There are pioneering members that have taken initiative and identified plastic packaging that has a high leakage rate into the environment, cannot be recycled in a closed loop or hampers existing recycling activities, and are actively working towards elimination or substitution, such as work on multilaminate bags.

The Target 1 action group is working on the following projects for the next phase:

Phase 2 list of problematic and unnecessary plastics

More items and materials now being actively investigated for inclusion on a phase 2 list, including:

Packaging

PETG and PVC thermoform

Net bags fruit and veg – incompatible polymers

Plastic windows in cardboard boxes

Marketing mini packs/ Mini tubs – portion packs

PVC film

Polystyrene take-away packaging

Plastic coffee pods

Products

Balloons

Tea bags – plastic mesh

Cable ties

Plastic micro-beads in detergents

Plastic-containing wipes

Sprint groups have been convened to address the following:

- Guidance on problematic labels and adhesives, closures and components such as pumps, to illustrate best practice in the South African context for a circular economy for plastics
- The development of consumer messaging and innovations to eliminate barrier bags faster from stores

Target 1 Highlights of member actions

Elimination or substitution of problematic plastics

Woolworths made the decision to discontinue the use of disposable plastic cutlery, plastic straws and plastic-stemmed cotton earbuds that have a high leakage rate into the environment and are not recycled. Straws could not be entirely eliminated as there are situations where they are needed (i.e. someone with a disability) and therefore they were replaced with a more sustainable option. The removal and substitution of plastic-stemmed earbuds resulted in a reduction of 3.3 tonnes of plastic on the market every year.

Pick n Pay has been improving their packaging database and reporting processes, which helps teams to track performance against Pick n Pay's packaging targets and assists in identifying areas where packaging can be minimised, eliminated or reduced.

Some examples of Pick n Pay's achievements include the following:

- Phased out free plastic straws in favour of paper straws at checkouts, which resulted in a reduction of more than 8 million plastic straws per year.
- Launched revised bottled water and fresh juice packaging which is reducing plastic usage by 38 tonnes annually.
- Vegetable bags containing chopped up veggies have maintained a 30-micron thickness, which means that 12 tonnes of plastic packaging are saved every year.
- Reduced the weight of the plastic herb punnets by 28%, which resulted in a reduction of 20 tonnes of plastic per year.
- Reduced the weight of the Fresh 2l milk cap, which resulted in a reduction of 21.8 tonnes per year.

Pick n Pay cont.

- Pick n Pay feta tubs were reduced by 8g, which resulted in 5.4 tonnes less plastic per year.
- Reduced packaging used for muffins, which saves 1.6 tonnes per year.
- The packaging used for tart domes and bases has been reduced by 3.25 tonnes per year.
- In-store bakery bread bags reduced by 23.8 tonnes per year.
- Reduced swiss roll packaging by 4g, which results in a saving of 5 tonnes per year.
- The clamshell used for sausage rolls has been reduced by 4g, which saves 1.02 tonnes packaging per year.

And finally, reusable fresh produce netted bags have been particularly popular with customers with more than 200 000 sold over the past three years. These bags are designed to be reused continuously, but if customers reused theirs only 10 times it would lead to a reduction of more than 2 million plastic fruit and veg bags. This is part of Pick n Pay's work to shift customers towards a 'reuse' mindset and reduce the amount of fresh produce bags used at stores. Pick n Pay has made good progress towards their packaging targets, but there is still a lot of work to do to achieve the ambitious goals as set out by the South African Plastics Pact.

Elimination of materials than disrupt recycling

CLICKS

Although PVC packaging is technically recyclable, only factory scrap is recycled in practice due to its declining market size. There have been several reports on the environmental concerns of PVC and it has the potential to contaminate existing high-value recycling streams such as PET and HDPE due to its similarities in physical properties. **The Clicks Group** phased out PVC bottles and vacuum trays from their gifting range during 2019 through substitution with paperboard or PET. The biggest barrier faced during this transition was the difference in price between the various packaging formats. Furthermore, suppliers had to be pushed past initial resistance to change the packaging format.

Substitution of problematic materials to enhance recyclability

Woolworths are on a journey and have already replaced some polystyrene trays in their fruit and vegetable packaging with paper versions. This has resulted in a reduction of around 350 tonnes of polystyrene every year.

Fruit industry work to eliminate unnecessary plastic usage

The fruit industry has been progressive over the past 2 decades, working to eliminate unnecessary plastic use while extending the life of fresh produce. Fruit South Africa also joined the SA Plastics Pact in 2020 as a supporting member. Most recently, a plastics workgroup was established by Hortgro (the deciduous fruit growers' industry association and member of Fruit SA) to focus on reducing postharvest plastic use in the deciduous fruit industry. The following actions were taken:

- The plastics workgroup drew up an inventory of postharvest plastic use in the deciduous industry.
- Alternatives to some undesirable plastics were identified to phase out where possible.
- The inventory of plastics used postharvest and alternatives to undesirable plastics were communicated to packhouses and exporters as part of an awareness campaign.

The following research was initiated:

- Evaluating the use of edible coatings to replace/reduce the use of liner bags.
- A knowledge review of plastic use locally and in competing southern hemisphere countries, also focussing on alternatives being considered and market requirements.
- Evaluating the potential to use thinner liner bags or pallet shrouds to thereby decrease plastic use.

Thin barrier bags have been identified by SA Plastics Pact members for phasing out by the end of 2022.

The University of Johannesburg and Sustainable Seas Trust - recommendations for system change

The Norwegian University of Science and Technology (NTNU) runs an Action Ocean Plastic Waste programme, which includes an Interns for Sustainability project in partnership with Sustainable Seas Trust (SST) . A group headed by the University of Johannesburg, and including members from the North-West University and Sustainable Seas Trust, interviewed a group of SA Plastics Pact members to identify key internal systems and drivers to eliminate problematic and unnecessary plastics.

Some of the findings were:

- Embedding a framework for sustainable and circular packaging across the organisation, through
    - Integration of the packaging design process across packaging, sustainability and marketing sections of the business, for alignment of the goals in packaging design
    - Collecting reliable data to assess changes made, and identify areas to focus on
- Effectively engaging the consumer for co-inspiration of brand owner and consumers towards a circular economy for plastics was also identified as key.

Target 2

100% of plastic packaging to be reusable, recyclable or compostable

Recyclable packaging

For recycling rates and the amount of recycled content in plastic packaging to increase, packaging must first be designed in a way that allows for it to be feasibly collected, sorted and recycled. There have been positive moves by Pact members in the areas of packaging redesign for greater recyclability. However, there are still several formats that are placed on the market for which collection systems are not implemented or financially viable, including items made from different plastics that cannot be separated and in some cases items that disrupt existing recycling streams.

Recyclability in Practice:

Extensive discussions were held across the Plastics Pact membership to determine the recyclability in practice thresholds.

The following was agreed upon:

The range of recyclability in South Africa for Target 2

Note: recycling rates are calculated on the material leaving a recycling facility (output)

Formats classified as having an adequate recyclability are:

- PET beverage bottles
- HDPE bottles and other rigids (for example: jars, closures, crates and drums etc.)
- LDPE bottles
- >A4 mono-material LDPE and HDPE flexibles in a business-to-business context
- >A4 mono-material LDPE and HDPE flexibles in a business-to-consumer context

We acknowledge that the above assessment was carried out in 2020/21 and that the recycling industry is fast-paced and influenced by many factors. The formats in the adequate recyclability stated above are by no means stagnant and we expect changes in formats across the specified ranges as the years progress and technology and end-markets develop.

Definition of recyclable

- The Target 2 action group agreed upon the definition of recyclable packaging as: "A packaging or packaging component is recyclable if its successful post-consumer collection, sorting, and recycling is proven to work in practice and at scale. In order to prove recycling "in practice and at scale", a threshold of 30% output recycling rate must be achieved on average across the country.
- A package can be considered recyclable if its main packaging components (together representing >95% of the entire packaging weight) are recyclable according to the above definition, and if the remaining minor components are compatible with the recycling process and do not hinder the recyclability of the main components.
- Otherwise, only the recyclable components of a package can be counted towards achieving this commitment, and only when other components do not hinder or contaminate their recyclability." (Ellen MacArthur Foundation, 2020)

Taking the above definition of recyclability into account, the total proportion of recyclable plastic packaging placed on the South African market by Pact members was calculated as the total proportion of packaging placed on the market that has a recyclability in practice classified as 'adequate recyclability'.

Other considerations

Further to this, a red list was compiled that specified components that render the entire piece of packaging not recyclable in the South African collection, sorting and recycling system.

Members have the option to report their plastic packaging portfolio by polymer type and format, as well as their recyclability or give an overall indication of recyclability across formats and polymers due to the lack of detailed data available. 75 % of brand owner and retailer members were able to report on the polymer type and format of their packaging with a low or medium data confidence. It is expected the data confidence will increase as compliance with the mandatory extended producer responsibility (EPR) regulations in terms of data and reporting requirements improves.

Recyclable Packaging

80.7%* of all plastic packaging placed on the market by Pact members is recyclable

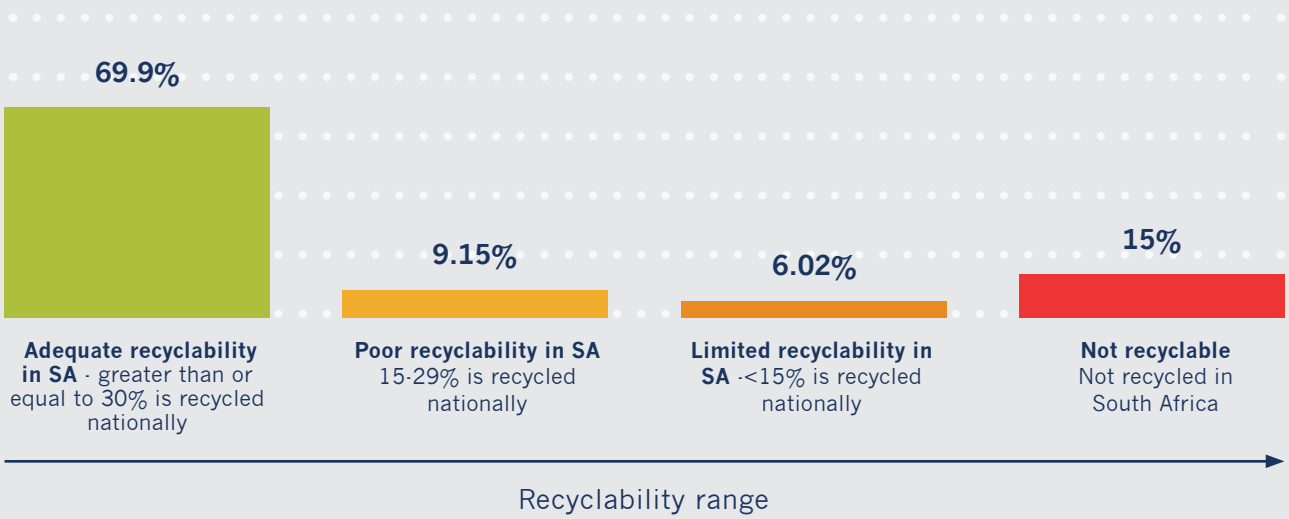
69.9%* of consumer/primary plastic packaging placed on the market by Pact members is recyclable

95.9%* of retailer/secondary and tertiary plastic packaging placed on the market by Pact members is recyclable

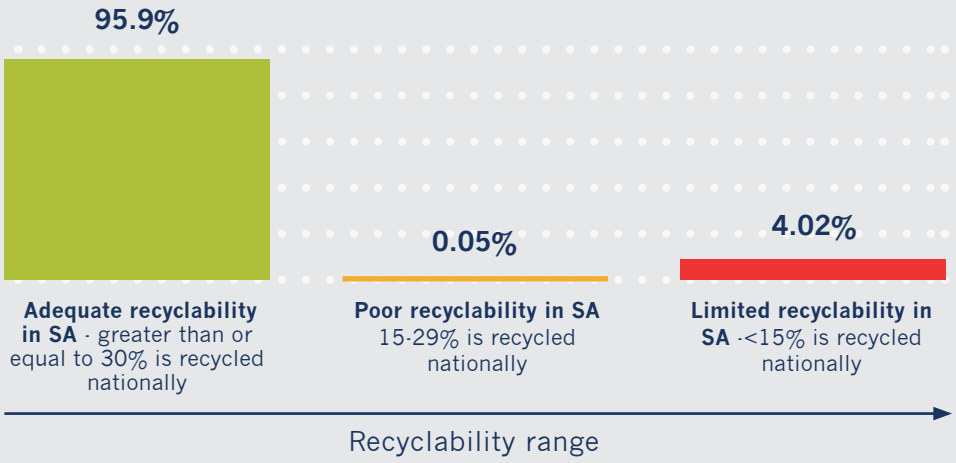
*Calculations based on the packaging data reported by format (not data from members who gave an overall indication of recyclability of their packaging)

Although the average recyclability across the packaging portfolio of SA Plastics Pact members is relatively high at ~81%, as the Pact membership grows this figure will likely decrease from this baseline, should bold member action be lacking.

Recyclability in practice for consumer/primary plastic packaging
(based on the packaging reported on by format)



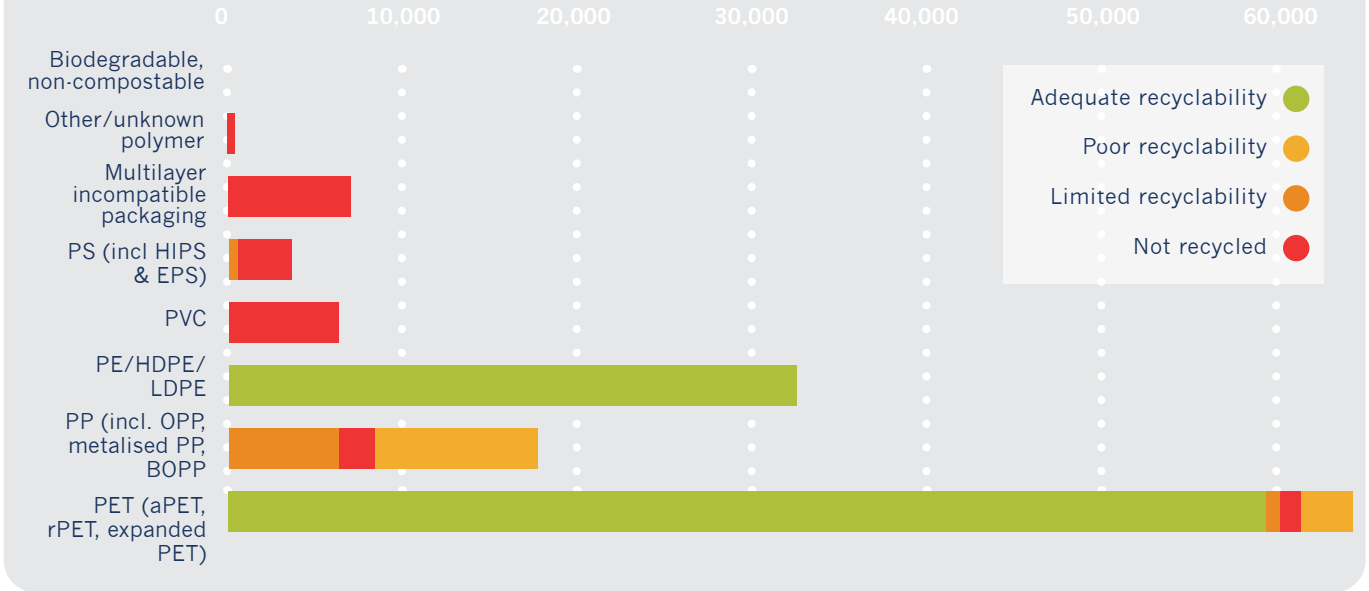
Recyclability in practice for retailer/secondary packaging
(based on the packaging reported on by format)



Adequate recyclability is defined as a polymer and format that has a greater than 30% effective recycling rate nationally (in South Africa). We see a far greater recyclability of retailer and secondary packaging such as crates and film as these items are often not contaminated and collected by on-site waste management companies for recycling. Important to note, is that retailer/secondary packaging is often designed to be reused or made from one polymer allowing for feasible recycling.

Alternatively, consumer or primary packaging is often designed with limited consideration given to the packaging at end of life, and is primarily designed with a fit-for-purpose and financial lens. Fit-for-purpose design includes packaging design to extend the shelf-life of food products, protect packaging contents with specific barrier properties required for the product, and be easily transportable. All of which are necessary. In the absence of a design approach for multiple lives, these requirements mean that packaging is often made from more than one polymer and component which decreases its ease of recyclability.
From the figure below, it is evident that the majority of recyclable consumer or primary plastic packaging placed on the market by Pact members is made from the polymer PET and is in a bottle format.

Consumer/primary packaging placed on the market by Pact members (tonnes)



	PET (including rPET)	PP (incl. OPP, metalised PP, BOPP)	PE/ HDPE/ LDPE	PVC	PS (incl. HIPS & EPS)	Multilayer incompatible packing (e.g. toothpaste tube, PET/PE trays)	Other/ unknown polymer	Bio-degradable composable polymers & ox-odegradables
Adequate recyclability	59,296		32,507					
Poor recyclability	2,917	9,107						
Limited recyclability	572	6,295		82	961			
Not recyclable	1,424	2,076	29	6,196	2,544	6,922	452	5

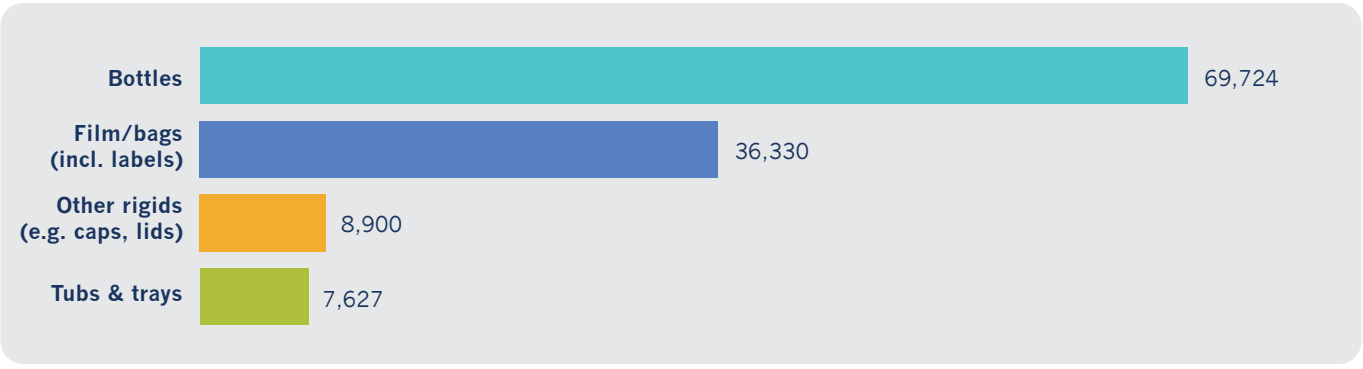
From the figure above, the polymer type is segmented by the quantity placed on the market by Pact members for consumer/primary packaging.

Highest quantities of the following can be seen:

- Adequate recyclability: PET with 59,296 tonnes
- Limited recyclability: PP with 6,295 tonnes
- Poor recyclability: PP with 9,107 tonnes
- Not recyclable: Multilayer incompatible packaging with 6,922 tonnes

Note that some polymers that may fall into the adequate, poor or limited recyclability range, are reported as non-recyclable due to certain components that render the whole pack unrecyclable, such as PVC/PET shrink sleeves on PET bottles.

The figure below segments the consumer/primary packaging placed on the market by Pact members by format (tonnes).



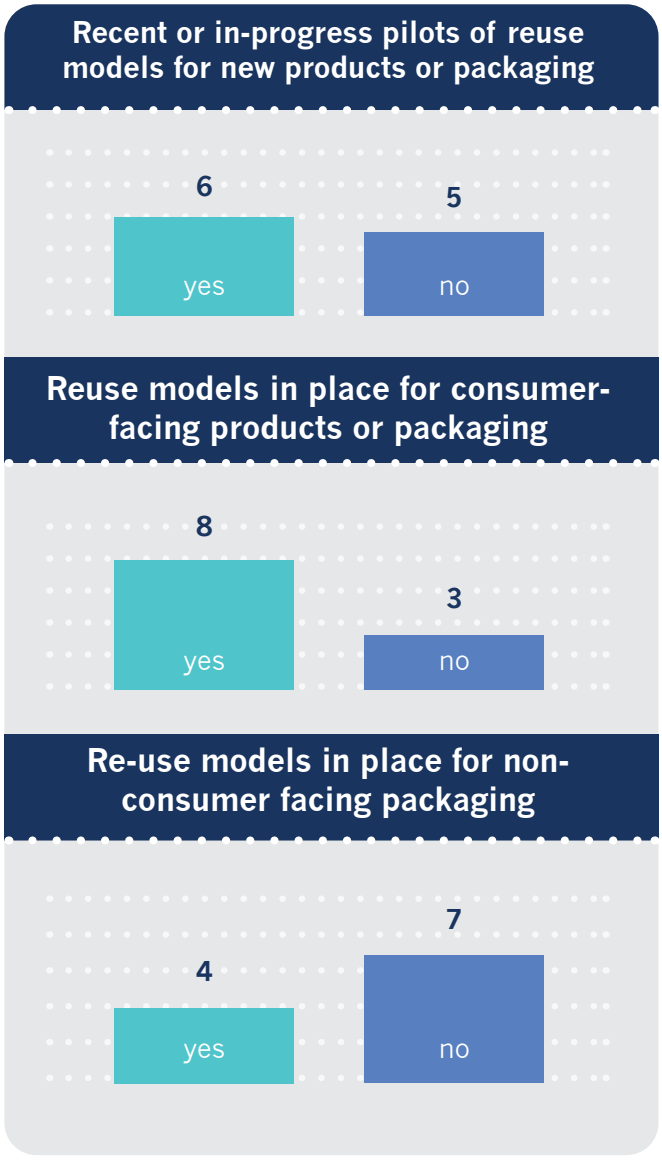
The figure above demonstrates that the packaging portfolio of Plastics Pact members is dominated by bottles, which are largely PET. In comparison to other polymer types, PET has the most developed collection and recycling mechanisms in the South African market.

The rise of reuse/refill models?

To derive more value from the products we use, reuse and refill models will play an important role in the transition to a circular economy for plastics. The figure below indicates how many packaged goods, retailers and food service providers have already, or plan to implement reuse systems in their consumer and non-consumer facing plastic packaging.

From the 11 responders, 5 indicated that they have recent or in-progress pilots of reuse models for new products or packaging to be placed on the market.

With time, it is expected that various consumer and non-consumer facing reuse models will become active across the Pact membership. Although many are in pilot phase, these opportunities must scale to include larger proportions of organisations' packaging portfolio to be effective in delivering a circular economy solution. Importantly, reuse and refill models must be designed with the consumer in mind and follow a systems approach considering the entire lifecycle of the product involved.



Actions and next steps

Workshops

One of the major barriers to achieving target 2 is technical capabilities and motivation within producers' packaging, marketing and procurement teams. To address this, the SA Plastics Pact arranged and hosted workshops and webinars to share specialist information and inspire members to design for recycling, reuse and other important considerations.

Experts in the relevant fields were sourced locally and abroad to share their experience and knowledge on the subject matter. Recordings were shared with members and beyond in order to increase the impact of the workshops and webinars and spur collaboration within organisations and between members.

Webinar on innovation in reuse/refill models and specific case studies

Reuse/refill models are an important component of a circular economy, maintaining packaging at a high material value for multiple uses, and reduction of single-use plastic packaging.

Design for recycling ensures multiple lives for plastics in our economy. In packaging design, not only should the recyclability in practice and at scale be considered, but also the impact of the additional components on the recyclability of the packaging such as the closures, labels and adhesives used. A collaborative approach to packaging design including brand owner, converter, and recycler is recommended.

- **The packaging design webinars held included:** design fundamentals, labels, sleeves, closures and othercomponents, and bottles
- **Design for recycling:** bags - sachets, trays, and buckets
- Making **wise packaging material choices -** recommendation of process, and best-practice guidance in the South African context

On-Pack Recycling Labels (OPRLs)

Improving communication about packaging recyclability (technically and in practice and at scale) between brands and consumers, was seen as an important step towards increasing the rates of recycling.

OPRLs are the means by which a brand owner can inform the consumer what to do with a packaging item once the contents are used up. This helps the consumer to improve their separation of recyclables from non-recyclable material. It also helps the consumer to make more informed purchasing decisions and is a tool by which the brand owner can demonstrate their commitment to increasing the recyclability of their packaging. For OPRLs to succeed in this function, there must be consistency in OPRL messaging across brands and products.

WWF South Africa handed over the further development of a governed, administered and standardised OPRL system. GreenCape thus inherited the first edition of an OPRL guideline document that was drafted by WWF South Africa, in partnership with Woolworths and the Sustainable Retailers Forum.

A Target 2 Action Group was established including Pact members and industry players that would not otherwise be involved in the Plastics Pact, for example the metal, fibre and compostable packaging stakeholders, as well as retailers and brand owners not in the Pact membership. The OPRL Action Group has produced:

- Memorandum of understanding (MOU) that requires users of the OPRL design guidelines to adhere to the rules of the guideline and not to deviate from honest labelling.
- OPRL Visual Guide, with editable "Adobe Illustrator" file for label designers within producers. This is a living document and is undergoing revision.
- One-on-one support for users with challenges in applying the OPRLs to their specific items.

Although of great importance for Target 3 - 70% of plastic packaging effectively recycled (as an input recycling rate), the OPRL action group has had a positive impact on design for recycling (Target 2), due to potential negative consumer pressure on brands who display the "Not Recycled" OPRL on their packaging.

Extended producer responsibility and design for recycling

The Extended Producer Responsibility regulations include recycling rate targets for all packaging on the market in South Africa. In order to achieve the recycling targets, producers (including converters, importers, brand owners and retailers for their own brands) must have a greater focus on design for recycling to ensure there is more packaging on the market that will be available for recycling at end-of-life.

Fashion and textiles action group

A group of retailers selling fashion and textiles highlighted the reuse in-store and recyclability of hangers as a low-hanging fruit to progress towards circular plastics in fashion. There is existing recycled content in hangers, and the potential to increase the recycled content in hangers in South Africa.

The group has started to address the rationalisation of hanger formats to improve recyclability. The next focus area for the group is likely to be e-commerce packaging.

Reusable or refillable packaging

The purpose of packaging is to protect its contents from the factory floor to the consumer. Circular business models promote the use of alternative delivery mechanisms such as reusable or refillable packaging as they are able to fulfill the purpose of the packaging while, in most instances, reducing the carbon footprint across the packaging's life cycle. In order to achieve target 2, there must be an increased uptake of reusable and refillable packaging, particularly for products that require barrier properties from packaging that are difficult to recycle in closed loops.

The South African Plastics Pact in partnership with the MAVA Foundation held a contest for innovative reusable packaging solutions. The entries had to propose a reusable packaging solution that could be viably implemented by brand owners and retailers in South Africa. The solution had to be geared towards reducing the amount of single-use packaging in South Africa, ideally addressing currently non-recyclable plastics, or plastics that are often littered.

Over 40 entries were received, with the Top 6 selected to present their solutions at a pitching event where the judges and audience were made up of brand owners and retailers from the Pact. The prize money of R500 000 was shared among the three winners, with the potential for product development or implementation assistance through partner companies from the SA Plastics Pact membership.

The overall winner of the challenge was I-Drop's Waterpod. I-Drop 'Waterpods' are self-service, purified drinking water refill dispensers designed for grocery stores. A dispenser is connected to the store's main water supply and has in-built filter technology allowing users to buy purified water in any size reusable bottles/containers. Enablement by an 'Internet-of-things' technology platform improves market reach, reduces operating expenses, and improves system reliability by allowing remote oversight of all installed Waterpod systems in real-time.

The first runner up in the challenge was Sonke Retail, a company that gives consumers, retailers and brands an economic incentive to make environmentally sustainable choices. Sonke designs, manufactures and manages automated refill stations that encourage shoppers to bring their own packaging – for a discount. Sonke refill machines are fully automated, "smart", compact and can dispense up to three liquids.

13 introductions were made between SA Plastics Pact brand owners and retailers, and the reuse solutions.

So far there is one business synergy where a retailer has installed a new reuse solution at three of their stores.

Next steps

- The OPRL team is working towards a governed, accountable OPRL system to assist brand owners and retailers in complying with the environmental labelling requirement of the Extended Producer Responsibility Regulations
- Action groups will be established to consider possible interventions to boost the recycling rate of plastic packaging that is currently less than 30% output recycling rate
- Further work on reuse models, including a benchmark LCA on a reuse/refill model in South Africa.

Highlights of member actions

Material changes to enhance recyclability

In mid-2019 **Danone South Africa** changed the NutriDay packaging by moving their one-kilogram tubs from polystyrene (PS) to polypropylene (PP) and replacing the polyvinyl chloride (PVC) shrink sleeve labels to "in-mould" PP labels, to make the preformed cups 100% recyclable. One-kilogram Nutriday tubs were originally made from polystyrene (PS), which have a low recycling rate in South Africa, and PVC shrink sleeves which render the packaging not recyclable and have the potential to hinder other recycling streams. Through a change in design, Danone South Africa were able to unlock 900 tonnes of packaging for recycling.

Removing elements from packaging that hinder the recycling process

PET plastic bottles with adhesive labels have previously disrupted South African recycling processes, due to the glue from the labelling that resulted in discolouration of the recyclate. This has meant that discoloured recycled PET (rPET) from those bottles could not be repurposed into high-quality, clear plastic beverage bottles, and were recycled into other products.
PET bottle recycler, **Extrupet** trialled a new wash-off label adhesive supplied by a self-adhesive label manufacturer, a SA Plastics Pact member. UPM Raflatac with guidance from **PETCO** – South Africa's PET plastic producer responsibility organisation (PRO) which supports the collection and recycling of PET plastic bottles. These trials proved that the label adhesive was easily removed from the PET flakes during the recycling process, which enabled the production of high quality PET recyclate.

Design for recycling - setting up for system change

PETCO has developed Design for Recycling Guidelines. The guidelines focus on the design of PET plastic packaging to facilitate recycling. The recycling of packaging does not begin with its collection, but rather with its design. Therefore, to maximise the recycling of plastic packaging, it is essential that retailers, brand owners, packaging manufacturers and designers embed recyclability principles into their pack design processes so that, at the end of its life, the packaging material can be successfully recycled and used again in new products and packaging.

PETCO has been running individual design for recycling workshops with specific members using these guidelines to highlight how they apply to their packaging as well as general workshops to share the information and principles in the guidelines.

PETCO also proactively approaches and engages with brand owners, manufacturers and retailers who have products in PET packaging which is difficult to recycle. This process educates them about the challenges that their packaging presents for the PET recycling industry and provides them with alternative design options.

Further to this, PETCO have also developed a design for recycling "self-assessment" tool. This tool is called "The PETCO Bottle Grading System (BGS)", which integrates evaluation criteria and is available for our members to use as and when requested. The aim is to provide brand owners, converters and packaging consultants in the PET bottle recycling industry with a straightforward, easy-to-use guide to classify post-consumer PET bottles.

This work has resulted in action from their members, including the South African Plastic Pact member, Coca-Cola Beverages South Africa (CCBSA):

Coca-Cola Beverages South Africa (CCBSA) entered the reuse segment of the PET market with the roll out of their two-litre refillable PET bottles. Once this bottle is returned to CCBSA, it goes on a looped journey to be cleaned as per Coca-Cola's stringent requirements, and is then refilled to start its next lifecycle. When the bottle reaches the end of its useful life cycle, it joins the recycling value chain and is repurposed

into another PET bottle. This bottle has been designed to be sturdy in order to withstand an average of 14 reuse cycles. A reverse logistics model is utilized to collect the bottle and customers are incentivised to return the bottle by a deposit scheme.

Polyoak, a leading packaging converter, is currently finalising its 'Polypet Design for Recycling Guidelines' developed in accordance with the PET Recycling Company NPC (PETCO). The same is in development for each of Polyoak's other specialist divisions, in consultation with the recycling community. This will be used to train its design specialists and salespeople on current design for recycling principles, and assist brand owners to make better-informed decisions when re-designing or initiating new packaging. Furthermore, a tick box will be added to its packaging development brief to ensure that design for recycling guidelines have been consulted before approval and production.

System change informed by accurate data

Since joining the South African Plastics Pact, **Pick n Pay** has been working to improve the recyclability of their packaging, and eliminating, removing and reducing unnecessary packaging where possible. These reductions have contributed to Pick n Pay's ongoing efforts to work towards a circular economy.

One of the key focus areas for Pick n Pay has been improving the quality and the accuracy of their packaging data. Without adequate information it is very difficult to make informed packaging choices. To this end, Pick n Pay has been improving their packaging database and reporting processes, which helps teams to track performance against Pick n Pay packaging targets and assists Pick n Pay in identifying areas to improve the recyclability of packaging placed on the market.
Furthermore, Pick n Pay has been collaborating with Designed for Earth in applying their innovative packaging tool. The tool allows Pick n Pay's packaging designers and product developers to verify the recyclability of packaging, which ensures that the correct On Pack Recycling Label (OPRL) is applied on the packaging whilst also assisting teams to make better packaging choices.

Seeding internal innovation for circularity

The vision of **Woolworths** in their 2030 · World of Wellbeing is summed up in the following "Packaging is part of the product itself, we place the same level of focus and attention to detail as we do for our products on packaging, it can no longer be considered in isolation, now more than ever our consumers are selecting products where packaging plays an increasing role as the deciding factor to purchase or not.
Packaging will play an even greater role in raising product value and appeal into the future".

The packaging design process as part of Woolworths' Good Business Journey, starts with environmental considerations, such as recyclability and inclusion of recycled content, moves to fit-for-purpose design for the product, followed by assessment for legal and logistics requirements, marketing appeal and commercial considerations, finally circling back to re-consider the environment · have we upheld our commitment to reducing environmental impact as much as possible?

All design teams must have satisfied at least one of the environmental criteria (including recyclability and inclusion of recycled content) in both the packaging and the product. Teams compete for the recognition and awards which form part of the Woolworths values · we celebrate an organisational structure that stimulates innovation!

Nurdles are virgin feedstock for all plastics.

Embedding Design for Circularity in Organisational Culture

SPAR aims to collaborate across the SPAR distribution centres, retailers - including independent SPAR retailers, brand managers and buyers to build circular thinking and packaging design into their business as a whole.

As part of this embedding of circularity in their business, SPAR has designed their own sustainable packaging guidelines, inspired by the robust conversations in SA Plastics Pact action groups, to clearly inform and inspire all those involved in packaging design and selection in their business.

SPAR standards assessing packaging

"When designing our packaging with a Circular Economy in mind (reduce, reuse, recycle) we adhere to this set of standards:

- Clear communication on the labels regarding recycling and the materials used
- Choosing mono-materials over composite if applicable
- The contents must be easily extracted
- Separation must be simple to allow for recycling
- Minimising the number of materials used in any given pack
- Using pre and post-consumer recycled content as much as possible (cardboard and plastic)"

Target 3

70% of plastic packaging effectively recycled or composted by 2025

Designing all packaging to be reusable, recyclable, or compostable (the focus of the previous section) is a necessary first step, but a circular economy is only possible if packaging is ultimately reused, recycled, or composted in practice. This requires the necessary systems to be in place to collect, sort, and process packaging once used. This section focuses on members' efforts and commitments to put these systems in place.

The target of a 70% recycling rate (as an input recycling rate) for all plastic packaging put on the market in South Africa means that the SA Plastic Pact commits to engage and collaborate with key players beyond our membership on a continuous basis.

503 600 tonnes of plastic waste was collected for recycling in 2019, of which **362 800 tonnes** were packaging. This gives South Africa an input recycling rate of **45.7%**

*Plastics SA Annual Report 2019/20

How will the recycling rate improve?

A circular economy for plastics is far more viable with the establishment of a mandatory extended producer responsibility (EPR) system, as highlighted in the Ellen MacArthur Foundation's position paper on Extended Producer Responsibility. Mandatory EPR fees will make additional funding available for packaging that cannot be eliminated or reused to be collected, sorted and recycled or composted after use. Historically, the collection and processing of used packaging costs outweigh the revenues made from selling the recycled materials. A central activity performed over the past year has been to support our members in understanding and engaging with the new EPR system, as well as submitting comments and recommendations to the Department of Forestry, Fisheries and the Environment (DFFE).

1 841 700 tonnes of polymer were converted to plastic products in 2019, of which plastic packaging made up 49% of South Africa's total plastics market. This results in a total of 902 433 tonnes of plastic packaging placed on the South African market, of which 362 800 tonnes are collected for recycling. Overall, 40.20% of plastic packaging placed on the market is recycled. For an input recycling rate of 70% to be attained based on the figures reported above, an additional 268 903 tonnes of plastic packaging must be unlocked and collected for recycling.

*Plastics SA Annual Report 2019/20

Barriers to growing our recycling rate

The SA Plastics Pact contributed to the WWF South Africa and SAPRO publication 'Plastics: From recycling to (post-consumer recyclate)' that gives an in-depth view on the barriers that exist to increasing the plastics recycling rate in South Africa and the development of end-markets for post-consumer recyclate.

The report highlighted brand owners and retailers with their own brands, as the key part of the value chain to change packaging portfolios to recyclable and reusable packaging, as well as to specify recycled content.

Separation at source is a key activity to enable clean recycling and produce high quality recyclate. 70% of recyclable plastics were obtained from landfill and other post-consumer sources in 2019 (PlasticsSA).

Integration of the informal sector - the responsibility of producers and PROs

The plastic recycling sector in South Africa is largely dependent upon informal waste reclaimers and buy-back centres for the collection and sorting of packaging materials. During 2020 this sector was heavily impacted by the COVID-19 lockdown regulations, which disrupted the collection of materials by reclaimers, and the volatile oil price lowering the price of virgin plastic material. The breakdown in the collection system highlighted the importance of integration of the informal sector, to protect livelihoods and the sustained flow of material to the recycling sector.

In partnership with the MAVA Foundation, the SA Plastics Pact is working with the informal sector, and our expert contractor, Eli Kodisang, organiser of the African Reclaimers Organisation, has developed training material on health and safety during COVID-19 and information on vaccinations. Several facilitators have been trained through the programme, who will now pass on the information to reclaimers in their areas. Facilitators applied their training during the course, to train 2 groups of 50 reclaimers in Orange Farm and Kroonstad. Initial vaccine hesitancy was addressed, with most of the facilitators and reclaimers trained registering for vaccination.

Next steps

- From October 2021, the project will focus on facilitator training for organisation. One of the main barriers to integration of the informal sector is the lack of organisation in many areas, which prevents co-design of integration projects with industry and municipalities, and will limit the payment of service fees to the informal sector as required by the EPR regulations.
- The SA Plastics Pact team is synergising with a UNIDO project, part of which is training for municipal officials on integration, led by Prof. Melanie Samson.
- The SA Plastics Pact is also represented on the Technical Advisory Group of the developing National Reclaimer Registration platform led by the CSIR. The registration platform is key for the payment of service fees.

Plastics Pact members active in informal sector integration have formed a community of practice focussed on facilitating informal sector-industry engagement for integration.

Consumer communication

Consumers are an important part of the journey to circularity, therefore the Pact has sought to include the public in our work. Accurate and clear

messaging is needed to both inform and inspire consumers towards a circular economy for plastics.

The SA Plastics Pact continues to roll out consumer communications using a white-label campaign made available to members for adaptation to their brand colours and tone. The white label consumer communication campaign will remain open to any brand that aligns with our consumer messaging. The consumer communication strategy is to release content aimed at informing and empowering consumers with regards to the circular economy for plastics, and has been designed for social media platforms such as LinkedIn, Instagram and Twitter.

Highlights of member actions

Support for Informal Waste Reclaimers

Distell, in partnership with informal collectors and the City of Cape Town, a SA Plastics Pact supporting member, launched an informal recycling project, GreenUp, in Khayelitsha and Philippi around post-consumer waste. GreenUp aims to create employment, prosperity, sustainability, dignity, and cleaner environments in the informal sector, and feed into a circular economy for recycling.

Incorporation of Technology for Informal Waste Sector Support

Distell partnered with Kudoti to develop a mobile application that can track the flow of materials, as well as the prices paid to informal collectors (ensuring accountability and consistency), connecting key role players in the local area. The app allows trading of material on the application, which assists informal collectors in getting better prices for their materials. The trial was successfully conducted with 144 collectors and 6 buy-back centres in the Khayelitsha and Philippi areas. All informal collectors are trained in financial and waste management, and equipped with the necessary PPE.

(image copyright PETCO)

Improved Access to Recyclable Material and Quality of Recyclate

Polyco, a producer responsibility organisation (PRO) in South Africa, has provided R3 million in grants and loans to 13 recyclables collection businesses to increase their capacity. In an effort to develop end-markets for this material, a high quality recyclate is required, resulting in an additional R9 million in grants and loans provided to 6 recycling businesses to expand their capacity.

In 2020 alone, **PETCO** spent R59.2 million to support contracted industry recycling projects and R278 million was paid by recyclers for baled bottles delivered to plants. PETCO is further supporting their recycler partners with investment in infrastructure to grow recycling capacity and to ensure sustained collection volumes. Contracts for the next five years have been negotiated, linking the bottle price to the recycling support they provide, with the allocation of more funds to informal and formal collectors.

In terms of innovations and increasing recycling capacity - **some of the key achievements have been:**

- **Da Run Fa** completed the expansion of their washing capacity at their fibre processing plant and are diversifying end-use markets. Da Run Fa successfully completed trials for manufacturing tiles made of PET bottles, which is a new end-use product, set for commercial production in 2021.
- **Extrupet** has completed the expansion of their Bottle-to-Bottle operation, which has increased the current production capacity from 20 000 to over 30 000 tonnes of rPET per annum.
- **Sen Li Da Chemical Fibre** completed the expansion of their fibre production plant in Newcastle.

Education and Clean-up Initiatives

A supporting member, **Sustainable Seas Trust (SST)** held various initiatives in the Nelson Mandela Bay area and into the rest of Africa with the vision of protecting Africa's marine resources through (1) facilitating the increased involvement of and collaboration between stakeholders from various sectors, and (2) enabling the uptake of best practice methods for confronting the plastics challenges in Africa so that no plastics enter the environment and cannot therefore flow to the seas.

To mobilise the resources necessary to achieve this, SST's projects focus on research, education and capacity building, economic enterprises, and communications and networking.

Specific project examples include:

The 'Munch-On-The-Move' Schools Programme

Munch is a wire-frame fish that is divided into different sections, each of which is for a specific item that can be recycled. It is a fun, interactive, teaching tool used to develop sustained behaviour change in school children with respect to the separation of recyclable items, and recycling in general. Munch can either move into a school for good or spend a month in a school, and there are several associated learning programs that are curriculum-aligned, including teacher training, to support his tenure at the school. SST owns several Munches, therefore all interested schools have an opportunity to actively participate.

Operation Clean Spot

Operation Clean Spot (OCS) is an exciting new citizen-science project being piloted by SST in the Nelson Mandela Bay area to rid the beautiful bay of a significant proportion of the land-based mismanaged waste which currently plagues the city. OCS focuses on encouraging stakeholders to partner with SST to clean up heavily polluted hotspots, specifically targeting plastic pollution. SST encourages stakeholders to take ownership of their "spot" by joining hands with OCS. By working together through OCS, SST believes Nelson Mandela Bay will be transformed into a clean city, thereby providing proof of concept for the programme by being the first African city to achieve Zero Plastics to the Seas of Africa.

SAFRIPOL

SAFRIPOL has partnered with Green Corridors NPC, as well as Tri-ecotours to install floating litter booms on the uMngeni and Ohlange Rivers that capture floating litter - thereby cleaning up the local environment and preventing the litter from entering the sea. From July 2020 to June 2021, 2.3 tonnes of PET was recovered from the rivers, and 1.2 tonnes were recycled into new products.

The initiative also supports local enterprise, as the litter booms are managed by the local community.

The African Reclaimers' Organisation (ARO)

ARO has a training programme with schools, running 30 minute interactive lessons explaining the work of reclaimers, and what is recyclable. The children then separate materials, and reclaimers collect from the schools.

Engagements with residents, churches and community groups have also kick started suburb recycling programmes, forming relationships between residents and reclaimers for effective sorting and flow of materials into our recycling economy.

An additional exciting partnership is the invitation from the University of Johannesburg to share with the management on the work of reclaimers, and to co-design an integration project.

AFRICAN RECLAIMERS ORGANISATION
Reclaiming The future

Target 4

30% average recycled content across all plastic packaging

Target 4 is an average target across all business members, given that most food and beverage primary packaging (apart from PET beverage bottles and thermoform) cannot currently include post-consumer recycled content.

In South Africa there is generally limited demand for recycled content in new packaging, with recycled content mostly concentrated in plastic bags, HDPE crates and PET bottles. However, there is potential to rapidly increase the inclusion of recycled content in these and other packaging formats. By increasing demand, the value of plastic packaging at the end of its first life will also increase, stimulating higher collection rates and an increased recycling rate in the country.

Demand for recycled content into packaging is needed to achieve the collection and recycling rate targets legislated in our EPR regulations.

As in Target 2, members have the option to report their usage of recycled content by polymer type, format and recyclability, or give an overall figure of total recycled content across formats and polymers.

Recycled content inclusion by packaging format is not compared to packaging portfolio information submitted by format due to the following reasons:

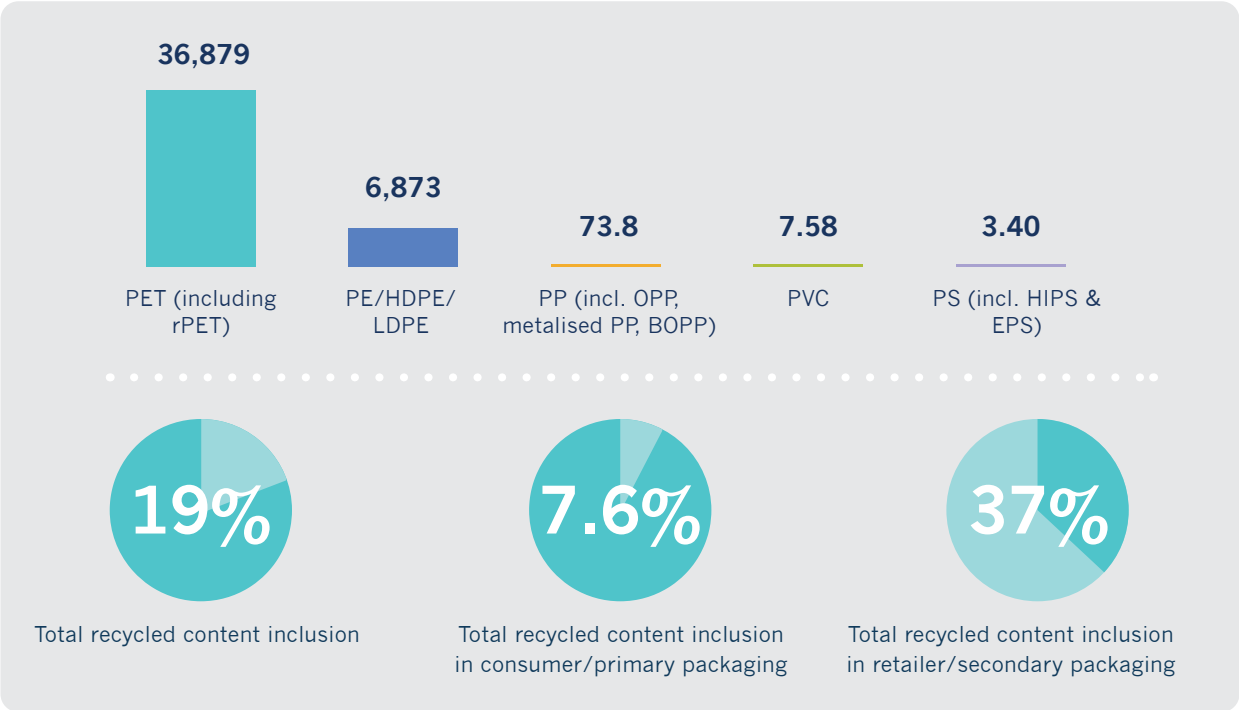
1 Members that submitted their packaging portfolio by packaging format were not necessarily the same members that submitted their recycled content inclusion by format.

2 Some members were only able to submit part of their tonnages by format but have included the total usage under their total reported figures.

For this reason, recycled content inclusion was calculated based on the total packaging data submitted by members.

It is evident that recycled content inclusion is much higher in retailer/secondary packaging than in the consumer/primary packaging. It has been widely noted across members that recycled content in crates make up the majority of the recycled content inclusion. The ability to include food grade recycled PET into consumer/primary packaging and the systems in place for collection are influential factors in PET being the most widely included polymer. The recycled content inclusion segmented by polymer type across consumer and retailer packaging can be seen below.

The figure below shows the break down of the recycled content inclusion by polymer type for both consumer/primary and retailer/secondary plastic packaging placed on the market by Pact members:



The SA Plastics Pact members saved 43,800 tonnes of virgin plastics in 2020: based on 2020 figures, an additonal 25,400 tonnes was required to attain the Pact target of 30% post-consumer recycled content in plastic packaging.

Actions and next steps

Collaborative action groups to address challenges and create joint value

- Through the Pact membership network, we have brought together businesses from across the value chain to address some of the key challenges related to recycled content.This action group consists of brand owners, virgin plastic producers, plastics converters, Producer Responsibility Organisations, plastic recyclers, government, and industry experts.
- The action group worked to evaluate the current usage of recycled content in plastic packaging and identify quick-wins to bolster recycled content inclusion. The group is currently engaged in initiatives to drive brand owner leadership and action, and engaging with global funders to address local barriers, such as technology availability, brand owner perception of recycled content or the lack of large-scale demonstration of feasibility in South Africa.

PLASTICS: ENABLING THE DEMAND AND SUPPLY FOR RECYCLATE

WHY DO WE NEED TO DRIVE UP THE RECYCLING RATES AND PUSH FOR THE INCREASED USE OF RECYCLATE?

The need is evident: we urgently need to reduce the amount of plastic waste which goes to landfills and often ends up polluting our natural environment. Yet, the solutions are complex. Instead of using virgin plastic raw material, we could include post-consumer recycled content – or recyclate – in plastic products to drive up recycling rates.

13% POST-CONSUMER RECYCLED CONTENT IN PLASTIC PACKAGING IN SOUTH AFRICA

But there are many inherent barriers, some which overlap between stakeholders in the plastics value chain and some unique to sectors. Plus, various technological and waste management barriers are causing delays to bring about a system-wide shift to a circular plastic packaging economy.

How can we increase the inclusion of recycled content?

5 quick wins to increase recycled content- closing the loop on our packaging

1. Increase incorporation of rPET in PET bottles
2. Increase recycled content in clear LDPE (mattress and furniture shrouds)
3. Increase rPP in PP crates
4. Increase recycled content in monolayer LLDPE pallet wrap
5. Increase use of rHDPE in Home and Personal Care (HPC) bottles

The action group developed a Recycled Content Strategy on how the 30% target could be met in South Africa. This was done by outlining the target percentage of recycled content inclusion by polymer and format type and linking with the strategy of the relevant producer responsibility organisation.

The SA Plastics Pact fed into a project delivered by WWF South Africa and SAPRO[2] which considered the barriers to recycling of plastics and the inclusion of recycled content into plastic packaging in South Africa. To drive the inclusion of recycled content, and thereby the recycling rate, brand owner action was highlighted in the specifying of post-consumer recycled content where possible, and to communicate to consumers the necessity of including recycled content.

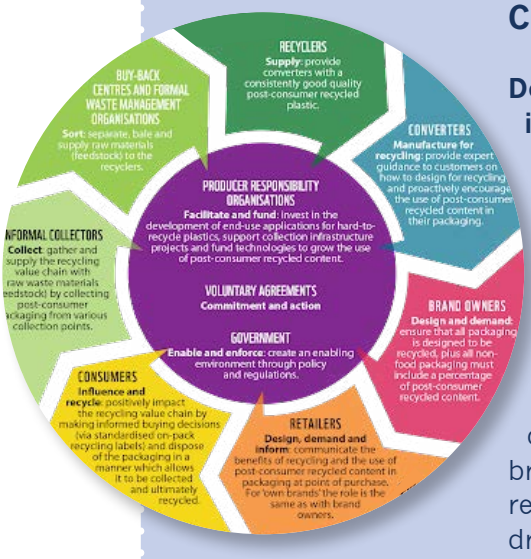
[2]The South African Plastics Recyclers' Organisation

Next steps

The Target 4 action group is running 2 sprint groups focussed on assisting our members to implement the quick wins identified in the first phase of the action group's work.
The sprint groups are:

- Breaking down the barriers to the inclusion of post-consumer recycled content in monolayer pallet wrap
- Fast-tracking the inclusion of rHDPE in home and personal care packaging

Target 4 Highlights of member actions



Changing the landscape for circularity

Department of Forestry, Fisheries and the Environment implements mandatory extended producer responsibility (EPR) system in South Africa

Extended producer responsibility legislation generally focuses on the post-consumer stage of a product's life cycle, requiring producers to take responsibility for the products they place on the market. The South African EPR regulations has "to encourage and enable the implementation of the circular economy initiatives" as one of the core objectives of the regulations. This is ground-breaking in the South African context, as it opens the way for recycled content and reuse targets, both of which are key to drive circularity for plastics in South Africa.

Design for high-quality recyclate

Caps on milk bottles and, even the bottles themselves, are traditionally viewed by marketers as a means to differentiate the product type. However, these coloured bottles and components mean that the recycled material has a lower value. We cannot take colour out of the plastic. Therefore, coloured recycled plastic has a lower value and can only be included in dark coloured packaging or products in its next life. SPAR has made the bold move to change their caps to white, preserving the quality of the plastic to give it the best chance of being recycled into a high-value product.

Clear is the new green

Sprite was iconic in the green bottle, right? But green PET beverage bottles cannot be recycled back into bottles, and as a result have a lower value. This results in lower collection rates

.

The new clear bottle results in high value PET flake at the end of life, and the clear flake can be recycled back into a beverage bottle.

Well done Coca-Cola Africa and Coca-Cola Beverages South Africa! This design principle of keeping PET packaging as clear and natural will maximise its value and help us achieve our Target 4.

Increasing recycled content– driving recycling in South Africa

Organics 1 Litre shampoo and conditioner bottles are now made with 96% recycled high density polyethylene plastic (rHDPE). The bottles had previously included 25% rHDPE, but in keeping with Unilever's commitment to reduce its dependence on virgin plastics further research was done, resulting in the new, higher rHDPE content bottles. The rHDPE is obtained through a mechanical recycling process of grinding, washing, separating, drying, re-granulating, and compounding which produces high-quality rHDPE suitable for use in personal care packaging. The rHDPE used in the organics bottles is sourced from within South Africa and many tests are done on the material and bottle to ensure that it performs just as well as the bottles made from virgin HDPE. The increase in rHDPE content means that the use of virgin fossil fuel derived plastic is reduced overall by more than 150 tonnes each year.

Understanding technical challenges

Coca-Cola launched a water bottle made entirely from recycled plastic (100% rPET) for the Bonaqua brand, which is implemented by Coca-Cola Beverages South Africa (CCBSA). This forms part of Coca-Cola's global goal to create a World Without Waste by collecting and recycling 100% of all cans and bottles produced by 2030. The recycled PET (rPET) resin used in the bottle is supplied by Extrupet, who are able to produce a resin that meets food safety standards and compares favourably with the quality of virgin PET material.

While there is a long way to go in terms of achieving Coca-Cola's net recycling & recycled content goals, the purpose of taking a single brand like **Bon Aqua** to 100% recycled content is to prove that it can be done, and to understand the technical challenges that need to be overcome, so that Coca-Cola can push the boundaries with their other brands.


TOYOTA
Smoothies
QTY 65 PCS
G.W. 15 KGS
N.W. 14 KGS
MEAS.50X40X40CM

Where to from here? The Road to 2025

We thank our SA Plastics Pact members for their commitment to ambitious 2025 targets in very challenging times. Thank you for the robust and frequent discussions in our action groups and member webinars.

We have cause to celebrate progress and highlight members who have done outstanding work.
This first baseline report also gives us more clarity for the road ahead. We remain committed to our 2025 targets, and now we know the distance still to be travelled to achieve those targets.
We now have fresh inspiration for the journey, and a reminder that a system change is needed from a linear 'take-make-waste' economy to a circular economy that is people inclusive, eliminates problematic and unnecessary plastics, and is innovative in retaining our resources circulating in the economy.

Recycled content and PP formats as a focus into SA Plastics Pact 2022

Our 2020 baseline highlights the need for added emphasis on Target 4 - increasing recycled content in plastic packaging. Growing the demand for recycled content in South Africa is also vital to kick-starting our plastic packaging recycling rate.

Under Target 2, the largest tonnages of consumer or primary packaging in the less than 15% and 15-29% recycling rate brackets are PP packaging formats. A greater focus on these formats is needed to transform our packaging portfolios to 100% recyclability in partnership with Producer Responsibility Organisations.

The Target 2 data also highlights the need to accelerate substitution of PVC with recyclable packaging. PVC is a diminishing market segment, and the small volumes mean that recycling operations will not be viable without significant subsidisation.

The second highest tonnage of non-recyclable packaging is multi-layer, multi-polymer packaging. This packaging type is a challenge globally. There are a number of innovative solutions available, which will be assessed for suitability in the South African market.

Our other strategic focus areas to build on our progress thus far are:

Target 1
Increased ambition to eliminate problematic and unnecessary plastics through innovation, and guided by a sound evidence base

Targets 1 and 3
Further development of the consumer communications campaign to increase awareness of the circular economy, and to demonstrate consumer choices to drive a circular economy for plastics

Target 2
A sharper focus on design for recycling and rationalisation of plastic packaging formats in South Africa - reducing complexity in packaging will enable recyclability

Targets 2 and 3
Developing specific strategies, in collaboration with our members, to address the plastic packaging streams that are at a less than 30% output recycling rate
The further development of the On-Pack Recycling Label system, including governance and accountability for accurate and clear consumer messaging on recyclability in practice in South Africa, and post-consumer recycled content

Target 4
Refining our strategy and implementing large-scale demonstration projects to achieve Target 4 - an average post-consumer recycled content of 30%

We invite you to add your voice, insights and plastic packaging to our collaboration designing a circular economy for plastics in South Africa.

WE HAVE IDENTIFIED A COMMON SYSTEMIC PROBLEM

Our plastic is often poorly designed, used and disposed of, such that it cannot be reused or recycled, and even ends up polluting the environment.

THIS CANNOT BE ADDRESSED BY ONE ORGANISATION OR SECTOR ALONE!

SOLUTION

The SA Plastics Pact is a pre-competitive, collaborative group of organisations working for a South Africa where plastic is valued, kept in circulation in our economy and doesn't pollute the environment.

WHO?

The SA Plastics Pact is comprised of business members that span the value chain for plastic packaging as well as supporting members that are key enablers to this initiative.

WHAT?

ALL MEMBERS COMMIT TO GIVING THEIR BEST EFFORTS TOWARDS ACHIEVING THE 2025 TARGETS:

1. Taking action on unnecessary and problematic packaging and plastic products through design, innovation or alternative delivery models.
2. 100% of plastic packaging to be reusable, recyclable or compostable* by 2025.
   *(*applicable only in closed loop and controlled systems with sufficient infrastructure available or fit for purpose applications)*
3. 70% of plastic packaging effectively recycled by 2025.
   (input recycling rate)
4. 30% average post-consumer recycled content across all plastic packaging.

To sign up to the Pact, or to find out more

CONTACT US

Kirsten Barnes (kirsten@greencape.co.za)

Oliver Bonstein (oliver@greencape.co.za)

The SA Plastics Pact

A roadmap of key actions and milestones towards our targets has been launched on our website as a guiding document for group efforts.

We commit to transparent annual reporting on the progress towards the targets.

Scan the QR code to view the **Roadmap to 2025**

BE PART OF A GLOBAL NETWORK

The SA Plastics Pact participates in a network of national and regional Plastics Pacts and receives specialist support from the **Ellen MacArthur Foundation** and the UK-based **Waste and Resources Action Programme (WRAP)** to help solve the challenges common to organisations around the world. This gives an added benefit of specialist insights and experiences from around the world, across developing and developed country contexts.

HOW?

A steering committee comprising of member representatives across the value chain, provide strategic guidance to the Pact in partnership with the Secretariat **(GreenCape)**.

Members participate in action groups to drive progress towards the targets, as well as additional projects to boost impact (view current actions towards targets at the SA Plastics Pact website.

BENEFITS OF JOINING THE SA PLASTICS PACT

Show positive, corporate leadership on a critical environmental, economic and social issue.

Collaborate with other like-minded organisations in sharing learnings and challenges.

Be part of developing strategies to drive action towards Pact targets and influence the South African value chain, as well as policy and legislation.

Be part of real progress towards a circular economy for all plastic packaging streams, which also reflects well on organization image.

Access expert technical guidance on the latest developments regarding Extended Producer Responsibility as well as projects, and innovations globally.

The SA Plastics Pact is the ONLY initiative that includes the ENTIRE value chain, where virgin producers and recyclers, retailers, brand owners and even waste collectors take part in shaping a workable solution for all parties.