

3Rs Tracking Survey 2014

Recycling attitudes and reported behaviour



Key highlights on recycling from the 3Rs tracking survey (Recycling, Re-use and Repair consumer behaviour, knowledge and attitudes survey), Spring 2014

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Introduction

The 3Rs survey (previously the Recycle Now survey) has been a staple of WRAP's research portfolio for nearly a decade, initially focusing on recycling and expanding in recent years to also cover re-use and repair (the 3Rs).

This report presents key highlights from the recycling section of the survey.

Methodology

The survey was undertaken online by Icaro in Spring 2014; respondents are part of a range of online panels across the four UK nations. Fieldwork was undertaken between 17th February and 5th March 2014. The mode was chosen by assessing the best value for money option that would give reasonably robust results and would enable the survey to be easily repeated.

A total of 4,476 interviews were undertaken with sample sizes in each of the four nations as follows: England (1,806), Scotland (1,107), Wales (1,104) and Northern Ireland (503).

The sample was representative of the target audience, i.e. adults aged 18+ who passed the initial filter of being at least jointly responsible for waste and recycling in the household. A quota sampling approach was developed that aligned to the profile of the adult population, in each of the nations, to reduce any biases that could arise from respondents being very different from the larger population. Quotas were set on age within gender, region within nation and work status to ensure a representative sample were given the opportunity to answer this filter question.

To achieve the overall UK sample, the samples from each of the four nations were combined. Using the English sample as a reference point, the other three nations were weighted in line with their proportion of the UK population as follows: England (83.0%), Scotland (8.8%), Wales (5.2%) and Northern Ireland (3%). The overall 'effective base' for the UK, once this weighting is taken into account, is 2,176.

As the survey design was quota based, rather than random probability based, the application of statistical tests has been considered as a practical approach for identifying important findings rather than an application of rigorous statistical principals.

Question design and data matching

Each respondent's answers from the survey were compared with their known kerbside recycling provision (for those that provided a postcode), so that behaviour, knowledge and attitudes could be understood in the context of the service that respondents had access to. The data matching process was as follows:

- Respondents' postcodes were used to identify their local authority and their kerbside recycling provision (from a database of all UK council schemes held by WRAP, and updated annually).

- Respondents' survey answers were then compared with the service data across 13 materials items (excluding soft plastic packaging and bags-for-life, where data was too sparse and unreliable).
- Those who did not create each type of waste were not included in calculations for that material, nor were those served by a partial collection (i.e. not all areas within a local authority area had the same service).
- Those living in flats or tenements were also excluded due to the high level of variability seen in recycling provision at these types of dwellings.

The results of the data matching exercise apply to England, Wales, Scotland and Northern Ireland.

The results give 3,793 valid, matched, records. When this is weighted in line with the distribution of the population across the UK the "effective base" is 1,896.

NOTE: The collection scheme database is updated annually by WRAP, primarily via a survey with every council in the UK. There are margins of error within the population survey and the council survey. Postcodes also do not align precisely with council boundaries. Therefore, the results which draw on the matching exercise should be viewed as indicative rather than absolute.

Structure of this summary

This document is arranged into seven sections, looking at the following aspects:

- Section 1: Levels of recycling across the UK
- Section 2: Opportunities to improve quality and increase capture
- Section 3: Confidence as a predictor of recycling effectiveness
- Section 4: Increasing 'effective' recycling
- Section 5: Knowledge of collections
- Section 6: Attitudes as predictors of behaviour
- Section 7: Communications

Key highlights

1. Levels of recycling across the UK

Claimed levels of recycling on the last disposal occasion are high across a range of materials (Figure 1). When recycling at kerbside as well as recycling “by any other means” (i.e. at bring sites, supermarket facilities) are taken into account, five types of materials were recycled ‘last time’ by 90% or more of householders¹: paper (93%), card/cardboard (93%), plastic bottles (91%), glass (91%) and cans and tins (90%).

Claimed recycling levels for other materials are lower and, in some cases, a high proportion of households report disposing of them in the general rubbish – particularly soft plastic packaging (57%), food waste (48%) and foil (43%).

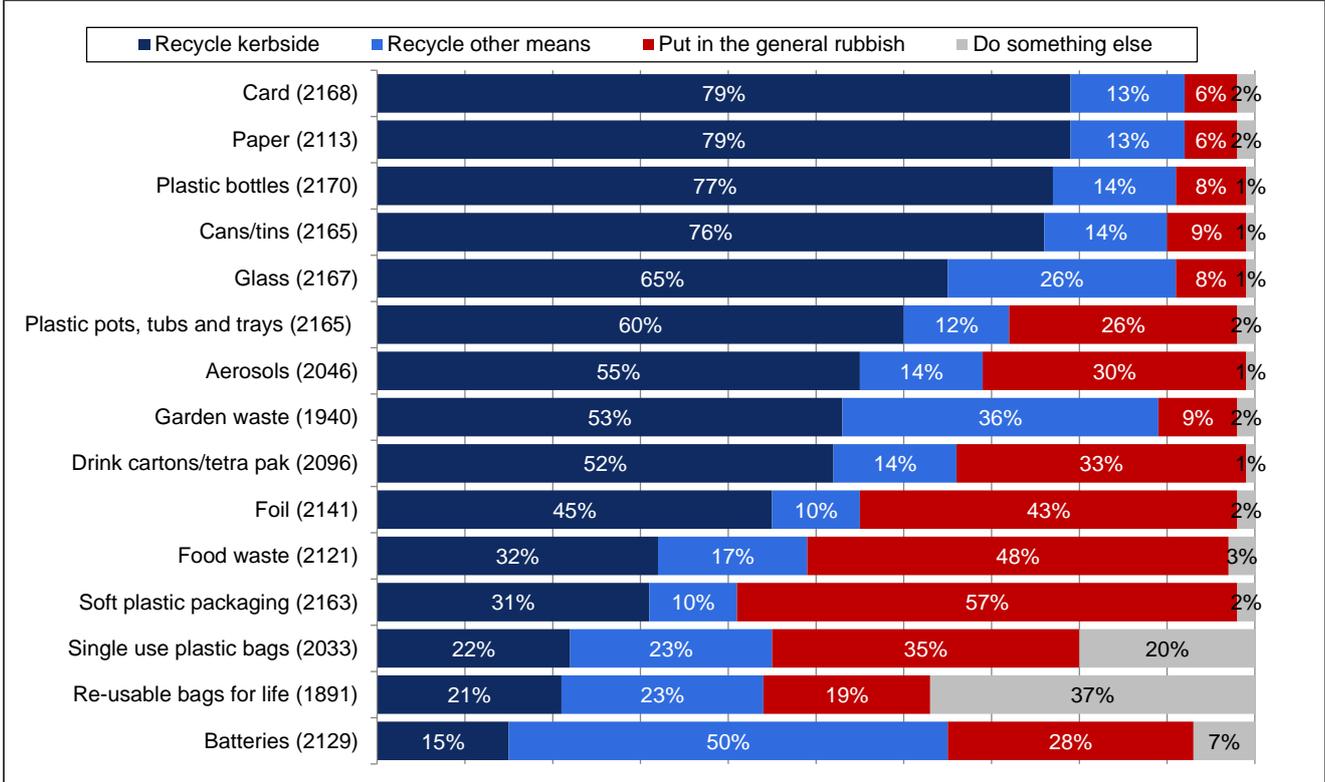
For many items, there has been no significant change in claimed disposal routes since the 2013 survey. One notable exception is plastic pots, tubs and trays, where there has been a fall of 8 percentage points since 2013 in the proportion of households claiming to dispose of these in the general rubbish² (with 7 of these 8 points being accounted for in increased use of a kerbside or communal facility recycling). Other items which show smaller, yet still statistically significant, claimed decreases are: aerosols, foil, soft plastic packaging and plastic bottles – all of which record a fall of 3 percentage points in the proportion of households claiming to dispose of them in the general rubbish.

¹ The question read “For each of the items on the list please indicate how your household LAST DISPOSED of them?” The results are therefore reflective of the last disposal occasion as opposed to disposal habits generally.

Figure 1 – Claimed disposal routes by item

Q: For each of the items on the list please indicate how your household last disposed of them?

Base: Those creating each type of waste (base sizes for each material in brackets below), UK, 3Rs survey Feb 2014



Further analysis looked at claimed disposal behaviours according to householders’ levels of confidence about what can and can’t be recycled. Figure 2 demonstrates that those who are less confident are far more likely to say they disposed of an item in the general rubbish, even if they have a kerbside recycling collection for that material. For instance, only 4% of those who are ‘very’ or ‘mostly’³ confident say they disposed of plastic bottles in the general rubbish, compared to 53% among those who are ‘not very’ or ‘not at all’ confident.

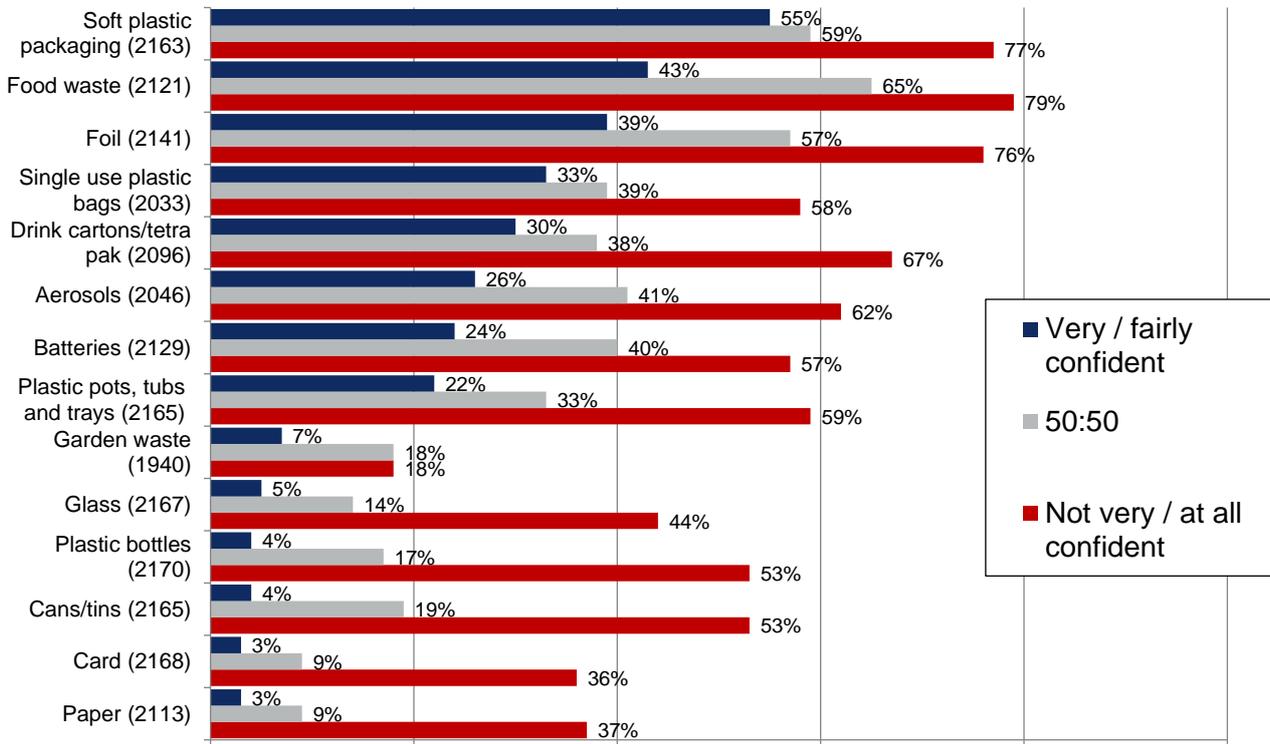
Figure 2 – Disposing of items in the general rubbish – split by confidence levels

³ ‘Very / fairly’ confident’, ‘50:50’ and ‘not very / not at all confident’ are a shorthand for the full response options which were:

Very confident about all materials
Mostly confident but unsure of one or two materials
50:50 - confident about some materials; but not confident about others
Not very confident
Not at all confident
I don't think about it, because the council can sort it out later

The graph shows the % of households who say they dispose of an item in the general rubbish bin according to how confident they are about what can and can't be recycled.

Base: Those creating each type of waste (excluding partial collections and flat dwellers) and who create that type of waste (base sizes for each material in brackets below), UK, 3Rs survey Feb 2014



2. Opportunities to improve quality and increase capture

Despite high levels of reported recycling, there remains scope for improvement – just under half of UK households (46%) claim to have disposed of one or more items in the general rubbish that their local council collects as part of its kerbside recycling service (Figure 3).

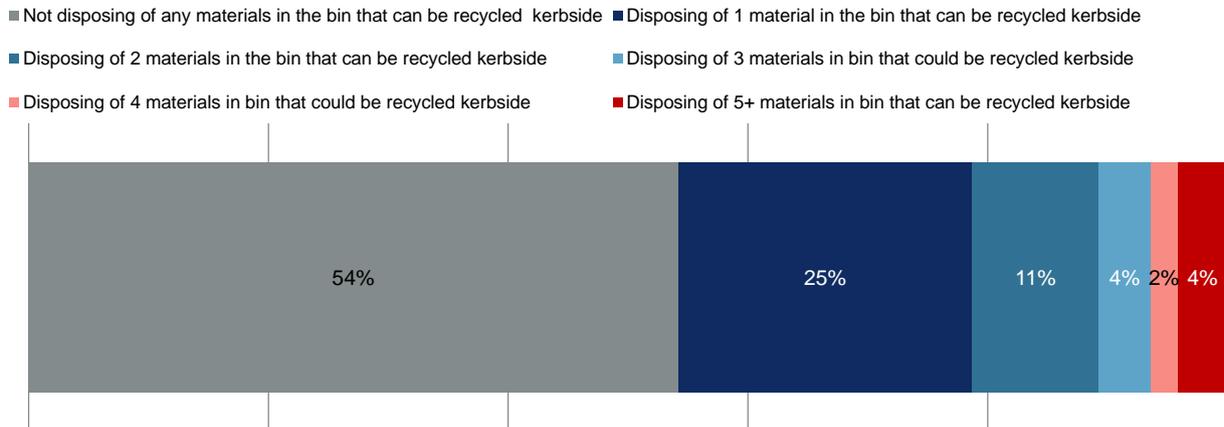
A quarter of households (25%) say they put one item in the general rubbish bin that is recyclable kerbside (food waste makes up 11% of this category). Furthermore, 15% say they disposed of 2-3 items in the general rubbish that they could put in the kerbside recycling collection, and a further 6% say they disposed of 4+ items that can be recycled kerbside in their area.

54% of householders do not claim to have disposed of any materials in the general rubbish that could be collected kerbside.

Figure 3 – Proportion of households claiming to dispose of items in the bin that could be recycled kerbside

Looking at the materials that households say that they put in the residual bin on the last disposal occasion and comparing this to what their council collects at kerbside for recycling, this graph shows the % of households who put items in the bin that they could recycle kerbside. For example, 4% of households put 5 or more materials in the bin that are collected kerbside for recycling.

Base: UK weighted records (1,896), 3Rs survey Feb 2014



The survey results demonstrate that, for some materials there is a twin challenge of improving quality, along with increasing capture, in improving overall recycling performance. This is particularly true for plastic pots, tubs and trays, drinks cartons / tetra-pak, plastic carrier bags and foil (Figure 4). For example, while 64% of data-matched householders say that they recycle plastic pots, tubs and trays at kerbside, around a third of these households are doing so *even though* this material is not targeted⁴ by the kerbside recycling collection in their area. Figure 4 below describes the levels of effectiveness.

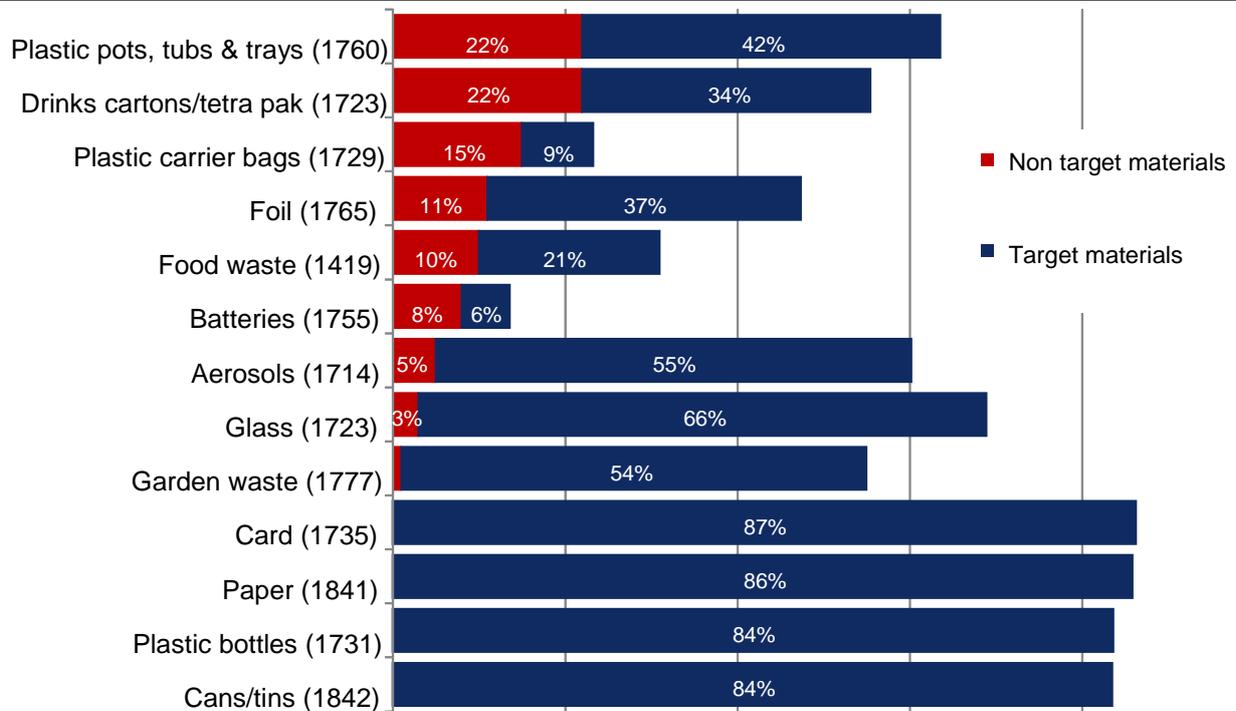
However several items do not appear to be responsible for reducing quality in the dry recycling collection according to respondents' claimed behaviour: paper, card, metal cans and tins and plastic bottles. Furthermore, minimal amounts of garden waste enter the dry or food waste recycling containers.

⁴ "Non-targeted" in this report is used to describe materials that are not accepted or not intended for collection in the kerbside recycling service for that area.

Figure 4 – How well are people using their kerbside services?

This graph shows the levels of recycling effectiveness at kerbside. This refers to those respondents who say they recycled the material at kerbside on the last disposal occasion when the data from their council suggests it is not collected at kerbside for recycling. NB – the 'missing' part of the bar is people doing something else with the item other than putting it in the kerbside collection.

Base: UK weighted records excluding those who don't create waste, live in flats or have a partial collection (bases in brackets), 3Rs survey Feb 2014



The research demonstrates some key variations across the nations in terms of materials households claim to recycle but where these materials are not collected locally for recycling:

- 42% of Welsh households claim to have recycled cartons/ tetra pak kerbside but do not have the appropriate collection (compared to 22% in England, 12% in Scotland and 31% in Northern Ireland).
- By contrast, households claiming to recycle plastic pots, tubs and trays where they do not have a collection is lowest in Wales (12%), compared to Northern Ireland (30%), Scotland (23%) and England (22%).

3. Confidence as a predictor of effective recycling

The results demonstrate that levels of confidence about which materials can be put in the kerbside recycling, and which cannot, are positively associated with claimed capture levels (Figure 5). Increasing levels of confidence accompanies higher numbers of materials claimed to be recycled at the kerbside that are collected locally for recycling (top graph) and a commensurate decrease in the materials currently claimed to be disposed of in the general rubbish that could be included in the kerbside recycling collection (bottom left graph).

However, the same is not true of the relationship between levels of confidence and the claimed number of non-targeted materials in recycling (bottom right graph - contamination). All levels of confidence, except the lowest, are equally likely to say they put materials in their recycling that are not collected locally for recycling (i.e. to contaminate) – for example, 11% of those who are 'very confident' say they include 4+ items, as do 11% of those who are '50:50'. Those with the lowest confidence are, by virtue of their lower levels of claimed recycling in general, the least likely group to say they put materials in their recycling collection that are not accepted locally for recycling – 68% say they include 0 items (vs. 47% of the 'very confident').

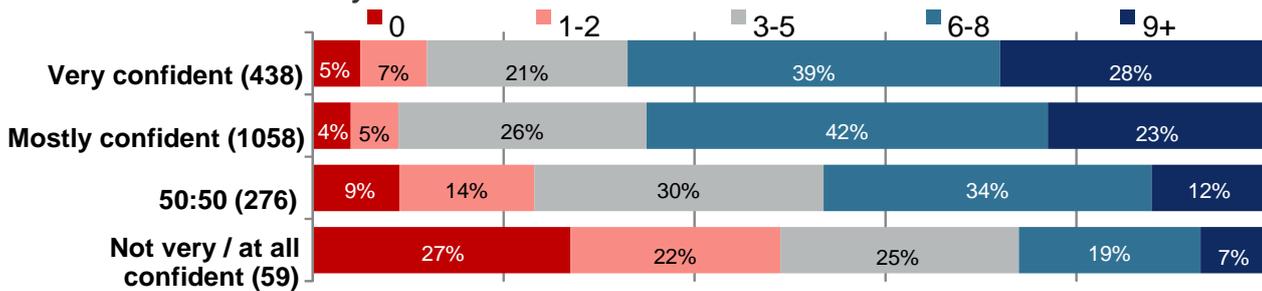
Figure 5 – Confidence as a predictor of effective recycling

These graphs shows three different measures of recycling effectiveness, each split by levels of confidence

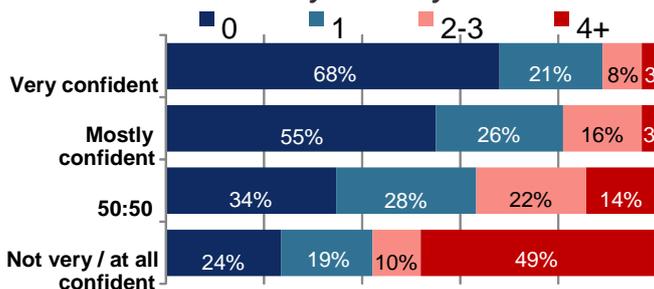
- *Top graph – number of materials claimed to be recycled at the kerbside that can be recycled at kerbside*
- *Bottom left graph – number of materials currently claimed to be put in the general rubbish that are collected by the local kerbside recycling service*
- *Bottom right graph – number of materials currently claimed to be put in their recycling collection that are not accepted locally for recycling*

Base: UK weighted records excluding those who don't create waste, live in flats or have a partial collection (bases in brackets), 3Rs survey Feb 2014

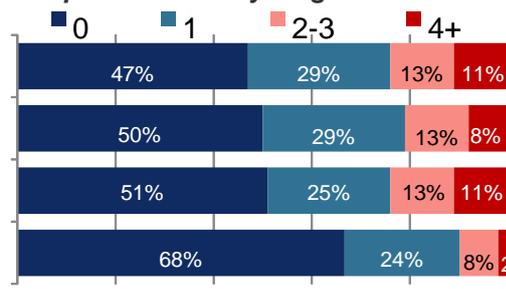
Matched data vs. Q31 – How many materials do they recycle effectively at kerbside split by level of confidence over what they can include in this collection



How many items could they recycle kerbside that they currently throw in bin



How many non targeted items do they put in their recycling



4. Increasing 'effective' recycling

Further increases in recycling performance will require action to increase the capture of materials that are collected for recycling while, at the same time, ensuring that this does not lead to increased levels of non-targeted materials (thereby reducing quality). To establish current levels of performance, these two requirements – increasing capture and improving quality - can be used to segment UK households (Figure 6).

According to this segmentation, approximately a quarter of households are 'highly effective' recyclers – they neither placed non-targeted materials in their kerbside collection on the last disposal occasion nor did they put any items in the general waste bin that are not collected for recycling by their council. However, by extension, this means that approximately three quarters could be recycling more effectively in one or more ways: either because they say they disposed of an item in the general bin that they could recycle kerbside; or because they say they placed an item in the kerbside recycling that is not collected locally for recycling; or both.

For example, and taking the bottom row first (and in particular the middle and right hand boxes), these two segments combined show that circa 27%⁵ of households did not place non-targeted materials in their recycling but could be recycling more (i.e. by recycling one or more materials that are collected at kerbside which they put in the general waste bin on the last disposal occasion). By contrast, and looking at the left hand column (and in particular the central and upper boxes) a similar proportion (circa 30%) could be recycling more effectively (by not placing one or more non-targeted materials in their kerbside recycling collection).

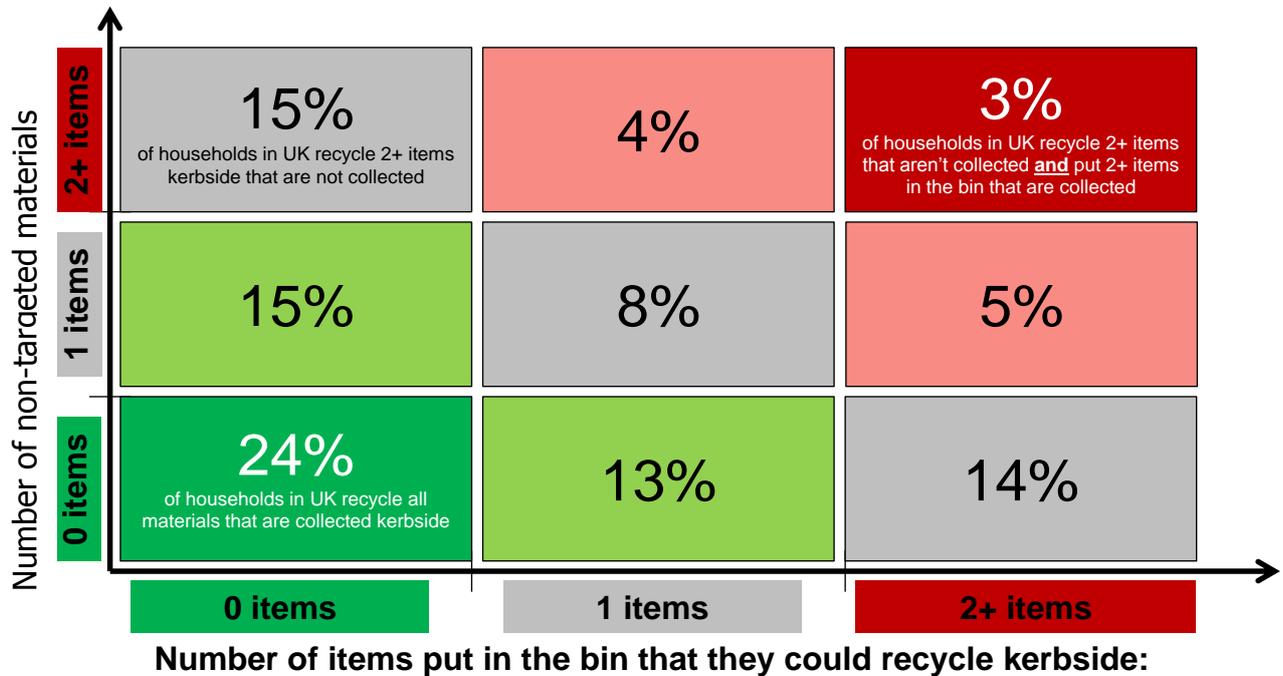
Overall, half of all households (circa 50%) say they placed at least one non-targeted item in their recycling (looking at the sum of the top two rows) whereas circa 47% (the sum of right hand two columns) could be recycling more materials at kerbside than they claimed to on the last disposal occasion.

⁵ Survey respondents' self-reported behaviours were matched against actual service provision by councils using respondents' postcodes and a WRAP database of the materials collected by each council. The database is updated annually, primarily via a survey with every council in the UK. **There are margins of error within the population survey and the council survey.** Postcodes also do not align precisely with council boundaries. Therefore these proportions should be viewed as indicative rather than absolute.

Figure 6 – Segmenting the population: against the potential to recycle more effectively at kerbside

This table allocates households into one of nine segments. The x axis represents the % of households that currently are putting one or more items in the bin which they could be recycling kerbside. The Y axis represents the % of households who are putting items in their kerbside recycling that are not collected locally for recycling. Note: the figures in the matrix are subject to margins of error and should not be read as exact figures.

Base: UK weighted records (1,896), 3Rs survey Feb 2014



5. Knowledge of collections is limited for a number of materials

Focusing specifically on those respondents in the survey who say they put at least one material in the bin that they could be recycling at kerbside, the survey results identify a number of materials where there is a knowledge gap (Figure 7). This is particularly true of aerosols – 68% of householders who claim to have last disposed of aerosols in the general waste bin, in a council area collecting aerosols for recycling, think that either the council doesn't collect, or are not sure whether or not the council collects them. A further 12% of those putting aerosols in the general waste bin claim to know that their council collects them as part of their kerbside recycling service, but did not recycle them on the last disposal occasion.

Cans and tins are a slightly different proposition; 98% of those who currently say they put these in the general waste bin on the last disposal occasion could be recycling them kerbside. However, this is evenly split between those who know their council collects them and those that don't – although it is relevant to look at the base sizes in brackets, 120 for cans/tins, which represents just 7% of UK households.

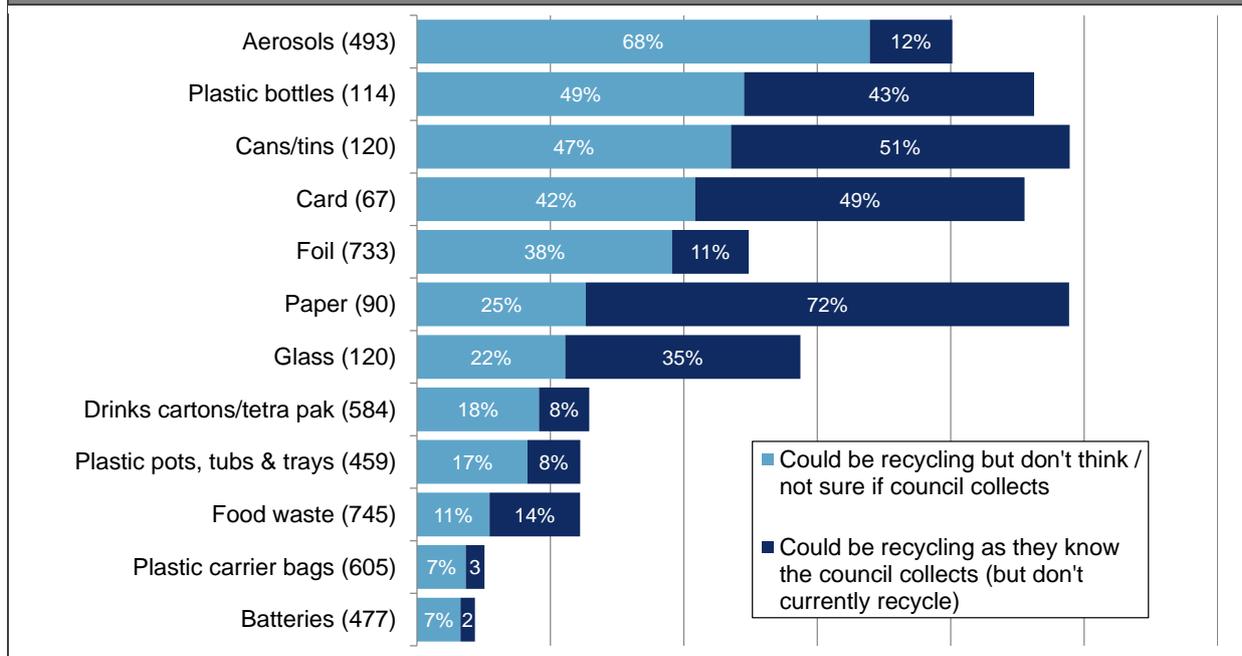
The same is seen for plastic bottles – 92% of householders who say they threw theirs in the general waste on the last occasion are served by a kerbside collection which collects

them. Knowledge is again fairly evenly split between those who are aware of the collection and those who are not, however as with cans and tins this affects only 7% of UK households (see base size).

Figure 7 – Households disposing of items in the bin that are collected kerbside for recycling

This graph shows the % of households who say they disposed of materials in the bin who could be recycling kerbside because the material is collected. NB – the missing part of the bar represents those who do not have a collection service.

Base: UK non-flat dwellers who say they dispose of item in the general waste – excluding areas with a partial collection and those who compost their food waste (bases in brackets below), 3Rs survey Feb 2014



Items such as food waste, cartons / tetra-pak and plastic pots, tubs and trays represent a different challenge. They come lower down the graph simply because far fewer people are served by a recycling collection service that accepts these items. So whilst a sizeable number of households threw these in the general waste bin, it is broadening service delivery that is required before tackling any lack awareness.

Therefore, it is important to note that just because a material has a long combined bar in Figure 7, this does not imply that it is necessarily a priority for follow up action. For instance, whilst 97% of households disposing of paper in the general rubbish have a collection (the two parts of the bar added together), changing the behaviour of this group will not deliver the best return as only 90 respondents (see base sizes in brackets on the graph) out of 1,841 actually say they disposed of it in the general rubbish on the last disposal occasion. Moreover, a high proportion of those households (72%) knew there is a recycling collection and still did not use it.

The results for aerosols, on the other hand, show that nearly all who say they disposed of them in the general waste on the last disposal occasion did so because they think that either the council doesn't collect, or are not sure whether or not the council collects them, rather than other reasons. Additionally, the sizeable number of householders (493) claiming to dispose of this item in the general rubbish increases the potential impact of any action to increase capture.

6. Attitudes as predictors of behaviour

A set of attitudinal statements relating to recycling was asked across all four UK nations⁶. These demonstrate the following:

- Householders have a positive perception of their contribution to recycling. Among those that do not recycle effectively any items at kerbside, 51% still agree that they feel their *'recycling efforts are worthwhile'*. The levels of agreement rise steadily with more materials recycled reaching 84% among those recycling effectively 9 or more items.
 - The converse is seen when looking at this statement by the number of materials put in the general rubbish that are collected for recycling – levels of agreement decrease the more items they could be diverting from general waste to recycling (from 79% among those who could divert 0 items vs. 43% who could divert 4+).
 - As we have seen earlier (Figure 5), where householders are putting non-targeted materials in their recycling - as many are likely to agree that their *'recycling efforts are worthwhile'* with no non-targeted items in their recycling (73%) or with 3+ (73%). Along with the other results discussed, this could suggest a lack of awareness around the materials that are not collected locally for recycling.
- The same pattern highlighted in the above three bullet points is mirrored for the statement *'Considering what is collected, I feel I am doing as well as I can with my recycling'*:
 - Householders are gradually more likely to agree with the statement the more materials they effectively recycle (from 55% agreement amongst those that recycle 0 materials effectively, up to 92% for 9+ items).
 - Householders are gradually less likely to agree with the statement the more items they could be diverting from the general rubbish to the kerbside recycling collection (from 88% agreement amongst those that do not put any materials in the general waste that could be recycled kerbside, down to 52% among those who could divert 4+ materials from their general waste bin).
 - Householders demonstrate similar levels of agreement, regardless of how many items that they say they put in their recycling that are not collected locally for recycling: 82% of those not placing any non-targeted materials in their recycling on the last disposal occasion agree with the statement, compared with 83% of those placing 3 or more non-targeted materials in their recycling.
- Those who report lower levels of confidence in what they can and can't recycle are also more likely to agree with the statement: *'it is confusing in my area what you can and can't recycle at home'* (64% of those who are 'not very' or 'not at all' confident agreed with the statement, compared with 19% agreeing among those who say they are 'very' confident).
 - There are much higher levels of agreement with this statement among those who disposed of multiple materials in the general rubbish that are collected kerbside – 45% of those that could divert 4+ materials to kerbside recycling according to

⁶ Respondents were given a series of statements and asked to rate their level of agreement with each one as 'strongly agree', 'tend to agree', 'neither agree nor disagree', 'tend to disagree' and 'strongly disagree'.

their claimed behaviour, compared to 24% among those who did not put any materials in the general waste that could be recycled.

- Once again, there is no relationship between the levels of agreement with this statement and claimed occurrences of non-targeted materials in the recycling collection – households are as likely to agree or disagree, regardless of the number of non-targeted materials they place in their recycling.

7. Communications

Receiving information

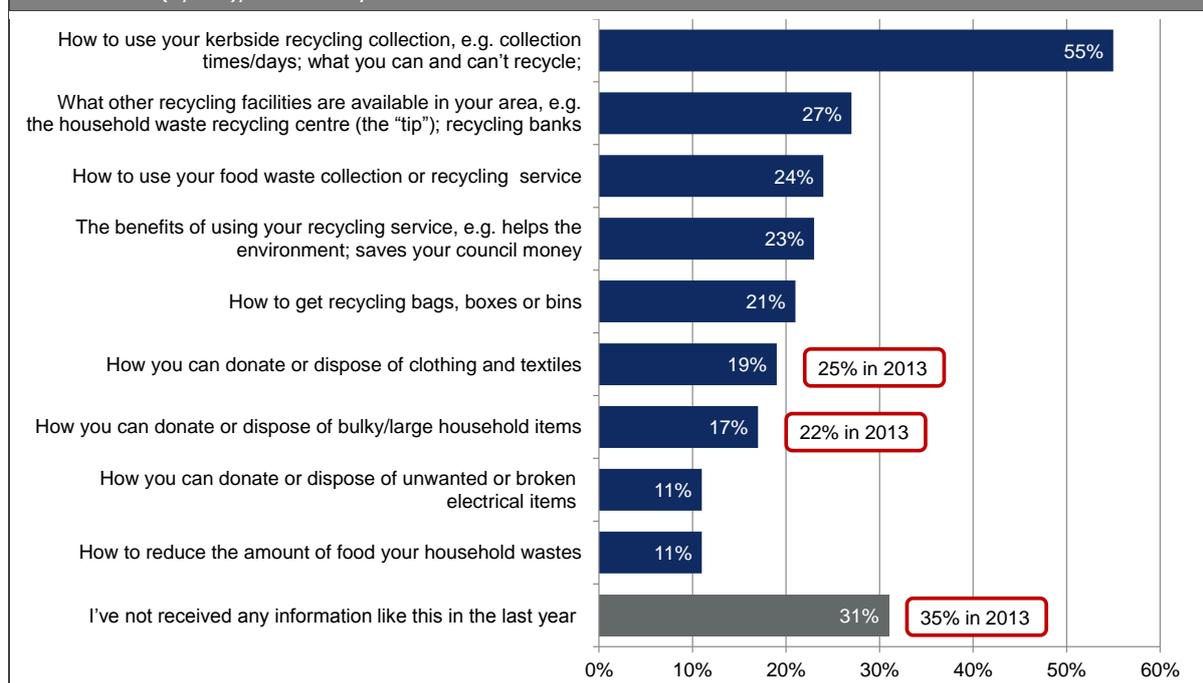
Almost seven in ten (69%) UK households say they received information on recycling or re-use in the past year. Information about how to use the kerbside recycling collection is most frequently cited (55%), followed by information on other recycling facilities in the area (27%) or about the food waste collection service (24%).

Comparisons to the 2013 wave reveal a pattern of general stability, although there are some differences of note. For example, there has been a small but statistically significant decrease in the proportion of households who have not reported receiving any information (from 35% in 2013 to 31% in 2014).

Figure 8 – Receipt of information at home

Do you recall receiving any of the following information at your home in the past year, e.g. in a leaflet or a council newsletter?

Base: All UK (2,176), 3Rs survey Feb 2014



There is a series of strong associations between receipt of information specifically about how to use the kerbside recycling service and corresponding claimed recycling behaviours. It should be noted that these serve only to highlight an association between the variables - it is not possible to demonstrate a causal link (i.e. receiving information causes effective recycling).

- Confidence:** Those who are confident about what can and can't be recycled are much more likely to say they have received information about the kerbside collection in the past year. For example, 64% of those who say they are 'very confident' received information, compared to just 34% who are '50:50' and 21% of those who are 'not very' or 'not at all confident'.
- Number of items recycled that are collected for recycling:** there is a strong association between reported receipt of information on the kerbside collection and levels of effective recycling – 70% of those who effectively recycle 9+ items according to their claimed behaviour say they received information (vs. 38% and 23% of those effectively recycling 1-2 items and 0 items, respectively).
- Non-targeted materials :** receiving information about the kerbside collection is moderately associated with more effective recycling behaviour – over half (58%) of those who did not report placing any non-targeted materials in their recycling claim to have received information on how to use the kerbside collection in the past year, compared to 48% who are report placing 3+ non-targeted materials in recycling.

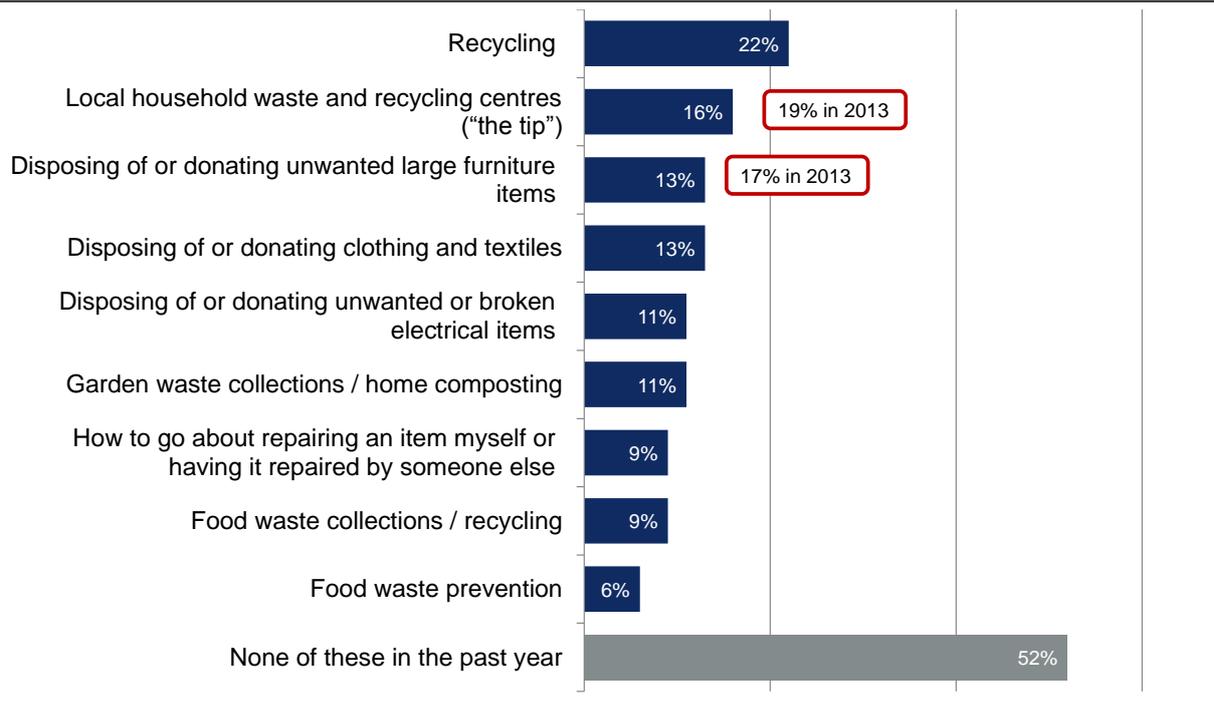
Searching for information

Almost half (48%) of UK households say they actively searched for information on recycling and re-use topics in the past year (Figure 9). Recycling is the main category of information sought (22%), followed closely by information on HWRCs (16%). In contrast, only relatively small proportions sought information about food waste collections (9%) or food waste prevention (6%).

Figure 9 – Searching for information

Have you searched for or sought out information about any of the following in the past year?

Base: All UK (2,176), 3Rs survey Feb 2014



Re-cap of headline findings:

- Self-reported recycling levels across many items are high and similar to levels from 2013. The one material that has made significant gains is plastic pots, tubs and trays with 8% fewer people claiming to put this item in the general rubbish on the last disposal occasion.
- Just under half (46%) of UK households say they disposed of at least one material in the bin that their council collects as part of the kerbside recycling collection.
- The proportion of households claiming to put non targeted materials in their recycling is slightly higher than the proportion that could divert materials from their general rubbish into the kerbside recycling collection. Indeed, 50% of households are putting at least one material in their recycling that is not intended to be collected locally for recycling.
- Levels of confidence about which materials can (and cannot) be put in the kerbside recycling service are strongly associated with capture of materials. However, there are also indications that once there is a base level of confidence (i.e. halfway or higher on our 5 point scale) there is an increased likelihood of people putting material in their recycling that is not intended to be collected locally for recycling.
- Approximately one-quarter of households are highly effective recyclers, in that they neither say they place non-targeted materials in their recycling collection, nor say they dispose of any items in the general rubbish that could be put in the kerbside recycling. Conversely, approximately three-quarters of households could be recycling more effectively, either through diverting one or more materials from their general waste bin to the recycling collection or not placing one or more non-targeted materials in their kerbside recycling collection.
- Lack of knowledge about whether or not materials are collected locally for recycling is contributing to those materials being disposed of in the general rubbish. This is at least partially true for all materials. Between 26% (paper) and 85% (aerosols) of all *occurrences* of these materials being put in the general waste bin when they could be recycled can be at least partially explained by the respondent claiming that their council either didn't collect that material, or that they were not sure whether their council collected it or not.
- The three attitudinal statements discussed in section 6 appear to suggest that putting non-targeted material in the recycling collection often occurs without the conscious knowledge of those that are doing it.
- Those who are confident about what can and can't be recycled are much more likely to say they have received information about the kerbside collection in the past year. For example, 64% of those who say they are 'very confident' report receiving information, compared to just 34% who are '50:50' and 21% of those who are 'not very' or 'not at all' confident'.
- There is a strong association between reported receipt of information on the kerbside collection and levels of effective recycling – 70% of those who effectively recycle 9+ items according to their claimed behaviour say they received information (vs. 38% and 23% of those claiming to recycle 1-2 items and 0 items, respectively).

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