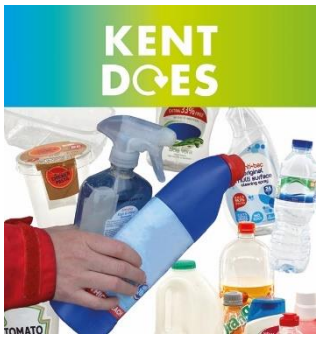
KENT UNDERSTANDING PLASTICS

‘LIVE LAB’ REPORT

Report by RECOUP

July 2022



RECOUP is a charity and leading authority providing expertise and guidance across the plastics recycling value chain. Built on a network of valued members, collaboration is central to RECOUP's activities. The organisation is committed to securing sustainable, circular, and practical solutions for plastic resources both in the UK and worldwide.

This work has been compiled by RECOUP following the Kent Understanding Plastics 'Live Lab' project. The project received funding from Smart Sustainable Packaging Challenge at Innovate UK, part of UKRI, as well as industry partners, Veolia, Viridor, British Plastics Federation, Plastics Europe, and Ecosurety. In kind support was also received from PPS Recovery Systems Limited, RECOUP, Ocado Retail, Sainsbury's, N + P Group and OPRL.

This report is in the open domain for the benefit of the plastics recycling value chain, Local Authorities, and UK government.

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Executive Summary

This project was unique, in that it was not just about delivering citizen communications and totalling up the recycling tonnages but took a deep dive into all influences on the plastics recycling value chain through the lens of RECOUP and their knowledge of the collection, sorting, reprocessing and end markets of plastics packaging.

The project took as its start point country wide agreement on plastics packaging target material collections and initially asked the question "if kerbside plastics recycling is based on the same target/non-target materials, what other factors influence recycling?"

Concern remains that the UK needs to be able to recycle more of its plastic waste domestically driven by public concern to reduce its need for exports. Not to mention the lost opportunities in terms of infrastructure development and job creation. This is coupled with the need for greater transparency on reported recycling rates, end destinations and concern that material can end up in places and in environments where it should not be. And yet, this is set against the issue of challenges in sorting, capturing, and finding end markets for the more challenging single use plastics.

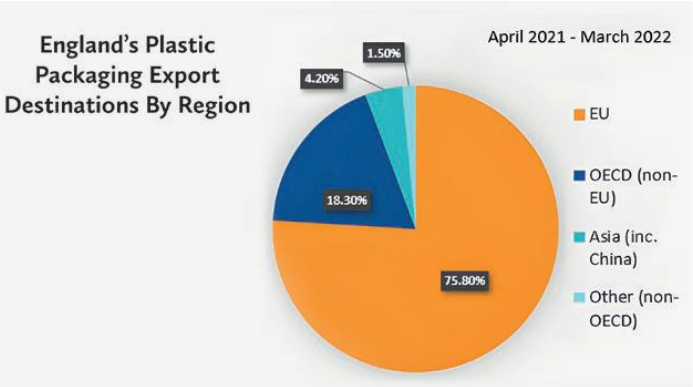


Figure 1: England exports April 2021 to March 2022 by EU and OECD but non-EU Countries

The project included ongoing assessment of Kent resident understanding of plastics recycling through face-to-face engagement, online focus and advisory groups and online surveys. Data analysis across all Kent Councils both in terms of Mixed Dry Recycling, plastics tonnages and contamination was also undertaken. The is the first of its kind to analyse its own delivery, findings, and learnings then subsequently place these against its communications in a critical format to allow for further development and analysis in a continuous improvement methodology. This has resulted in the Best Practice Guide for UK Plastics Recycling Communications to aid those communicating, on the subject matter, to individuals and communities, which is available for download HERE.

12 Kent councils were divided into 3 test areas (Mid, East and West), 678,000 leaflets were delivered (this was judged to be the best communication channel to ensure access for all), along with social media and community engagement strategies. All Kent councils had the same agreed target/non-target list for plastics packaging. The project included engagement with parish councils and local leaders, citizen focus groups, as well as work within schools and communities. To gain further insights across the County both online and face-to-face questionnaires were utilised. Kent citizens understanding of plastics packaging improved overtime and the responses clearly demonstrated an up-shift comparing the responses up to July 2021 with those post communications commencement.

There was no clear 'best in class' for plastics recycling communications methods. Although social media represents benefits over all other methods in terms of reach v costs. Leaflets despite often being criticised by citizens for being another item of waste do give residents a daily reference point if they are retained and used regularly. However, it is always difficult to quantify how many leaflets go direct from doorstep to bin without being read.

A key learning of the project is the importance of Local Authority accuracy and timely information on the back of contract changes and how these are reflected on their websites. It is crucial that target and non-target lists are updated as soon as listings change.

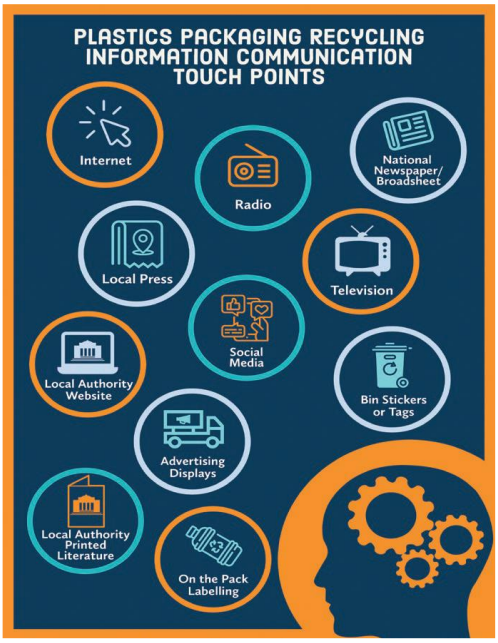
The project concluded that there are 'Five Key factors of Influence' that impacts on plastics recycling rates kerbside:

1. Consistency in data collection and analysis is needed as well as consistency in messaging. How acceptable, objectionable, and prohibitive material is dealt with can influence recycling and contamination rates in a way that renders the data inconsistent and unstable for nationwide comparisons.
2. Citizens need to understand more about how recycling works if they are to buy into the message. If citizens know more about the journey of plastics and how they are captured, sorted, and recycled into other products they are more likely to respond to calls to action.
3. Local authorities are a key touch point in terms of communications and websites are heavily relied upon in terms of industry data collection. All touch points should be relaying the same message with the same terminology.
4. Contamination is a nationwide issue and as such could have a national communication strategy.
5. The climate change debate offers the recycling industry opportunities to influence the mindset of citizens as they begin to appreciate what plastics can offer in terms of net zero aspirations.

Taking the learnings of the project alongside RECOUP's knowledge and experience of the plastics recycling value chain, and Pledge2Recycle Plastics experience in behaviour change, 20 Top Tips for Easy Wins in Plastics Recycling Communications were added to the guide with the aim of improving consistency in messaging.

It is crucial that when communicating to citizens that all touch points for citizen communications:

- Agree the same recycling advise on what can be recycled and how best to prepare packs before disposal.
- Measure the same categories of recyclable materials in the same way to enable fair comparisons and a level playing field to facilitate sound legislation and policy decisions.
- When communicating with the public, the content must be factually correct and accurate as inconsistencies in messaging can negatively impact behaviour change.



The importance of the whole of the plastics recycling value chain agreeing and giving the same instructions to all citizens on all forms of communication is essential to eliminate confusion and encourage by-in by citizens if sustained behaviour change is to be achieved.


12 COUNCIL DISTRICTS
1 COUNTY COUNCIL
1900 PARISH COUNCILLORS CONTACTED
COMMUNITY MAGAZINE CONTENT
170,000 COPIES DISTRIBUTED
LEAFLETS TO 678,000 HOUSEHOLDS
700 SCHOOLS CONTACTED
17,500 SCHOOL CHILDREN
OVER 3000 RESPONSES FOR CITIZEN INSIGHTS
HIGH STREET ENGAGEMENT
16 LOCATIONS
3000+ SHOPPERS
9 RESIDENT FOCUS GROUPS AND 9 ADVISORY GROUPS
100+ PARTICIPANTS
LITTER GROUPS CONNECTED WITH A TOTAL OF 2500 MEMBERS
LITTER PICKS IN 6 LOCATIONS
VMS SIGNAGE ON THE A2 (LONDON TO DOVER) OVER A 9 MONTH PERIOD
DEDICATED WEB PAGE
WWW.PLEDGE2RECYCLE.CO.UK/KENT
2500 VISITS
DIRECT CORRESPONDENCE WITH 100+ KENT RESIDENTS VIA E-MAIL OR TELEPHONE
SOCIAL MEDIA
TWITTER
INSTAGRAM
FACEBOOK
#KENTDOES @PLEDGE2RECYCLE REACH OF 680,000

1.0 Background

There is wide agreement that the UK needs to be able to process more of its plastic waste domestically thereby reducing the need for exports and enabling greater transparency on reported recycling rates. UK exports have, and will continue to gain, considerable negative media attention. The Basel Action Network reported in April 2022 that 467,000 tonnes of plastic had been exported 2021/22. To increase the recycling of materials in the UK investment in infrastructure is essential. Improved capture rates, sorting, collection, Deposit Return Scheme and Extended Producer Responsibility will all play a key role in generating the qualities of materials to support the commercial viability of additional plastics recycling in the UK.

UK markets exist for Clear PET, Natural HDPE, PS/EPS, and PP; however, the challenge remains to collect and sort these materials which is particularly true for more complex plastics fractions. This complex picture is not helped by a lack of consistency in collections both in terms of who is collecting what and how. UK kerbside plastics collection rates have only demonstrated small increases over recent years with contamination levels continuing to be an issue kerbside.

Alongside legislation and voluntary arrangements to increase recycled content in packaging it is ever more important that the UK can reprocess plastics at a level sufficient to support its own requirements and reduce the need for imports. However, all UK plastics recycling infrastructure and systems must be viable commercially and the quantities and quality of plastics packaging collected for recycling needs to be able to be sorted, captured, and reprocessed in sufficient quantities to sustain infrastructure investment and drive polymer value.

This project took as its research start point, 'if kerbside plastics recycling is based on the same target/non-target materials, what other factors influence recycling rates?'

1.1 UK Kerbside Plastics Collection Data

The RECOUP UK Household Plastics Collection Survey collates, and analyses data supplied from UK Local Authorities of the tonnage of plastics collected kerbside against the placed on the market data. The 2020 survey estimated that citizens were placing for recycling 59% of plastic bottles, 33% of plastic pots, tubs, and trays, and 7% of film that was placed on the market. The 2021 survey reported that this had risen slightly to 61% of plastic bottles, 36% of pots, tubs, and trays, and 8% of film placed on the market.

1.2 Wider Industry Impacts

In 2020, it was estimated that citizens were failing to place 1,115,000 tonnes of plastic packaging for recycling. This represents a high level of plastics packaging that is possibly migrating to other destinations giving it the opportunity to end up in landfill, energy from waste, or polluted in the natural environment. A situation which cannot continue if the UK is to achieve Plastics PACT targets and fulfil demand for voluntary and packaging tax recycled content.

UK capacity was forecasted to be around 250kt[1] short of the food grade recyclate that would be required to fulfil packaging tax requirements without taking account of higher voluntary arrangements. It was widely appreciated at that point that UK capacity would need to double and this would require investment to attain consistently high levels of good quality feedstock.

[1] RECOUP, UK Household Plastic Packaging Sorting and Reprocessing Infrastructure Report April 2020

1.3 Policy & Legislation

A multitude of policy and legislative changes have been proposed and consulted on through the UK Government and devolved administrations. Whilst each of these addresses specific environmental and recycling aims, with different timescales and dynamics, there is a growing sense of importance that they work together and settle to help direct the future capability of the UK to manage our waste and recycling systems.

Defra's proposed reform of the UK's Packaging Producer Responsibility System, otherwise known as Extended Producer Responsibility (EPR) was a key driver in the development of this project. The question remained whether the existing system of advice to UK citizens on plastics recycling via Local Authorities would continue to be the most viable and suitable route for citizen communications.

It is important that as we move forward the industry understands where we can create the highest return in relation to the funds invested in citizen communications and to use this knowledge to develop policy and strategic direction in relation to EPR and any communications fund deliverables.

Figure 2: Packaging Recovery Note and Plastic Tonnage Prices 2021/22 as per www.letsrecycle.com/prices/

1.4 The Citizen & Behaviour Change

The key question this work was seeking to answer was what methods of communications are likely to be best deployed to engage citizens to drive sustained behaviour change. Albert Einstein is credited with saying "*The definition of insanity is doing the same thing over and over again but expecting different results."* The concept of recycling and reduce, reuse, recycle isn't new with citizens well used to hearing the message; so why when it comes to plastics does the quality and quantity of plastics recyclate captured continue to drag behind aspirations and sustained behaviour change seem ever more elusive?

The traditional methodology of plastics recycling communications due to practicalities and budgets is usually as part of multi-material communications and usually in line with service provision changes. It is also worth noting that due to the lightweight nature of plastics and the way in which performance of local authorities is calculated (by weight) the key drivers or ability to up overall recycling rates would be to concentrate on other materials with a higher weight rate per tonne.

In April 2018 the UK Plastics Pact set out a roadmap[2] to transform the way the UK makes, uses, and disposes of plastics. This was further updated in 2020. The 2025 targets of the Pact are to:

1. Eliminate problematic or unnecessary single-use packaging through redesign, innovation or alternative (reuse) delivery model.
2. 100% of plastics packaging to be reusable, recyclable, or compostable.
3. 70% of plastics packaging effectively recycled or composted.
4. 30% average recycled content across all plastic packaging.

Historically the majority of Local Authority communications have been delivered using WRAP's Recycle Now campaigns with the opportunity for this to be adapted on a local basis.[3] RECOUP's previous Pledge4Plastics and the now Pledge2Recycle Plastics citizen interfacing arm developed toolkits and information for Local Authorities to be able to deliver plastics recycling communications to their residents.[4] The toolkits were linked to the social norming messaging of Recycle Now and included transformation narratives previously developed in conjunction with WRAP and Pledge4Plastics.

WRAP PACT Clear on Plastics campaigns[5] were launched in March 2020 and are also aimed at engaging with the public on dispelling the myths on plastics.[6]

Individual Local Authorities can adjust pre-supplied resources of Recycle Now and Pledge2Recycle Plastics to reflect local target and non-target materials and brand with their own local logos.

[2] https://wrap.org.uk/sites/default/files/2021-02/The-UK-Plastics-Pact-Roadmap-2020.pdf
[3] www.wrap.org.uk/taking-action/citizen-behaviour-change/recycle-now
[4] www.wrap.org.uk/taking-action/citizen-behaviour-change/recycle-now/campaign-assets
[5] www.wrap.org.uk/taking-action/citizen-behaviour-change/clear-plastics
[6] www.clearonplastics.com

1.5 Plastics Packaging the Wider Discussions

Since Blue Planet II there has been much discussion and debate on the challenge of plastics pollution. The programme sparked a realisation that plastics packaging was indeed affecting the ecology of the planet and that something needed to be done to reassess the place of plastics in our daily lives. Concerns around plastics pollution gave rise to a flood of plastics awareness and environmental groups. Many voluntary groups, or NGOs developed in the wake of this concern, have a common goal to reduce litter and ocean plastics. Some of this work focuses on the clean-up of the environment (litter groups), some lobbying for change in terms of packaging whether through the drive for reuse or refill alternatives, or other material types, whilst the aims appear to be a removal of plastics from our daily lives regardless of the material benefits. Ellen MacArthur Foundation launched a report[7] in 2016 (The New Plastics Economy, Rethinking the Future of Plastics) and warned that there could be more plastic than fish in the sea by 2050 unless the industry cleaned up its act.

Whilst it is right and proper to ensure that plastic does not end up where it should not be the emphasis has migrated away from citizen or consumer responsibility in disposal and honed its attention on plastic waste in the oceans.[8]

The narrative is to eliminate the use of single-use plastics in the food packaging sectors regardless of its benefits over other materials or contribution to food waste reduction. This has undoubtedly led to some demonisation of plastics as a material and the targeting of single use plastic bottles such as the PET drinks bottle despite its proven circular solutions.

1.6 Plastics Pollution and End Markets Transparency

Changes in commercial markets has thrown into question the effectiveness of plastics exports for recycling, claimed end markets and transparency of the system. The biggest single impact to the export market being the ban on plastics by China in 2017. There has been ongoing public and media concern on the validity of export markets and if the material is recycled or burnt or landfilled illegally. 39% (210,000 tonnes) of UK plastic waste was exported to Turkey in 2020, a market which has itself received media attention.[9]

The ideal is for the UK to be able to process all its own plastic waste. There is still a fraction of UK exports going to non-OECD/'developing'/'third world' countries and this is a concern. The report by Basel Action Network[10] in April 2022 stated that UK exports dropped to 467,000 tonnes in 2021 from the previous 537,000 tonnes in the previous year.

Export data for plastics from the Environment Agency for April 2021 to March 2022 for England only shows that 487kt of plastic was exported with 75.8% going to the EU. 18% went to Germany and 17% to Turkey. 18.3% was exported to non-EU OECD countries.

[7] https://ellenmacarthurfoundation.org/the-new-plastics-economy-rethinking-the-future-of-plastics
[8] https://www.futureagenda.org/foresights/plastic-oceans/
[9] See section on National Media Messaging in this report.
[10] www.ban.org

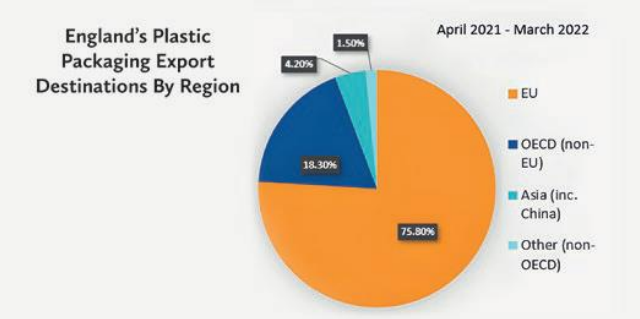


Figure 3: England exports April 2021 to March 2022 by EU and OECD but non-EU Countries

2.0 Other Relevant Work

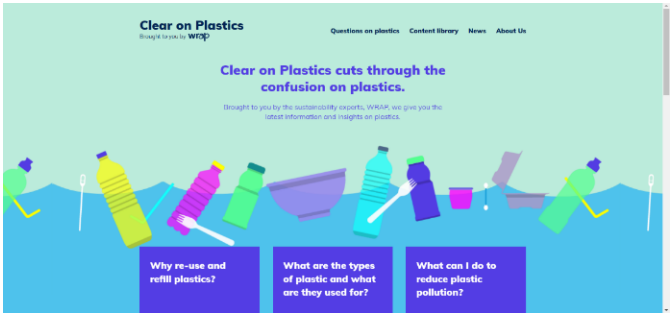
2.1 Recycle Now and Clear on Plastics

Local Authorities tap into and work with WRAP's Recycle Now recycling campaigns which aim to motivate people to recycle more of the right things more often. Recycle Now works across all material streams, including reduce and reuse, through the delivery of key campaigns aimed at making recycling a social norm. A key campaign is the annual Recycle Week aimed at inspiring and educating citizens.

There is a wealth of resources and information available for Local Authorities to tap into to assist in driving this behaviour change. The Recycle Now swoosh is widely recognised as a recycling symbol.

www.wrap.org.uk/taking-action/citizen-behaviour-change/recycle-now

WRAP's Plastic Pact also communicate directly to businesses and citizens through the Clear on Plastics campaigns. The narrative is focused on bringing up to date information and insights on plastics via sustainability experts at WRAP.



The delivery is social media focused with a website hosting a resource library as well as responses to the frequently asked questions of plastics. Citizens can engage across Twitter, Facebook, and Instagram. www.clearonplastics.com

2.2 Pack Labelling

The On-Pack Recycling Label (OPRL) is one of the key touch points where consumers get recycling information and direction.

The symbol appears on packaging and has recently changed removing the 'check locally' instructions on packs to a binary system. The scheme is based on a tipping point of the ratio of Local Authorities accepting a pack in their recycling collections at kerbside. To obtain the 'Recycle' logo 75% of Local Authorities must collect that item kerbside and 'Don't Recycle' fewer than 50% of Local Authorities need to collect that item in household kerbside collections.

Citizens also encounter instructions on packs placed by the brand or pack manufacturer, such as 'please recycle' on bottle caps. These may also include instructions to tear off sleeves or elements of cardboard or paper that require separation before recycling.

Further examples of instructions on packs can complement or conflict with Local Authority advice guidelines or conflict with lid instructions, particularly regarding film lids.

2.3 IncPen – Research into Public Confidence in Recycling

Packaging membership organisation, IncPen with Icaro conducted a GB-wide public survey into public confidence in recycling (www.incpen.org). The study concluded that the lack of information on what happens to recyclates after collection undermines public confidence in recycling. The work also stated that *"conversely, the lack of information can negatively influence public confidence, and impact on citizens' behaviours and municipal recycling rates."*

2.4 Historical Plastics Recycling Communications in Kent

2.4.1 Pledge4Plastics, WRAP and KRP

This initiative under the previous Pledge4Plastics brand of RECOUP was launched in September 2014. The project's primary focus was on plastic bottles and secondly Pots, Tubs and Trays (PTT), raising the profile of Pledge4Plastics and encouraging residents to pledge to recycle one more plastic bottle a week.

The project was a collaborative partnership involving KRP, Marks and Spencer (M & S) and RECOUP, supported with funding from KRP, M & S and WRAP. Communications centred around a dedicated web page with a pledge mechanism; 30-second, and 10-second radio commercials; online media board advertisements via Kent Online website; leaflet campaign to 630,000 households; roller banners in 6 M & S stores as well as the 13 Kent Councils. Consumer insights were undertaken at 3 key locations in Kent (Ashford, Dartford, and Sevenoaks).

Declared upshifts in recycling tonnages immediately following the activation were estimated to be 6%. Recall of the household leaflet campaign from the face-to-face questionnaires was 11%.

2.4.2 Metal and Plastics Communications – Dec 2015 – March 2016

KRP, delivered a communications campaign consisting of separate plastics recycling and metal leaflets, graphics banners at all Kent Councils, new vehicle graphics on Council refuse truck vehicle in 3 council areas, and messages shared on council websites and social media. The campaign was funded and supported by Metal Matters, M & S, WRAP and KRP and delivered over a 6-month period. The narrative was around the 'Good to Know' messaging from Recycle Now and Metal Matters.

Declared results were an 8.8% upshift in metals and an 7.8% upshift in plastics. With an overall increase for dry recyclables of 4.3%. Declared cost per household was £0.28 for a coverage of 620,000 households.

2.4.3 Recycling Campaign – Recycle Week September 2018

KRP delivered a further round of plastics leaflets to coincide with Recycle Week in September 2018.

Content centred around the 'Good to Know' narrative. Social media content also promoted the message of reduction of the use of single use plastics and encouragement for reuse and refill options. The narrative is aimed at driving behaviour change in terms of reduce, reuse, recycle.

2.4.4 Service Provision Changes Communications in Tonbridge & Malling

As with many Local Authorities communications are normally budgeted and planned to coincide with service provision changes. Tonbridge & Malling Borough Council were the last UK Local Authority to collect plastic bottles kerbside 2019. The collection of pots, tubs and trays kerbside was also introduced at the same time. Up until this point they had been collected and recycled via bring back sites.

Other service provision changes at this time included separate weekly food waste collections, recycling collections of batteries, household batteries and small electrical items as well as a chargeable garden waste collection service.

Extensive communications were issued to residents in the form of leaflets, flyers, supermarket roadshows, talks to community groups, schools, and parish councils.

3.0 Demographics and Other Influences

3.1. Kent Population

It is currently estimated that over 1.5 million people live within Kent, (the highest of all English Counties) with an estimated 678,000 households. The 2011 census recorded that 64.7% of households were one person. Kent has a land area of 1,368 square miles and approximately just over 350 miles of coastline. It is known as 'the garden of England' as a minimum of 75% of the land in each of the 12 districts is undeveloped. People living in urban areas make up 73% of the Kent population but they only occupy 21% of the total land area. House prices are above the national average as is the average weekly wage.

Of the 12 local Authority districts within the Kent County Council area, Maidstone Borough is the most populated with 173,100 people. Gravesham Borough is the least populated with 106,900 people. Looking at the ACORN data the areas considered the most affluent are Tunbridge Wells, Sevenoaks, Tonbridge & Malling; those on the mid affluence range are Maidstone, Canterbury, Ashford, Folkestone & Hythe, Dartford and less affluent Dover, Gravesham, Swale and Thanet.

In 2018/2019 Tonbridge & Malling were 191 in the league table at a recycling rate of 41.9%. In 2019/2020 this rose to 46.4%. In 2020/2021 the authority was nationally 64th in the league table with a 51.6% recycling rate and the top performing Kent Local Authority. Tonbridge & Malling were the last UK Local Authority to recycle plastic bottles kerbside (September 2019). There was, at that time, considerable investment on communications to residents on the service provision changes as mentioned on page 14.

64	**Tonbridge & Malling Borough Council**	**51.6%**
70	**Ashford Borough Council**	**50.5%**
76	**Maidstone Borough Council**	**49.7%**
98	**Folkestone & Hythe District Council**	**48.10%**
103	**Dover District Council**	**47.8%**
107	**Tunbridge Wells Borough Council**	**47.5%**
145	**Gravesham Borough Council**	**43.7%**
178	**Swale Borough Council**	**41.4%**
184	**Canterbury City Council**	**40.9%**
234	**Sevenoaks District Council**	**36.6%**
254	**Thanet District Council**	**32.5%**
328	**Dartford Borough Council**	**24.5%**

Figure 4: Kent League table positions derived from Waste Data Flow & Defra's statistical department for the period covering the financial year 2020/21[11]

[11] As published League Tables - letsrecycle.com

3.2 Kent Service Provisions

All Kent Councils have the same 'target/non-target' lists for plastics kerbside collections. Colour and size of bin provisions as well as frequency of collections varies. Only Sevenoaks District Council provide weekly collections for both general waste and recycling. Dartford provides weekly collections for general waste.

Not all areas collect food waste. None of the Kent Councils currently collect Tetra Pak or drinks cartons kerbside. The provision for garden waste varies including whether sacks or bins are used and the sizes of those bins.

There appears to be no correlation between bin colour and recycling rates, however it is noted that the one Local Authority (Sevenoaks), who collect recycling in sacks has an overall recycling collection rate of 36.6%.

3.3 Local Instructions

Communications and how much detail is given on recycling is up to individual authorities, this varies widely in content. The main route for residents to check recycling information is the Local Authority website or any general recycling communications. Instructions via websites have a different look and feel as each site is different in its interface. Most sites have a click through where residents can find out what they should place in what bin, with some being easier to navigate than others. It is also common for the websites to contain a list of what can and cannot be recycled in words only with very little imagery or graphics to assist in identification.

Of the 12 authority district websites in Kent;

- 4 councils say lids on
- 2 councils say lids off
- 3 councils have lids listed separately
- 1 council says either on or off
- 2 councils have no guidance

Disparity in bottle lid recycling instructions is a UK wide issue with only 28% of UK Local Authorities currently advising citizens to leave the lids on bottles before recycling.[12] This is in contradiction to industry advice which is to empty, rinse, squash and put the top back on before recycling.

[12] RECOUP 2021 UK Household Plastics Collection Survey

3.4 External Pressures

The project began on the ground delivery in July 2021. This was during the COVID-19 pandemic when there were several external influences on waste management.

The daily lives of residents had adapted to reflect the changes in restrictions in terms of work, school and leisure time.

Operationally local government, in Kent and across the rest of the UK, was dealing with:

- the impact of Brexit,
- a competitive employment market regarding HGV drivers,
- a fuel crisis,
- changes in contracts,
- operational challenges which led to some local media attention on waste and recycling operations.[13]

Local press reported on the decision by Kent Councils to no longer collect Tetra Pak and drinks cartons kerbside, delayed bin collections, bin strikes and litter.[14]

[13] https://www.express.co.uk/news/uk/1460271/Kent-binmen-sacked-brawling-public
https://www.kentlive.news/news/kent-news/delayed-bin-collections-tonbridge-slammed-5572744
https://www.kentonline.co.uk/dover/news/binday-bingo-247046/
https://www.kentonline.co.uk/folkestone/news/apology-over-missed-bins-this-just-isnt-good-enough-248362/
https://www.kentonline.co.uk/dover/news/refuse-bosses-explain-bins-fiasco-247850/
https://www.kentonline.co.uk/deal/news/conservation-area-blighted-by-bins-embarrassment-248573/
https://theisleofthanetnews.com/2021/06/25/demand-for-urgent-action-over-river-of-litter-and-waste-in-athelstan-road/
https://www.kentonline.co.uk/tonbridge/news/anger-as-taxpayers-to-pay-up-to-175k-to-fix-bin-service-264
https://www.kentlive.news/news/uk-world-news/council-tax-rises-amid-worst-6813197145
https://www.kentonline.co.uk/malling/news/temporary-recycling-bins-open-to-ease-kerbside-waste-249919//

[14] Kent and ACE UK clash over carton recycling - letsrecycle.com

3.5 National Media Messaging

The export of plastics to Turkey has drawn considerable media attention.[15].

Transparency and trust between the public; the Local Authority handling the material; and the recycling industry has been hindered by media headlines. While there is no doubt, as with any material traded commercially as a commodity, there will be good and bad exports, the issue has brought into question whether claimed recycling is happening. Greenpeace state that its investigators were able to see that some of the plastic waste exported to Turkey in 2020 was "*dumped by roads, in fields and in waterways*". Such narrative is likely to damage trust and thereby commitment to recycling by citizens.

Despite recent export data demonstrating that Turkey is no longer the main destination of UK plastics this issue has continued to attract media attention.[16] On 14th July 2022 the Daily Mail carried the headline *'How YOUR recycling is being illegally dumped and burned abroad by criminal gangs: TONS of plastic waste disposed of by eco-conscious British families is fly tipped in Turkey as processing plants struggle to cope with waste sent from the UK.'*

Plastic appeared to be given some respite from negative press attention during the COVID pandemic as it was central to public safety in terms of masks, gloves, and the vaccinations themselves[17] with a general appreciation that in this context single use plastics saved lives. This short-lived respite from propaganda on plastics feels like it is coming to an end as the media increase their discussions around ocean pollution and the impacts of plastics on the human body[18].

[15] https://www.greenpeace.org/international/press-release/47759/investigation-finds-plastic-from-the-uk-and-germany-illegally-dumped-in-turkey/
https://morningstaronline.co.uk/article/b/british-and-turkish-environmentalists-deliver-petition-to-downing-st-calling-for-end-to-plastic-waste-exports
https://eandt.theiet.org/content/articles/2022/03/waste-industry-joins-call-for-global-ban-on-plastic-exports/
https://www.bloomberg.com/graphics/2022-tesco-recycle-plastic-waste-pledge-falls-short/
UK plastic waste being dumped and burned in Turkey, says Greenpeace - BBC News

[16] Criminal gangs accused of illegally dumping and burning British recycling in Turkish hotspot | Daily Mail Online

[17] https://www.nationalflexible.co.uk/twigg-s-times/how-many-millions-of-lives-were-saved-by-single-use-plastics

[18] https://www.dailymail.co.uk/sciencetech/article-10687349/Plastic-pollution-ARCTIC-bad-Earth.html
https://www.salon.com/2022/03/27/plastic-pollution-could-make-much-of-humanity-infertile-experts-fear/
https://www.theguardian.com/environment/2022/mar/24/microplastics-found-in-human-blood-for-first-timehttps://www.medicalnewstoday.com/articles/could-microplastics-in-human-blood-pose-a-health-risk

3.6 Climate Change and the Plastic Free Communities

Plastics recycling came under fire when the UK Prime Minister, Boris Johnson commented on the topic in the run up to COP26.[19] When answering children's questions ahead of the summit, the Prime Minister said reusing plastics "*doesn't begin to address the problem*". Johnson further added Recycling plastic materials *"doesn't work"* and *"is not the answer"* to threats to global oceans and marine wildlife. These comments support the rhetoric of anti-plastic campaigners and undermine the solid work by Local Authorities, waste management and reprocessors to capture, sort and recycle the material.

The narrative is heavily focused on 'plastic free' aspirations both as individuals and communities. Many Councils have signed up to their own 'plastic free' pledges thus putting the emphasis and message to their communities firmly on the elimination of plastics in their communities.[20] In driving the narrative celebrities have joined in the 'pledging' trend.[21]

The message of removing single use plastics at all costs may well be counter-productive to the climate change debate. There remains no agreed clear metric to measure the true impact of packaging material usage i.e., glass, aluminium, steel, plastic and to convey this to citizens in a meaningful and regulated way, taking account of the whole pack, its full life cycle and its impact on the climate remains open to individual interpretation.

The Green Claims Code[22] sets out to ensure that any environmental claims on goods and services do not mislead customers and can be substantiated. The rules are simple:

- Claims must be truthful and accurate.
- Claims must be clear and unambiguous.
- Claims must not omit or hide important relevant information.
- Comparisons must be fair and meaningful.
- Claims must consider the full life cycle of the product or service.
- Claims must be substantiated

The Competition and Markets Authority (CMA) have made some high-profile prosecutions, such as Lipton Iced Tea for the advert which appeared on a bus shelter.[23]

[19] Recycling plastics does not work, says Boris Johnson - BBC News
[20] https://plasticfree.org.uk/get-involved/councils/
[21] https://www.thenorthernecho.co.uk/news/17709840.tvs-matt-baker-signs-county-durhams-plastic-pledge/
[22] https://greenclaims.campaign.gov.uk/
[23] https://www.asa.org.uk/rulings/pepsi-lipton-international-a21-1120048-pepsi-lipton-international.html

4.0 Methodology & Communications Delivery

The communications for the Kent Understanding Plastics 'Live Lab' were delivered across 12 Kent Local Authorities; Ashford Borough Council; Canterbury City Council; Dartford Borough Council; Dover District Council; Folkestone and Hythe District Council; Gravesham Borough Council; Maidstone Borough Council; Sevenoaks District Council; Swale District Council; Thanet District Council; Tonbridge and Malling Borough Council and Tunbridge Wells Borough Council.

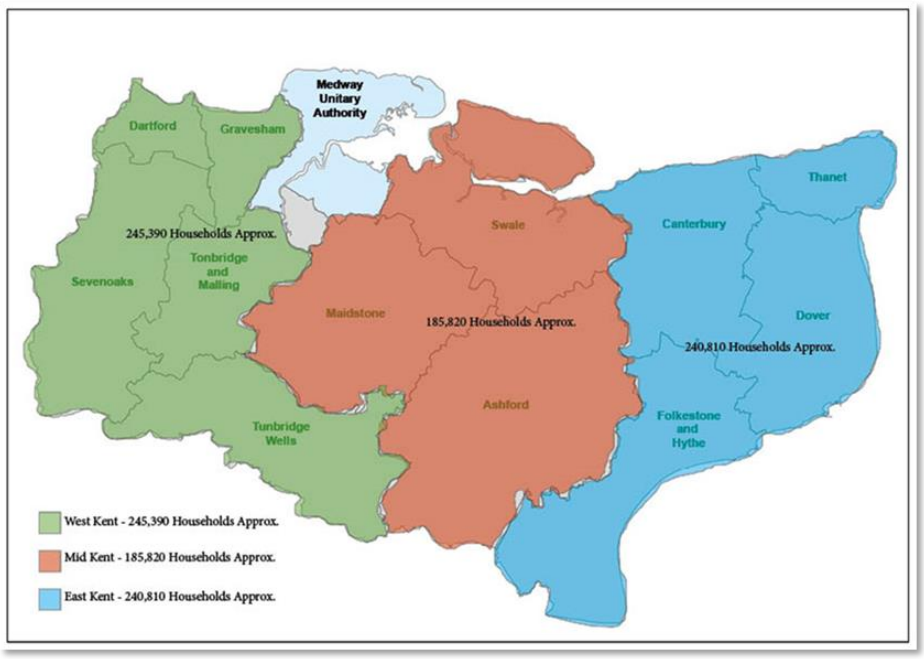
Kent was split into 3 control areas (East, West, and Mid-Kent) with each area receiving a different method of communications per phase.

	Phase 1	Phase 2	Phase 3
East Kent Councils	Leaflet Delivery	Direct Community Engagement	Indirect Communications
Mid Kent Councils	Indirect Communications	Leaflet Delivery	Direct Community Engagement
West Kent Councils	Direct Community Engagement	Indirect Communications	Leaflet Delivery

The phases were delivered as per below: -

- Phase 1 – July and August 2021
- Phase 2 – October and November 2021
- Phase 3 – February and March 2022

Each phase delivery was timed to allow for collation of data.



Kent Resource Partnership and Kent County Council facilitated discussions and communicated the project to the individual Local Authorities. The RECOUP team regularly presented both to the Kent County Council meetings and the Kent Communications Group the details of the delivery of the project, allowing for feedback and input.

4.1 Direct Communications

4.1.1 Leaflets

Leaflets were printed on sustainably sourced paper and followed social norming principles with the Kent Does logo. The target and non-target items were agreed between Veolia, Viridor (now N + P Group), Kent Resource Partnership, Kent County Council and RECOUP. The principles were based on the sorting and capture capabilities of both the Crayford and Rainham MRF's.

The ‘No thanks’ items were focused to reduce contamination levels in Mixed Dry Recycling. The back pages included some facts and statistics on plastics as well as contact details and social media links.

The leaflets were delivered as per the planned phasing by the GPO, as this is the preferred method of local councils. Coverage for the whole of Kent was not possible via commercial contractors.

In July 2021 as part of Phase 1 185,280 leaflets were distributed to East Kent. October 2021 as part of Phase 2 leaflets were distributed to 234,584 households in Mid Kent. Late February/early March 2022 in Phase 3 249,418 leaflets were distributed to West Kent. This resulted in a total of 689,282 leaflets being distributed.

There were issues in the Mid Kent delivery in Phase 2 as it appeared that in the areas of Maidstone and Tenterden leaflet delivery was sporadic, and some postcodes did not appear to have received theirs. Investigations to GPO did not ascertain the reason for this although representations were made. It also became clear that parts of rounds were missed off because of complications in delivery and this was particularly the case for those living in flats.

It should also be noted that any households that have opted out of receiving any unaddressed mail would not receive the leaflet.

The cost of design, printing, and distribution of 689,282 leaflets for all phases was £49,410.00 which equates to around 7p per household.

4.1.2 Direct e-mails and Conversations

Throughout the campaign e-mails and telephone calls were made direct to the RECOUP and Pledge2Recycle Plastics team by Kent residents. This allowed for full explanations to be given on the plastics recycling guidance for Kent. Most questions related to the following: -

- Whether bottle tops should be left on or off when recycling. Many individuals did not understand why until the technical aspects of how the bottle tops cannot be captured for recycling without being on the bottle was explained to them.

- Tetra Pak and drinks cartons had recently been moved from a target to a non-target material in several of Kent Local Authority areas. Whilst this represented consistency across the County there were several residents that were keen to recycle but no longer had the opportunity to do so.

- Some local councillors and parish councillors also took the opportunity to contact the project team direct. These individuals were usually offered a one-to-one conversation with the project lead.

Some of the direct enquiries were of a very unusual nature as per the example below; -

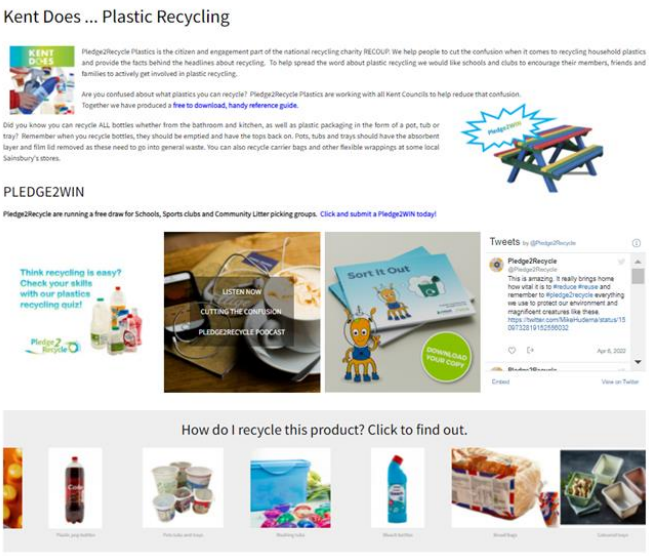
> ***“My husband cuts up plastic bottles e.g., milk bottles, plastic soup containers into small pieces. I tell him this will interfere with the recycling process. Who is right, please?”***

Written explanations also included links to the education resources of Pledge2Recycle Plastics and RECOUP.

4.2 Indirect Community Communications

4.2.1 Dedicated Website

A dedicated website for the Kent project was developed at www.pledge2recycle.co.uk/page/11/kent.



Kent Local Authorities were encouraged to reference the page on their website. The dedicated site allowed for direct entry to the schools' competitions, gave information on plastics recycling, social media links as well as free communication resources for individuals, Local Authorities, and businesses.

Throughout the campaign around 1800 people visited the dedicated web page. The most popular page visited was the information on soft plastics and wrappings with links to front of store collections. Visitors to the site then looked at plastic bottle then pot, tub, and tray recycling.

4.2.2 VMS Signage

Kent County Council utilized the roadside VMS signage to display messages in the relevant area as per the Phase plan.

- July/August 2021 – Mid Kent
- October/November 2021 – West Kent
- February/March 2022 – East Kent

The word length was limited the message to:-

"**Don't drop it**
take it home
Kent recycles."

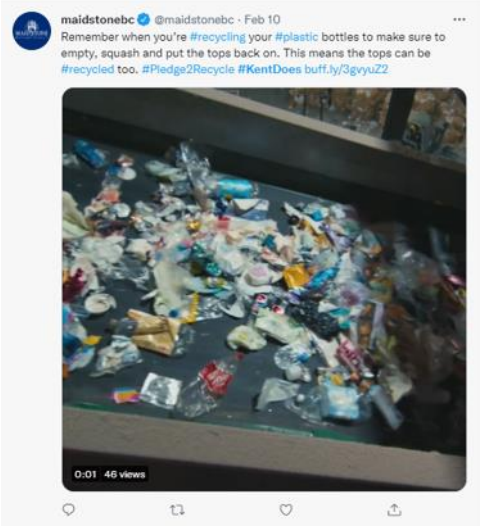
The narrative is aimed at encouraging citizens to take their recycling home and not to litter the highways. There was no cost to the project for this as the system is owned and operated by Kent County Council.

4.2.3 Social Media

Indirect communications social media aspects were untargeted and relied on general Facebook and twitter posts. Twitter posts took the form of general messaging on plastics recycling with the #Kentdoes, #Pledge2Recycle and #stopitdontdrop hashtags. Paid posts resulted in 314,361 impressions at a total cost of £1,024.95. Media & More were also contracted to develop and seed two Facebook posts at a cost of £1,000.00.

The team encouraged all Kent Local Authorities to share content and supplied communications packs to enable this to be done with the minimum of resource time. The Local Authorities that did post on Facebook and/or Twitter had a positive response. Key topics were the bottle-to-bottle recycling journey, bottle and pot, tub and tray recycling, explanations on split vehicle collections, and #don'tthrowonthego with a #stopitdon'tdropit message encouraging residents to take bottles home to recycle.

The 13 Kent Councils have a potential reach of over 176,000. Posts with the #KentDoes hashtag gained a potential reach of 680,000 throughout the campaign over all social media channels. There were 12 pre-designed social media posts alongside 3 separate media communications plans (one per quarter). If all 13 Kent Councils had posted each of the social media messages this had the potential to multiply the reach to over 2 million. However, the Councils are continuing to use the hashtag in recycling messages to citizens and this will continue to gain momentum.



Social media posts also included a video which demonstrated what happens to plastics packaging when going through the Materials Recovery Facility with a voice over explaining why the tops need to be on the bottles to be captured for recycling.

4.2.4 Community Magazines

Pull out handy guides were put in local magazines as per below; -

Phase 1 – Community Ad Tenterden, Ashford and Villages, Faversham; The Net, Sittingbourne and Sheppey and Maidstone.
Phase 2 – Dartford Living Magazine; Community Ad for Sevenoaks, Royal Tunbridge Wells & Tonbridge and Greenhithe.
Phase 3 – Community Ad for Canterbury, Dover, and Whitstable.

The total cost for the Community magazine advertising was £4,998.00 for a total distribution of 170,000 copies, equating to 0.029p per copy. Additional editorials were awarded in some areas for the same cost. The coverage in each Phase depended on the magazine distribution and coverage and budget. The areas with a high distribution carried the greatest levy.

The magazines content was also supplied to Parish Councils so they could include it in local publications. There was no cost to this.

4.3 Direct Community Engagement

4.3.1 Litter Picking and Environmental Groups

At each phase litter picking and environmental groups were contacted, and connections made via their local Facebook pages. In total throughout the project the team also engaged with litter picking groups with around 2500 members. In each phase the team connected with a local group and took the time to engage and gain insights into local issues.

In each phase the community groups were put into a draw to win packs of litter equipment.

If the team found areas in Kent through this element of the project where there was evidence of fly tipping the local council were informed and they then liaised for the area to be cleaned up. This created some goodwill within the community and encouraged pride of place.

The Pledge2Recycle Plastics team also litter picked around the Sainsbury's stores when visiting and again if any issues reported these back to Sainsbury's management teams.

4.3.2 Schools Competitions and Education

The team contacted 700 schools, with approximately 17,500 pupils in Kent. Entries were encouraged both for the online pledge mechanism and poem entries. Unfortunately, due to COVID restrictions the team were unable to attend the schools in person during Phase 1 or 2 of the project but were able to deliver assemblies and present some of the awards in March 2022.

The winning entries were Chartfield School, Westgate on Sea; Four Elms Primary School, Edenbridge; Westmeads Infants School, Whitstable; Dartford Boys Grammar School and Spring Grove School, Maidstone.

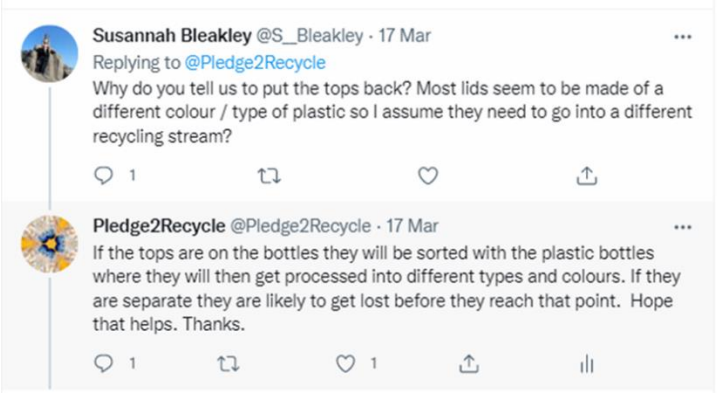
The prizes were products made from recycled plastic with school pledge mechanism winners receiving a picnic or buddy bench and poem winners back packs with education materials on plastics resources and recycling. Schools also received education packs and the team included plastics recycling assemblies when they visited to award the certificates and prizes.

4.3.3 Direct Online Engagement

Over the project the team interacted with 160 different Kent based Facebook groups, this included individual posts, comments, and conversations. Direct online engagement does not have direct costs and brings great rewards in terms of qualitative conversations; however, it is labour intensive as the communications team need to research to find the groups and ask to become members before posting and then follow through with answering queries. It is estimated that throughout project the team would have spent 80-man hours delivering this aspect of the project.

Posts included the hashtags #pledge2recycle and #kentdoes. Conversations with individuals covered the topics of:

- Querying if bottle to bottle recycling happens.
- Comments where individuals believe plastics are always downcycled due to the amount of virgin plastics that are produced.
- Requests if lids should be on or off when recycling.



4.3.4 Supermarket face-to-face Engagement

With each phase the team engaged with shoppers at Sainsbury's supermarkets to talk through their questions of plastics packaging and recycling. Across all phases of the project the team engaged with around 3,000 shoppers and completed 700 questionnaires. The supermarket activations were

enhanced with a roadshow. These events gave a wider range of citizen insights and allowed citizens to give their perspectives in an open and honest way. Representatives from the Local Authorities joined the Pledge2Recycle Plastics staff on some visits, and this had the added benefit that they too benefitted from listening to the plastics recycling details given by the plastics recycling experts.

The team took the opportunity to display items made from recycled plastics as well as explanations of the plastics recycling journey outlining how plastics are collected, sorted, captured and end markets. Conversations also allowed for wider discussions on food packaging sustainability including other material types. The recyclability of drinks cartons and Tetra Pak as well as tops on and off were a key feature.

Citizens were able to ask direct questions on the plastic packaging they had just purchased which helped them to relate this to their recycling. The engagement gave the opportunity to direct consumers to front of store film recycling and what could be recycled via this option.

A large proportion of shoppers thought that they recycled everything correctly until they began engaging in a two-way conversation. Shoppers would often refuse a leaflet saying that they recycled everything and knew exactly what they were doing with plastics until they talked through their behaviours with the team. It was commonplace then for individuals to realise that they had not fully understood what can and cannot be recycled kerbside and more importantly how plastics packaging should be prepared before placing it in the right bin. Many individuals said they would change their behaviours because of conversations.

Citizens who engaged were given either a bag to recycle their plastics from the bathroom or a fridge magnet reminding them of the key dos and don'ts of plastics recycling kerbside.

Recycling wheels were also developed, printed, and distributed with all recycling options for individuals to make up at home, which proved to be very popular. Local Authorities were also offered copies of this artwork so that they could be downloaded from their websites.

Roadshows are very worthwhile in terms of quality of engagement but costly in terms of staffing. Around 400-man hours was spent on this aspect of the project.

4.3.5 Focus Groups

A total of nine online focus groups were held throughout the project aimed at gaining insights from around 75 citizens. The attendees were rewarded with a £10 gift voucher post the event. Over the 3 phases every Local Authority area was covered by the attendees. The discussions centered around the key dos and don'ts of plastics recycling in Kent, allowed for questions on items which caused confusion and covered some of the basics in terms of the journey of plastics and how it is recycled. The most discussed topic being whether bottles should be recycled with the tops off or on.

Attendees commonly commented that taking part in the group had allowed them to gain unique insights into the issues of plastics recycling and plastics waste and they were keen to pass on this newly acquired information.

The discussions also allowed for residents to comment on how they felt recycling behaviours could improve and what they thought was missing in terms of resident communications and suggestions as to how this could be improved. Residents' concerns were that: -

- They were keen to understand more about the plastics recycling journey, how material is sorted and recycled and the products it is made into. The feedback was that they felt this would encourage them to recycle more.
- They would like to know more about the end destinations of plastics. Residents were keen to be reassured about exports of plastics waste.
- Lack of understanding about the sustainability of packaging materials and in particular plastics compared to other materials. Discussions on glass and paper/board packaging featured heavily.

- Individuals wondered why there was a need for so much plastic.
- The concept that plastic in many instances reduces food waste was not always accepted.
- Why plastic is wrapped around products which they felt was unnecessary, citing such items as turnips or swedes.
- They do not understand why plastics must be prepared in such a complicated way, referencing, film lids, pump lids, sprays, tops on or off, labels, different coloured plastics. In short, packaging could be simpler.
- Why can some items only be taken to the Household Waste Recycling Centre.
- They don't find out how much of the plastic they recycle gets recycled into new products and wonder why there is not more transparency on this.
- Generally, they thought all compostables could go into home compost. If plastic, they did not understand why they had to go into general waste. There was very little knowledge of any standard or certification for compostable packaging.
- The term bio-degradable was confusing. There was a belief that if the pack had the word bio, then it must be sustainable and good for the planet. There was no understanding of the difference between plastics made from plant-based sources (bioplastics) and plastics that were bio-degradable.
- Citizens were also generally frustrated that if they purchased an item of food which they deem to be from a sustainable brand then that will be in a pack that is fully recyclable and sustainable. They like to believe they are doing the right thing both in terms of the content being produced sustainably but also the pack. Items such as multi-material packs where capture or recyclability are an issue and discussions centred around Tetra Pak, foil lined board, and cardboard meat trays with film.
- Citizens were also unsure about the green dot symbol which they thought meant the product was recyclable.[24]

4.3.6 Advisory Groups

1900 Parish Councilors were contacted directly. All Parish Councils were sent digital information on plastics recycling including short articles that could be reproduced in parish magazines and frequently asked questions for distribution to their contact lists.

Nine Online Advisory Group meetings were held throughout the project at quarterly intervals across different times and days of the week. These were aimed at Parish Councils and local leaders to engage on the whole issue of plastics packaging within their communities.

These meetings included full and frank exchanges of views on plastics packaging and its necessity as well as the environmental consequences. Those present usually came with pre-conceived perceptions on plastics and often remarked by the end of the event that they did understand more about the material and felt it was important that everyone had the opportunity to engage differently on the plastics issue.

[24] Previous insight work at RECOUP, 2019 Research Study into Consumer Plastics Recycling Behaviours |https://www.recoup.org/p/347/citizen-stakeholder-engagement, outlined the confusion with bathroom items where the green dot symbol appears without any other recycling instructions.

While discussions were, in the main, a replication of those already expressed by residents the Advisory Groups also raised community and business concerns. Parish Councils were keen that their High Streets and towns were free from plastic litter and that local businesses had the opportunity to recycle both their business waste and waste from their customers. The concerns here were that the commercial arrangements for small businesses were not always either affordable or suitable. Suggestions were made that perhaps local and national governments look at supporting communities to develop recycling hubs where SMEs and community groups can recycle material streams in a more effective way.

Advisory groups were also concerned about confusion on bio-degradable plastics which they deemed as the answer to the issues around recycling and compostables. The same level of misunderstandings was present as with the focus groups of how to determine if a compostable item could be put into home compost or food waste collections, or still in recycling if plastic and why it would need to go into the general waste bin. There was also a general belief that if a pack had the word 'bio' somewhere that must mean it is good for the planet and sustainable.

The project lead also presented via teams to local Parish Council meetings.

4.3.7 Direct Discussions and Correspondence

As a result of the project the RECOUP team have received over 100 direct e-mails or telephone calls from residents of Kent with questions and asking for advice on plastics recycling.

The most common question was the instruction to empty, squash, and put the lid back on bottles. This was a new concept to many residents who, considered themselves to be dedicated recyclers and yet had been meticulously removing the tops ever since they started recycling. To convince many residents that this was indeed the correct advice the team were required to explain the full recycling journey of plastic bottles including how the two different polymers of bottle and top were separated, recycled and the resultant end markets.

Despite ongoing discussions and requests for the Local Authorities in Kent to check and ensure their own websites were up to date and correct with this advice some remained to give conflicting communications, whilst others just did not refer to the top at all allowing residents to come to their own conclusions.

4.4 Kent Resident Communications Group

The delivery, discussions, and outcomes of the project were presented and relayed at the Kent Resident Communications Group. The group were supplied throughout the project with social media content, resources both in terms of downloadable artwork and resource packs as well as intelligence on the evolving discussions with residents.

The group were invited to every event across the Phases and to attend the supermarket roadshows. Those that did attend found this enlightening and commented that they themselves had learnt a lot about plastics from listening to the discussions and explanations given to their residents. Uptake was limited due to resource availability.

Every presentation to the group resulted in a flood of questions and the team have worked closely with KRP and the group to educate on plastics, UK infrastructure for plastics recycling, future policy and legislation and its implications, as well as plastics end markets.

4.5 Kent Council Meetings

The project lead presented at 2 of the Kent County Council Meetings. Again, questions and discussions centred around; -

- Recyclability of drinks cartons and Tetra Pak.
- The instruction to empty, squash and replace bottle tops before recycling.
- The issue of the volume and necessity of plastics packaging.
- Litter and plastics pollution.
- How to support local businesses and communities to reduce, reuse and recycle.
- Compostables, bio-degradable plastics and bioplastics, and what to do with them.

The Council meetings also included discussions around carbon reduction strategies and how plastics impacts on these aspirations.

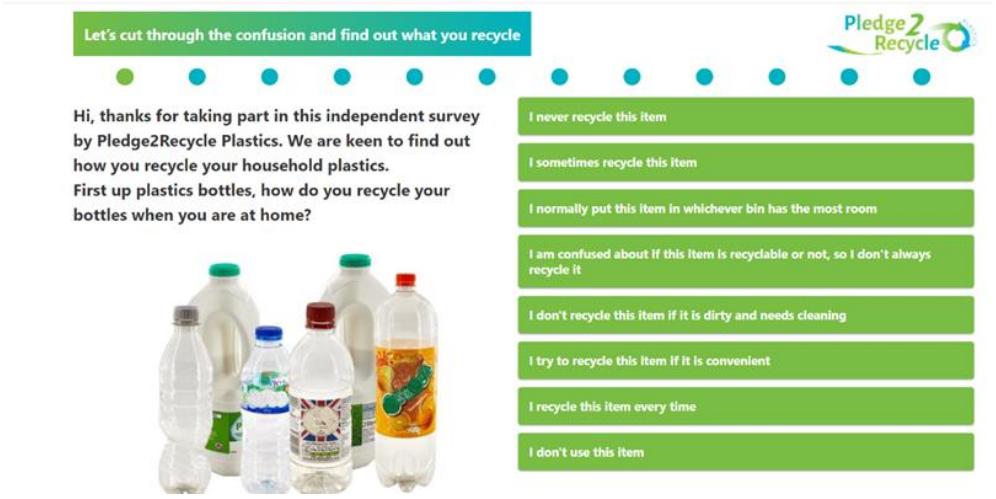
4.6 Collection Crew Training

Print outs of the key dos and don'ts of plastics recycling were prepared and laminated in order that these could be given to the collection crews. Discussions and offers of training were given by RECOUP to the Local Authorities. Discussions continue to be centred around bottle tops with reports of some residents reported that the crews had advised residents to keep the bottle tops off as they would explode if not removed.

5.0 Kent Citizen Insights Data

5.1 Online Citizen Insights

RECOUP's Pledge2Recycle Plastics brand launched the Citizen Plastics Recycling Behaviours Insights Survey in October 2020. The survey took the form of an informal questionnaire with images alongside questions on recycling behaviours of key items of plastics packaging such as bottles, pots, tubs, and trays and films and flexibles.

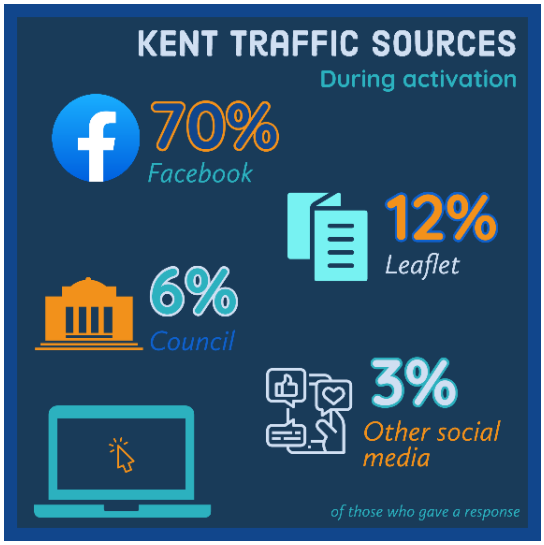


Responses were driven through social media (Facebook, Twitter, Instagram); Local Authority websites; e-mails; web searches and a link on the Ocado Retail website.

All submissions were able to be analysed via postcode and responses from residents in Kent extracted prior to any communications on plastics recycling in Kent. From 1st July 2021 the questionnaire was published in social media (Facebook and Twitter), as well as links on Kent Local Authority websites, and Ocado Supermarket.

Up to July 2021 671 responses were received via the website and post July 2021, 1305 responses. Giving a total representative sample of 1976. The responses from the rest of the UK up to July 2021 were 2950, and post July 2021, 1767.

5.2 Response Traffic



Traffic to the online questionnaire was driven via Twitter, Facebook, Ocado website and links from the Kent Local Authority web pages. Targeted posts on Facebook to Kent community pages was undertaken to drive responses, as well as quarterly paid posts. Facebook was the most successful vehicle for questionnaire completion with 70% of all responses via this method.

12% of the questionnaires were completed post leaflet deliveries with respondents declaring that this was how they found it.

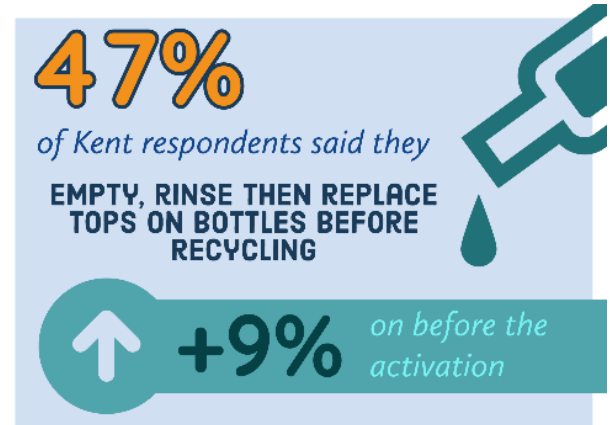
Residents and Parish Councillors who attended focus and advisory groups were also encouraged to complete the questionnaire online.

5.3 Plastic Bottles

The number of people who use plastic bottles and declare they recycle them every time both in Kent alone and the rest of the UK after the activation of the project was the same at 96%. Awareness that plastic drinks bottles can be recycled across the UK is fairly stable.

Of those who use them, 89% of Kent residents declared they recycle shampoo and conditioner bottles every time compared to 87% in the rest of the UK. However, before the campaign 86% of Kent residents declared they were likely to recycle bottles every time and which rose to 89% during the campaign (+3%).

85% of Kent residents who use them said they are likely to recycle cleaning bottles every time (3% above the rest of the UK) and 86% likely to recycle sauce bottles every time (2% more than the rest of the UK).



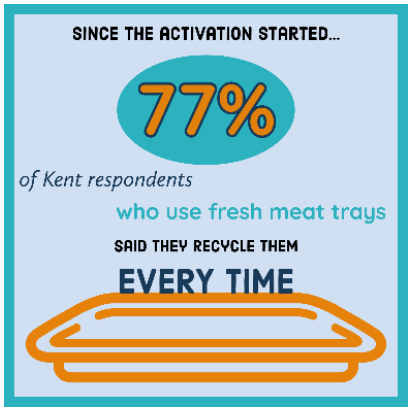
Before the campaign only 38% of Kent residents declared they empty, rinse, and replace the tops before recycling, and after the campaign this rose to 47%, an increase of 9%. At the same time prior to July 2021 23% of Kent residents said they recycled the bottle and lid separately, dropping to 17% as the project progressed. This is in contradiction to the rest of the UK where the number of responses declaring that they recycle the bottle and lid separately rose by 5% from 14% up to July 2021 to 19% post July 2021.

Kent residents were also now less likely to dispose of bottle tops in general waste with 9% declaring this behaviour compared to 13% for the rest of the UK.

5.4 Pots, Tubs and Trays

5.4.1 Meat Trays

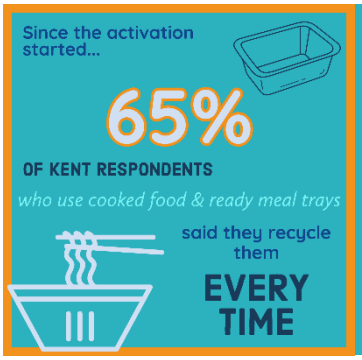
Post the plastics recycling communications Kent residents who used meat trays were declaring that they were less likely to be confused about if this item is recyclable or not (6% - compared to 9% for the rest of the UK).

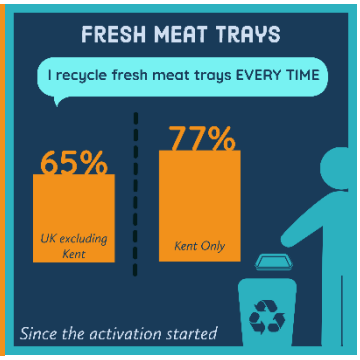


Post July 2021, the 65% of respondents from the rest of the UK who used them declared they were likely to recycle meat trays every time whereas 77% of Kent residents declared they were likely to recycle meat trays every time (+12% on the rest of the UK). Kent only residents were also less likely to declare they never recycled meat trays with only 5% of residents post July 2021 declaring this behaviour against 11% for the rest of the UK.

5.4.2 Cooked Food & Ready Meal Trays

Post July 2021 65% of Kent residents who used them declared they recycle Cooked Food and Ready Meal Trays every time whereas for the rest of the UK this was 60%, an upshift of 5%. Only 8% of Kent residents declared they never recycled cooked food and ready meal trays, whereas 10% of the rest of the UK declared this behaviour.





5.5 Soft Plastics and Wrappings

In general, there appeared to be a greater awareness in Kent on the recycling options for soft plastics and wrappings and residents were more aware of whether this type of plastic was accepted kerbside compared to the rest of the UK. There was also a greater willingness to use local collection schemes after the project activation (11% compared to 9% for remainder of the UK).

5.6 Declared Behaviours and Plastics Packaging Placed for Recycling (Collection Rates)

The RECOUP UK Household Plastics Collection Survey 2021 estimated that residents were placing for recycling 61% of what is placed on the market. The figure for pots, tubs and trays was 36% and for films and flexibles (soft plastics and wrappings), this had dropped to 8%.

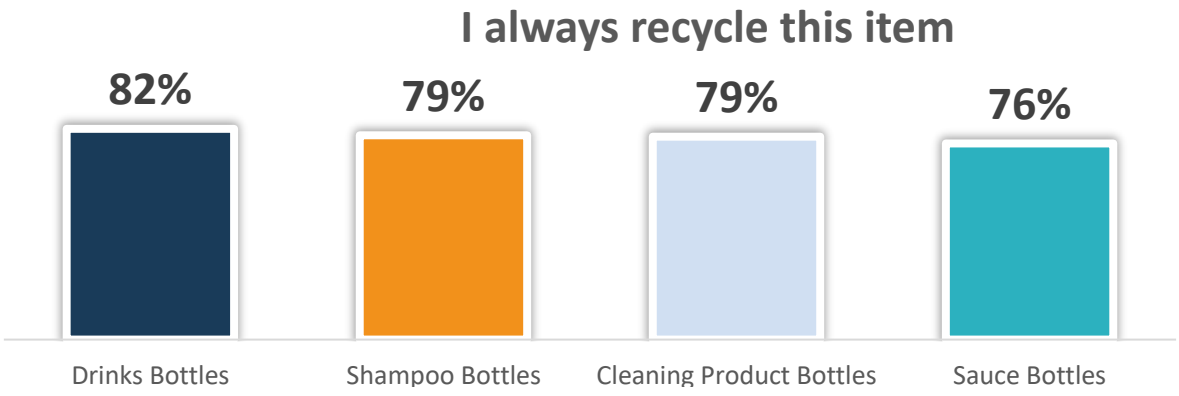
In Kent all the Local Authorities involved in the project collect plastic bottles and pots, tubs, and trays kerbside. There is no collection of films and flexibles, and all residents are advised to recycle these via front of store or other community schemes available.

As with the UK wide Citizen Plastics Recycling Behaviour's Insights Study 2021 completed November 2021, there remains questions as to declared and actual behaviours. Both nationally and regionally this still reflects a statistic above that which we would expect to see with an estimated 75% of PET bottles and 78% of HDPE bottles placed for recycling according to the RECOUP 2021 UK Household Plastics Collection Survey.[25]

5.7 Face-to-face Questionnaires

A total of 700 face-to-face questionnaires were completed in Kent at supermarket locations in Dartford, Gravesham, Sevenoaks, Tonbridge, Tunbridge Wells, Canterbury, Margate, Folkestone, Hythe, Deal, Maidstone, Ashford, Aylesford, Faversham, and Sittingbourne. The team were able to discuss directly with residents any questions they had on plastics packaging and gain qualitative insights into behaviours.

In general residents tended to initially declare 'recycle every time' behaviours before they thought and considered this in more detail and changed their choice. Thus, individuals were more likely to reflect and respond if they were confused or if they might only recycle 'sometimes' or when it was convenient instead of 'every time'. The declared behaviours here seem to be closer to those we would expect as a reflection of recycling rates with 82% of those questioned saying they recycle plastic drinks bottles 'every time'. 79% of respondents said they recycle shampoo and conditioner and cleaning product bottles 'every time', and 76% sauce bottles.



[25] https://www.recoup.org/p/346/policy-infrastructure

69% of those questioned declared they empty, rinse, and put the tops on plastic drinks bottles before recycling. This is 16% above the national average from the RECOUP Citizen Plastics Recycling Behaviours Insights Survey 2021 and demonstrates uptake of the project's key communications messages for bottles empty, rinse, squash and put the lid back on.

68% said that they recycle meat trays every time with 73% declaring that they always recycled plastic pots and tubs. 74% said they always recycled clear fruit punnets with 70% declaring they always recycled cooked food and ready meal trays. It was in the pots, tubs, and tray categories where a higher proportion of individuals declared that they only sometimes recycle at 13% for clear fruit trays, 17% for cooked food and ready meal trays, and 15% for meat trays.

As Kent do not collect soft plastics and wrappings kerbside for recycling it was no surprise that 71% of individuals said they never recycle.

Many individuals engaged with were not aware of the ability to bring soft plastics and wrappings to recycle front of store. However, most individuals were aware that they could bring their carrier bags and this enabled the team to have a wider conversation on the newer front of store recycling schemes currently being launched. This was positively received.

Examples of the comments below; -

- *"The radio says that only tennis ball sized plastics can go through the recycling system."*
- *"I sort it, but my husband says, why bother when it's all burnt."*
- *"Perfect recycling in Tonbridge with no issues."*
- *"No recycling at home, HWRCs don't recycle plastics."*
- *"I separate it out and then you put it all together again in the truck, so why do I bother."*
- *"Why isn't it all in glass?"*
- *Can you find me somewhere to recycle my alternative milk carton?"*

The items that individuals declared that they had been recycling incorrectly were toothpaste tubes, crisp packets, black plastic, films and flexibles and Tetra Pak.

There was a general appreciation for the challenge that waste management faces, particularly, regarding the collection of material. There was an appreciation of the pressure on front line workers.

6.0 Historic Data Analysis

6.1 DMR Recycling Rates

The overall DMR recycling rate for all Kent Councils collectively has remained largely consistent since 2018, with financial years 2019/20, 2020/21 and 2021/22 all being 26%.

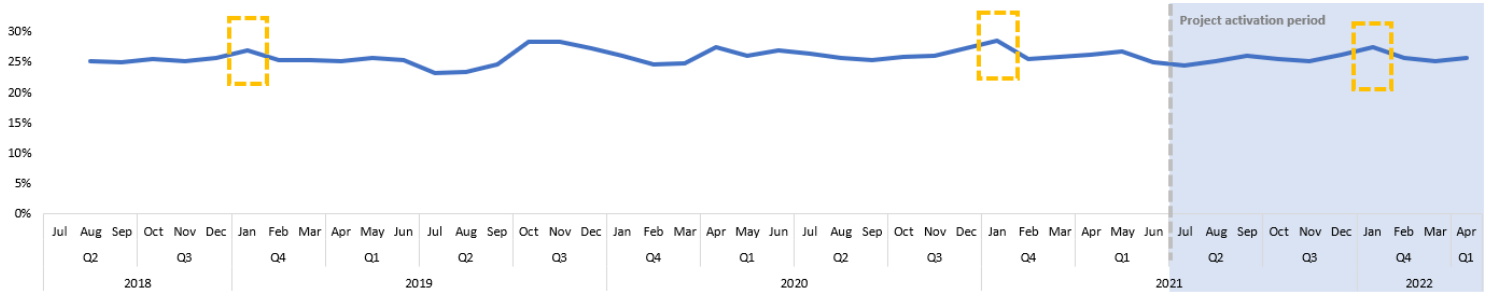


Figure 5: Overall average DMR recycling rates for all Kent Councils

There has been a slight uplift in January that has been seen in both 2019 and 2021, before again being seen during the project activation period in 2022. This is potentially influenced by seasonality, with January seeing an increase in both residual and DMR tonnage possibly because of the Christmas period. October 2019 also saw a significant change in DMR recycling rate, with Tonbridge & Malling Council seeing changes to their service provision.

6.2 DMR and Plastics Tonnage Collected

When looking at tonnages, the peak in January and the drop in February is even more obvious as a trend.

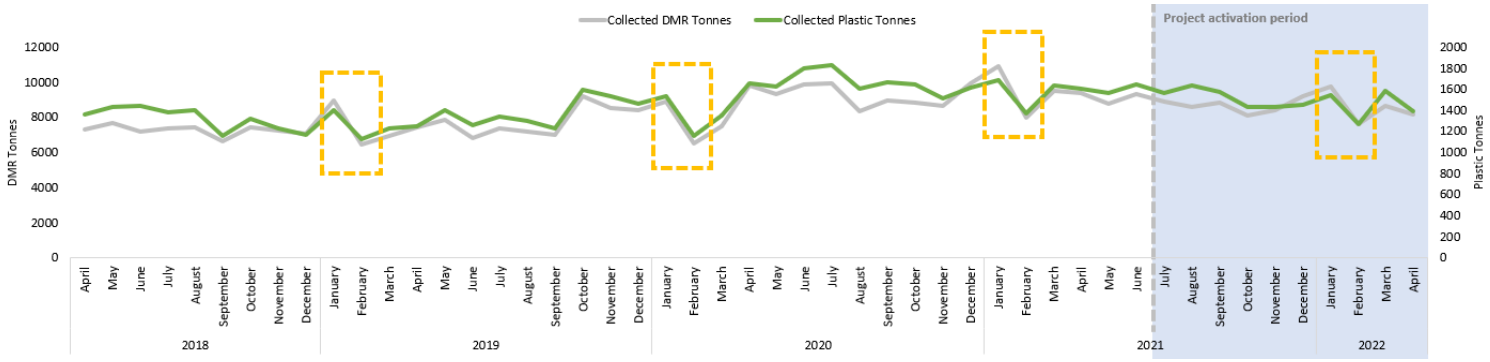


Figure 6: Overall DMR and Plastics Tonnage Collected for all Kent Councils

There was also a general upshift in tonnages collected from April 2020 which is perhaps due to the first COVID-19 lockdown and citizens being home-based, where activities such as food and drink consumption was wholly confined to households. There was a slight dip in August 2020 which is likely to be because of people getting out and about as they enjoyed some restrictions relaxing during the school holidays.

6.3 Contamination Rates

Restrictions, variations, and inconsistencies when it comes to the way in which data is recorded for contamination rates, as well as contract changes, meant it was deemed inaccurate to look at an overall picture where the Kent Councils were combined, and try and use this as a method of comparison to the activation period of the project.

7.0 Recycling Rates, Tonnage and Contamination Data Analysis Post July 2021

7.1 DMR Recycling Rates

Overall, the DMR recycling Rates throughout the project timeline remained stable, with the expected peak in January 2022 as per the historical analysis.

The DMR recycling rate had an overall average from July 2021 to April 2022 of 25.6%. This is slightly down on the same time the year before (26.3%), where both residual and DMR tonnages saw an increase, but especially DMR, which may have been influenced by the COVID-19 pandemic lockdowns. The DMR recycling rate however was very similar to the 2019/20 figure over the same period of 25.8%.

The UK citizen on average recycles 41% of plastics packaging purchased. In Kent that percentage is 15% higher at 56%. Which equates to Kent citizens placing for recycling around 8kg more per household than the rest of the UK.

The Mixed Dry Recycling Rate of Mid-Kent Councils generally showed a greater increase when comparing data with the July 2019 – April 2020 figures than the other two control areas.

7.2 Plastics Tonnage Collected

It was possible from the data received to compare the plastics tonnage collected for each Kent Council.

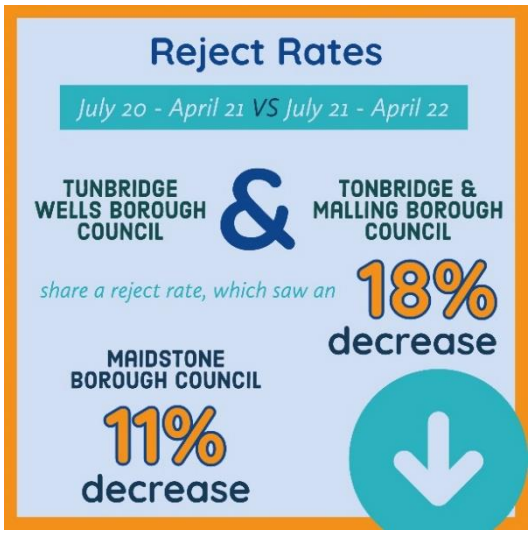
This was done by taking the individual fractions of plastics and gathering an overall tonnage for each month. It is important to note though, that this is only the tonnage of plastics that was collected, not necessarily what goes on to be recycled.

From this data, Tunbridge Wells Borough Council was the only Kent Council analysed that saw an increase in plastic tonnage collected over the activation period compared to the same period the year before (up 3%). However, compared to the year before that, 5 Kent Councils saw an increase.

When comparing the data over the activation period to previous years, it was evident that in many cases where there had been contract changes and/or changes in reporting methods, it had a major influence on the patterns seen. This was across tonnages collected, as well as the other data analysed (recycling rates and contamination rates).

7.3 Contamination Rates

Contamination or reject rates appear to show peaks and troughs which cannot necessarily be explained as being a direct result of changing behaviours. Contract changes and resulting changes in data analysis can explain much of these short sharp fluctuations both in terms of collection rates and contamination.



There was no indication that those areas with food waste collections were experiencing any more or less food waste in Mixed Dry Recycling. There did appear to be evidence of plastics packaging being placed into plastics recycling with out-of-date food still in the wrapper. If food has passed the sell by date, there is not always an attempt to separate the food and packaging and dispose of separately.

There were some regional success stories with Tunbridge Wells Borough Council and Tonbridge & Malling Borough Council (who share a reject rate) seeing an 18% decrease, and Maidstone Borough Council seeing an 11% decrease, when comparing the activation period of July 21 – April 2022 to the same period the previous year.

Issues with synchronicity in data collection and analysis means that direct comparisons with different authorities are difficult and it is almost impossible to know if we are looking at issues that can easily be compared. In the main, contamination continues to be comparable with issues noticed elsewhere.

7.4 Analysis limitations

The objective of the data analysis was to provide an overview of performance for each Kent Council through looking at recycling rates, tonnage collected, and contamination rates. This would be done from a large range of data, including: DMR tonnages, residual tonnages, plastic tonnages, and contamination rates provided directly from KCC; contamination breakdowns directly from MRFs; and other available data sources such as Waste Data Flow and Let's Recycle.

This data was used to investigate any patterns over the activation time frame of the project, whilst also considering influences such as seasonal fluctuations by consulting historical data, as well as external factors such as the COVID-19 pandemic lockdowns, and HGV driver shortages. Whilst carrying out the analysis it became evident that there were many factors that limited the validity of comparing council to council, as well as making it unsound to look at overall Kent groupings for data such as the contamination rates.

Firstly, it was recognised that declared recycling rates for councils on Waste Data Flow and Let's Recycle were not solely DMR recycling rates, but also included compost. This way of reporting is not unique to Kent, rather is commonplace across the UK, however, it can lead to misinterpretation of the figures by those that don't realise this is the case, making them believe that more DMR recyclables (such as glass, paper, and plastic) are recycled than is happening.

The way in which the MRFs carried out their analysis, reporting and handling of different materials was another limitation that this project really helped to highlight as an issue. Comparing data from MRF to MRF can be difficult for a variety of reasons, including the differences in operations and sorting capabilities, contracts, and varying treatments when it comes to the commerciality of material end markets. It was found that the categorisations that different MRFs used to record their data was not uniform, making it difficult to decipher what material was in what category, and therefore carry out

accurate comparisons. Also, the same material can be treated differently depending on whether it is classed as acceptable (a target material), objectionable (a non-target material that is recyclable), or prohibitive (non-recyclable material). If an objectionable material is found at a MRF, that MRF will decide on whether they want to still recycle this material, or class it as a contaminant, based on whether there are available commercially viable end markets for it. If it is recycled, it could be counted in the recycling rate, despite it being a non-target item. However, if it is classed as a contaminant, it could be counted in the contamination rate. This categorisation fluctuates between MRFs and can mean the same material is treated differently at different sites. Due to this inconsistency, it means that comparisons of recycling rate and contamination rate are not like for like between councils.

There were a variety of other factors directly relating to the collection of recyclables at kerbside that were identified as potentially an issue when it comes to comparing council data, including:

- The frequency of collection for both residual and recycling.
- The type of collection, for example what receptacle is used to place recycling at kerbside.
- Whether the recycling at kerbside is collected co-mingled or source separated.
- Whether the council accepts materials such as glass for recycling at kerbside.

	Let's Recycle 2020/2021	Waste Data Flow 2020/2021		Population	Population Density	Contamination Rate	Contamination Rate	DMR KCC* data
	Recycling Rate	Recycle (DMR)	Compost	June 2020		Apr 21 -Mar 22	Jul 21 - Apr 22 post activation	Recycling Rate Jul 21 – Apr 22
Ashford	50.5%	27.6%	22.8%	131018	226	9%	8.9%	39%
Canterbury	40.9%	22.2%	18.7%	166762	540	5.1%	4.7%	23%
Dartford	24.5%	18.4%	6.1%	114051	1567	11.4%	11.5%	18%
Dover	47.8%	28.8%	18.9%	118514	376	14.2%	14.2%	23%
Folkestone & Hythe	48.1%	27.4%	20.6%	113320	318	13.6%	13.6%	23%
Gravesham	43.7%	23.6%	20.1%	106890	1079	11.4%	11.5%	28%
Maidstone	49.7%	25.1%	24.6%	173132	440	8%	8%	38%
Sevenoaks	36.6%	20.9%	15.4%	121387	328	8.1%	7.8%	19%
Swale	41.4%	23.1%	18.4%	151015	403	11.4%	11.3%	32%
Thanet	32.5%	22.5%	12.5%	141458	1369	10%	9.7%	17%
Tonbridge & Malling	51.6%	23.0%	28.5%	132571	552	10.9%	10.7%	20%
Tunbridge Wells	47.5%	28.2%	19.3%	118939	359	10.9%	10.7%	23%

Figure 7: Table of Kent District recycling rates, population, and contamination rates. Data from Lets Recycle, Waste Data Flow, Population and Population Density.
**Dry Mixed Recycling Kent County Council*

It must also be noted that contract changes for each Local Authority can make it very difficult to compare Authorities against each other both for current and historical data. A contract change can see differences in target materials, as well as differences in reporting methods for the previously accepted materials, making it very difficult to make sure comparable data is being analysed. It can also influence short-term significant fluctuations, as the changes bed in and citizens become familiar with the adjustments.

8.0 Results & Conclusions

8.1 Message Consistency & Citizen Touch Points

Throughout the conversations with the community the impact of plastics myths and misnomers through the variety of touch points citizens gather information from were clearly in conflict.

There is a general acceptance that citizens are invariably confused over plastics packaging. Considerable airtime has been given to negative messaging on plastics from The One Show[26] to the War on Plastics[27] as well as broadsheet headlines questioning recyclability of black plastics and highlighting waste crime.

These negative messages are retained by citizens and compete against those nudging and encouraging individuals to recycle to drive sustained behaviour change.

The first step in any behaviour change is awareness which in turn leads to knowledge. The impact of different contradictory messages in awareness certainly provides a challenge to underpinning the knowledge required for individuals to act.

When some of those touch points carry the primary message of 'plastics free' this can also lead to citizen guilt when purchasing single use plastics packaging such as PET drinks bottles. The citizen engagement elements of this project led to conversations with individuals where this aspect was debated. Explanations of the plastics recycling journey were helpful to reassure citizens of the circularity of this type of packaging. It is unlikely that the mainstream media will progress to a more balanced view without a sea change in the plastics conversations on litter, pollution and addressing concerns over oil-based polymer production.

[26] https://deframedia.blog.gov.uk/2019/04/18/michael-gove-talks-plastics-on-bbcs-the-one-show/
[27] https://www.bbc.co.uk/programmes/m000m82c

Not all sources of information are treated/received in the same way, and some will be trusted and believed by the individual more than others. This is because of the way humans are wired, negative bias[28] which was part of our evolutionary process,[29] and why bad news travels faster than good. It is also why the media are more likely to concentrate on any negative news regarding plastics packaging than good. However, it is these negative headlines that individuals are more likely to remember. Hence, we need to ensure that positive messages are driven through all the touch points where the value chain has influence and more importantly that all those messages are in unison.

Focus and advisory groups in this project offered the team the opportunity to dispel some of the negative myths and there is existing work both with WRAP Pact and Pledge2Recycle Plastics driving these conversations.

It is therefore crucial that communication outlets where the value chain have some element of responsibility displays no contradiction or conflict in messaging. There needs to be a willingness from across the value chain for collaborative partnerships to ensure that messages are accurate, positive, based on expert knowledge and consistent.

Messages should not be based on marketing differentiations but on fact which can be supported by the UK plastics recycling industry.

8.2 Citizen Behaviour Openness to Change

So, if all touch points carry the same message, how open are citizens to changing their behaviours and taking the correct action. Over recent years we have become fixed on the thought that everyone needs to change their behaviours and yet, the citizen insights element of this work indicates that individuals believe they are doing the right thing and do not need to modify their behaviour.

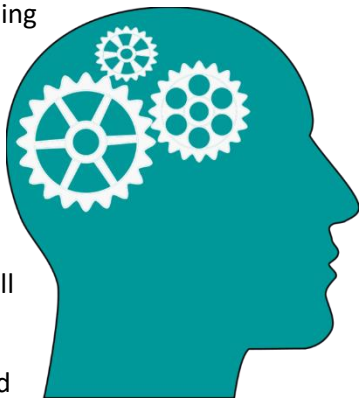
The WRAP Recycle Now tracker report 2020[30] states that 89% of residents state they regularly recycle. The study goes on to identify individuals recycling items kerbside that are not widely collected particularly in relation to plastic items such as film and wrappings and toothpaste tubes. RECOUP's own insight study supports the theory that individuals want to recycle and believe that they do however this behaviour is perhaps not sustained and depends on the situation at the time, whether the pack requires cleaning, or on individual knowledge.

People also use their objective knowledge to base their recycling behaviours, i.e., the facts as they know them. Consequently, what information is out in the open domain needs to be correct and up to date. Conversations with citizens in Kent both at roadshows and in focus groups indicated that unless they had reason to question their behaviour the strength of their objective knowledge would lead them to believe that they 'recycle right'.

[28] https://www.bbc.com/future/article/20140728-why-is-all-the-news-bad
https://blog.reputationx.com/what-makes-us-drawn-to-negative-online-content

[29] Those who were more attuned to danger and who paid more attention to the bad things around them were more likely to survive. The evolutionary perspective suggests that this tendency to dwell on the negative more than the positive is simply **one way the brain tries to keep us safe**.

[30] https://wrap.org.uk/resources/report/recycling-tracker-report-2020-behaviours-attitudes-and-awareness-around-recycling



In recent years there have been constant conversations on citizen recycling behaviour change with attention given to ways communications can nudge citizens to do the right thing in terms of plastics recycling. And yet, throughout this project when talking directly to individuals, they feel they are already recycling right. They also think they already know what they need to do in terms of how to prepare packaging for recycling and it is not until they embark in a two-way conversation with the experts that they grasp that they perhaps have not been recycling all that they could nor doing it in the correct way.

This also explains the reason between the mismatch between declared behaviours, i.e., how much people think they are recycling every time and what the kerbside data tells us. The question is if individuals already believe they are doing their best how we get them to accept they could do more. Or is it simply that recycling doesn't happen if the conditions are not just right, right place, right time, and right attitude. Individuals often have the right intentions, but circumstances mean that they cannot carry through their intentions on every occasion, but they will promise that next time they will.

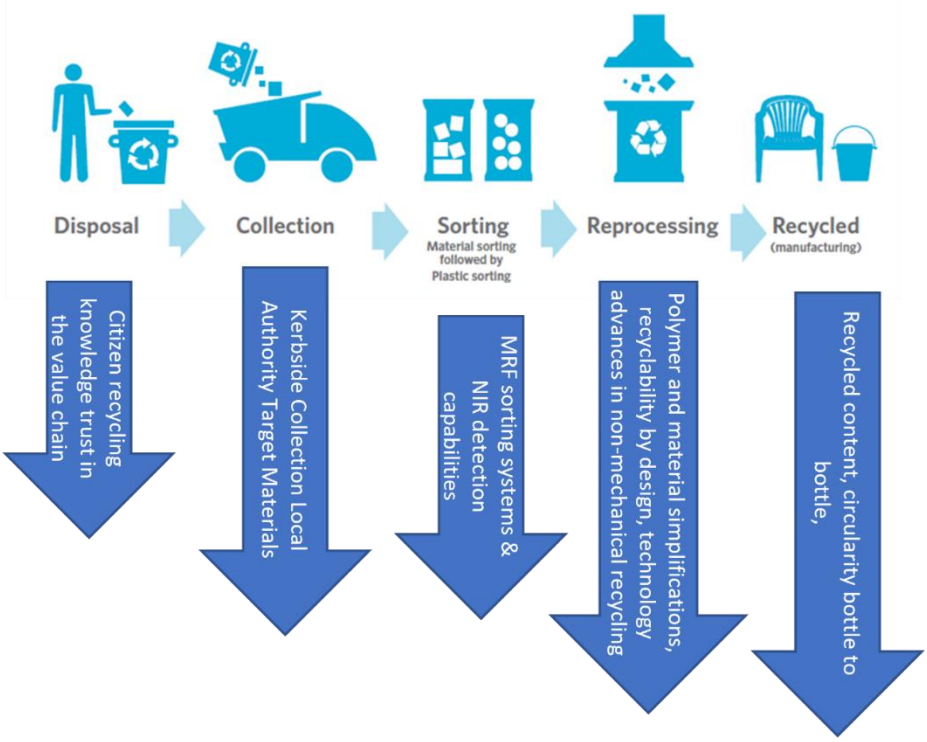
Due to the emotions around plastics packaging and what many see as an environmental issue subjective knowledge can play a part i.e., their emotions and feelings can further influence their behaviours. This can hinder communications on plastics recycling as messages need to strike the right narrative to encourage citizens to engage. The focus and parish council groups held in Kent highlighted how individuals with a very negative view on plastics would shift their attitude after an open two-way conversation. Many individuals realised their knowledge was out of date and reluctantly had to admit that they could be recycling more and had been preparing packaging incorrectly for some time. Declarations would include -

- Not putting tops on bottles.
- Not recycling items that were dirty.
- Not recycling items that had contained products such as domestos.
- Not recycling plastics at all as they had failed to read the Local Authority instructions properly.
- Not putting lids on plastic tubs.
- Trying to recycle hard plastics, that should go to HWRC, kerbside.
- Not understanding the different routes of plastics recycled via kerbside or via HWRC and therefore the reasons for the advice given.

The supermarket engagement in Kent highlighted that individual would claim to not need or require any plastics recycling advice but when the teams encouraged them to talk and exchange ideas almost everyone spoken to commented that they had indeed learnt something and felt it had been of value.

It is not just about nudging individuals in the right direction but how can we challenge in a way that makes the individual open and willing to learn. For citizens to be responsive to change and non-resistant to the message there needs to be a fundamental shift in society of the value and importance of recycling.

8.3 Driving Value Chain Synergy & Consistency



The value chain is historically viewed as circular driving recyclability of plastics packaging and circularity has been the emphasis for some time. Throughout this project explaining to citizens why some items of plastics packaging are more recyclable than others even if the base polymer is a fully recyclable product can cause citizens to ask the obvious question 'why'.

Toothpaste tube

It is challenging to explain why different parts of the value chain appear to be moving forward faster than others. Advances in pack design such as simplification to mono materials for flexible plastics and kerbside collection target/non-target materials and sorting systems, now can confuse citizens even more. Regular conversations would centre around toothpaste tubes,[31] these are non-target items across the UK, however the simplification of packs by some manufacturers has led to the inclusion of 'recyclable' instructions on packs which obviously adds to the confusion.

This may seem like stating the obvious but for a pack to be recycled it must be able to go through each part of the process with the existing infrastructure and be commercially viable. Recyclability claims

[31] https://wrap.org.uk/resources/report/recycling-tracker-report-2021-behaviours-attitudes-and-awareness-around-recycling - 84% of responses thought that toothpaste tubes were accepted in their collection

need to be based on fact and what happens to a pack in a real live situation. In an ideal world the recyclability criteria and target material lists of Local Authorities would match.

Unfortunately, there are many reasons as to why recyclability and Local Authority target material listings do not match:

- Contract changes with waste management providers.
- Out of date advice and guidance on Local Authority literature and websites.
- It has simply been overlooked as packs or infrastructure have developed.
- Lack of understanding of the value chain and plastics recycling terminology.
- Changing commercial markets.

As technology improves and pack design drives changes in pack composition to improve recyclability, collaboration across the value chain is essential to ensure that pack sorting capabilities and pack recyclability are in unison. Whilst with advances in pack design which may mean that in principle that pack could be recycled it confuses citizens to include recyclability claims on the pack when the infrastructure or end markets are unable to deal with that material.

Plant pots are another example of a plastic product which is invariably on the Local Authority non-target list due to their colour (as most were previously black). Despite moves by producers to green PET or to PP pots with NIR detectable colours these remain largely non-target items with only 12% of local councils recorded as collecting.[32]

8.4 Communications Results and Conclusions

Traditional methods of communications for kerbside service provisions normally include:

- Vehicle graphics
- Leaflets
- Bin stickers
- Bin tags
- Roadshows
- Social Media

❖ **Vehicle graphics** were not undertaken as part of this project. It was hoped that we would be able to tap vehicle contract change in one authority area the timings did not fit with the project.

❖ **Leaflets** enable a wider level of information to be imparted, however, as a communication method they get a mixed response. Leaflets are less resource heavy in terms of staffing. However, delivery is costly and there will always be some households omitted. There is also no guarantee with leaflets that they do not go straight from the door mat to the bin. Due to the climate change debate and resource efficiencies leaflets can be controversial and many consumers view these as not the most sustainable option in effect creating waste to tell people to reduce, reuse and recycle.

The leaflets are also controversial with some residents as it can be viewed as wasteful printing something that individuals will put directly into general or recycling waste streams. How well printed media is received varies? The leaflets were clearly read by some in detail as many of the direct questions related to leaflet content.

[32] RECOUP UK Household Plastics Collection Survey 2021 reported 12% of UK local authorities collected plant pots,

Leaflets need to be factually and accurately correct and match in every detail to the Local Authority website.

- **Bin stickers and bin tags** remind residents at the point of disposal if they are placing the right material into the right bin. This nudge mechanism can be used alongside other methods to reinforce. However, they are resource heavy to deliver as it requires either collection crews or Local Authority staff to apply on the collection rounds. These also require printed resources which are not always positively received by residents.

  For plastics recycling instructions bin stickers are generally quite small to hold that amount of detail. Bin stickers are also not environmentally friendly being made from self-adhesive vinyl which over time can cause microplastics as they degrade, which for a plastics recycling campaign can be a difficult message to navigate with citizens.

- **Bin hangers** are also printed on a coated paper and again carry the same environmental concerns as they need to be able to withstand the weather and elements over time without degrading. Print both on stickers and bin hangers needs to be able to withstand UV light without fading.

- **Roadshows and education activations** into schools are labour intensive and therefore need to be targeted both in terms of area and messaging. The rewards in terms of community and individual buy-in are not always quantifiable. What is evident from this type of activation is that it enables a wider conversation and has the potential to increase buy-in to the topic and an understanding that would not be achieved via any other methodology.

  The impact of education in schools is not always immediate, however it is important that we try to reach all generations and particularly young teenage males who are the least likely to recycle.[33] It is only through direct engagement and conversations that some of the myths and misunderstandings can be debunked.

- **Magazine Articles.** Sometimes the individuals can pre-judge the content and not always taking the time to read the contents, so whether they reach the target audience is an unknown. Often it is only through direct engagement and conversations that some of the myths and misunderstandings can be debunked. This type of printed medium whether delivered direct to households or out in the open domain must be factually correct as individuals will seek to check against previous or existing communications in other mediums. Any inaccuracies will cause further confusion. If a printed leaflet says one thing and the website says another this is likely to result in residents switching off rather than following any recycling guidance.

- **Social media** - Local Authorities have huge potential via this method with minimum costs. Generally Local Authorities already have healthy twitter followings which can be tapped into. If all 13 Kent Councils had tweeted all 12 messages developed for the project the reach would have been at least 2 million impressions.

[33] https://www.recoup.org/p/347/citizen-stakeholder-engagement
https://wrap.org.uk/resources/report/recycling-tracker-report-2021-behaviours-attitudes-and-awareness-around-recycling



Social media for Local Authorities does bring risks in terms of 'live' challenging questions and comments. Through collaboration and knowledge transference with the plastics recycling industry and NGOs working in this space and utilising all the free tools and resources available they should be able to engage on the issue with confidence. Plastics recycling content on social media needs to be wholly and fully accurate as any questions and criticisms will be in the open domain and should always be answered or checked by plastics recycling experts. (The Pledge2Recycle Plastics team have offered to assist Local Authorities with any technical questions in this space.)

The Kent project did not use influencers or celebrity endorsements. The social media content was low cost as the creatives were inhouse. Larger budgets could explore the opportunities further.

Facebook engagement counted for 70% of the responses for the online questionnaire with an investment of circa £1,000.

Social media also ticks the sustainability box and provides reach in a way that does not waste any precious resources both in terms of leaflets (paper), bin stickers (self-adhesive vinyl) or bin hangers (synthetic paper).

There was no visible difference in uptake depending on the order the communications were delivered nor the geographical area. However, when it comes to driving home the message to citizens, to drive sustained behaviour change, saturation and repetition of the message is required over time.

Plastics are also complicated and require dedicated messaging to cover the breadth of information required. Often plastics are part of a multi-material message which leads to limited opportunity to be able to give sufficient detail.

8.5 Plastics Packaging Understanding

The uniqueness of plastics and its ability to come in all shapes, sizes, and colours in itself renders communications complicated. Materials such as glass, aluminium cans, and steel cans are more easily recognisable by consumers and less confusing – aluminium cans do not come with tear off bits, different coloured lids, labels, shapes, or sizes. A can is a can is a can. However, when we look at plastic pots, tubs, and trays the combinations, options and variety make it challenging to convey with a clear unambiguous message.

The challenge increases with pots, tubs, and trays. While 87% of Local Authorities collecting kerbside there remains areas within the UK where residents still do not have this option. Within those collections there remains local differences such as whether black plastic is a target material. It is worth noting that the level of black plastic in the UK shopping basket has visibly diminished. RECOUP's black plastic report[34] estimated that in 2020 black packaging in the UK had dropped from around 36,000 tonnes to 10,000 tonnes. This continually reducing figure means that black plastic now just accounts for 0.7% of consumer plastic packaging placed on the UK market each year.

[34] https://www.recoup.org/p/173/recoup-reports

The insights gathered in Kent demonstrated that by the end of the project residents in Kent were learning and understanding more about plastics recycling. This can only be achieved with investment in communications and a more continuous approach to delivering information and detail on plastics packaging, how it is recycled, when and where.

8.6 Importance of Clarity

Communications to citizens about plastics recycling need ensure that there is no assumption of a base knowledge. The obvious needs to be stated. For example, referencing trigger sprays are to be left on as part of website instructions but failing to make it clear what to do with bottle caps. Sometimes poor communications can be as much about what is left out as what is left in.

Descriptions need to be accompanied by imagery as English is not everyone's first language and yet many websites only have lists of instructions and no accompanying imagery. That imagery needs to look like the product the citizen will be recycling. A list such as 'plastic bottles, plastic pots, tubs, and trays' is not sufficient for citizens. Whilst there is a general acceptance that plastic drinks bottles are recyclable, what we do know is that citizens don't always recycle items from the bathroom, and therefore this requires spelling out.

It is also helpful that the detail covers items that are on the non-target items list, and that these are also itemised and that in cases where there are recycling options other than kerbside (i.e., front of store), that citizens are directed to where they can get more detail. If citizens are unable to place film kerbside this should be explained and why. Conversations in the supermarkets in Kent highlighted that most citizens were not aware of this option and even those that previously recycled carrier bags in store were not aware that they were able to bring back soft plastics and wrappings.

The devil is in the detail, and it is critical that language and imagery are clear and concise. The leaflet content of the Kent campaign was well received with feedback from individuals being that they found it easy to understand and it indicated that they had not been dealing with some items correctly and help alleviate their confusion.

Compostable packaging, bio-degradable plastics and bio plastics, individuals found generally confusing. Citizens were unaware that unless labelled as home compostable, all such items would need to be disposed of in general waste.

There is some guidance by WRAP on compostable plastic packaging[35] however this is not aimed at the public.

The team found that this area of packaging was not understood and included guidance within frequently asked questions distributed to Local Authorities and parish councils. The Local Authorities were encouraged to include on their websites or to direct individuals to the Pledge2Recycle Plastics web page.

[35] Compostable plastic packaging guidance | WRAP

9.0 Recommendations & Legacy

9.1 Message Consistency

Kent Resource Partnership (KRP), as a direct result of this project are in the process of developing a citizen facing website with information and content on all material recycling across the whole of Kent. This will ensure consistency and accuracy in the message. RECOUP and the Pledge2Recycle Plastics team are working in partnership with KRP to advise on the plastics recycling message.

Collaboration with material stream specialists is advised, for all Local Authorities to ensure the narrative is accurate and technically sound. This will also help to synchronise the messaging, so citizens receive the same information from multiple sources, ensuring the value chain work together and are supportive of the same messages. This should include a technical accuracy check of any creative agency developed campaigns to ensure that the terminology and messaging is not only factually correct but does not conflict or add to confusion.

Local Authorities, as much as individuals need to understand the 'why' in terms of plastics recycling. This project demonstrated that Local Authority staff, parish and local councillors were genuinely surprised at some of the technical reasons why the industry requires certain packs to be presented for recycling certain ways (such as tops on bottles). Understanding waste management infrastructure in terms of sorting capabilities and challenges for things such as small items, films and black plastic is helpful when dealing with members of the public and Local Authority staff themselves.

Often in the arena of communications there is a need to brand and identify messaging to the detriment of consistency. It is to the citizens benefit to have message consistency whether it is from their Local Authority website, on the pack instructions and labels or other expert recycling bodies, it should all be consistent in the detail and across all touch points.

9.2 Education on Recycling Options other than Kerbside

While the aim is always for plastic packaging to be collected kerbside it is crucial end markets are driven to enable commerciality. To educate residents on options other than kerbside collections is a challenge, particularly for those without transport or that have mobility challenges. However, there is appetite in communities to do more. Local leaders, parish councillors and local action groups in this project were very keen to explore ways in which to do more on a community basis ahead of any legislated kerbside provisions. It may be that Local Authorities can assist communities and facilitate community support for individuals that are less mobile.

- **Podback**. During the project RECOUP introduced Kent Communications Group to the Podback Scheme for coffee cups[36]. Dover District Council has very recently gone live with a scheme.

- **Soft Plastics and Wrappings** are not collected kerbside across Kent, and the front of store collections have provided an opportunity for Kent residents. Ensuring that residents are aware of this option and giving information on target and non-target materials via these schemes, and that all touch points for resident communications contain the same detail is crucial. Raising awareness of the options of additional services will help ensure take up of these schemes to drive uptake, reduce contamination and increase end market options.

[36] https://www.podback.org/

In March 2022 WRAP launched a campaign to assist in driving citizen awareness of front of store collections[37] which gives an opportunity for Local Authorities and businesses to educate on this recycling opportunity and holds some useful resources.

The Co-op TV ad[38] for film and flexible recycling was the most referenced point of information that Kent citizens referred to in discussions on this area of recycling.

- **Terracycle.** On the back of the recent TV programme highlighting some of the issues with the audit trail of material and lack of collection points many Local Authorities no longer host links. However, the scheme had considerable support from parish and local councils we spoke to in Kent. TerraCycle

As Recyclability by Design[39] drives pack simplicity and recyclability the requirement for alternatives to kerbside collection and thereby the necessity for front of store or community schemes will diminish. However, in the interim it is critical the industry is seen by citizens to attempt to capture the plastic it places in the market where there are kerbside challenges.

Education is also needed to make citizens aware of how the industry are exploring new technologies and innovations to solve recyclability issues and improve the circularity of plastics packaging.

9.3 Best Practice Guide for Plastics Recycling

As a key outcome of this project a Best Practice Guide for UK Plastics Recycling has been produced and is available in the open domain. The guide is aimed at all those who communicate with citizens on plastics recycling but primarily is to assist Local Authorities in the correct technical terminology for plastics and to give an overview of the current state of play within the sector.

The guide concentrates around key messages to citizens that RECOUP see as essential to drive plastics recycling kerbside both in terms of volume and quality. The guide has produced a Top 20 Easy Wins in terms of citizen communications highlighting the need for accuracy and consistency with Local Authority websites and the correct instructions on how to recycle plastic bottles.

This work is in response to all the questions, citizen engagement, Local Authority involvement, and outcomes of Kent 'Live Lab' and has been written through the lens of what happens to plastics packaging when collected, sorted, recycled, and turned into new products. The guide also takes its reference points from current legislation and policy as well as looking to the future and the impact of Extended Producer Responsibility, kerbside consistency, and Deposit Returns Schemes.

The plastics recycling value chain were consulted throughout the guide development including the British Plastics Federation, Plastics Europe, Veolia, the RECOUP Advisory Group for Citizen Communications and OPRL.

[37] Webinar: Front of Store Plastic Carriers and Wrapping Collections Campaign | WRAP
[38] https://www.bing.com/search?q=co-op+tv+add+for+flexible+plastics&form=ANNH01&refig=ecc9ca380639453d904886fb4a5e776f
[39] Recyclability By Design - RECOUP Recycling

There is no doubt that if the plastics recycling industry is to reach aspired recycling targets and Pact ambitions are to be achieved, the entire sector needs to agree a set of rules and guidance to citizens that are easy to understand and can be supported by all. Citizen confusion is fuelled by conflicting advice, from pack, to website, to literature, to the media.

9.4 Building Trust in the Plastics Recycling Value Chain

As has been demonstrated by the insights work conducted over the years by RECOUP, Pledge2Recycle Plastics, IncPen, WRAP and others, trust plays a key part in driving sustained behaviour change and plastics recycling by citizens daily. Citizens need to believe that their Local Authority do what they say they are going to do with the recycling and that their efforts to prepare and place items for recycling is worth it.

There are a few Local Authorities now who, not only report this in their annual statements, but have the information in an open and transparent format on their websites.[40] This is important not only to reassure individuals of the end destination of materials but how the plastics they place for recycling ends up in other products, what, where and when.

RECOUP and Pledge2Recycle Plastics are looking to develop a project where the concept of how understanding the journey of plastics can help to drive up recycling rates and sustained behaviour change.

The project will attempt to;

- communicate to residents the volumes of plastic recycled,
- the material journey,
- how the way they prepare plastics packaging for recycling impacts on its recyclability,
- how reprocessors process the material and the volumes recycled,
- where they are likely to encounter the products made from that recycled pellet.

9.5 Recycled Content & Citizen View

Engagement at supermarket locations, focus and advisory groups as well as social media and direct correspondence with citizens all lead to the conclusions that citizens are surprised to find that they were already encountering recycled content in plastics food packaging daily. Citizens were excited to learn about the recycling journey and the fact that there were key markets of plastics packaging being recycled back into the same packaging such as PET and HDPE bottles in the UK.

Often the team would get asked why there is not more information on this, and citizens were unaware of any legislation to drive recycled content within plastics packaging. More needs to be done to educate and highlight to the citizen that recycled content within plastics packaging does exist and that their efforts are worth it. This can do much to counterbalance the argument of why they should bother to recycle.

[40] What happens to your recycling? | Hertfordshire County Council

Again, this supports previous studies into what is likely to hinder recycling action by citizens however, this also represents a great opportunity to the industry to communicate their achievements.

Evidencing in a transparent way volumes of plastics collected both kerbside and front of store, where the material goes, and new products presents opportunities to reinforce trust and will encourage citizens to purchase products with evidenced circularity.

There is also an opportunity to conduct insight work to gain an understanding if recyclability kerbside and recycled content is likely to influence purchasing power.

9.6 MDR Contamination

Contamination remains a concern both in terms of non-target materials in MDR through confusion and the less favourable general mess caused by food waste, nappies, and sanitary waste ending up in MDR. The former can be counterbalanced by synergy in pack labelling with target/non-target materials, kerbside consistency, and directing citizens to alternatives (such as for films and soft plastics front of store). The latter requires exhaustive efforts by Local Authorities who have an unenviable task of dealing with the general yuk caused by citizens placing items that should only go into either a dedicated food waste programme or general waste.

The concept of 'wish recycling' is ever more evident as individuals seek to recycle items which they do not see as contaminates and this is particularly true in the case of plastics. The WRAP recycling tracker[41] highlights this issue. This concept is also driven by the misunderstanding of recycling infrastructure systems as the citizen does not understand why hard plastics such as furniture cannot go kerbside when some items of plastics can.

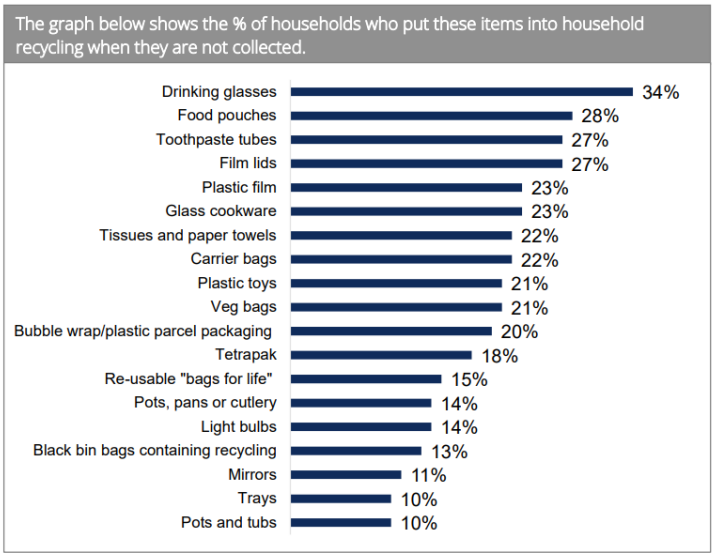


Figure 8: WRAP Recycling Guidelines report[42]

Conversations with citizens in Kent even covered the belief by some individuals that Local Authorities could remove plastics from the general waste, and thus there was no need for them to separate.

Analysis of Kent reject rates did not demonstrate any clear correlation between those authorities with food waste collections and food contamination in MDR. However, this is an area of work worth exploring further.

[41] https://wrap.org.uk/resources/report/recycling-tracker-report-2020-behaviours-attitudes-and-awareness-around-recycling

[42] https://wrap.org.uk/resources/guide/recycling-guidelines

Contamination is often seen as a defined local problem, again with Local Authorities developing and tackling this issue on a local level. However, when driving sustained behaviour change, we are more likely to get real change when an issue becomes socially unacceptable, and individuals are more committed to the same goal. WRAP's Tackling Contamination in Dry Recycling report,[43] highlighted that.

- WRAP's research on recycling attitudes and reported behaviour reveals that 82% of UK households add one or more items to their recycling collection that is not accepted locally.
- Evidence generally points to contamination of recyclables being a large-scale problem with data from MRF sampling indicating that 16.6% of input material to MRFs was contamination. (Made up of made up of non-recyclable (11.3%) and non-target (5.3%)).

Not all efforts by Local Authorities to highlight the issue of contamination is understood and in context by the media and often misconstrued.[44]

The way contamination has been relayed to citizens previously is that one contaminated bin can spoil one whole load however, citizens are somewhat sceptical of this fact and do not take on board that if everyone does it then this could cause breakdowns, cost the Local Authority and result in otherwise recyclable material having to be sent to EDF or landfill. Unfortunately, this does not always seem to resonate that it is up to the individual citizen to recycle right. Citizens in Kent were generally horrified when discussing the level of contamination that occurs and the composition.

Contamination from items such as nappies, sanitary wear, and textiles is a national issue.[45] Consistent guidelines in recycling communications should also include consistency in contamination and non-target communications. Discussions with Kent residents and advisory groups enabled wider conversations on how clean plastic packaging needs to be before recycling and the issue of contamination from items which should be in general waste or should go to HWRC.

Enquiries into RECOUP demonstrated that individuals do not understand that material that can be recycled via HWRC cannot be handled kerbside and causes issues. There is a general lack of information and knowledge of the supporting infrastructure systems and why the 'system' needs to operate the way it does.

Contamination issues should be in the general domain and supported in a way that these concepts become general knowledge. There are opportunities through community engagement to educate in a supportive and collaborative way to drive resident responsibility. Until now many Local Authorities rely on bin tagging and refusal to uplift the bin if it is too contaminated and therefore the bin is required to be collected for general waste. This can meet with local resistance if not fully understood and whilst there will always be some citizens who struggle to recycle to an acceptable quality there are many who will respond to a more 'carrot' based approach.

[43] Tackling contamination in dry recycling | WRAP
[44] https://www.peterboroughtoday.co.uk/news/environment/recycling-errors-cost-peterborough-taxpayers-almost-ps200000-3528500
https://www.bbc.co.uk/news/uk-england-tyne-60054853
[45] https://www.bbc.co.uk/news/av/uk-england-nottinghamshire-61349611

9.7 Sustainability, Recyclability, and the Wider Climate Change Debate

There is a move from brands and retailers to move away from single use plastics into materials which are purported to be lower in terms of carbon emissions. While there may well be a saving in terms of CO2, recyclability and environmental impact are not always considered. Recyclability and sustainability in terms of carbon reduction strategies is not necessarily the same and this is confusing for everyone which one of these choices is the best in the wider climate change debate.

Individual companies can carry out their own measurements in this regard or use companies such as the Carbon Trust.[46] Clear comparisons are difficult to make as different metrics are used and unfortunately, we are not always comparing like for like.

The more citizens drive brands and retailers to be greener, the more we will see environmental claims that are not as they purport to be. Greenwashing is certainly a concern and there are many companies making claims that cannot always be supported. The Green Claims Code[47] should act as a check and balance to ensure that companies do not make environmental claims that cannot be supported. However, what we do not have is some way of measuring all aspects of sustainability in a way that can be easily and simply understood by the consumer i.e., carbon saving, recyclability, water usage, biodiversity, both in terms of the packaging and the product (although there are companies commencing work in this space[48]).

This type of sustainability measurement should be applied to both reuse and refill as well as single use to enable a transparent comparison.

However, the question remains how we make it easier for individuals to understand and make the right choices in terms of sustainability of product and packaging and help to shape positive choices.

10.0 Further Work

The Kent 'Live Lab' has highlighted several areas where there are opportunities to explore and investigate ways to drive up plastics recycling rates and improve the quality of plastics collected kerbside.

1. **Purchase Power and Recycle Content.** There is also an opportunity to conduct insight work to gain an understanding if recyclability kerbside and recycled content is likely to influence purchasing power. If citizens know on purchase the journey of that plastic product and are confident that it contains recycled content how is this reflected in the consumer view of that product. The question is would this influence purchasing decisions.

2. **Data Analysis of Recycling Rates.** There is work to be done in terms of assessing the impact of data analysis on declared recycling rates and what a consistent data set might look like. If Local Authority contracts continue to vary but kerbside consistency is in place, how can we make sure we are all working from the same data set and can comfortably compare one authority against another.

3. **Recycling Journey Information.** There is evidence that sustained behaviour change is more likely when citizens understand what is recycled, how, where and in what quantities. Work

[46] https://www.carbontrust.com/
[47] https://greenclaims.campaign.gov.uk/
[48] About Us - Foundation Earth Environmental Scores (foundation-earth.org)

exploring this type of communication in a way that can provide auditing on a regional level can help to understand better the links in this concept. Testing this theory in a follow-on project can help drive community support and knowledge on plastics and to make a difference both on quality and quantities of plastics recovered.

4. **Education on the Wider Climate change Debate.** There is opportunity for the industry to tap into the climate change debate and net zero aspirations to give a different perspective of plastics packaging. There is much that can be researched and ultimately made openly available on the impact of plastics both regarding food waste but life cycle benefits over other materials.

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