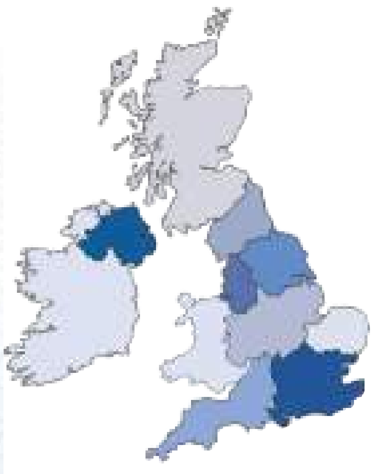
# UK Household Plastics Collection Survey

## 2015



# UK Household Plastics Collection Survey 2015

This work was commissioned by RECOUP using data gathered from UK Local Authorities and waste management companies. It also has the full support of LARAC (Local Authority Recycling Advisory Committee).



The 2015 Survey has been:
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RECOUP
RECycling Of Used Plastics Limited

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RECOUP is a leading authority on plastics recycling, providing expertise and guidance to a wide range of organisations and members across the plastics supply, use and recycling chain. Established in 1990, RECOUP is a not for profit organisation built on a network of members.

RECOUP deliver research, project management and policy review activities for members and clients, working to maximise plastics recycling by stimulating the development of sustainable plastics waste management practices. This includes the improvement of plastics design, collection, sorting and reprocessing activities across the UK, undertaking bespoke research to identify good practices and remove barriers to the adoption of efficient recycling systems.

@Recoup_UK
@pledge4plastics

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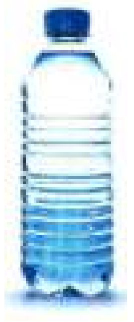
# Key Data



## Plastics Packaging Placed on the Market

- New data for plastics placed on the market in the UK
- **2,260,000** plastics packaging placed on the market
- Of this **1,119,000** tonnes of rigid plastics packaging consumed by households - there is an increase of plastic bottles placed on the market and a reduction in pots, tubs and trays

## Plastics Packaging Collections Data

- **492,623** tonnes collected for recycling - an overall **6.1%** increase
- **337,447** tonnes of plastic bottles - a **3.5%** increase
- **155,176** tonnes of plastic pots, tubs and trays - a **12.1%** increase

## Scheme Type and Plastic Format

- Bottles make up **70%** of plastic collections from households
- Pots, tubs and trays make up **30%**

## Household Plastics Packaging Collection Rates

- **57%** Plastic bottles
- **30%** Plastic pots, tubs and trays
- **44%** Rigid plastics packaging overall
- Average UK household uses nearly **500** plastic bottles a year, but only recycles just over **280** of them
- **5.5 billion** plastic bottles were not collected to be recycled by UK households - that's over **15 million** plastic every day!

## Local Authority Household Collection Provision Plastic Bottles

- **400** Local Authorities offer a kerbside recycling collection service that includes plastic bottles - **99%** of UK Local Authorities
- Just **6** collection Authorities do not offer a kerbside recycling collection service that includes plastic bottles

## Local Authority Household Collection Provision Plastic Pots, Tubs & Trays

- **285 (70%)** UK Local Authorities collect pots, tubs and trays
- From April 2015 there is a reduction in the number of Local Authorities in the UK from 406 to 391
- Combining this reduction and the 10 known number of Local Authorities who have added pots, tubs and trays as part of their kerbside collection scheme since April 2015, as at September 2015 **75% (295)** now offer a service

## Local Authority Household Collection Provision Plastic Film

- **79** Local Authorities collect plastic film as part of their kerbside collection service - **19%** of Local Authorities
- **19** new pot, tub and tray and **2** plastic film collection schemes reported as being planned for 2014/15
- The reduction in the number of Local Authorities since April 2015 means as at September 2015 **20%** of Local Authorities offer a kerbside collection service

## HWRC Collection Services

- **141** Local Authorities confirmed the HWRC service in their area collects plastic bottles for recycling , **93** collect plastic pots, tubs and trays, and **33** plastic film
- **78** Local Authorities confirmed the HWRC in their area collects non-packaging plastic for recycling, **65** collect plastic paint pots, and **52** accept plastic plant pots

## Performance Rate - Average Collection Rates per Household per Year

- Plastic bottles - **11.91 kg**
- Pots, tubs and trays - **8.03 kg**
- Plastic bottles and pots, tubs and trays - **19.94 kg**

## Kerbside Nation and Region Collection Levels

- The South East collected the largest amount of plastic bottles with nearly **28,000** tonnes - 15% of the UK total
- London collected the highest quantity of pots, tubs and trays with **20,000** tonnes - 14% of the UK total

# Key Data

## Collection Container & Frequency

- **Wheelbins** are the most common container used for collection from kerbside **(55%)**, and used as the sole collection container in **46%** of kerbside collections
- Single units make up a high proportion of kerbside collection container provision (**66%)**
- Fortnightly recyclables collections are most popular **(76%)** with **61%** alternating weekly with residual collections

## Recycled Plastic Markets

- Average mixed plastic bottle price in 2014/15 was **£87** per tonne
- Using the **£87** average, the un-recycled household plastic bottles in 2014/15 have a potential average value of nearly **£22m**
- Based on the median landfill tax and gate fee for non-hazardous material of £100 per tonne, these bottles would cost **£25m** to dispose of in 2014/15
- Average price of clear PET bale **£200**, and Natural HDPE **£380**
- Costs for disposal of pots, tubs and trays not collected for recycling between **£37m** and **£53m**
- **64%** of revenue generated from the sales of collected plastics goes to contractor in some way
- **36%** of Local Authorities find UK based end destinations for their collected plastics , **14%** was exported and **50%** is an unknown end destination

## An EU Perspective on Plastics Recycling

- The European Commission Communication "Towards a Circular Economy" proposals were **scrapped** in December 2014 in favour of a 'more ambitious' policy package - the proposed new legislation is expected **before the end of 2015**
- Landfilling is still the first option in many EU countries
- There are 9 countries achieving above 90% recovery rates in the EU

## Recyclability by Design

- Information about the importance of the design of plastics packaging for recycling is outlined, focussing on RECOUP's flagship document, Recyclability by Design

pledge 4 plastics

recycle

## Aligning Communications & Services

- **37%** of Local Authorities believed recycling collections were aligned with other authorities - **47%** responded no and **16%** didn't know
- Asked whether it was believed consumer communications were aligned with neighbouring authorities **26%** said yes, **46%** said no and **28%** did not know
- There appears to be more alignment, or awareness of alignment, around the consumer communications (37%) than the collection services themselves (26%)
- Even if there are barriers than cannot be overcome, meeting regularly and keeping the communication lines open to share good practice and explore future opportunities ensures that the full potential of any partnership or joint working can be realised

## On Pack Recycling Label (OPRL)

- An overview of the On-Pack Recycling Label (OPRL) is provided by Jane Bevis

## Pledge 4 Plastics & Recycle Now

- Pledge 4 Plastics consumer campaigns have taken place in large Local Authority areas
- Over **500 downloads** of the Pledge 4 Plastics Communications Toolkit, including **111 individual Local Authorities**

# Welcome to the Survey

**The RECOUP UK Household Plastics Collection Survey is a specialist research-based report for those across the plastics supply and recycling chains who have responsibilities or interests in developing sustainable plastics recycling.**

Supported by LARAC, the questions are distributed online to all involved in waste collection in the UK, whether it be Borough, District, City or County Councils or Waste Partnerships, and as such provides a comprehensive review of the collection of household plastics for recycling in the UK.

It not only covers the core data information such as service provision, current plastics packaging collection levels and recycling rates, but provides comment on the current situation behind UK household plastics collections, the challenges and barriers to plastics recycling and the issues Local Authorities face on a daily basis.

**2015 Survey Content**

The 2015 Survey includes a range of other content. There has been dialogue with LARAC to provide insight about alignment of both recycling collection services and consumer communications. Consumer communications is covered in an update on the progress of the national plastics recycling initiative, Pledge 4 Plastics, and how aligning with Recycle Now will provide consistency and maximise the impact it can have. There is also an overview of the On Pack Recycling Labelling (OPRL) scheme, which talks about some of their challenges and plans for the future.

The increasing importance of plastic packaging product design for recycling is getting more coverage, and using one of RECOUP's flagship documents, *Recyclability by Design,* best practice to improve the recyclability of plastic packaging will be outlined.

RECOUP always ensures that the most robust data is used in the Survey and there is new data around the quanitity of plastics packaging that is placed on the market in the Valpak and WRAP *2014 Plastic Packaging Market Study*, which will directly affect the new plastics packaging recycling rates. A brief review of the EU and UK legislative framework and progress against the UK's plastics packaging recycling targets will also be covered.

The results and opinion from the Survey highlights areas where more work is needed. Through the work of RECOUP, its members, the Board, and through RECOUP's communication channels it directly influences policy and strategic development and change. Examples of this include Pledge 4 Plastics, waste consultation responses and many activities with its members.

**RECOUP Membership**

RECOUP continue to have strong Local Authority and waste management presence in its membership, and continue to ensure that they are represented on the RECOUP board by LARAC, NAWDO and waste management companies.

The responses to the Survey were once again very positive and RECOUP would like to thank all the Local Authority recycling scheme managers, officers and their service contractors who took the time to respond to the Survey and continue to make the research so comprehensive and worthwhile.

# Stuart Foster, RECOUP CEO, Comments…

**Welcome to the 2015 edition of the RECOUP UK Household Plastics Collection Survey. Once again the team and I are very grateful for the level of information and views provided by so many of the UK Local Authorities contacted.**

Year on year, this support has allowed us to gain an unparalleled insight into the real data, trends and opinions behind UK household plastic collections. In turn we can provide this free report to all stakeholders to inform and benchmark household plastic recycling activities, and share valuable views and opinions on collection services.

Are we there yet? I admit when it comes to household plastic recycling, this is a slightly open ended question depending on where 'there' is.

Through packaging waste legislation, by 2017, a 57% business target has been set which translates to an estimated 1.06 million tonnes of plastic packaging to be recycled unless the targets are amended.

The official UK data shows 640kt recycled in 2012, 714kt in 2013, and 842kt in 2014. Whilst difficult to quantify, an estimated 60% of the reported tonnage is from household bottles, pots, tubs and trays, the remainder from commercial and industrial sources. So there is still some way to go, and a reliance on household plastic packaging collections to help achieve the target tonnage.

This is well ahead of the European plastic packaging recycling target which has been fixed at 22.5% for a number of years. This target is widely anticipated to be revised upwards under the current review of waste and packaging directives linked to the proposed circular economy package.

From data in this report, we know that the kerbside infrastructure for household plastic collections is not matched by recycling levels. This implies the need for more effective and ongoing consumer communications. Through Pledge 4 Plastics and Recycle Now, I strongly encourage all Local Authorities to look into this initiative and consider getting involved to achieve higher levels of consumer engagement and positive actions through providing clear and consistent information on plastics recycling.

Whilst striving to meet targets, it is fundamental to ensure that the collection and handling systems are affordable, sustainable, and that the material provided to reprocessors is of an acceptable quality. It is regularly pointed out that Local Authorities have overall recycling targets but no specific targets for plastics or packaging recycling which is a constant cause of debate – who is responsible and who should pay?

***Transparency in the Compliance System***

Approximately £55m has been raised through the plastic PRN system from producers over the past three years. With £11.3m from the £55m raised (20% of total) reported as being allocated towards Local Authority collections, this is the equivalent of 43p for each household in the UK over that period. Many Local Authorities will say that is not enough. But there is a need to ensure that plastic PRN funding is transparent. It is expected that the majority of the funds allocated against 'Funding Collection' and therefore attributed to local authority support are used to inflate the value offered for material. It is also worth noting that negligible PRN fund amounts were allocated towards communications during the same period. The issue of transparency needs to be resolved before considering whether allocating more funding via the current 'funding collections' category under the PRN system is a valid option.

***Funding Opportunities***

There have also been other funding opportunities in recent years that relate to waste or litter, but do not appear to be joined up with relevant waste and recycling priorities. This includes landfill tax, civil sanctions, carrier bag levy funding and DCLG funds. There is a need to establish an effective overall use of funds that could potentially be made available, including provision of more support for local authority collections if this is the identified primary barrier to increased plastic recycling.

We are attempting to increase plastic recycling in a time of austerity measures and budget cuts, so there is a requirement to introduce the joined up thinking, alignment of services and improving service consistency which is regularly discussed. Whilst striving to meet targets, it is fundamental to ensure that the collection and handling systems are affordable, sustainable, and that the material provided to reprocessors is of an acceptable quality.

So the UK is achieving in terms of current legislative requirements on plastic packaging recycling, but increased tonnages will be needed to stay ahead of these targets whilst even more ambitious targets are discussed for Europe. It is likely that decisions by policy makers in 2016 will shape the approach for local authority services, plastic recycling and resource efficiency for the next decade and beyond.

# The Voice of RECOUP Membership

**Plastic has the potential to be a truly sustainable and circular resource, and improved re-use and recycling will have a crucial role to play.**

**The best way to predict the future is to help create it. Becoming a supporter of RECOUP, as a valued member, will provide you with the opportunity to play your part in improving plastics waste management in the coming years.**

**There are many practical benefits for Local Authorities to become RECOUP members – understanding the supply chain to maximise material prices, engagement with collaborative initiatives such as Pledge 4 Plastics or bespoke research or innovation projects that can develop and add value to council services.**

## Retailer

"We have first-hand experience of the benefits of supporting RECOUP, both on the development of strategy and delivery of plastic recycling projects. RECOUP encourage all members to have a voice, and bring balanced and trusted advice and expertise to the plastic recycling debate. The opportunity to exchange information with a range of professionals on the subject of plastic recycling is also of great value."

**Kevin Vyse,**
**Primary Foods**
**Packaging Technologist & Innovation Lead,**
**Marks and Spencer**

## Recycling Industry

"Unlike most trade associations, RECOUP cuts across the different sectors with an independence and genuine expertise to inform plastic recycling development. RECOUP cannot complete their work without members, and like Veolia, we hope others recognise their invaluable contribution to plastics recycling over the past 25 years and join the organisation so we can all overcome the challenges that lie ahead."

**Richard Kirkman,**
**Technical Director,**
**Veolia Environmental Services**

## Local Authority

"We see RECOUP as an industry leader. It has credibility on technical know-how and data management capabilities. The annual surveys are highly useful in planning future advancements. Innovation is at the heart of its mission. Local authorities can, and do, feel at home being part of RECOUP. The KRP sees our relationship with RECOUP, and membership of the organisation, as both strategic and practical."

**Paul Vanston**
**Kent Resource Partnership Manager**

## Packaging Industry

"Through a practical approach, RECOUP and its network is ideally positioned to monitor, research and engage the plastic recycling challenge. This includes the production of well-respected and balanced reports on packaging recyclability and collection systems which help to inform the debate and address barriers to plastic recycling growth."

**Katherine Fleet,**
**Group Sustainability Manager,**
**RPC Group**

# The Voice of RECOUP Membership

**The RECOUP Members bringing the Plastic Supply, Use and Recycling Industries together:**

Contact the RECOUP team if you would like to talk about the benefits of membership!

# Methodology & Reporting

**Understanding the methodology is important in order to develop an understanding of how the data is calculated and used. RECOUP have always used the most robust data available to calculate plastics packaging consumption and collection volumes, and using the tried and tested methodology described RECOUP are confident that this is the best dataset to report household plastics packaging collections.**

### Calculating Collection Quantities

Calculating collection quantities is not simply adding up reported tonnages. There are many variables that can affect the reported quantities from Local Authorities. Even if an overall total of plastics collected can be provided, it is often not easy or even possible for Local Authorities to provide plastics collection quantities broken down by collection scheme (kerbside and bring) or plastic format (plastic bottles / pots, tubs and trays / plastic film).

It maybe that the necessary resources and / or processes are not in place to obtain, investigate or calculate the data, or because there are significant operational pressures and time restraints. There could also be other reasons, with the plastics fractions increasingly being reported as plastic only or comingled totals.

The difficulty in reporting accurate collection data is that in recent years there is an increasing trend to collect comingled materials from the kerbside and bring schemes, and that bring sites are serviced as part of their kerbside collection route. This means that once the collection quantities are reported the total collection tonnage provided might not only be for plastics, but a combination of dry recyclables. These materials may also be present in the plastics fraction as contaminants when the weights are taken.

Once the data is reported clarification might also need to be sought on the different interpretations of 'mixed plastics packaging' to identify whether this means plastic bottles, pots, tubs and trays and /or plastic film. With a number of Local Authorities claiming to collect 'all plastics packaging', it has been found that, in many cases, this means only rigid plastics packaging and not plastic film.

The submitted data and information is always checked, but it might need to be followed up, or a different method used to calculate, for example, the plastics fraction or the quantities collected from the bring scheme, to ensure the final dataset is as accurate as possible.

If there is no collection data or partial data, the estimated dataset is completed based this service provision and then applying reasonable assumptions based on those services. This would be done using previous years' responses and average performance data using the number of households in that authority against the average that can be expected to be collected for these households (kg per household per year).

In addition to the Survey responses every Local Authority website was checked to see what collection services are provided, and if there was any conflicting information on the website, the Local Authority was contacted to ensure the information used is accurate.

These approaches have been used where necessary to establish service provision and collection quantities.

### Measuring Performance Indicators

Although a high proportion of the data and analysis in the Survey is based on actual responses only, analysing and measuring performance indicators is not a straightforward process.

There is a well-established number of performance indicators provided for plastic collections, but there are many factors that can influence a scheme's collection performance, operational efficiency and cost, including types and quantity of other materials collected, types of housing collected from and their locations (urban / rural), demographics (population make up), and how the scheme is communicated to residents.

All data has been analysed to provide a high probability confidence interval (i.e. data that is considered to be incorrectly reported has been either omitted from the dataset or re-estimated using appropriate available data and known variables) and are therefore provided for indicative purposes only.

This approach has been used throughout the *UK Household Plastics Collection Data* section to analyse performance indicators such as average collections per household per year (kg per household per year), frequency of collection and collection containers used.

### Response Rate

The data and information collected in the 2015 Survey was provided by over 75% of collection authorities in the UK and is based on the 2014 calendar or 2014/15 financial year data.

# Methodology & Reporting

**WasteDataFlow - Local Authority Recycling Performance Data vs Plastics Recycling Levels**

WasteDataFlow *(www.wastedataflow.org/home.aspx)*, the database for UK Local Authorities to report municipal waste data to the government is well known to everyone responsible for recycling data. It was set up with the aim of replacing the number of waste questionnaires issued to Local Authorities by government, departments, agencies, institutions and organisations about their waste and recycling performance, with one dataset that would need to be completed.

However, there are often no obvious links between plastics collections and Local Authority recycling rates reported by WasteDataFlow. The same issues Local Authorities have in reporting quantities for material specific data in this RECOUP Survey also exist in completing WasteDataFlow. Again, this can be due to the data reported for WasteDataFlow is for all dry recyclables, and there is limited or no plastic specific data available.

For these reasons the RECOUP Survey is still a hugely valid research report. We will continue to monitor the most accurate and effective methods, including WasteDataFlow, in order to report the best dataset to monitor household plastics packaging collections.

***HWRCs, Plastic Film and Non-Packaging Plastic***

The total quantity collected in 2014/15 does not factor in plastic film, non-packaging plastics and collections from HWRCs (Household Waste Recycling Centres). As with previous Surveys, efforts have been made to gain more data about these collections, but there is still not enough data to estimate a UK wide total tonnage. However, with kerbside collection of plastic bottles and pots, tubs and trays making up the majority of the collected tonnage, RECOUP believe the quantities from these collections would not significantly impact the overall total tonnage collected for recycling in the UK.

***Non-Household Sectors***

The Survey only reports data from households in the UK and does not include plastics from non-household sectors such as commercial and industrial, construction and demolition, agriculture, and plastics from ELV (End of Life Vehicles) and WEEE (Waste Electronic and Electrical Equipment). Some Local Authorities do offer commercial and industrial plastics collection schemes, and although assessing the scale of these collections is an increasingly valid piece of work to help monitor performance against overall recycling targets and assess where opportunities lies this would need extensive research and could only be produced by RECOUP if separate funding support was available.

An unknown volume of 'household like' plastics from non-household sources will enter household recycling systems, for example, when consumed in the workplace or 'on the go'.

**Terminology & Acronyms**

The main terminology used in this report is as follows.

Collection scheme:

- Kerbside – recyclables collected directly from householders' doorsteps
- Bring – containers placed in central public locations such as supermarket sites and car parks
- HWRC – Household Waste Recycling Centre
- Recycle on the go – units placed in predominately high footfall areas

Plastic formats:

- Plastic bottles
- Non-bottle rigid household plastics packaging – referred to as Pots, Tubs and Trays (PTTs)
- Plastic film

Acronyms that could be used in this report have, in general, been spelt out unless they are specifically referred to many times in one section.

# Household Plastics Collection Service Provision

**The increase in collection provision for plastics has been the cornerstone for the plastics recycling success story over the last 20 years since the first RECOUP Household Plastics Collection Survey was produced in 1994.**

Each year a comprehensive review is completed to establish the service provision for plastics packaging collections across the UK, and this is based on three variables - the actual Survey questions, checking every Local Authority website to see what is collected and calling the Local Authorities to check any conflicting information.

**Kerbside Schemes**

It can be confirmed that from a total of 406 Local Authorities in the UK:

- 400 provide a kerbside scheme to collect plastic bottles (99%)
- 285 of those also collect pots, tubs and trays (70%)
- 79 provide a collection for plastic film (19%)

There has been no change in the number of Local Authorities offering a kerbside collection service for plastic bottles, however, another 14 have added pots, tubs and trays to their collections in 2014/15, and an additional 4 Local Authorities state they are collecting plastic film. This was in comparison to the 2014 Survey (2013/14), when 9 Local Authorities reported that they started to collect plastic bottles from their kerbside collection service, and another 27 Authorities started to collect pots, tubs and trays.

**Last 5 Years**

The increase in service provision for plastic packaging is shown in Figure 1 over the last 5 years. There has been a surge in the collection provision of pots, tubs and trays, and now there are only 6 Local Authorities not collecting plastic bottles as part of their kerbside collection scheme.

To put some context around the growth of collections of pots, tubs and trays, there were only 59 Local Authorities collecting pots, tubs and trays in 2009, and the 285 Local Authorities that provide a kerbside collection service for pots, tubs and trays represents an almost 400% increase in infrastructure provision.

There has also been a steady increase in the Local Authorities collecting film from kerbside collections, with an almost 100% increase since 2010/11.

**Figure 1 - Local Authority Kerbside Plastics Packaging Collection Provision (March 2015)**

# Household Plastics Collection Service Provision

**New Schemes and Reduction in Number of UK Local Authorities – The Impact for On Pack Recycling Label (OPRL)**

Although the increase in kerbside collection provision is slowing, it has been reported there are 10 more Local Authorities who have added pots, tubs and trays to their kerbside collection scheme since the end of the Survey reporting in March 2015. This means that 295 Local Authorities collect pots, tubs and trays as part of their kerbside collection service.

It has also been established that since March 2015 the number of Local Authorities in the UK has reduced from 406 to 391. This is because of a comprehensive set of mergers in Northern Ireland in April 2015, which has reduced the number of Local Authorities from 26 to 11.
These are now:

- Antrim and Newtownabbey District
- Ards and North Down District
- Armagh City, Banbridge and Craigavon District
- Belfast City
- Causeway Coast and Glens District
- Derry City and Strabane District
- Fermanagh and Omagh District
- Lisburn City and Castlereagh District
- Mid and East Antrim District
- Mid-Ulster District
- Newry City, Mourne and Down District

This has implications for On Pack Recycling Label (OPRL). As outlined in the *A Consumer Message – A Word on OPRL* on page 43, the OPRL scheme aims to deliver a simple and consistent recycling message on both retailer and brand packaging to help consumers recycle more. Depending on the specific percentage of Local Authorities collect a specific material the consumer message on the packaging changes:

- **'Widely recycled'** – used when 75% or more Local Authorities offer kerbside collections
- **'Check local recycling'** – used when 20%-75% of Local Authorities offer kerbside collections
- **'Not currently recycled'** – used when fewer than 20% of Local Authorities offer kerbside collections

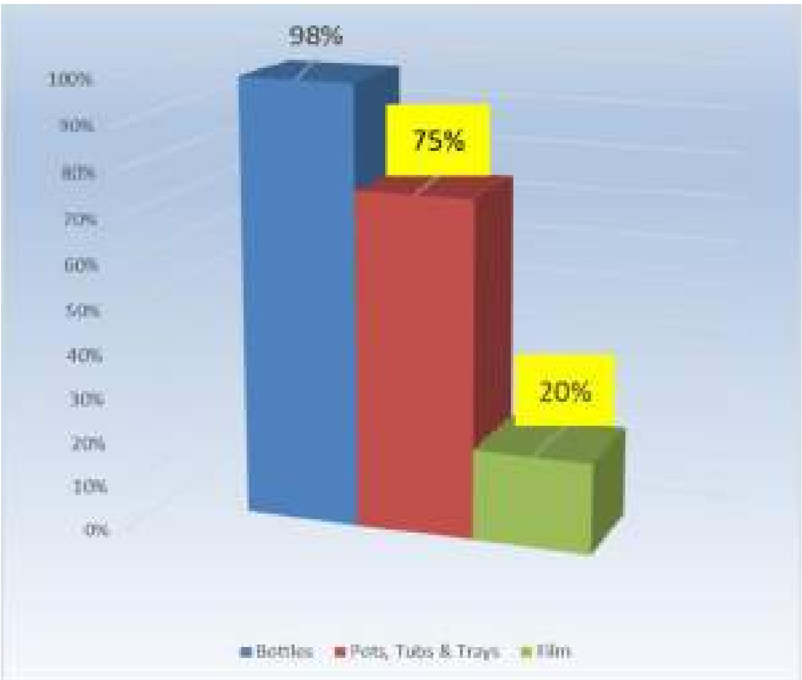

# Household Plastics Collection Service Provision

As shown in Figure 2 there are implications for this data for both plastic pots, tubs and trays and plastic film. At the time of writing the report in August 2015:

Combining the 10 known new pot, tubs and tray schemes that have been introduced and the reduction in the number of Local Authorities in the UK since April 2015, the 75% threshold for pots, tubs and trays has been reached and therefore the OPRL message could potentially change from 'check local recycling' to 'widely recycled' for pots, tubs and trays. It should be noted that Local Authorities that offer a kerbside collection service for pots, tubs and trays do not necessarily collect all three types (pots, tubs and also trays), although many Authorities who offer this service do so for three plastic types.

The reduction in the number of Local Authorities in the UK since April 2015 means that 20% of Local Authorities in the UK now collect plastic film and, subject to agreement, the OPRL message could potentially change from 'Not currently recycled' to 'Check local recycling'.

**Figure 2 - Local Authority Kerbside Plastics Packaging Collection Provision (August 2015)**




**75% of the UK Local Authorities Collect Plastic Pots, Tubs and Trays!**

**20% of the UK Local Authorities Collect Plastic Film!**

### Reported New Services

Over and above the 10 Local Authorities that have introduced a pot, tubs and tray scheme since April 2015, it has been reported that an additional 16 Local Authorities plan to introduce a pot, tub and tray collection into their kerbside collection service. If all these actually introduce their planned scheme then a total of 311 Local Authorities would be collecting pots, tubs and trays as of April 2016 – with the reduction in the number of UK Local Authorities these schemes will cover 80% of the Local Authorities in the UK.

In the 2014 Survey (2013/14) it was reported that 19 new pot, tub and tray collection schemes were planned to be implemented in 2014, and with 14 new schemes being reported 5 Local Authorities were not successful in their plan to introduce a new scheme. On the basis of the accuracy of this previous reporting it is assumed the majority of the new plans to introduce pots, tubs and trays into their kerbside collection schemes have been accounted for.

Two Local Authorities reported they plan to introduce plastic film into the kerbside collection scheme, although 149 stated they do not. This provides evidence that the collection of plastic film from households will continue to show modest increases in the near future.

RECOUP continue to monitor the 6 Local Authorities that do not offer a collection for plastic bottles as part of their kerbside collection service.

# Household Plastics Collection Service Provision

**Number of Households Covered by Kerbside Plastics Collection Schemes**

Just because a Local Authority offers a kerbside collection service it does not mean that every household will actually benefit a collection service. This might be due to the type of property it is (for example flats or apartments), the location of the property (it might not be viable practically or financially to provide a service for households that are in remote locations), or the property might be empty for long-periods such as holiday lets or second homes. It also might be due to a collection scheme that is in a trial period and is gradually being rolled out to the households in that area. Considering this level of detail, it is often not easy or even possible for Local Authorities to report exactly how many households receive a service.

However, a broad assumption can be made using the number of households in the UK with at least one usual resident within a Local Authority i.e. the household has a regular kerbside collection. It can then be assumed that this is the maximum number of households that receive a kerbside collection that includes plastics in that particular geographical area i.e. the number of households receiving a kerbside collection can include any figure up to the total number of households.

The sources for the number of households are the Office for National Statistics - 2011 Census: Population and household estimates for England and Wales (Published 16th July 2012), General Register Office for Scotland - Estimates and Dwellings in Scotland, 2012 (2nd revision: 10th July 2013) and Northern Ireland Statistics & Research Agency - Census 2011, Population and Household Estimates by Local Government District for Northern Ireland (September 2012).

*Plastic Bottles*

If it is assumed that 99% of Local Authorities provide a typical representation of the average number of households per Local Authority in the UK, and if every household in these Authorities was potentially able to make use of the kerbside service this means the plastic kerbside infrastructure in the UK covers up to 26,026,917 of the 26,439,375 households with at least one usual resident.

*Pots, Tubs and Trays*

With many collection schemes for pots, tubs and trays in the UK being rolled out it is more difficult to establish the number of households that receive a service. Assuming the 70% of Local Authorities that provide a kerbside collection scheme that includes pots, tubs and trays provides a typical representation of the average number of households per authority in the UK, once these schemes are fully established and if every household in these Local Authorities are able to place their pots, tubs and trays in the recyclables collection container, the plastic kerbside infrastructure in the UK covers up to 18,029,650 of the 26,439,375 households with at least one usual resident. It should be noted that a number of schemes are in their infancy and the actual figure of households covered will be less than the estimated maximum number.

*Film*

With 20% of Local Authorities in the UK collecting plastic film as part of their kerbside collection it has been possible in the 2015 Survey to estimate a maximum number of households that receive a service, 5,055,248 households with at least one usual resident. However, as with the pots tubs and trays it should be noted that many schemes are in their infancy and the actual figure of households covered will be significantly less than the estimated maximum number.

## Bring Schemes

Bring schemes are containers located in public locations such as supermarket sites and car parks, where the public can place their recyclables and were the original method for collecting plastic bottles. According to the reported data one fifth of all bring schemes running today were set up between 2000 and 2003.

With the majority of plastics now collected from kerbside schemes, bring schemes are generally used by Local Authorities alongside kerbside schemes to supplement their recyclables collection provision. With the drive to increase recycling collections and reduce landfill costs, where funding allows, a bring service can be a useful service provision to provide. This is particularly true where a kerbside service might not be available to all residents, such as in rural communities or high rise or dense population areas.

For those thinking about the decision to introduce, retain or withdraw a plastics bring scheme, there are many considerations to factor in alongside any cost-benefit analysis of the overall plastics collection schemes operated.

The reasons cited by Local Authorities for retaining a bring scheme included support kerbside collections, meeting resident needs and public demand for the service, and also an overflow for people on fortnightly refuse collections or have limited kerbside collection container capacity who cannot fit all their plastic items in the kerbside collection container. Another reason given was that bring sites can also be used as a short term option if there were any problems with operating the kerbside service.

It can be confirmed 215 (53%) of the 406 collection Authorities in the UK in 2014/15 reported they provide a bring scheme to collect plastic bottles. This is a marked 30 Local Authorities less than the figure reported in 2013/14. Many Local Authorities reported that their bring services were being removed, either due to cost or focussing their resources on kerbside or HWRC collection services. In addition, through thorough investigation it has been established that there has been inaccuracies in the reporting, either through getting bring services confused with HWRC services or out of date information on Local Authority websites.

From the total of 215 Local Authorities that offered a bring service, 121 (56%) collect plastic bottles only with 94 (44%) of those also collecting pots, tubs and trays. Despite the reporting issues described above regarding bring services this represents 4 more Local Authorities offering a bring service that includes pots, tubs and trays than were reported in the previous year.

There are a small number of planned new bring services reported – 3 for plastic bottles and 7 for pots, tubs and trays. It is likely the addition of these new planned services will be offset by bring services continuing to be removed, and overall bring service provision will either remain the same or reduce slightly in future years. Bring collection schemes for non-packaging are gradually being introduced, and there is continuing evidence non-packaging plastics such as Waste Electronic and Electronic Equipment (WEEE) and plastic toys are being collected from bring schemes.

Due to lack of reported data it has not been possible to accurately report on the number of bring sites in place across the UK.

## Recycling on the Go

A question was asked in the 2014 Survey (2013/14) whether Local Authorities provide a recycle on the go service. There were 221 responses to this question, with broadly a 50/50 split, with 108 (49%) stating they offer a service and 113 (51%) stating they do not. This question was not seen as a priority for the 2015 Survey, however, the service provision in place it is not expected to change significantly since this questions was asked.


There has been a number of brand funded schemes across the UK, with Local Authorities not seeing the relatively small tonnages collected as a priority. However, an effective communicated scheme can generate good quality material and also reduce litter, and there can be clear benefits for encouraging positive behaviour change.

# Household Plastics Collection Service Provision

**Service Provision Summary**

*Plastic Bottles*

A summary of the infrastructure in the UK for England, Scotland, Wales and Northern Ireland to collect plastic bottles from both kerbside and bring schemes is shown in Figure 3. This includes the total number of Local Authorities in each nation, service provision by collection scheme (kerbside and bring) provided by the Local Authorities, and the estimated number of households that could receive a kerbside collection service.

**Figure 3 - Breakdown of Collections of Plastic Bottles by Country and Scheme Type**

| Plastic Bottles | | | | |
|---|---|---|---|---|
| | | Kerbside Schemes | | Bring Schemes |
| Country | Total Number of Local Authorities in the UK | Number of Local Authorities Provide Plastic Bottle Collection | Maximum Number of Households Covered | Number of Local Authorities Provide Plastic Bottle Collection |
| England | 326 | 321 | 21,725,004 | 169 |
| Scotland | 32 | 31 | 2,295,938 | 23 |
| Wales | 22 | 22 | 1,302,700 | 15 |
| Northern Ireland | 26 | 26 | 703,275 | 8 |
| **Total** | **406** | **400** | **26,026,917** | **215** |

*Pots, Tubs and Trays*

Using the reporting data as plastic bottles, the infrastructure in the UK by nation to collect pots, tubs and trays from kerbside and bring schemes is shown in Figure 4.

**Figure 4- Breakdown of Collections of Pots, Tubs and Trends by Country and Scheme Type**

| Pots, Tubs and Trays | | | | |
|---|---|---|---|---|
| | | Kerbside Schemes | | Bring Schemes |
| Country | Total Number of Local Authorities in the UK | Number of Local Authorities Provide Plastic Pot, Tub & Tray Collection | Maximum Number of Households Covered | Number of Local Authorities Provide Plastic Pot, Tub & Tray Collection |
| England | 326 | 226 | 14,412,950 | 73 |
| Scotland | 22 | 22 | 2,370,000 | 12 |
| Wales | 32 | 18 | 732,769 | 7 |
| Northern Ireland | 26 | 19 | 513,932 | 2 |
| **Total** | **406** | **285** | **18,029,651** | **94** |

**Figure 5 - Breakdown of Collections of Plastic Film by Country and Scheme Type**

| Plastic Film | | | |
|---|---|---|---|
| | | Kerbside Schemes | |
| Country | Total Number of Local Authorities in the UK | Number of Local Authorities Provide Plastic Film Collection | Maximum Number of Households Covered |
| England | 326 | 62 | 4,196,107 |
| Scotland | 22 | 7 | 444,375 |
| Wales | 32 | 10 | 414,495 |
| Northern Ireland | 26 | 0 | 270 |
| **Total** | **406** | **79** | **5,055,247** |

*Film*

The infrastructure in the UK by nation to collect pots, tubs and trays from kerbside is shown in Figure 5. It has not been possible to report the collection of film from bring sites as it is likely service provision is very limited and therefore data has only been requested from Local Authorities for plastic bottles and pots, tubs and trays only.

# Household Plastics Collection Service Provision

**Household Waste Recycling Centres (HWRCs)**


Household Waste Recycling Centres (HWRCs) also collect plastics for recycling. These collection points are available to the public alongside wider services for the disposal, recycling or re-use of a wide range of household materials and items. These public sites are under the responsibility of the waste disposal authority which is often a separate authority such as the County Council.

HWRC sites offer only supplementary collection points for plastics packaging which are collected at kerbside. They are also the primary point for those plastic items not compatible with kerbside services such as non-packaging plastics, bulky goods and other related household plastics.

It is the second year service provision questions for HWRCs were asked, and a clearer picture is building about service provision across the UK. There are information gathering issues when investigating HWRC services as the services are often managed by the Waste Disposal Authority (WDA) which tends to be the County Council and not the individual collection Local Authorities, and not all Local Authorities are necessarily covered by the WDA service provision or collect the same materials.

Therefore it is difficult to pinpoint which individual collection services offer an HWRC Service and build up UK wide service provision data. It has been reported that WDAs are seeking to harmonise service provision, which will help with future the data collation.

The service provision for all plastic formats are provided in Figure 6.

**Figure 6 - HWRC Collection Service Provision**

| Local Authorities Providing HWRC Collection Service | 2013 / 14 | 2014 / 15 |
|---|---|---|
| Plastic Bottles | 103 | 141 |
| Plastic Pots, Tubs and Trays | 58 | 93 |
| Plastic Film | 19 | 33 |
| Non-Packaging Plastics | 59 | 78 |
| Plastic Paint Pots | 54 | 65 |
| Plastic Plant Pots | 37 | 52 |

There was between 150-200 responses for each plastic format. It was confirmed that many of the HWRC sites provided collections for plastic packaging and non-packaging plastic formats.

*Paint Pots*

The 65 Local Authorities that confirmed they have a paint pot collection scheme in place can be mapped closely with the Community Repaint Initiative which has collection hubs across the UK. These items are inherently valuable both in terms of any paint that can be recovered, and the pots themselves which are ideal for recycling when empty.

*Plant Pots*

The plant pots, also commonly referred to as flower pots in consumer communications, are typically being collected in 52 Local Authorities at HWRC sites. As these are mainly manufactured from Polypropylene, if this fits in with the feedstock requirements of the MRF and reprocessor, they can be added to existing pot, tub and tray collections.

# Household Plastic Collection Data

**This section forms the main focus of the RECOUP Household Plastics Collection Survey and provides a range of collection data and measurement indicators for the collection of plastics from Local Authority services provision.**

**Household Plastics Collection Total**

RECOUP can confirm that the total plastics packaging collected from households in the UK in 2014/15 is **492,623 tonnes**:

**Figure 7 - Breakdown of Household Plastics Packaging by Scheme and Packaging Type**

| 2014 / 15 (Tonnes) | Plastic Bottles | Pots, Tubs and Trays | TOTAL |
|---|---|---|---|
| | 337,447 | 155,176 | 492,623 |

This represents an:

- Overall increase of over **28,000 tonnes (6.1%)** rigid plastics packaging
- Additional **11,502 tonnes (3.5%)** of plastic bottles
- Additional **16,688 tonnes (12.1%)** of pots, tubs and trays

Plastic bottle collections continue to grow at a slow but steady rate, with the 2014/15 increase of 3.5% increase following a 3.1% and 3.2% increase in 2013/14 and 2012/13 respectively.

The increases in pot, tub and tray collections in recent years have continued, with a marked 12.1% increase in 2014/15 following an 11.4% increase in 2013/14. It is clear this is where the biggest opportunities lie to increase overall plastic collection levels.

Collection levels for plastic film, plant pots and non-packaging plastics are covered later in this section.

**Figure 8 - Changes in Collection Rates between 2013/14 & 2014/15 by Plastic Format & Collection Scheme Type**

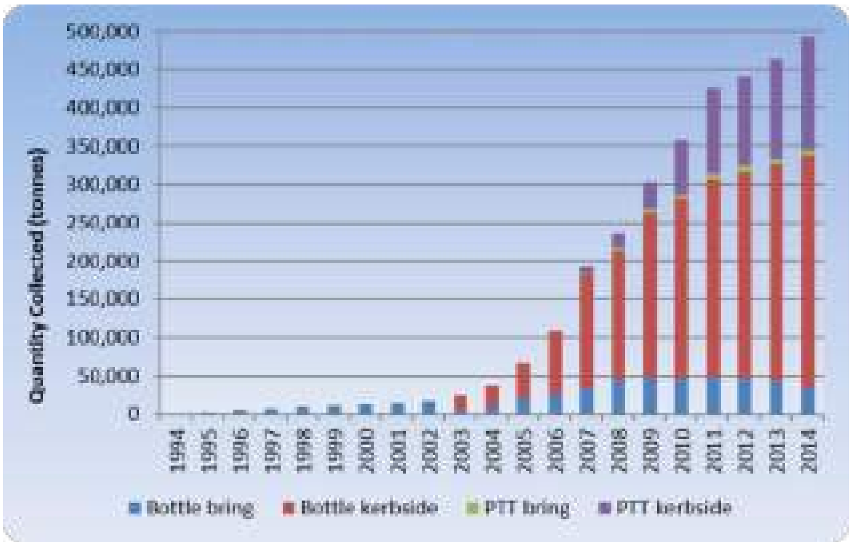
| 2014 / 15 | TOTAL | |
|---|---|---|
| | Tonnage | % Change |
| Plastic Bottles | ▲ 11,502 | ▲ 3.5% |
| Pots, Tubs and Trays | ▲ 16,688 | ▲ 12.1% |
| TOTAL | ▲ 28,190 | ▲ 6.1% |

# Household Plastic Collection Data

**The Plastics Recycling Success Story**

After the first collection data was reported in the first RECOUP UK Household Plastics Collection Survey in 1994, plastics recycling has told a successful story and collections continue to increase. The growth over this time is shown in Figure 9:

**Figure 9 - Growth in Household Plastics Packaging Collections**




*Plastic Bottles*

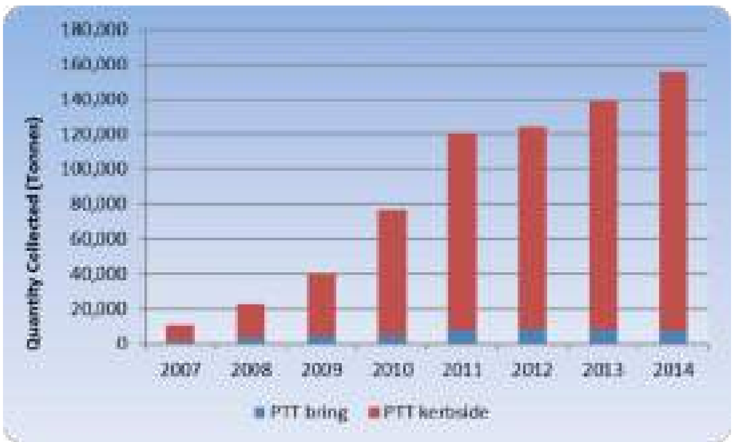
Only 425 tonnes of plastics were collected from bring schemes when collection data was first reported – the equivalent of 9.3 million plastic bottles. By 2003 it was reported that 24,000 tonnes of plastic bottles were collected for recycling, with 18,000 tonnes from kerbside schemes there was now over three times more from kerbside than bring schemes. At this time the landscape of household plastics collection began to change, and collecting comingled dry recyclables from households became more common.

The infrastructure for collecting plastic bottles from kerbside collection schemes started to see significant results around two years after the Survey started to report collection data from the service type in 2003. Several factors can be attributed to the increase in this period, mainly due to many new services being launched and existing schemes being expanded and becoming more efficient. The 337,447 tonnes of plastic bottles now represents nearly **7.5 billion plastic bottles!**

*Pots, Tubs & Trays*

Since kerbside collection data for pots, tubs and trays started to be reported in 2007/08 there has been continued significant increases in collection quantities of this plastic format Figure 10.

**Figure 10 - Growth in Household Plastic Pot, Tub & Trays Collections**




There were 9,079 tonnes being collected in 2007/08 when collections levels were first reported, and this has now reached 155,176 tonnes being collected in 2014/15.

The increases continue to be predominately from kerbside collections, although there is service provision from bring and HWRC facilities schemes across the UK that were either introduced because the kerbside collection service did not include pots, tubs and trays, or the schemes were actually introduced to complement the pots, tubs and trays collected in the kerbside scheme.

It is evident with existing schemes maturing and new collection schemes being introduced collection levels of pots, tubs and trays will continue to grow, although whether this growth is fast enough and sustainable to meet the UK and new EU plastic targets remains to be seen.

# Household Plastic Collection Data

**New Household Plastics Packaging Collection Rates**

Collection rates are the percentage of available plastics packaging that is collected for recycling, and these rates are an effective way of providing a snapshot of how well the UK is performing in collecting plastics packaging for recycling.

RECOUP always use the best available estimate of plastics packaging placed on the market (POM) and packaging trends (% growth per year) to compare against the reported collection quantities to calculate these percentage collection rates and ensure that the rates are as accurate as possible.

It can be reported that the POM data has changed for the 2015 Survey. This is covered in detail in the 'UK Plastics Packaging Consumption Data' section on page 46, but the headline information is that there is over 42,000 tonnes **INCREASE** in bottles and over 140,000 tonne **REDUCTION** in pots, tubs and trays from the previous POM data. Consequently, this means the percentage recycling rates will change over and above the actual changes in reported collection quantities.

The new collection rates showing the new POM data and collection quantities are:

**Figure 11 - Plastics Packaging Collection Rates**

| Plastic Bottles | |
|---|---|
| Consumption Tonnage | 594,000 |
| Collection Tonnage | 337,447 |
| Recycling Rate | 57% |

| Pots, Tubs & Trays | |
|---|---|
| Consumption Tonnage | 525,000 |
| Collection Tonnage | 155,176 |
| Recycling Rate | 30% |

| Overall Rigid Plastic Packaging | |
|---|---|
| Consumption Tonnage | 1,119,000 |
| Collection Tonnage | 492,623 |
| Recycling Rate | 44% |

The increase in plastic bottles POM means that the plastic bottle collection rate reduces by 1% to **57%**, but there is a marked increase in the collection rate of pots, tubs and trays, which increases from 21% to **30%**. This reflects the increased collections of this plastic format and provides evidence that the new POM data is the most reliable data available. To provide some clarity to the 30% rate, the pot, tub and tray collection rate was hovering around the 20% level in 2011 to 2013, and prior to this it was only possible to estimate a pot, tub and tray recycling rate within a range, which was 12%-15% in 2010. The new overall rigid plastic packaging collection rate leaps from 37% to **44%**.

This data can then be used to calculate the average number of plastic bottles that are used and recycled per household. The 594,000 tonnes of plastic bottles POM means that nearly **36 million** plastic bottles are used in the UK everyday. Based on this and 22,000 plastic bottles per tonne, 26,439,375 households in the UK and a plastic bottle recycling rate of 57% it can be confirmed the average UK household uses nearly **500** plastic bottles a year, but only recycles just over **280** of them.

In addition, the number of plastic bottles not collected for recycling can be calculated. There were 256,533 tonnes of plastic bottles not collected for recycling, and if this is combined with an estimated average of 22,000 plastic bottles per tonne, over **5.5 billion household plastic bottles were not collected to be recycled from UK households - that's over 15 million plastic bottles every day!**

The average UK household uses nearly 500 plastic bottles a year, but only recycles just over 280 of them!

Every day a total of 15 million plastic bottles were not collected to be recycled by UK households!

# Household Plastic Collection Data

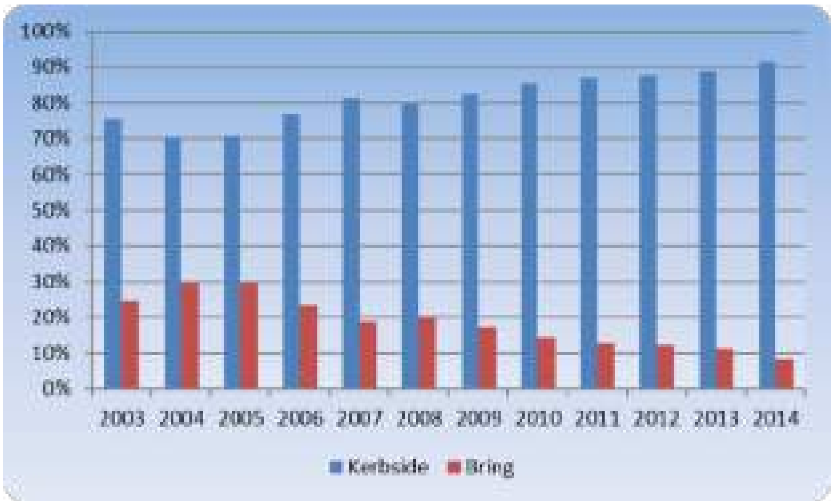
**Reported Quantities from Kerbside and Bring Collection Services**

In recent years there is an increasing trend to collect commingled materials from the kerbside and bring schemes, with bring sites and recycle on the go units serviced as part of their kerbside collection route. It should be noted that these tonnages can incorporate reported collection data through Household Waste and Recycling Centres (HWRCs) run by waste disposal Authorities. This means individual weights for these services are not recorded separately.

Therefore increasingly plastics collected for recycling are being reported as a plastic total or the total for all dry recyclables. Up until now plastics collected via kerbside and bring schemes have been reported separately, with 10,000 tonnes allocated from recycle on the go collections as part of the total collected from bring schemes.

The quantities collected from bring schemes have also stabilised over time and shows small decreases year on year (see Figure 12):

**Figure 12 - Percentage of Plastics Packaging Collected through Kerbside and Bring Schemes**




To reflect the increasing reporting trends from Local Authorities and the stable collection quantities from bring schemes a set quantity of 40,000 tonnes has been allocated to collections from bring and recycle on the go schemes. This is reduced from the previous quantity of just over 50,000 tonnes that was reported or estimated from bring and recycle on the go schemes in the 2014 Survey (2013/14) to make allowance for some of the bring and recycle on the go quantities reported in the kerbside collection data.

The 40,000 tonnes has been separated by plastic format (plastic bottles and pots, tubs and trays) using the established and estimated material composition data:

- 70% (28,000 tonnes) plastic bottles
- 30% (12,000 tonnes) plastic pots tubs and trays

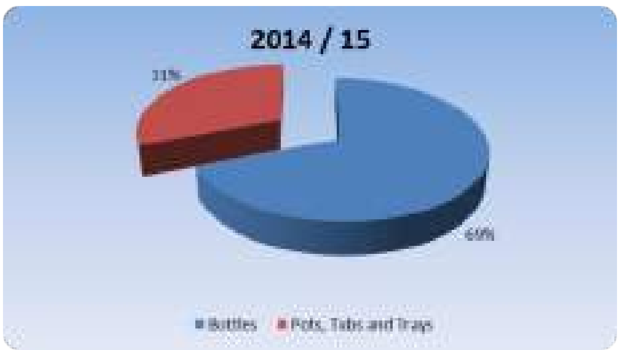
Due to this change in reporting methodology for kerbside and bring collection quantities it should be noted that the total quantity collected from kerbside schemes for plastic bottles and pots, tubs and trays in 2014/15 is higher than would have been reported using the previous kerbside and bring calculation methodology used in the 2014 Survey. The total reported kerbside collections in 2014/15 is 452,623 tonnes, a 39,748 tonne (9.6%) increase from the 412,875 tonnes that was reported for kerbside collections in 2013/14 - however, the overall increase for plastics collected has only increased by 6.1%. This new methodology will be applied in the 2016 Survey so the changes can be measured against like for like collection data.

**Composition of Plastics Collected for Recycling**

Collections of plastics from Local Authorities in the UK can be categorised into 4 plastic formats – plastic bottles, plastic pots, tubs and trays, plastic film and non-packaging plastics. However, it has not been possible to collate a dataset that can be considered robust enough for a representative sample for the UK for plastic film and non-packaging plastics, and therefore the composition of plastics collected for recycling includes plastic bottles and pots, tubs and trays only.

It can be confirmed the ratio of pots, tubs and trays against plastic bottles is over **30%** for the first time:

**Figure 13 - Plastics Packaging Composition**



# Household Plastic Collection Data

## Plastic Packaging Collections by Nation & Region

### Total Quantities Collected by Nation

Collections of plastic bottles and pots, tubs and trays can be analysed and reported on by UK nation, both in terms of collection quantities from kerbside, bring and recycle on the go collection schemes.

*Plastic Bottles*

With only 6 Local Authorities not collecting plastic bottles as part of their kerbside collection service, the 11,502 tonne (3.5%) increase from the previous demonstrates steady but unremarkable progress. With the overall plastic bottle recycling rate at 57%, there are huge opportunities to collect more plastic bottles for recycling.

The collection data and percentage increases for plastic bottles by UK nation is presented in Figure 14:

**Figure 14 - Breakdown of Plastic Bottle Collections by Country in 2014/15 and Respective Changes to 2013/14**

| | | Tonnes |
|---|---|---|
| UK | 2013/14 | |
| | Total Quantity of Plastic Bottles Collected in 2013/14 | 325,945 |
| | 2014/15 | |
| | Total Quantity of Plastic Bottles Collected in 2014/15 | 337,447 |
| England | 2013/14 | |
| | Total Quantity of Plastic Bottles Collected in 2013/14 | 260,189 |
| | 2014/15 | |
| | Total Quantity of Plastic Bottles Collected in 2014/15 | 255,342 |
| Scotland | 2013/14 | |
| | Total Quantity of Plastic Bottles Collected in 2013/14 | 25,503 |
| | 2014/15 | |
| | Total Quantity of Plastic Bottles Collected in 2014/15 | 24,659 |
| Wales | 2013/14 | |
| | Total Quantity of Plastic Bottles Collected in 2013/14 | 20,101 |
| | 2014/15 | |
| | Total Quantity of Plastic Bottles Collected in 2014/15 | 19,638 |
| Northern Ireland | 2013/14 | |
| | Total Quantity of Plastic Bottles Collected in 2013/14 | 10,152 |
| | 2014/15 | |
| | Total Quantity of Plastic Bottles Collected in 2014/15 | 9,807 |
| Bring & RotG | Estimated Bring & Recycle on the Go Collections | 28,000 (▲12,000) |

Due to the change in reporting methodology the ‘Total quantity of plastic bottles collected in 2013/14’ was the total quantity from kerbside, bring and recycle on the go collections. Whereas in the 2015 Survey as the quantity from bring and recycle on the go schemes is allocated separately (i.e. 28,000 tonnes) the total quantity reported for each nation has reduced accordingly.

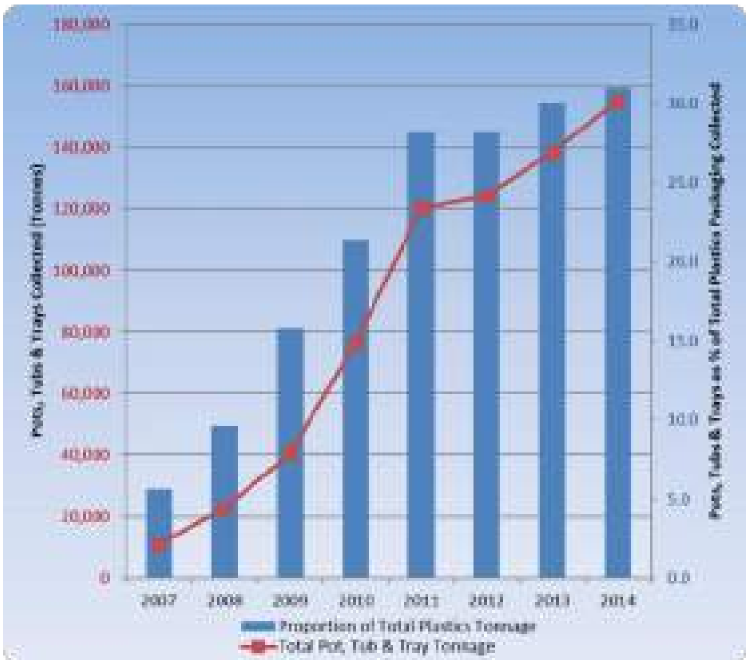
Although the UK nations figures have all shown slight reductions in the method of reporting for Figure 14 the overall increase of 11,502 tonnes of plastic bottles was largely made up of increases across all four UK nations.

# Household Plastic Collection Data

*Pots, Tubs & Trays*

With an overall increase of over 100% in 5 years from 2010 to 2014, collections levels for pots, tubs and trays are estimated by RECOUP to continue to increase their proportion of the total household plastics packaging collected for recycling (see Figure 15):

**Figure 15 - Pot, Tub and Tray Collection Tonnage and Proportion of the Total Plastics Packaging Collected**




With nearly an additional 17,000 tonnes (12.1%) of pots, tubs and trays being collected in 2014/15 there is strong evidence the significant rise in new schemes over the recent years are starting to mature and the growth is starting to mirror the positive but steady increases experienced when the kerbside service provision for plastic bottles was being implemented across the UK.

The collection data and percentage increases for the UK for pots, tubs and trays is presented in Figure 16.

Due to the change in reporting methodology the 'Total quantity of pots, tubs and trays collected in 2013/14' was the total quantity from kerbside, bring and recycle on the go collections. Whereas in the 2015 Survey as the quantity from bring and recycle on the go schemes is allocated separately (i.e. 28,000 tonnes) the total quantity reported for each nation has reduced accordingly. The reductions are not as pronounced as plastic bottles due to the higher percentage annual increase of 12.1% compared to 3.5% for plastic bottles.

**Figure 16 - Breakdown of Plastic Pot, Tub and Tray Collections by Country in 2014/15 and Respective Changes to 2013/14**

| | | Tonnes |
|---|---|---|
| UK | 2013/14 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2013/14 | 138,488 |
| | 2014/15 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2014/15 | 155,176 |
| England | 2013/14 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2013/14 | 112,068 |
| | 2014/15 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2014/15 | 116,401 |
| Scotland | 2013/14 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2013/14 | 9,988 |
| | 2014/15 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2014/15 | 10,093 |
| Wales | 2013/14 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2013/14 | 12,868 |
| | 2014/15 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2014/15 | 13,055 |
| Northern Ireland | 2013/14 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2013/14 | 3,563 |
| | 2014/15 | |
| | Total Quantity of Pots, Tubs & Trays Collected in 2014/15 | 3,627 |
| Bring & RotG | Estimated Bring & Recycle on the Go Collections | 12,000 (▲12,000) |

# Household Plastic Collection Data

***Kerbside Collections by Nation and Region***

Focusing just on kerbside collections, the nation collection data can be further analysed and collection quantities can be reported on both by UK nation and also by region in England.

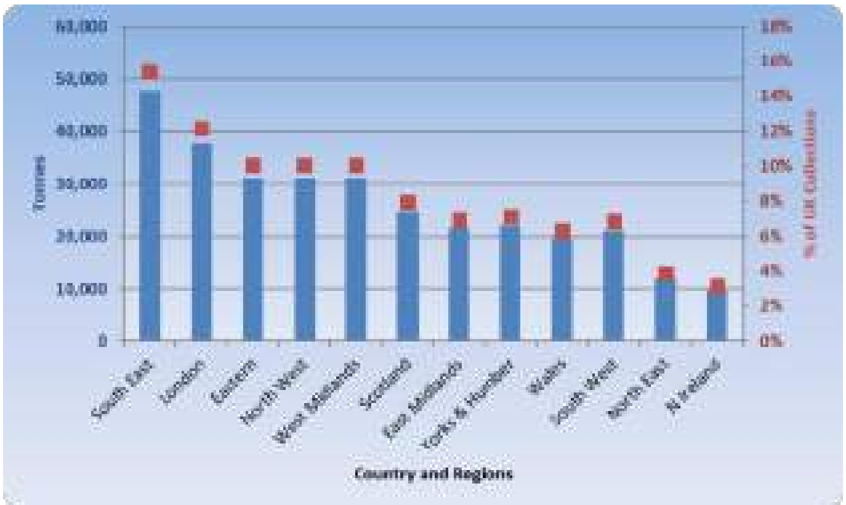
Due to the change in the reporting methodology as outlined on page 22 as this data is focusing purely on collections from kerbside schemes the estimated quantities collected are higher than would have been reported using the previous kerbside and bring calculation methodology used in the 2014 Survey. This new methodology will be applied in the 2016 Survey so the changes can be measured against like for like collection data.

*Plastic Bottles*

There was a total increase of 11,502 tonnes of plastic bottles from kerbside schemes. The highest total kerbside plastic bottle tonnage collected was from the South East with nearly 48,000 tonnes, representing 15% of the total UK plastic bottles collected from this scheme type. Figure 17 provides a breakdown of kerbside plastic bottle collection by country and region.

The data indicates that England accounts for 82.5% of the total UK plastic bottle collections, with Scotland, Wales and Northern Ireland representing 8%, 6.3% and 3.2% respectively. These proportions are broadly in line the UK population split, although it should be noted that Wales is collecting more than their population level would suggest based on averages.

**Figure 17 - Kerbside Plastic Bottle Recovery and Average Collected per Household by Country and Region**

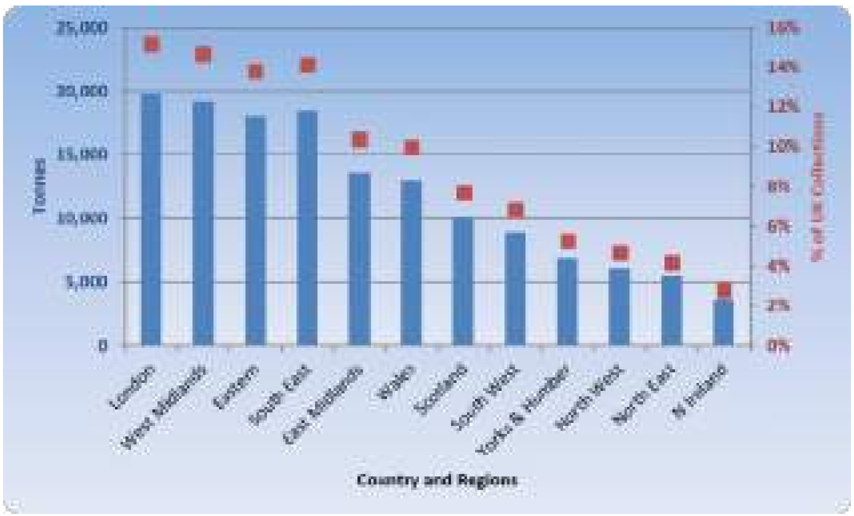



*Pots, Tubs & Trays*

There was a total increase of 16,688 tonnes of pots, tubs and trays from kerbside schemes. The highest total kerbside pot, tub and tray tonnage collected was from London with 19,839 tonnes, representing 14% of the total UK pots, tubs and trays collected from this scheme type. Figure 18 provides a breakdown of kerbside plastic bottle collection by country and region.

England accounts for 81.4% of total UK pots, tubs and trays kerbside collections, with Scotland, Wales and Northern Ireland, representing 7%, 9.1% and 2.5% respectively. Although these proportions are broadly in line the UK population split, it should be noted that as with plastic bottles Wales are collecting more than their population level would suggest. It is expected that this is due to a combination of a higher percentage of Local Authorities collecting pots, tubs and trays as part of their kerbside collection service than the other UK nations and as with plastic bottles also a generally higher collection yield per household.

**Figure 18 - Kerbside Pot, Tub and Tray and Average Collected per Household by Country and Region**



# Household Plastic Collection Data

## Average Kerbside Collection Rates

As covered in the *Service Provision* section the number of households that receive a kerbside collection for dry recyclables can be estimated using a broad assumption of the number of households with at least one usual resident (i.e. the household has a regular kerbside collection) within a geographical area.

When combining this assumption with the collection quantities, it is possible to calculate the average kerbside collection rates (kg per household per year).

### *Plastic Bottles*

Using these assumptions it can be confirmed the average kerbside collection rate of plastic bottles per household is **11.91 kg**, a small increase from the 11.83kg reported for 2013/14.

Plastic bottle collections continue to experience modest average collection rate per household increases since the substantial rise seen from 2005-2009, with only an overall 6.3% increase since 2009/10 (this data is shown in Figure 19). To provide some context about potential collections per household, if all the plastic bottles that were consumed in UK households were collected the average plastic bottle collection rate per household would be over **22 kg**.

### *Pots, Tubs & Trays*

Where a service is provided, the average material collection rate for pots, tubs and trays is **8.03 kg**. This figure has fluctuated with the rolling out of service provision across the UK, and the average collection rate being reported (this data is shown in Figure 20).

There could be a number of reasons for this, mainly being around the effectiveness and maturity of the schemes and actual number of households covered.

However, where a Local Authority collects plastic bottles and pots, tubs and trays, RECOUP expects the ratio to be 60% plastic bottles to 40% pots, tubs and trays. With the 8.03kg being 67% of the average collection level per household for plastic bottles of 11.91kg, the ratio is considered by RECOUP to be a more accurate figure than previously reported data.

As with plastic bottles, to provide some context about potential collections per household, if all the plastic bottles that were consumed in UK households were collected the average pot, tub and tray collection rate would be nearly **20 kg** per household.

## Total Plastics Packaging Collected per Household

The 11.91 kg for plastic bottles and 8.03 kg makes a total of **19.94 kg** of rigid plastics packaging collected per household.

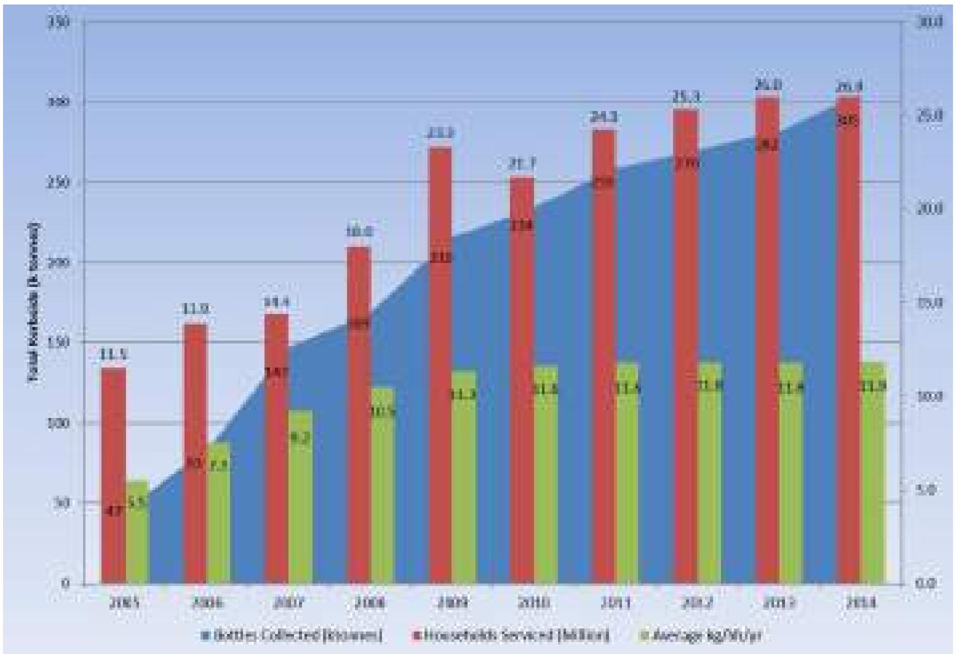
# Household Plastic Collection Data

**Consolidated Kerbside Collection Scheme Parameter Trends**

With kerbside plastic bottle collections being established for a number of years it is possible to combine key indicators for kerbside collections into summarised graphs, which includes total collected quantities, average quantity collected per household, and number of households serviced. Although it does not provide direct comparisons as each dataset uses a different value scale, it can be an effective reference point for mapping kerbside collection development over time.

Please note that the primary axis (left) refers to the total quantities (k tonnes), whilst the secondary axis (right) refers to the other indicators – average quantity (kg) collected per household and total households serviced (millions).

**Figure 19 - Comparison between Parameters Influencing Kerbside Plastic Bottle Recycling**



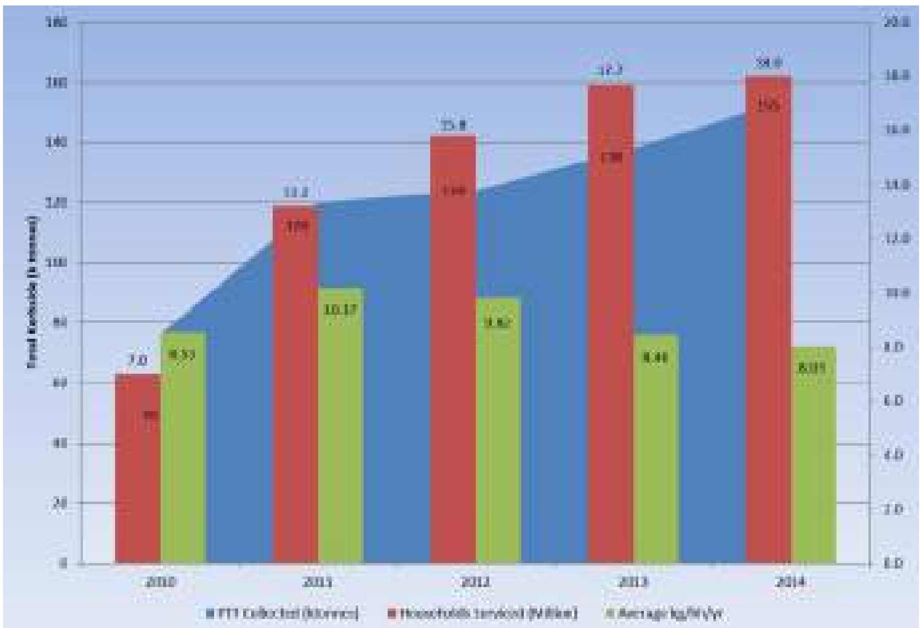

*Plastic Bottles*

Appropriate data has been reported for plastic bottles since 2005/06. There is clearly an upward trend for each indicator which slows in recent years, discounting the 2009/10 households serviced data anomaly which was corrected for 2010/11.

**Figure 20 - Comparison between Parameters Influencing Kerbside Plastic Pot, Tub & Tray Recycling**

*Pots, Tubs & Trays*

Appropriate data has been reported since 2010 for pots, tubs and trays, and the sharp increases in collection service provision and quantities collected are clear to see. The larger than expected rise in 2011/12 due to reported collection estimates was adjusted in 2012/13.



## Kerbside Containers and Frequency of Collection

### Use of Collection Containers

There are three main types of kerbside collection container – wheel bin, box and bags (disposable and re-usable) – and the use of containers, whether it is the only container used or a combination of these is presented in Figure 21:

**Figure 21 - Container Combination in Kerbside Plastics Recycling Collections**

| Container Combination | Number of Local Authorities | % Split |
|---|---|---|
| Wheelbin only | 105 | 46% |
| Wheelbin & Box | 22 | 10% |
| Wheelbin & Bag | 34 | 15% |
| Wheelbin, Box & Bag | 13 | 6% |
| Box only | 25 | 11% |
| Bag only | 23 | 10% |
| Box & Bag | 7 | 3% |
| Total | 229 | 100% |

There were responses from 229 Local Authorities to these questions.

Since 2007, the most popular kerbside recyclables collection container has been a wheel bin, and their predominant use is a reflection of the increase in commingled collections, the wider adoption of alternate weekly collections and the introduction of the collection of pots, tubs and trays. They are now used in 55% of plastics recycling collections – this is the same percentage as in 2013/14 (see Figure 22). Boxes and bags are used in similar numbers, with boxes used by 21% and bags by 24% of Local Authorities. There has been a 3% increase in the use of bags from 2013/14 data and a 3% reduction in the use of boxes.

**Figure 22 - Use of Container Type in Kerbside Recycling Collections**

| Container Type | Use of Container Type | % Use |
|---|---|---|
| Wheelbin | 174 | 55% |
| Box | 67 | 21% |
| Bag | 77 | 24% |

With over 99% of Local Authorities in the UK providing a kerbside collection scheme that includes plastic bottles it is estimated that up to 26 million households in the UK receive a kerbside plastic bottle collection service. On that basis there are now up to 14.5 million households using a wheel bin to collect dry recyclables including plastic bottles, 6.3 million using bags and 5.5 million using boxes.

Looking at the combinations that are used, single units, whether they are wheel bins, boxes or bags, account for 66% of kerbside plastics recycling collections (down from 70% in 2013/14), with 28% using dual units and 6% using triple unit combinations see Figure 23. The combinations of containers are being used to allow for separate collections of specific materials, and this could be particularly important for glass. This could be, for example, to meet input and contractual requirements from MRFs and reprocessors, or to satisfy kerbside conditions where wheel bins cannot be utilised.

**Figure 23 - Container Combination in Kerbside Plastics Recycling Collections**

| Container Type | Use of Container Type | % Use |
|---|---|---|
| Single Unit | 153 | 66% |
| Dual Unit | 63 | 28% |
| Triple Unit | 13 | 6% |

# Household Plastic Collection Data

***TEEP***

TEEP (whether it is Technically, Environmentally and Economically Practicable to collect materials separately) applies to both household and commercial and industrial materials, and came into effect on 1st January 2015.

Interpretation of the term ‘collected separately’ is key to this. The Waste Regulations 2011 for England and Wales stated that as long as materials collected for recycling were collected separately from other waste, then the collector had the choice of whether to collect commingled or separately. However, this was later qualified as being these materials could only be collected commingled where it does not detract from the quality of the recycling. With Defra not publishing specific guidance on TEEP this has led to Local Authorities having to analyse the operations, demographics and circumstances in its own area, and using tools such as WRAPs TEEP ‘Route Map’ as a guide. It is thought the majority of Local Authorities will be maintaining existing collection provision and containers.

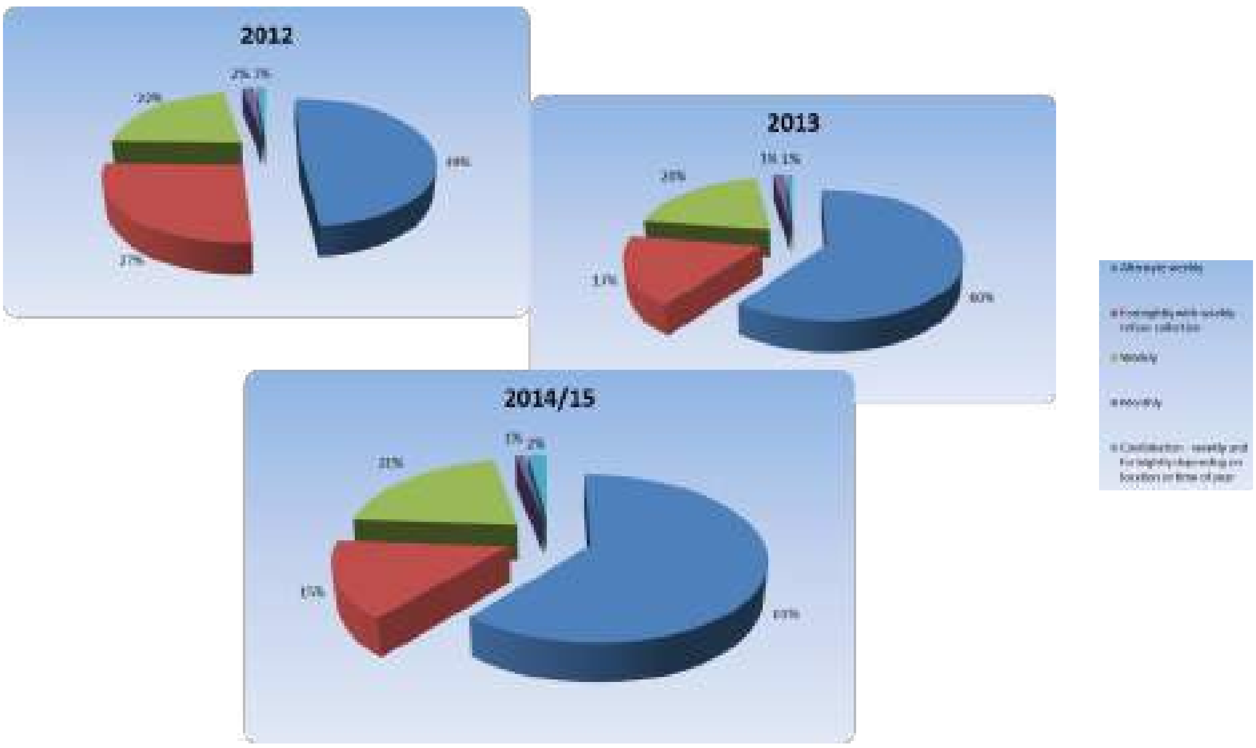
**Frequency of Recyclables Collections**

The frequency of the recyclables collection is an important factor in the effectiveness of a kerbside recycling scheme. This can typically range from weekly, alternate weekly (with the residual collection), fortnightly only, three weekly, monthly, or a combination of these.

Although the number of Local Authorities providing each type of service has been fairly consistent in recent years, there has been a marked increase in alternate weekly services with the residual collection, and it appears that this shift has now stabilised.

Overall fortnightly recyclables collections are most popular, covering 76% of Local Authority areas with a kerbside plastic bottle collection. However, when analysed further, 61% of Local Authorities provide an alternate weekly service with the residual collection and 15% provide a weekly refuse collection. Weekly recyclables collections account for 21% of Local Authority services. These figures are largely unchanged from the reported levels in the 2014 Survey (2013/14). The full breakdown of the data over the past 3 years is shown in Figure 24:

**Figure 24 - Use of Container Combinations in Kerbside Recycling Collections**



**Plastic Film**

It has been reported that 79 Local Authorities collect plastic film as part of their kerbside recyclables collection service. This is now the fourth Survey which has asked for data relating to its collection from the UK household waste and recycling systems. As has been referenced in the *Methodology* section, many Local Authorities report collection quantities for all recycled materials or all household plastics packaging, and the relatively small levels of plastic film are included in these totals and it is not possible to extract enough accurate data to represent a UK wide dataset.

However, it has been established that the majority of these schemes only accept carrier bags or Polyethylene (PE) bags plastic film, such as:

- Bread bags
- Bags around newspapers and magazines
- Toilet paper and kitchen roll packaging
- Fruit and veg bags
- Multipack packaging (cans, etc)

Generally what is considered to be dirty plastic film packaging (e.g. heavily contaminated film lids used in ready meals), cling film and biodegradeable bags are not requested material.

RECOUP believe much of the household film is baled and exported for reprocessing or used in Energy from Waste facilities. If a Local Authority is considering the collection of film through their kerbside collections it requires thorough communications throughout the recycling chain for anyone handling, selling or disposing of the material. There are a number of practical barriers which prevent film being compatible with many existing UK collection and MRF systems, and it can contaminate established plastic bottle bales and paper lines, and clog sorting equipment. RECOUP supports any activities and research in this area, as long as it does not interrupt existing collection and reprocessing activities.

**Plant Pots**

Although plant pots have not traditionally fitted in the main categories of rigid items of plastic collected from kerbside schemes, because many plant pots are made from Polypropylene they could be accepted items by the MRF that handle pots, tubs and trays from kerbside collections.

There is evidence that plant pots are being collected as part of some Local Authority pot, tub and tray collections, with **27** stating they include plant pots as part of their kerbside collection scheme. In the 2015 Survey it is assumed for the Local Authorities offering a kerbside collection service that the collection data for plant pots is included in their overall pot, tub and tray reported figures.

It should be noted there is confusion about whether plant pots are classified as non-packaging or not depending on what the pots function is. The current ruling from the Environment Agency is that plant pots are classified as packaging except when they are biodegradable and intended to be planted with the plant, or when sold containing a plant intended to stay in the pot, for example, a house or patio plant. Pots sold separately with no plants included are always classified as a product and not packaging. So, using current classifications, they could be either packaging or non-packaging.

**Non-Packaging Plastics**

Through monitoring of kerbside collection services by RECOUP it is evident that what can be termed as non-packaging plastics service provision is being offered by a number of Local Authorities. Non-packaging plastics can include small plastic items such as plastic toys. Another material stream that might be considered non-packaging plastic collected in the kerbside service include small WEEE (Waste Electrical and Electronic Equipment) such as kettles, toasters and MP3 players.

Following on from the 2014 Survey the 2015 Survey asked a question for the second time about what non-packaging plastics are being collected. Although no collection data has been reported a total of **39** Local Authorities stated they offer a service, an increase from the 31 Local Authorities in 2013/14.

Although these items do not fit in the main categories of rigid items of plastic bottles, and pots, tubs and trays, there is a possibility they could be accepted items by the MRF that handle the kerbside collections – communicating throughout the recycling.

# Plastic Recycling Markets

**With the established infrastructure and inherent recyclability plastic bottles have the greatest market values. Although collections for pots, tubs and trays have increased significantly in recent years, their inherent recyclability, values and end markets in pots, tubs and trays are yet to develop in the same way as plastic bottles.**

**Oil Prices**

Oil prices are changing all the time, but a sharp or long-term decline in oil prices impacts the price of recycled plastics. It means the cost of virgin polymers fall, which in turn reduces the value of recycled plastics.

There are two main reasons why manufacturers use recycled polymers in their products – it could be due to its competitive cost compared to virgin polymers or it could be used for environmental reasons. When the price of virgin materials falls there is less or no advantages for using recycled materials. This reduced demand goes through the supply chain and the price paid for waste materials such as plastic bottles consequently also declines.

In January 2015 the price of Brent Crude Oil fell to its lowest level since 2009, trading at around $50 per barrel, when it was trading at around $105 at the same time in 2014. This is plastic recyclers hard and the already tight profit margins have been squeezed even tighter, even if a profit is made at all.

Oil prices have historically been cyclical, but plastic recyclers need the support of industry and manufacturers now more than ever.

***Plastic Bottles***

Plastic bottles mainly consist of PET drinks bottles and HDPE milk bottles, but there are small amounts of other bottle types such as DIY, bathroom and cosmetic products, which can be made from PP, coloured HDPE and PET, and also PVC.

Using the Lets Recycle material price index (www.letsrecycle.com) 1 tonne of mixed plastic bottles typically attracted an average price of £87 per tonne in 2014/15, therefore the 337,447 tonnes collected for recycling represented a potential total value of around £28 million, which represented an approximate 30% increase. The real prices for 2014/15 ranged from £54-£119 resulting in a total value range of **£18m-£39m**.

So how do these values equate to the total collection tonnages in 2014/15?

A total of 256,553 tonnes of plastic bottles from UK households were not collected for recycling in 2014/15. This means:

- Using the average **£87** per tonne mixed bottle value, the un-recycled bottles would have a potential average value to reprocessors in 2014/15 of nearly **£22m**
- Based on the median landfill tax and gate fee for non-hazardous material of £100 per tonne, these bottles would cost over **£25m** to dispose of

It should be noted a quantity of bottles, estimated to be 10%, disposed of in the residual fraction will go to Energy from Waste (www.bpf.co.uk/sustainability/efw.aspx), but processing costs have been assumed to be in line with landfill costs for the purposes of this calculation.

Although the following calculation would be providing an unlikely view of the financial implications, if there was a 100% bottle collection rate, and by combining the potential value of the currently un-recycled plastic bottles and the landfill costs, there would be an additional **£46m** benefit to disposal Authorities in the UK versus the current situation today!

It should be highlighted that these prices are for mixed plastic bottles, which can vary depending on the levels of clear PET and natural HDPE bottles. To give a comparison of the prices for a tonne of clear PET and natural HDPE bottles, average prices ranged from:

- Clear PET - £179-£220, with an average of **£200** (a £42 **REDUCTION** on 2013/14)
- Natural HDPE - £359-£402, with an average of **£380** (a £67 **INCREASE** on 2013/14)

This clearly demonstrates the potential additional value of sorted clear PET and natural HDPE bottles, although of course this needs to be balanced against the additional sorting costs incurred to achieve these higher values.

# Plastic Recycling Markets

***Pots, Tubs and Trays***

The value of pots, tubs and trays depends primarily on the level of contamination and Polyolefin content (PP and PE plastics), and they are generally speaking not attracting positive values. Any higher prices are likely to refer to material that also includes plastic bottle content, which inflates the value, or are subjected to several appropriate sorting processes to extract the valued sorted Polyolefin plastics, particularly PP.

It is not realistic to put a potential figure on the benefit of collecting the 525,000 tonnes entering the household waste and recycling systems. With the values not yet realised for the 155,000 tonnes of pots, tubs and trays that were collected for recycling in 2014/15, some examples of the benefits of avoiding landfill for this material are:

- If all the estimated 525,000 tonnes of pots, tubs and trays consumed were disposed of in 2014/15, based on the median landfill gate fee for non-hazardous material of £100 per tonne, the disposal costs would be **£53** million per annum
- If the estimated 369,824 tonnes of pots, tubs and trays that were not collected for recycling in 2014/15, based on the median landfill gate fee for non-hazardous material of £100 per tonne, would incur disposal costs of **£37** million per annum

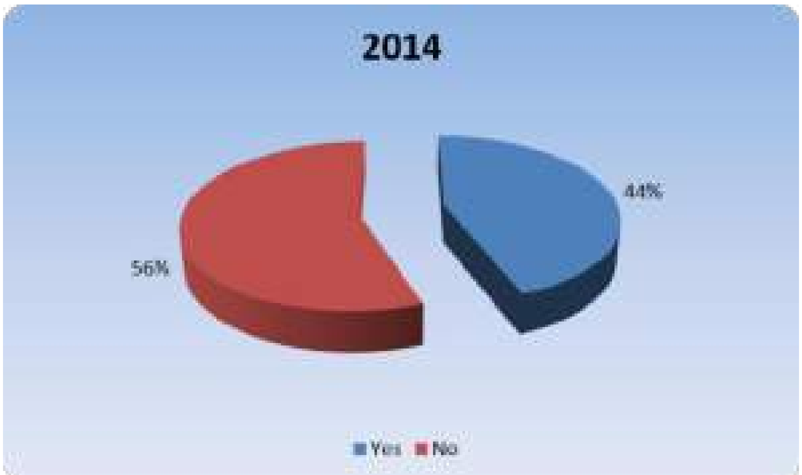
Therefore the actual cost of disposal is somewhere between **£37m and £53m!**

**Material Quality**

There is a direct relationship between both the quantity and quality of the plastics collected for recycling, and material quality dictates the value of plastics and is critical for sorting and reprocessing facilities to function on a commercially viable basis.

To get an overview of the scale of the quality assurance processes in place, Local Authorities were asked about how they monitor the quality of the plastics collected. There were nearly 230 responses to this question, and it was reported that 101 (44%) of Local Authorities monitor the quality of the plastics that are collected, and 127 (56%) do not (see Figure 25). This represents a 3% increase for those who monitor the quality of their plastics material than the previous year. However, it should be noted the majority of those who do not monitor quality are passing responsibility to their service contractor, and maybe this is an ongoing trend, particularly with the implementation of the MRF Code of Practice.

**Figure 25 - Local Authorities Monitoring the Quality of Collected Plastics**



# Plastic Recycling Markets

## Material Sales

A strong driver for improving quality for those in the recycling chain can be who receives the revenue generated from the sales of collected plastics. From over 220 responses it was found the contractors received the highest percentage of revenue from the sales of collected plastics at 35%, with 14% of Local Authorities solely receiving the revenue (see Figure 26). 29% of Local Authorities shared the revenue with the contractor therefore a combined 64% going to the contractor in some way.

**Figure 26 - Who Receives the Revenue from Sales of Collected Plastics?**

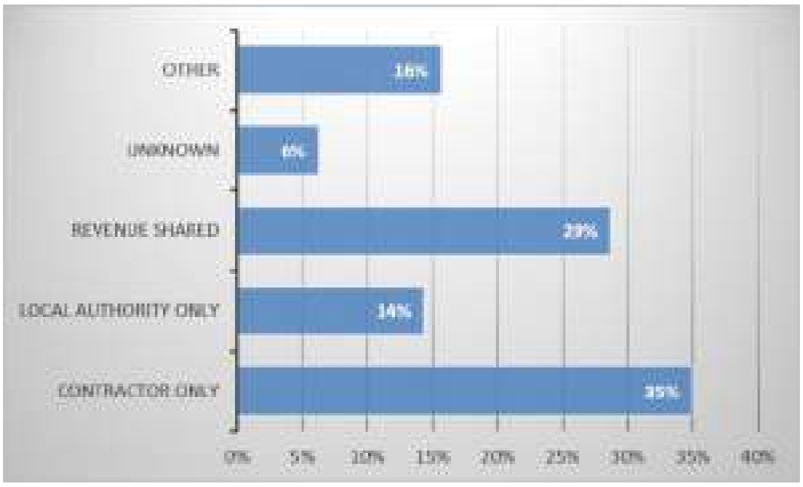
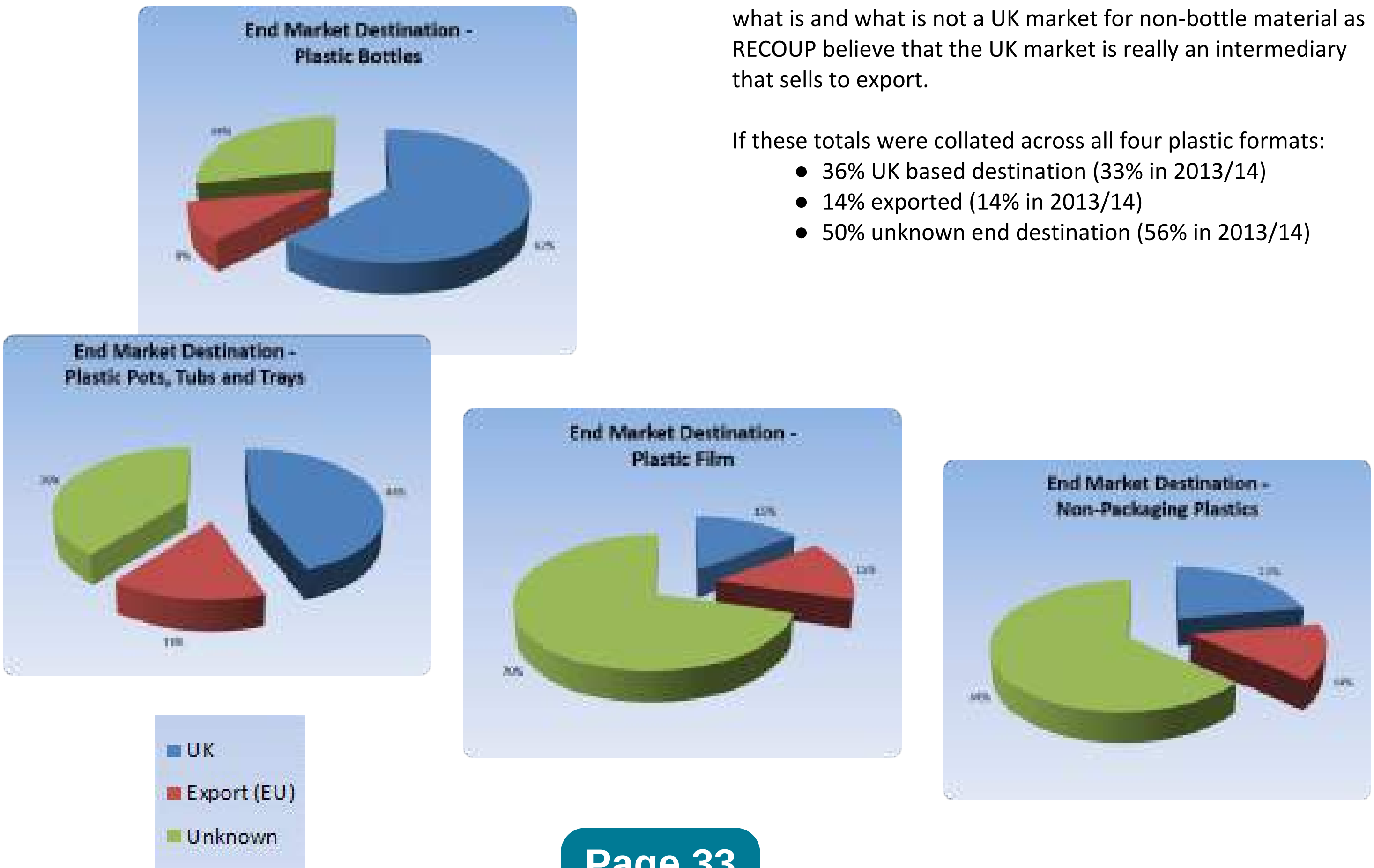



**Figure 27 - End Market Destinations for Plastics Collected for Recycling**




## End Markets

***UK or Export?***

To develop an understanding of the flow of plastics that are collected and their end markets, Local Authorities were asked to indicate where their plastic material was sold. To clarify, end markets are referring to where plastics are reprocessed into granules, pellets or flakes in preparation for use as a raw material in second life applications.

From over 220 responses, the end markets for plastic bottles in the UK has strengthened, with 62% of Authorities finding a UK based destination (see Fugure 27). This reflects the steadily growing domestic market for plastic bottles and increasing demand from UK reprocessors.

44% of Local Authorities finding a UK based destination for pots, tubs and trays, an increase of 7% since 2012/13. 39% do not know the ultimate destination for the pots, tubs and trays. Unsurprisingly, this unknown fraction dramatically increases for plastic film and non-packaging plastics to 70% and 64% respectively, although there was a 3% and 4% increase in UK markets for these plastic formats. These high unknown fractions are seen as realistic, as it is difficult to understand what is and what is not a UK market for non-bottle material as RECOUP believe that the UK market is really an intermediary that sells to export.

If these totals were collated across all four plastic formats:

- 36% UK based destination (33% in 2013/14)
- 14% exported (14% in 2013/14)
- 50% unknown end destination (56% in 2013/14)

***Struggling To Find End Markets?***

With strong markets for plastic bottles, and slowly developing or limited markets for non-bottle material, a question was asked in the Survey about whether Local Authorities were struggling to find end markets.

***Plastic Bottles***

With the strong UK and export markets for plastic bottles predictably 95% of Local Authorities did not have issues with finding end markets for plastic bottles, and it is expected the 5% who did struggle to find markets had issues through their supply chain (see Figure 28). The message is that plastic bottles continue to be in high demand – the real issue to getting the best price for the collected material.

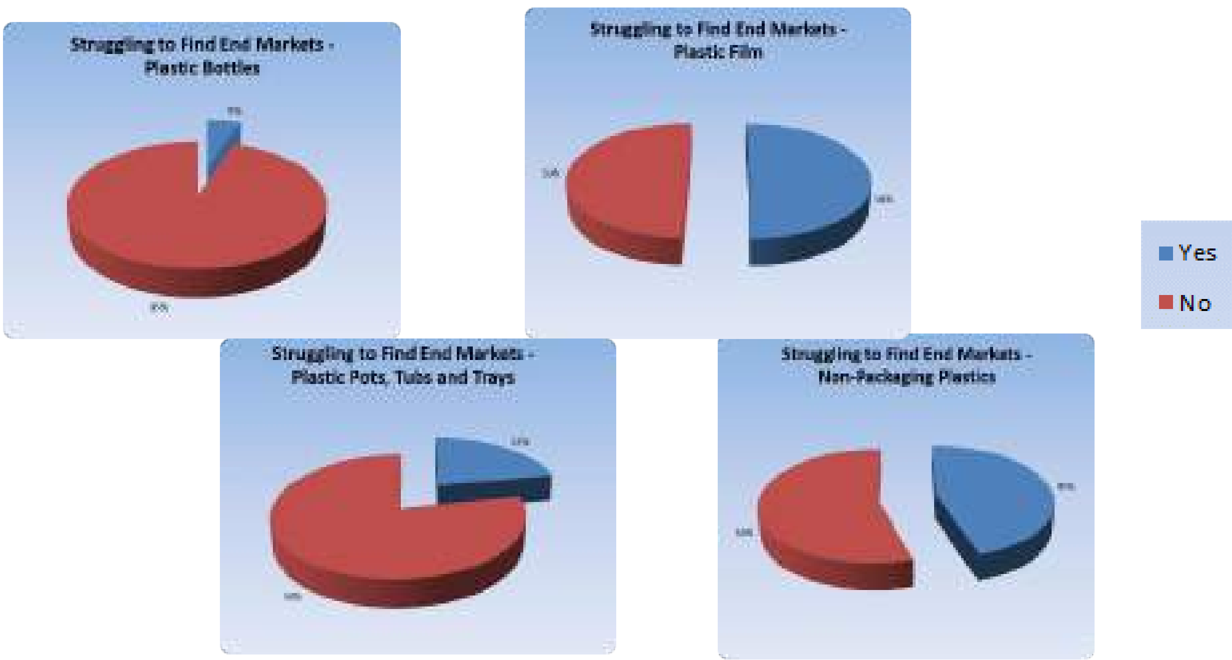
***Pots, Tubs and Trays***

Despite the current low demand for pots, tubs and trays it was slightly surprising that 78% do not struggle to find a market (was 73% in 2013/14). However, it is expected for the Local Authorities collecting pots, tubs and trays that a significant proportion will be intended to be sold as a lower grade of plastic bottles, and baled together and exported to non-EU markets for sorting and reprocessing.

***Film and Non-Packaging Plastic***

There are similar fractions for plastic film and non-packaging plastics with 50% and 55% struggling to find a market for each respectively.

**Figure 28 - Local Authorities Struggling to Find End Markets**



# An EU Perspective on Plastics Recycling

**EU Directives provide the principle legislative drivers in the development and implementation of policy and targets for the waste and recycling industry in the UK. Gaining a broad understanding of waste and recycling legislation and targets in both the UK and the wider EU helps to scope how Local Government plans its strategies and resources. This is more relevant now than ever with revised long term and far reaching proposals still being considered by the EU.**

**Towards a Circular Economy – Awaiting New EU Legislation**

The existing EU directive is the Waste Framework Directive, which was last updated 2008. It provided the overarching legislative structure for the management of waste in EU countries, and a key element of this is the 5 steps of the European Waste Hierarchy – prevention, reuse and preparation for reuse, recycle, recovery and disposal.

The current plastics packaging recycling rate for the EU member states is 22.5%, which is considered to be far too low to work alongside a powerful shift to a circular economy across the EU.

In July 2014 the European Union adopted the long awaited European Commission Communication "Towards a Circular Economy" and the Waste Targets Review proposals, which reviewed recycling and other waste-related targets with the aim of creating that shift towards better use of resources and the development of circular economies.

This included an 80% reuse and recycling target for packaging waste by 2030, including an individual target of 60% for the plastic packaging. However, these proposals were scrapped in December 2014 in favour of a 'more ambitious' policy package. **In April 2015 the UK government's Advisory Committee on Packaging (ACP) submitted a series of proposals to the European Commission to contribute to the consultation work taking place. The proposed new legislation is expected before the end of 2015.**


**UK & EU Performance**

Taking a snapshot of how plastics are managed across the EU not only provides a way of comparing how UK is faring against its EU counterparts, but also gives an indication of how much catch up it may need to make.

The source for the production, demand and waste management including trade, employment and turnover of plastic materials in Europe is *Plastics - the Facts*, produced by PlasticsEurope. It is the most up-to-date and reliable source available for plastics packaging recycling and energy recovery across the EU (current version is the 2014 edition and is based primarily on 2012 and 2013 data), and it is the source of the data shown on pages 37 and 38.

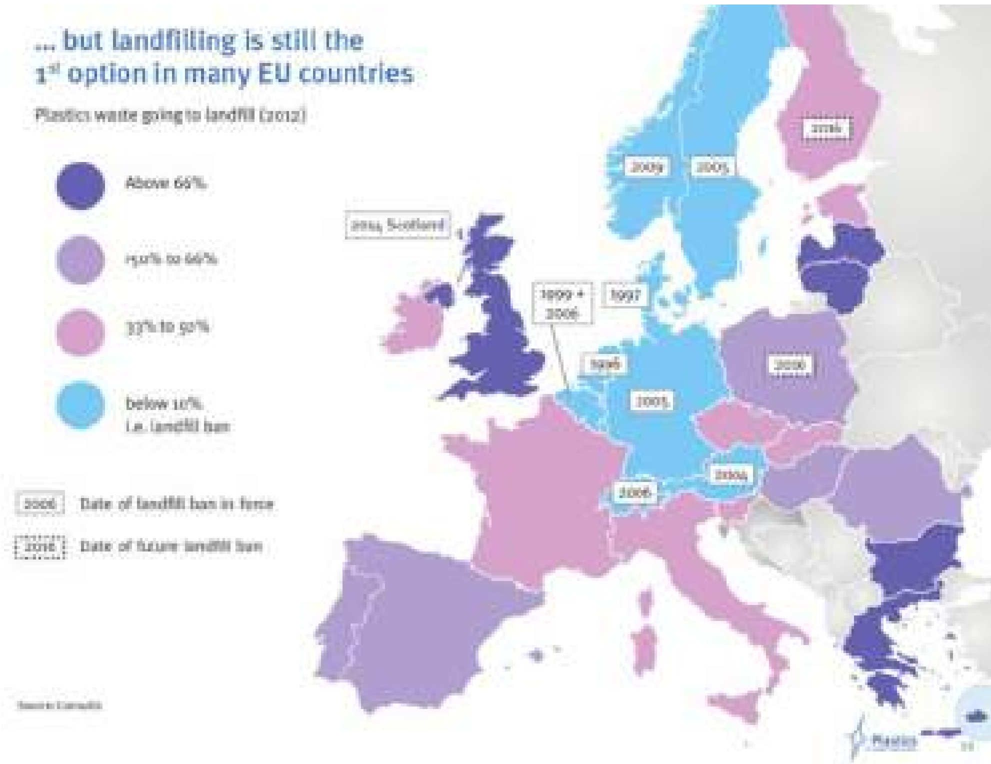
# An EU Perspective on Plastics Recycling

### Landfilling

Although recycling and energy recovery has increased in the EU in recent years (in 2012 plastics recycling and energy recovery reached 62%), landfilling is still the first option for many countries. Figure 29 shows the plastics waste going to landfill across the EU27 plus Norway and Switzerland. There are simply too many areas that have their end destination for plastics over 33% to landfill.

The task ahead couldn't be clearer. Figure 29 shows the recycling, energy recovery and landfill rate across the EU. The recycling rate shown is mechanical recycling i.e. recycled materials used as raw materials in second life applications and products. Energy recovery refers to creating energy and possibly heat from a process of burning waste.

**Figure 29 - Plastics Waste going to Landfill (Plastics – The Facts 2014)**




### Recycling and Energy Recovery

There are 9 countries achieving above 90% recovery rates, and although there is extensive use of energy recovery technologies in these countries, they do generally achieve higher recycling rates. Looking at these high performing EU countries in Figure 30 it is clear recycling and energy recovery need to work hand in hand to manage waste effectively – recycling where possible and economically sustainable to do so, and recovering energy where this is not possible.

**Figure 30 - Changes in Recycling and Energy Recovery Rates by Country (Plastics – The Facts 2014)**

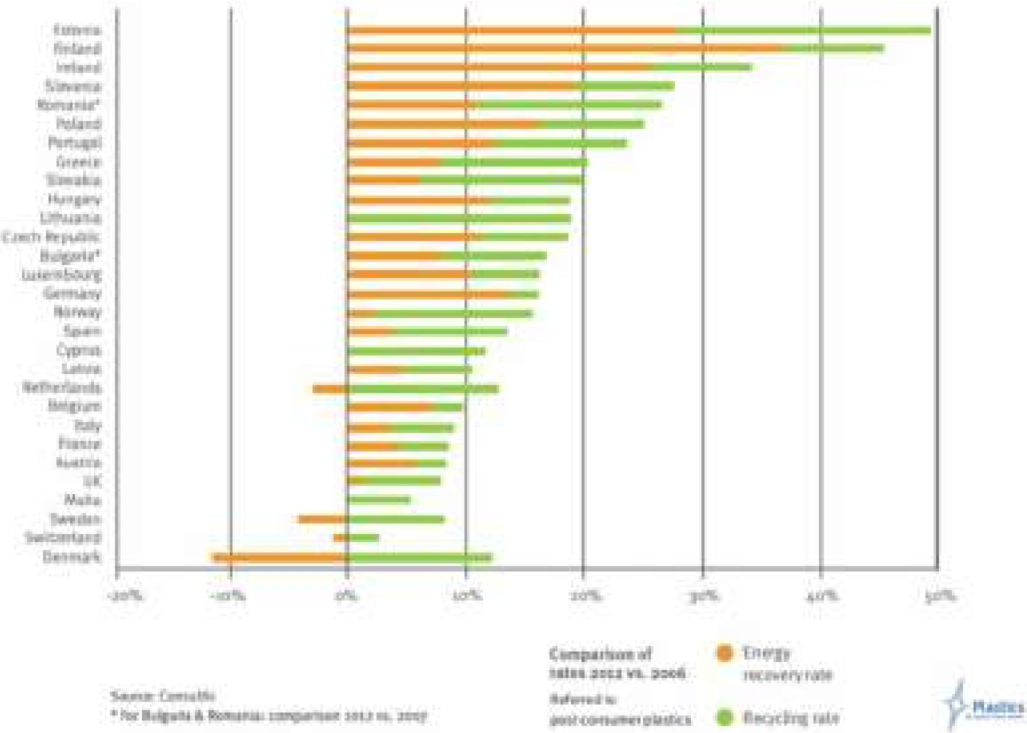


**Figure 31 - Recycling & Energy Recovery Rate per Country in the EU (Plastics – The Facts 2014)**

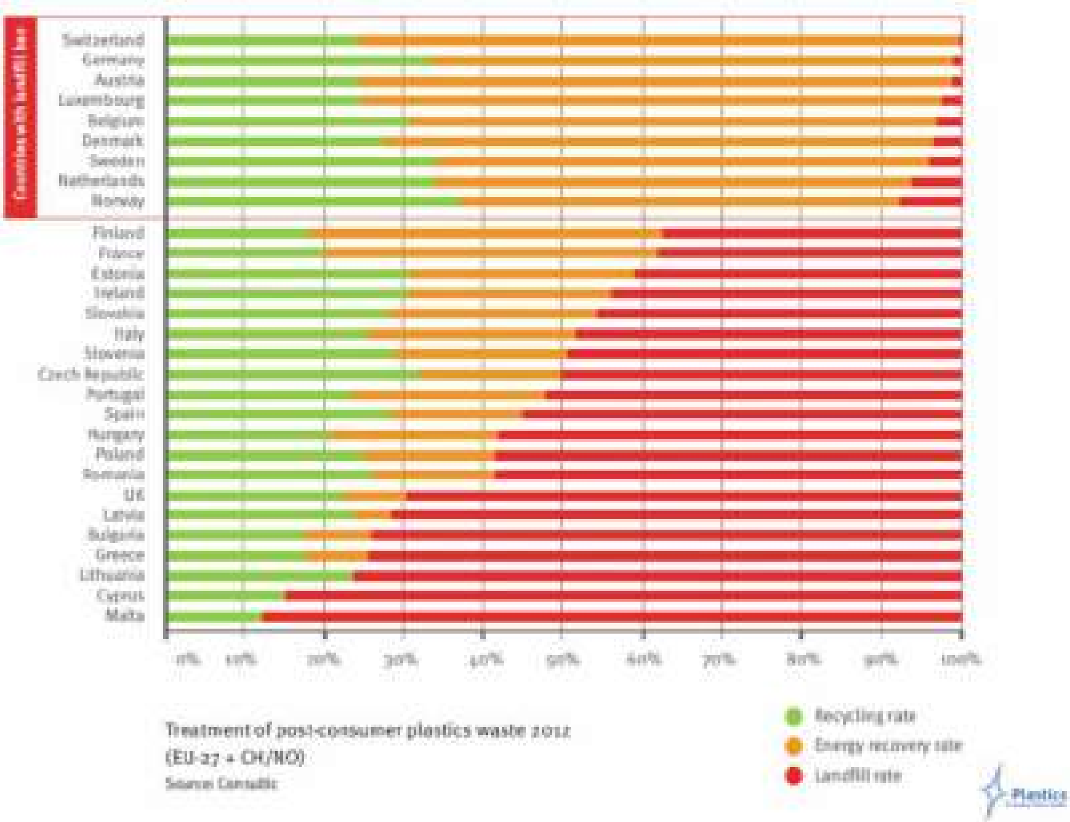



Figure 31 shows the changes in recycling and energy recovery rates for plastics between 2006 and 2012 for each country in the EU. It clearly demonstrates the most significant increases are where plastics recycling and energy recovery complement each other within the waste management infrastructure.

Historically, the UK were below average in EU plastics recycling and recovery rates until 2004, from which time reasonable growth has occurred. This was driven by the development of the kerbside collection infrastructure, initially for plastic bottles, and more recently by increasing collections of pots, tubs and trays, and increases from the commercial and industrial sector.

Based on plastics packaging tonnage recovered in Europe in 2012, combining both recycling and energy recovery, the UK were ranked 23rd from 29 countries, a position that hasn't altered significantly in recent years.

Mechanical recycling performance across EU countries typically ranges from between 20% and 35%, and when considering the mechanical recycling rate in isolation the UK performs well. No EU country achieved a higher recycling rate than 38%, and RECOUP continue to question the consistency of data reporting between countries.

The infrastructure for energy recovery has only been implemented on a limited scale in the UK, although more sites are planned and gradually being built and becoming operational. This remains a significant opportunity for the UK, and a necessity if landfill bans are to be considered


## A Step Change

Although it is likely the UK's recycling performance in EU Figure 31 is higher than the table suggests, it is clear the UK needs a step change in its approach and management of plastics recycling. Moving to a sustainable circular economy is an aspiration for the EU, but the targets needed to take the EU there are coming, and the UK will need to react to this swiftly both in terms of investment and incentives in infrastructure development. If not, falling short of the targets will incur fines and the UK will fall further behind the higher achieving EU members.

This should ultimately lead to a stronger plastic value chain, which will lay the foundations for long term sustainable growth and create a pathway to a successful green economy in the UK.

# Aligning Communications & Services

**With the effects of dwindling budgets for non-essential services having been felt by most Local Authority departments, much has been speculated about future government cuts and the inevitable consequences on delivering local services.**

"Working together" and "streamlined" are common terms that seem to be frequently used, but despite the rhetoric, where there are opportunities aligning services does appear to make logical sense.

If the input requirements of the MRF or end destination (e.g. reprocessor) for the materials are worked into the plan it not only provides cost savings and practical benefits, but politically demonstrates joined up thinking and value for money for decision makers and residents alike.

The Survey asked questions to Local Authorities about the benefits, awareness and resistance of aligning two broad areas - collection services and consumer communications.

**Summary of Recycling Collection Services & Communication Alignment**

Asked whether Local Authorities believed their consumer communications and recycling collection services are aligned/harmonised with other authorities in the County/region, there were over 250 responses to these questions (see Figure 32):

**Figure 32 - Summary of Recycling Collection Services & Communication Alignment**

| | Are Consumer Communications Aligned? | Are Recycling Collection Services are Aligned? |
|---|---|---|
| Yes | 37% | 26% |
| No | 47% | 46% |
| Don't know | 16% | 28% |

**Aligning Collection Services**

Collection services covers the broad range of activities to collect material for recycling, such as the collection unit, service frequency and plastic types collected. The simple question was asked: "Is it believed the recycling collection services are aligned / harmonised with other authorities". As shown in Figure 32 37% saying yes, 47% saying no, and 16% not aware of any alignment.

Where there was awareness and evidence of this alignment a wide range of activity areas were mentioned (see Figure 33).

**Figure 33 - How are Recycling Collection Services Aligned?**

| How are Collection Services Aligned? | | |
|---|---|---|
| Collection unit | 38 | 11% |
| Service frequency | 71 | 20% |
| Material types collected | 90 | 25% |
| Plastic types collected | 83 | 24% |
| Handling / sorting / facilities used / material sales / agreement / other | 71 | 20% |

Some authorities answered 'yes' to all these options, and the key starting point is seemingly from the materials and plastics being collected, which make up a total of 49% of the responses.

# Aligning Communications & Services

*The Benefits*

Asked what the benefits were to aligning collection services there were over 50 authorities that commented, and a clear pattern emerged. Cost saving, knowledge sharing and becoming more efficient through increased economies of scale all featured heavily:

- **"Cost savings have seen significant benefit!"**
- **"Increased amounts collected for recycling, ease of understanding the collection scheme by residents, saves costs"**
- **"Householders can see consistency, it reduces confusion for those living and working across different council areas and if consistent consequently shows recycling in a positive light"**
- **"Shared experiences to tackle issues, and in a better position when dealing with traders"**
- **"Less confusion for residents, therefore less contamination"**
- **"Pooling of resources, communications efforts, training and greater economic benefit when sourcing communications, media and marketing"**

***Resistance to Aligning Collection Services***

Of those who said they did not believe recycling collection services were aligned / harmonised, only 28% said they have attempted in some way to align collection services, with many authorities commenting on the key reasons for resistance and why it would not work.

The obvious stand out issues centre around the conflict in timings for the renegotiation of contracts across different authorities, and the restrictions in place about the decisions that can be made about changing their service. Contracts and arrangements can be very different across authorities in a geographical area that significant time and cost would be needed to align services, and this is when "politics" can start to play a decisive role. Not having strong enough political drivers and priorities around recycling, and indeed from a strategic viewpoint, working closer with neighbouring authorities can not actively be sought or seen as an attractive proposition.

Even if the will and political drivers exist, the same systems don't necessarily work for all, and different geographic's, logistics and collection systems means the same collection services do not work across different council areas. Commingled versus kerbside sorting was often mentioned.

Other insightful comments expanded on these common themes:

- **"Aligned services is ideal but location of resources / politics / budget variations across many local authorities means that it is not feasible"**
- **"I believe harmonisation of the materials collected is the key to resident understanding, not the method of collection"**
- **"Local political differences and priorities - Councillors and contractors do not allow alignment"**
- **"No direction from central government - collection services have diverged significantly in the 12 plus years since kerbside recycling became mainstream"**

**Aligning Consumer Communications**

Partnership working and aligning collection services can be a complex area, and the same complexities are translated to aligning consumer communications.

Asked whether it was believed collection service communications to consumers were aligned with neighbouring authorities, from 255 responses 26% said yes, 46% stated no and a significant 28% did not know. Although similar numbers of Local Authorities state they do not align their collection services and consumer communications, there appears to be more alignment, or awareness of alignment, around the consumer communications (37%) than the collection services themselves (26%).

> "The long-term aspiration must be to align collection services and consumer communications to make an easy to understand, unified system that promotes strong, positive messages to increase target materials and reduce contamination"

# Aligning Communications & Services

*The Benefits*

Budget cuts are having a particularly hard hitting impact on communication services, but the feedback from Local Authorities is that working together provides a way of reducing the impact of budget cuts and an opportunity to maintain delivery:

> "As part of budget cuts we have lost our waste education team and much of the associated communication budgets. Through communication design and campaigns being co-ordinated county-wide it means that messages are still delivered but at a lower cost, albeit not as thoroughly or effectively as before."

Cost sharing and savings, creating resource efficiencies, and promoting a consistent message across a large geographical area are obvious benefits, but some very practical examples were also provided.

Standardising the design and printing of communication resources make it more cost effective to work across several authorities in terms of bulk orders and staff time required, meaning that individual councils do not individually bear the cost of development and artwork costs. This is also true in maximising coverage and impact in the use of these resources through the available communication channels, whether it is visuals in public locations, local press, websites, radio or social media.

These joint activities saves Recycling Officer time, simplifies the message for residents and council employees alike, and increases the ease of sharing messages for county-wide activities and social media.

Specific benefits on a nation level from local authorities in Scotland and Wales particularly have reported the benefits of joint working, in that the consistent branding and recycling messages are reinforced for consumers moving between authorities.

Unified national campaigns such as Pledge 4 Plastics, Metal Matters and Recycle Now have an increasingly more prominent role to play, having ready-made visuals and written copy, which is particularly useful in material specific campaigns.

***Resistance to Aligning Consumer Communications***

Nearly 40 authorities expanded on the reasons for resistance to aligning consumer communications, and the main focus as to why alignment was not achieved or a priority, as with aligning collection services, about the different collection services and contractual obligations that made consistent and harmonised communications difficult.

> "The major obstacle with aligning communication stems from contract agreements with waste operators and MRFs with regards to what material is accepted - essentially the materials collected are not uniform"

"Big ticket" issues included the different materials that were collected for recycling, the collection system utilised (comingled and / or kerbside sort), collection units and vehicles, contract lengths, centralising budgets and procurement, and also the practicalities of agreeing roles and responsibilities.

> "Each area has different needs, for example we have a higher proportion of residents that speak different languages and need to tailor communications for them"

Some authorities also have budget to deliver communications and some authorities do not. Some authorities also want to keep their Local Authority brand, and the political willingness around working with other authorities were again raised. Demographics and language barriers are also a key consideration when planning an effective communications campaign.

**Where Partnership Can Flourish**

A number of authorities have said they are in the process of agreeing county-wide collection services and communications strategies, which is promising, but being realistic about what can and cannot be achieved should form the basis of any partnership working.

The benefits and the process to achieve a productive partnership are clearer if the same materials are collected in the same way. However, in many situations there will be specific areas where alignment cannot be reached or progressed, and even if there are barriers than cannot be overcome, meeting regularly and keeping the communication lines open to share good practice and explore future opportunities ensures that the full potential of any partnership or joint working can be realised.

# Recyclability by Design

**Those who have responsibility for collecting materials for recycling will have an interest in increasing the volume that is collected, minimising contamination and thereby increasing the value for the collected material.**

RECOUP believe that the quality of flake and pellet produced from the reprocessing of the material collected for recycling, and ultimately the quality of products manufactured, can be improved by encouraging product designers to consider the recyclability of their plastic packaging during the design stage.

This aim needs informed and technically correct guidance, and this is where one of RECOUP's most important publications, Recyclability by Design, has an increasingly important role.

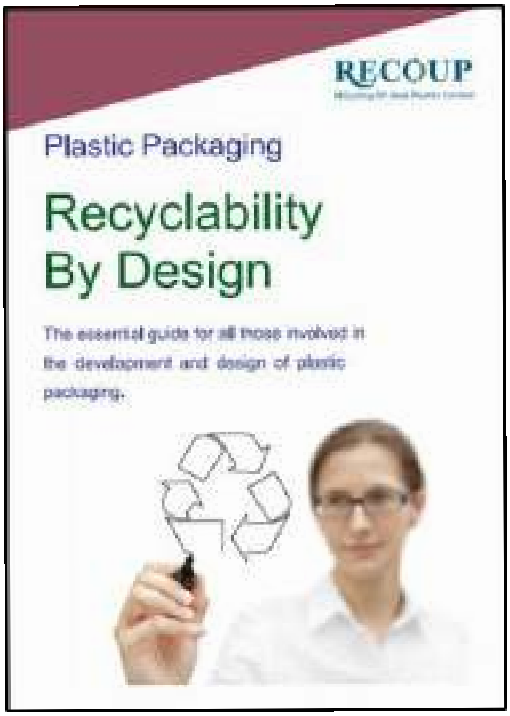
First released in 2006, this guideline document is aimed at getting the right information to the right people, the Packaging Technologists and Pack Developers who use plastic packaging. With several thousand downloads, is recognised by industry and enjoys a positive reputation worldwide.

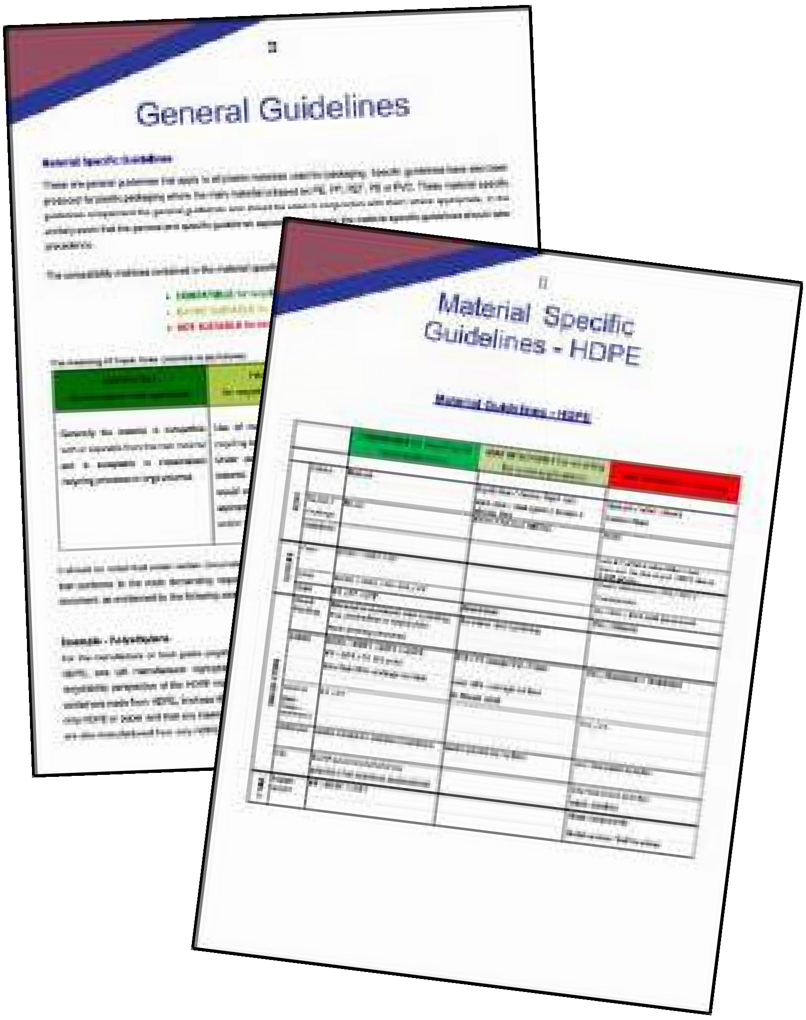
The aim of these guidelines is to encourage packaging designers to consider recycling possibilities and to provide guidelines for those wishing to make their packaging (more) recyclable. It also provides information concerning the sectors of the plastic recycling chain, to enable brand owners to ensure that their packaging will not inadvertently interfere with plastic recycling schemes.

The most important content of the document is the Recyclability tables., which cover all forms of rigid plastic packaging, showing at a glance how improvements to recyclability can be made.

The recyclability tables are polymer specific, with separate tables for PET Bottles, PET Trays, PP, HDPE, PS and PVC. The PET guidelines had previously been one table, but to reflect the differences in the recyclability of PET there are now separate tables, one for PET bottles and one for PET trays.

The 2015 version has been well supported by a collaboration of RECOUP members and contacts from across the supply chain. By contributing their knowledge and time to produce new chapters, by provoking debate about the sustainable functionally of packaging the aim is to both increase the awareness of recyclability and also provide a positive view of plastic packaging.



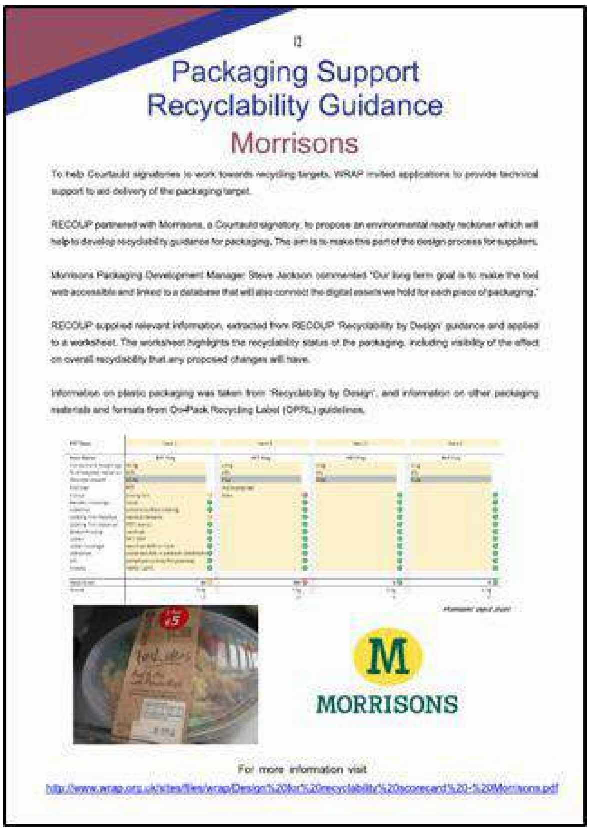



# Recyclability by Design

The new chapters include views from the recycling industry on how product design and material selection can help improve the commercial viability to recycle, with more of a focus on pots, tubs and trays.

The new chapters in the 2015 guide are:

- Boomerang Plastics – A View from the Recycling Industry
- RPC – No Barrier to Plastic Recyclability
- Milliken – Ultra Clear Polypropylene for Recyclable Pots, Tubs and Trays
- Morrisons – Packaging Support Recyclability Guidance
- Nampak – The Infini Milk Bottle
- Closed Loop – The Colour of Bottle Caps
- Renmar & Artec – Challenges in Recycling of Expanded Polystyrene
- Linpac – Product Protection First
- Enval – Laminated Packaging Recycling


Packaging Support
Recyclability Guidance
Morrisons

To help Courtauld signatories to work towards recycling targets, WRAP invited applications to provide technical support to aid delivery of the packaging target.

RECOUP partnered with Morrisons, a Courtauld signatory, to propose an environmental ready reckoner which will help to develop recyclability guidance for packaging. The aim is to make this part of the design process for suppliers.

Morrisons Packaging Development Manager Steve Jackson commented "Our long term goal is to make the tool web accessible and linked to a database that will also connect the digital assets we hold for each piece of packaging."

RECOUP supplied relevant information, extracted from RECOUP 'Recyclability by Design' guidance and applied to a worksheet. The worksheet highlights the recyclability status of the packaging, including visibility of the effect on overall recyclability that any proposed changes will have.

Information on plastic packaging was taken from 'Recyclability by Design', and information on other packaging materials and formats from On-Pack Recycling Label (OPRL) guidelines.



For more information visit
http://www.wrap.org.uk/sites/files/wrap/Design%20for%20recyclability%20scorecard%20-%20Morrisons.pdf

Previous versions have included views from members on:

- The impact of packaging weight reduction on recyclability
- The impact of full (bottle) sleeves on MRF sorting
- The impact of recycling on innovation (or vice-versa)
- Bio Plastics
- Legislation / Waste Directive
- Courtauld Commitment 3

It is inevitable that better design of products for recycling will be needed to achieve longer term circular economy goals. RECOUP fully expect this element of any new EU resource proposals to be retained or even strengthened.

It is the guidance provided by Recyclability by Design that will provide accurate research, best practice and proven examples which will provide the solid foundations to move into a circular economy environment and ultimately increase the economics and sustainable markets for plastics collected by Local Authorities across the UK.

The Spring 2015 edition is available to download for free from the RECOUP website.

# On-Pack Recycling Label (OPRL) - Inspiring Action

**The On-Pack Recycling Label (OPRL) scheme aims to deliver a simple and consistent recycling message on both retailer and brand packaging to help consumers recycle more. Jane Bevis from OPRL provides more information about this successful scheme, and some of their challenges and plans for the future ...**

Seven years ago a group of retailers sat down with WRAP to see what could be done to involve customers in recycling more packaging. Today hundreds of brands are in OPRL and, on average, label three quarters of their packaging – that's hundreds of thousands of product lines. And more than 6 in 10 people recognise our recycling labels.

Consumers consistently say they are confused about what they can recycle and how. Clear advice and easy-to-use recycling services are essential to achieving high responses. Our research shows more than 7 in 10 consumers respond correctly to our 'Widely Recycled' and 'Not Currently Recycled' labels, putting the packaging in the right bin. But our 'Check Local Recycling' label still leaves some consumers uncertain - only half respond as advised. Some put locally recyclable packaging in the waste bin, while others try to recycle something they can't.

On plastics there is even greater scope for confusion – in the minds of consumers plastic is, well, plastic. So why are you asked to recycle sometimes and not others?

The OPRL scheme differentiates between materials and packaging formats, categorising each according to the proportion of UK Local Authorities offering recycling. 'Widely Recycled' packaging has to be recycled by more than 75 per cent of Local Authorities. 'Not Currently Recycled' applies to materials recycled by fewer than 20 per cent. We've also developed specialised labels where retailers offer recycling.

Looking at the most common plastic packaging, bottles carry our 'Widely Recycled' label – and since around 80 per cent of UK-produced soft drinks are OPRL members that's a lot of labels on a lot of bottles. HDPE plastic bottles bottles also bear this label.

Pots, tubs and trays are tantalisingly close to achieving 'Widely Recycled' status – by the time you read this we may be there! Meanwhile they carry 'Check Local Recycling' which, as we know, is less effective in inspiring the right action.


Pouches, films on ready meals and Polypropylene (PP) bags bear the 'Not Currently Recycled' label. In some council areas these materials account for a high proportion of packaging now going into the residual waste bin.

Bags made from Polyethylene (PE), such as bread and vegetable bags, kitchen roll and some magazine wraps, can be marked with a special label 'Recycle with Carrier Bags at Larger Stores', thanks to facilities offered by most supermarket chains. We watch with interest the growing number of Local Authorities now offering this service.

Nothing stands still. New materials and new ways of handling old ones emerge. Take the vexed question of plastic bottle caps. On or off? Label separately or ignore the difference?

So periodically we review our scheme guidelines and this autumn (2015) we're consulting on how we can simplify, re-categorise and clarify our labels and rules. If you have thoughts on how plastics should be labelled, please share them with us.

***Jane Bevis***
***OPRL Ltd***
***www.oprl.org.uk***

# Pledge 4 Plastics & Recycle Now

**Effectively communicating plastics recycling messages to consumers across the UK is a key component to increasing plastic recycling levels and to achieving real behaviour change.**

Launched in September 2014 Pledge 4 Plastics is the national cross sector national initiative with the aim of collecting more plastics packaging for recycling through removing confusion through consistent messages.

Under RECOUP, the vision for the Pledge4Plastics initiative was a cross sector partnership approach to meet this urgent need - partners include Kent Resource Partnership, Surrey County Council, Coca Cola Enterprises, Marks & Spencer, Unilever, Nestle Waters, Nestle UK, RPC, Veolia Environmental Services, Closed Loop Recycling, Valpak, PlasticsEurope, WRAP and Defra.

There were three key areas of the launch of Pledge 4 Plastics: a large-scale consumer survey to underpin all the initiative's activities and messages, a national PR launch, and local delivery support through a Communications Toolkit. There is also a website (www.pledge4plastics.com) and social media accounts (Twitter @pledge4plastics and Pledge4Plastics on Facebook).

The national PR launch included local, regional and national press coverage, promotion through partner social media channels, and radio interviews.

A wide range of resources were made available in the free to download Communications Toolkit, which included a suite of transformation visuals showing what plastics packaging can be recycled into, facts and stats, written content for leaflets, websites and social media, and much more.

**One Year On**

Thanks to Local Authority, corporate and WRAP funding support, since the launch there has been a number of significant Pledge 4 Plastics consumer campaigns using a range of engagement methods such as outdoor advertising, radio adverts, leaflets, retailer in store promotion and a schools Pledge 4 Plastics competition. There has also been over **500 downloads** of the Communications Toolkit including **111 individual Local Authorities**.

Campaigns in large Local Authority areas are providing a much needed catalyst for change - these areas included the Recycle for West Sussex Partnership, Kent Resource Partnership, and Surrey County Council. The provisional results are showing that these were very effective campaigns.

Irrespective of campaign size and budget the initiative has been designed so all stakeholders can get involved. Pledge 4 Plastics has been used by many Local Authorities to promote plastics recycling through activity on social media, and coverage on newsletters, websites and in community engagement activities.

**Mission Statement**

Promoting consistency, remove confusion and increase plastics collected for recycling through education, communication and consistent messages



# Pledge 4 Plastics & Recycle Now

**Joint Working with Recycle Now**

Recycle Now is the national multi-material recycling campaign, and in June 2015 it received a refresh with a relaunch a new suite of resources.

Promote of consistent messages to make communicating with householders as easy and most effective as possible are the priority for both Pledge 4 Plastics and Recycle Now, and this refresh of Recycle Now provided an opportunity to work together to prepare consistent resources to promote plastics recycling.

There is now one set of plastics recycling resources in a new Resources Pack that will be jointly hosted on the Pledge 4 Plastics and Recycle Now websites. This will include a full set of revised transformation visuals which will replace the Pledge 4 Plastics, and an example shown below.

**New Pledge 4 Plastics Activities**

A full consumer communications supplement to the 2015 Survey will be available soon, which will include the results of the consumer communications survey questions, and more information about the new Resources Pack and more about the new Pledge 4 Plastics activities.

In October and November 2015 Recycle Now are focussing on plastics recycling and there will be new Pledge 4 Plastics activities during this time, with Pledge 4 Plastics and Recycle Now working together to promote and increase plastics recycling. **More information will follow about how you can get involved!**

# UK Plastics Packaging Placed on the Market

## Understanding the quantity of plastics packaging that is placed onto the market is a central part to providing clarity on how successful collections are performing and the opportunities that exist to collect more material.

Collection rates – the percentage of available plastics packaging that is collected for recycling – provide an estimated snapshot of how well the UK are performing in collecting plastics packaging for recycling. For each Survey the collection tonnage is compared against the best available estimate of plastics packaging placed onto the market (POM) and packaging trends (% growth per year) to calculate these percentage recycling rates.

Until the 2012 Survey the plastics packaging consumption data was based on a detailed review that took place in a research study *UK Plastics Waste – A Review of Supplies for Recycling, Global Market Demand, Future Trends and Associated Risks*, a report produced by WRAP, GHK and RECOUP in 2006.

These were updated in January 2013, where Valpak and WRAP produced a suite of reports around plastics packaging POM and composition, long-term recycling and carbon footprint performance and projections for meeting the 2017 plastics packaging recycling target.

The original source of the quantities of UK plastics packaging POM in these suite of reports were estimated using another Valpak report, *PackFlow 2017,* which was published in 2012 to provide knowledge of the flow of packaging materials in the UK both past, present and the future (to 2017). This methodology estimated the composition of 'consumer' plastics packaging (i.e. used by households) by sampling supermarket packaging using the packaging weight, format and polymer data which was provided by supermarkets' suppliers and from product sales data. All these reports were based on 2011 data.

**New Data – Plastic Packaging Market Study (Plastic Flow) 2014**

In December 2014 a project commissioned by Valpak Limited and Defra was published to provide support for plastic packaging material flow estimates in Defra's packaging policy work and also review the implications of various scenarios for future recycling rates to 2020. Titled *Plastic Packaging Market Study (Plastic Flow) 2014* and based on 2013 data, the quantities of consumer plastic packaging POM were calculated using retail sector sales data and packaging usage for plastic packaging used.

Although at the time of writing this report the new data has not been officially endorsed by Defra, it provides the best available evidence to calculate plastics packaging POM and thus the UK recycling rates for plastic packaging. This report estimated the plastics packaging POM for the UK was 2,260,000 tonnes, an overall estimated **REDUCTION** of 275,000 tonnes from the previous 2,535,000 tonne total – this is an estimated **REDUCTION** of 85,000 tonnes for non-consumer plastics packaging, but significantly an estimated 190,000 tonne **REDUCTION** from consumer sources:

**Figure 34 - UK Plastics Packaging Placed onto the Market (POM)**

| Stream | Previous Quantity (Tonnes) | New Quantity (Tonnes) | Change (Tonnes) |
|---|---|---|---|
| Consumer (bottles, PTTs and film) | 1,724,000 | 1,534,000 | -190,000 |
| Non-Consumer (bottles, PTTs and film) | 811,000 | 726,000 | -85,000 |
| Total | 2,535,000 | 2,260,000 | -275,000 |

Interestingly, this new figure is similar to the estimated POM figure of 2,284,000 tonnes in 2006. Looking closer at the two datasets the split between consumer (1,534,000 tonnes) and non-consumer (726,000 tonnes) remains the same:

- 68% of the total quantity of plastics packaging is from consumers (households) – food, drink, groceries, body care, clothing, DIY sold by supermarkets and retailers
- 32% is from other sources – food and drink from the hospitality sector, plastic packaging discarded by retailers back of store, and plastics packaging used by the construction, manufacturing and agricultural sectors)

The previous and new plastic packaging POM for consumer bottles and pots, tubs and trays and the change in quantities is shown in Figure 35:

**Figure 35 - Local Authorities Kerbside Plastics Packaging Collection Provision**

| Consumer | Previous Quantity (Tonnes) |
|---|---|
| Bottles | 552,452 |
| Pots, Tubs & Trays | 665,856 |
| Total | 1,218,308 |

| New Quantity (Tonnes) | Change (Tonnes) |
|---|---|
| 594,000 | 41,548 |
| 525,000 | -140,856 |
| 1,119,000 | -99,308 |

These figures are taken from the consumer total of 1,534,000 in Figure 34 – the remaining fraction (414,000 tonnes) of this total is film.

The new data represents almost a 42,000 tonne **INCREASE** in bottles and over 140,000 tonne **REDUCTION** in pots, tubs and trays from the previous data – the 1,119,000 tonne for rigid plastics packaging represents a net **REDUCTION** of over 99,000 tonnes from the previous data. Consequently, this means the percentage recycling rates will change over and above the actual changes in reported collection quantities.

## Plastics Packaging Consumption Trends

Plastics packaging POM trends are estimates, with between 0% and 3% per annum growth typically being debated. RECOUP agrees with Valpak and the National Packaging Waste Database (NPWD) that at present there is a 0% annual growth, and therefore the 2013/14 data used in the *Plastic Packaging Market Study (Plastic Flow) 2014* will not change for the 2014 data that is used in the 2015 Survey.

## Polymers in Plastics Packaging

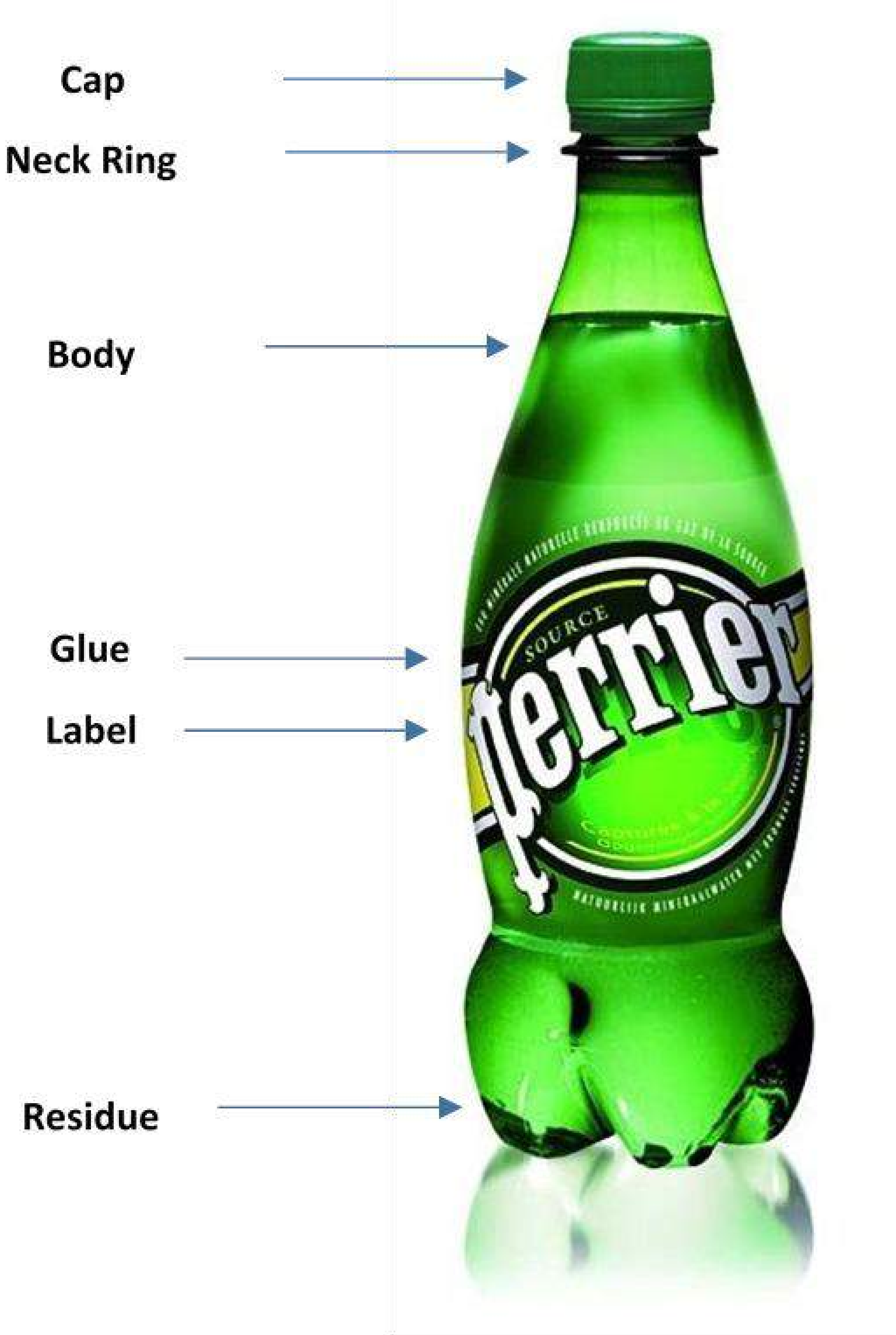
The new data from *Plastic Packaging Market Study (Plastic Flow) 2014* does not break down the plastic packaging formats by polymer. However, a polymer breakdown was completed in the *Plastics Packaging Composition 2011* report, and using this percentage polymer composition breakdown it is possible to estimate the flows of polymers through the household stream using the new plastic packaging POM data see Figure 36:

**Figure 36 - Consumer Plastics Packaging Consumption by Format and Polymer Type (2011)**

| | LDPE / LLDPE | HDPE | OPP | PP | PET | PS | PVC | Other | Grand Total | Grand Total (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| Film Total | 108 | 104 | 12 | 69 | 44 | 1 | 4 | 71 | 414 | 32% |
| Rigids Total | 6 | 188 | 0 | 121 | 708 | 50 | 39 | 7 | 1119 | 68% |
| Bottles | 1 | 188 | 0 | 5 | 397 | 0 | 2 | 0 | 594 | 29% |
| Consumer PTTs | 5 | 0 | 0 | 116 | 311 | 50 | 37 | 7 | 525 | 32% |
| Grand Total | 120 | 481 | 12 | 311 | 1460 | 101 | 83 | 84 | 1534 | 100% |

# UK Plastics Packaging Placed on the Market

It should be noted that the previous polymer composition had two additional plastic packaging formats in addition to bottles and pots, tubs and trays – 'consumer closures' and 'other'. The 'Consumer Closures' refer to rigid consumer closures for plastic bottles and also pots, tubs and trays. The 'Other' category is for the other plastic formats that are not covered by the plastic bottle, pot, tub and tray and closure categories, and this includes items such as tubes, valves and pads.




When previously calculating these flows of plastic packaging for these it was not clear how to allocate the 'Consumer Closures' and 'Other' plastics packaging, so estimates were made to allocate these quantities:

- The 'Consumer Closures' quantity was split between plastic bottles and pots, tubs and trays, and the evidence provided by Valpak was that 36% of this was for plastic bottle caps and the remaining 64% rigid closures for pots, tubs and trays
- The 'Other' category was a relatively small quantity, with the majority of this being attributed to non-bottle rigid plastic rigid plastics packaging (pots, tubs and trays)
- Plastic labels were not accounted for in the rigid fraction as they are made of film and therefore a nominal amount was allocated from the film tonnage
- No weight was attributed for any adhesive used, although this would be so small it is not expected to have any impact on the overall tonnage
- The plastic packaging POM data doesn't include any tonnage for residue i.e. fluid or food left in the packaging

However, with the POM data changing it has not been possible to allocate these within a reasonable degree of accuracy, and they have therefore not been included in the estimated data provided in Figure 36.

# Acknowledgements and Figure Summary

**Acknowledgements**

The results and opinion from the Survey highlights areas where more work is needed and through the work of RECOUP, its members, the Board, and through RECOUP's communication channels directly influences policy and strategic development and change. Examples of this include Pledge 4 Plastics, waste consultation responses and many activities with its members.

RECOUP would like to thank all the Local Authority recycling scheme managers and their service contractors who took the time to respond to our Survey. RECOUP would also like to acknowledge the sponsorship from all it's valued members which has allowed us to cover the costs of completing this work.

The Survey is supported by the Local Authority Recycling Advisory Committee (LARAC), and RECOUP would like to acknowledge this support and influence it has in engaging with Local Authorities to produce such comprehensive data and information.

RECOUP MEMBER
REcycling Of Used Plastics Limited

LARAC

**Figure Summary**

# 2015 UK Household Plastics Collection Survey

**Recycling of Used Plastics Limited (RECOUP)**

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