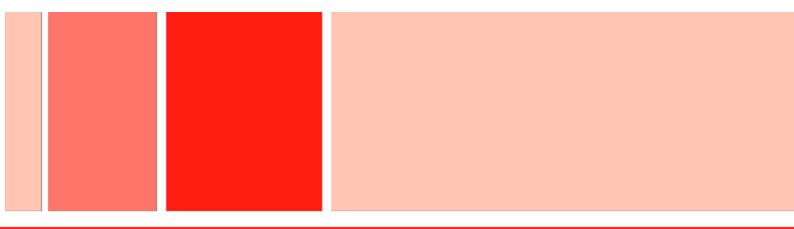




Social Research Number: 62/2019 Publication date: 04/12/2019

Wales Report: Consumer research to inform the design of an effective deposit return scheme



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Wales Report: Consumer research to inform the design of an effective deposit return scheme

Author(s): Alice Fitzpatrick, Alice McGee, Sophia Jouahri and Nick Roberts - Kantar

KANTAR

Full Research Report: Fitzpatrick, A., Jouahri, S., McGee, A. and Roberts, N. (2019). *Wales Report: Consumer research to inform the design of an effective deposit return scheme*. Cardiff: Welsh Government, GSR report number 62/2019.>

https://gov.wales/consumer-research-inform-design-effective-deposit-return-scheme-drs

Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

For further information please contact: Isabella Malet-Lambert Knowledge and Analytical Services Welsh Government Cathays Park Cardiff CF10 3NQ Tel: 0300 062 8250 Email: Isabella.Malet-Lambert@gov.wales

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Glossary					
Acronym/Key word	Definition				
DRS	Deposit Return Scheme				
RVM	Reverse Vending Machine				

1. Introduction/Background

- 1.1. The Welsh Government's 'Towards Zero Waste' Strategy published in 2010, set out the ambition to achieve zero waste by 2050, with an intermediary milestone of 70% recycling by 2025. Following its study on extended producer responsibility options for key food and drinks packaging¹, the Welsh Government agreed to consider introducing a Deposit Return Scheme (DRS), subject to consultation. The recent consultation on proposals for a DRS in England, Wales and Northern Ireland will help inform that decision and next steps.
- 1.2. The aim of a Deposit Return Scheme (DRS) is to:
 - Reduce the amount of littering
 - Increase recycling of drinks containers in scope of a DRS, especially those disposed of 'on-the-go' (that is, away from home)
 - Improve material quality through reduced contamination (for example when the wrong materials are put into the system (e.g. nappies in the recycling bin) or when the right materials are prepared in the wrong way (e.g. food left in containers)).
 - Promote greater domestic reprocessing capacity through providing a stable and high quality supply of recyclable waste materials.

1.3. What is a DRS?

1.3.1. The principle of a DRS is that consumers pay an upfront fee for the container in the form of a deposit. Once consumed, the container can be returned and the deposit redeemed. This encourages return of the container, enabling it to be recycled. If a customer chooses not to return the container they forego the deposit. Typically, containers are returned to supermarkets and shops either at a counter or automated reverse vending machines (RVM). Deposit Return Schemes are in place in a number of European countries and a range of Australian and US states. These schemes, working alongside other measures such as environmental taxes, are

¹ Options for Extended Producer Responsibility in Wales

reported to have had a positive impact on rates of littering and recycling collections.²

- 1.3.2. The specific DRS design for England and Wales is subject to consultation but the following options are currently in-scope:
 - Drinks containers: Plastic bottles, glass bottles and metal cans.
 - **Types of drinks**: All soft drinks (including water and juice), alcoholic drinks and milk-containing drinks (but not milk itself).
 - Size of the container: There are two potential options for a DRS: one which places a levy on cans and bottles up to 750ml and sold in single format containers ('on-the-go'), and one which places a levy on all cans and bottles, irrespective of the size ('all-in').
 - **The deposit level:** i.e. the amount of the refundable upfront fee, has not been set and is subject to consultation.

1.4. Research aims

- 1.4.1. Evidence from other countries³, where a DRS is in operation, has provided useful context, but differences in culture and waste management systems mean that consumer research is required to understand how a DRS will work in an English and Welsh context. This research provides recommendations for how such a scheme should be designed and delivered to be as effective as possible in reducing littering and increasing recycling rates
- 1.4.2. Thus, Defra and the Welsh Government commissioned Kantar to undertake research in England and Wales, with adults aged 16 or over and children aged 11 to 15, to provide evidence to help inform the effective design of a DRS scheme should such a scheme be implemented following responses to consultation. This report focuses on the survey findings from Wales and qualitative research from across both countries; a separate report has been made available for the findings in England⁴.

²<u>Voluntary and Economic incentives to reduce littering of drinks containers and promote recycling</u> ³Voluntary and Economic incentives to reduce littering of drinks containers and promote recycling

⁴ Consumer Research to Inform Design of an Effective Deposit Return Scheme

1.4.3. The objective of the research was to answer the following research questions:

- 1. What are consumer attitudes towards a DRS in principle?
- 2. How are consumers likely to use a DRS in practice?
- 3. How should a DRS be designed, delivered and communicated to maximise takeup and minimise potential barriers to use?
- 4. What are the likely levels of take-up for different DRS designs?

1.5. Methodology

- 1.5.1. To answer these questions Kantar undertook a programme of mixed-method research across a series of qualitative and quantitative strands, each providing complementary perspectives into consumer attitudes towards, and likely usage of, a DRS.
- 1.5.2. The qualitative research enabled an in-depth exploration of views amongst a relatively small number of consumers, offering participants the time to fully consider how a DRS might fit into their lives and researchers the opportunity to follow up on issues as they emerged during discussions. The dynamic aspect of the group discussions also may lead individuals to consider ideas that they otherwise wouldn't, if thinking about the idea on their own. The qualitative research consisted of two key strands:
 - depth interviews, which were preceded by an online diary exercise, recording real-time current consumption and disposal behaviour for drinks in containers, to explore in-depth individual responses to the scheme; and
 - group discussions, to encourage the sharing of views and enable a more discursive consideration of likely use and ideals for the scheme design.
- 1.5.3. The qualitative strands provided a rich source of information about how consumers are likely to use the scheme, although as findings are based on a relatively small sample they should be considered indicative rather than representative of the wider population (see Appendix A for the full achieved sample). All interviews and group discussions were structured around Topic Guides agreed in advance with Defra and the Welsh Government (see Appendix B). Due to the relatively small sample size

and similarities in findings across locations, the qualitative findings contained in this report draw on responses from the fieldwork in both England and Wales (these will also be included in the separate report that will be available for the findings in England).

- 1.5.4. The quantitative research enabled attitudes towards and likely behaviours around a DRS to be quantified and differences explored by key socio-demographic sub-groups. It also provided evidence of preferences between different DRS options, and the combination of elements that is likely to be most effective in driving uptake. The quantitative research consisted of two online surveys: a 20-minute survey with adults aged 16 or over and a 15-minute survey with children aged 11 to 15. Children aged 11 to 15 were surveyed as it was felt that this age group were more likely to consume items outside of the home. However, it should be noted that this age group has fewer options available in terms of location of return points and refund type. This should be considered when interpreting this age groups responses from the sample in Wales (a separate report has been made available with findings from surveys of respondents in England). Whilst a few differences were observed, the findings were broadly similar for both countries.
- 1.5.5. Below we describe our approach for each strand in more detail.

1.6. Qualitative depth interviews with online diaries

- 1.6.1. In the first stage of qualitative research, we conducted 30 x 90-minute depth interviews with adult householders across England and Wales to develop an in-depth view on existing behaviour, and explore likely responses to the introduction to a DRS in light of this. Fieldwork in England was conducted in and around London, Newcastle, Leeds and Bristol (20 interviews). Fieldwork in Wales was conducted in Bridgend, Cardiff and Wrexham (10 interviews). Purposive sampling was used to ensure that participants represented a spread of demographics and other characteristics likely to influence use of the scheme including:
 - Housing tenure: House-owners; Flat owners in block; Flat renters in blocks; Social housing (flat or house)
 - Car ownership: Car owners; Non-car owners

- Locality: Urban; Peri-urban/suburban; Small town or rural
- 1.6.2. Shorter interviews of 45 minutes were also conducted with a child aged 11-15 within four of these households in England and within two of these households in Wales, based on an understanding that this age group are important consumers of drinks out of the home.
- 1.6.3. Prior to an interview, adult participants completed an online diary pre-task in which they recorded each time that they purchased or disposed of a drink in an in-scope container over the course of one week. This was completed using an application downloaded by participants to their mobile phone, allowing them to record each purchase or disposal as it occurred by taking a photo and providing a few details about the activity and their motivations. Online diaries provide a convenient means for consumers to record their behaviour as it happens and has been shown to provide a more accurate record of behaviour than recall alone. The records provide a realistic basis for discussion in the depth interviews and help avoid issues of recall or post-rationalisation that could otherwise skew responses.⁵Despite the advantages of this approach, it should be noted that online diaries may still be subject to some of the same desirability bias as encountered in surveys or qualitative interviews. In addition to the in-scope containers listed above, disposable coffee cups were included in the qualitative strand of this work.
- 1.6.4. Outputs from the diary pre-task were used as stimulus in the depth interviews to explore the drivers of current behaviour and any barriers to recycling. Discussions included coverage of participant experiences of using the online application, to validate findings and identify if there were occasions that were not recorded during the activity. Researchers then introduced the DRS concept to explore attitudes and likely behavioural responses. Topic guides were informed by the Kantar Public Behavioural model (see Appendix C), which has been developed from academic expertise and practical experience to summarise eight key influences on behaviour, with probes included to aim to ensure the role of unconscious factors such as habit, as well as more rational cost/benefit calculations. All depth interviews took place in January 2019.

⁵ See for example Cohen et al (2006) <u>Online Diaries for Qualitative Evaluation: Gaining Real-Time Insights</u>, American Journal of Evaluation 27(2)

1.6.5. Findings from this strand of the research provided insight into the current drivers for disposal behaviour across a range of different individuals, attitudes towards the concept of a DRS, and some indication of how these may translate into behaviour with the introduction of the scheme.

1.7. Qualitative group discussions

- 1.7.1. In the second strand of qualitative research, which happened in parallel with the quantitative survey (see below), we conducted 6 x 2-hour group discussions of 6-8 people with adult householders in London, Manchester, Bristol, Wrexham and Cardiff. See Appendix E for the full achieved sample.
- 1.7.2. Findings from the depth interviews had indicated that attitudes towards the DRS were to some extent affected by existing recycling attitudes and behaviour, with those who were more positive about recycling more likely to be positive about the scheme. The discussion groups were therefore segmented according to existing attitudes using a definition adapted from the WRAP recycling attitudes tracker.⁶ Beyond this, the groups also reflected a range of different age ranges and localities (urban, peri-urban/suburban, small-town/rural).
- 1.7.3. The groups were used to explore in greater depth findings emerging from the depth interviews, including likely responses to the introduction of a DRS, likely motivations for use, potential barriers to engagement and considerations for the scheme design to drive effectiveness. Stimulus was used to prompt discussion about likely usage around a range of different scenarios and to explore potential preferences and priorities within the scheme design. All group discussions took place in March 2019.

1.8. Quantitative online panel survey (adults) and online survey (children)

1.8.1. The quantitative research consisted of two surveys in Wales, one with adults aged 16 or over and the other with children aged 11 to 15. The adult survey was conducted online using Kantar's online access panel Lightspeed as the main sample source. The child survey was conducted online using a 'lifestyle database' held by Sample Answers. From this database Kantar drew a sample of parents of children aged 11 to 15, stratifying the sample by age of child and region (within Wales). Sampled parents were then sent a letter telling them about the study and

⁶ Recycling Tracker Report

asking them to provide consent for up to two eligible children to participate in the study. Up to two reminder letters were sent and all children who took part were provided with a £10 shopping voucher to thank them for their time. All letters were bilingual, displaying the text in English on one side and Welsh on the reverse.

- 1.8.2. In Wales, a total of 1,453 interviews were achieved with adults aged 16 or over and 372 interviews with children aged 11 to 15. Fieldwork took place in March 2019.Further details about the quantitative methodology can be found in Appendix D
- 1.8.3. Both adult and child survey participants had the option to complete the survey in English or Welsh.
- 1.8.4. The methodology used for the adult survey (i.e. online panel interviewing) brings benefits in terms of speed and cost-efficiency. However, it is important to flag that since panels are opt-in there are associated risks, including that panellists are not representative of the general population, although quotas and weights were applied to minimise this risk. See Appendix D for more details on quantitative online panels.
- 1.8.5. To ensure the achieved adult survey sample reflected, as far as possible, the sociodemographic profile of the general population and to compensate for any known biases in online panels⁷, interlocking quotas were set for age and gender for the adult survey. Weighting was applied to the adult and child data to ensure the samples reflected the socio-demographic profile of the general population, as far as possible.
- 1.8.6. However, panel surveys and quota sampling tend to be biased, for example, towards respondents willing to take part in the research these people may be different and think differently about the research topic than non-respondents. As such, quota sampling only provides robust information about the responding sample and cannot be directly generalised to the wider population⁸, even after taking care to reduce likely bias with pre-survey design and post-survey weighting. Therefore, we refer to 'survey participants' within this report and are careful when making inferences about any generalisation to the general population.

⁷ Reference 'How to interpret the findings' and Appendix D: Technical note- Survey design.

⁸ See, for example: <u>GSR quota sampling guidance</u>

- 1.8.7. Statistical significance tests⁹ are not applicable to quota-based survey designs because of a number of issues: bias, lack of known sampling probability, unknown population. However, some basis was needed to determine which findings provided the most insight for this report. Statistical testing has therefore been used as a practical tool to identify any noteworthy differences between subgroups (see 'Socio-demographic subgroups') and to help determine where a pattern is emerging from the findings. Only differences identified as noteworthy using statistical testing are included in the report, noting that they are only indicative of potential differences in subgroups within the general population. For more information, see Appendix D.
- 1.8.8. The adult questionnaire covered attitudes towards a DRS and design preferences (see Appendix E). There was also a conjoint analysis exercise, detailed in chapter 6, which involved presenting survey participants with pairs of scenarios of how a DRS might be designed and work in practice, helping to draw out the relative importance of each component.

1.9. How to interpret the findings

- 1.9.1. This report triangulates data from across the different research strands, drawing on the relative strengths of each in interpreting the data and drawing out insights for the scheme design. Throughout the report the research findings are clearly signposted to allow the reader to distinguish between the different strands. The qualitative findings quoted relate to insights from both the depth interviews and the focus groups. The quantitative findings quoted relate to adult participants unless stated otherwise. References to the 'scheme' refer to the Deposit Return Scheme (DRS).
- 1.9.2. While the survey findings provide a statistical measure of current attitudes, behaviour and claimed levels of usage of the scheme, there are reasons to be cautious about taking responses in the survey at face value. Social desirability bias, the self-identification with behaviours that one sees as socially desirable, are likely to affect self-reporting of behaviour around current recycling behaviour.¹⁰ Survey

 ⁹ A significance test estimates whether differences are statistically significant but this is an estimation only.
 ¹⁰ See for example Kormos and Gifford (2014) <u>The validity of self-report measures of proenvironmental behavior: A meta-analytic review</u> Journal of Environmental Psychology 40 (2014) 359-371

findings also tend to represent participants' 'top of mind' thinking, that is their initial thoughts on and reactions to the questions and topics in hand. This further underlines the importance of the qualitative findings and how valuable they are in providing context and depth. As the logistics of a DRS and how it may work in practice is yet undecided, there is also a risk that there may be an 'intention-action gap', that is, where a respondent may fully intend to use the DRS when answering the survey questions but may not in reality follow through with this intention.

- 1.9.3. When considering likely responses to the scheme, findings from the qualitative research, in which participants were given time to consider their views and likely behaviours in greater depth, suggest that initially positive responses could give way to concerns about the practicalities of use and questions about the value of the scheme in the context of an existing kerb-side recycling regime. We have therefore used the qualitative findings throughout this report to help interpret and add richness to the survey data. But also, in interpreting any responses, it is important to bear in mind that public views and behaviours are likely to shift as the context in which they are responding changes, including in response to the launch of the scheme itself. For example, research has shown that support for the plastic bag charge in England increased following its launch, with spill over effects on attitudes towards other charges to reduce plastic waste.¹¹
- 1.9.4. The qualitative findings also provide an alternative perspective from which to draw conclusions about how the scheme could best be designed to encourage support and use. We have incorporated behavioural insight where relevant with the findings throughout the report (see Appendix A for a breakdown of findings according to the Kantar Public Behavioural model).

1.10. Socio-demographic subgroups

1.10.1. The report includes quantitative analyses undertaken by socio-demographic subgroups of interest and comments on any relevant sub-group differences significant at the 95% confidence level¹² for the adult sample only. Some basis was

¹¹ See for example Thomas, Gregory Owen et al. (2019) <u>The English Plastic Bag Charge Changed Behavior</u> <u>and Increased Support for Other Charges to Reduce Plastic Waste.</u> Frontiers in psychology vol. 10:266

¹² Appendix D: Technical note – Significance tests.

needed to determine which findings provided the most insight for this report so statistical testing has been used as a practical tool to identify any noteworthy differences between subgroups; these are only indicative of potential differences in subgroups within the general population. Statistical significance tests are not applicable to quota-based survey designs because of a number of issues: bias, lack of known sampling probability, unknown population. See Appendix D for more detail.

- 1.10.2. Where sample sizes permitted analyses were undertaken by:
 - 1. **Age** survey participants were broken into the following age bands: 16-34, 35-44, 45-49, 50-54, 55-64 and 65 and over.
 - 2. Social grade social grade is generally used to explore whether attitudes differ by affluence and relate to the Chief Income Earner in the household. The Chief Income Earner is the person in the household who has the highest income (from earnings, benefits, pensions and any other sources). The grades range from A to E. This report typically refers to people in the two most affluent social grades (AB) and the two least affluent (DE). Definitions of the social grades are available in Appendix F.
 - Urban/Rural classification-the urban / rural classification was derived from the postcode provided by survey participants. They were split into two groups: rural and urban-city.
 - Type of accommodation Survey participants were grouped together based on the type of accommodation they reported that they lived in. The following categories were used: flats, houses and any other type of accommodation.

5. Mode of transport used to do the main shop – survey participants were divided into the following groups based on how they travelled to do their main shop: on foot, by car or van belonging to the household, by car or van not belonging to the household and by public transport.

1.11. Reading this report

- 1.11.1. Following this introduction, this report is divided into a series of chapters presenting and interpreting findings from the research, at each stage presenting findings from the survey while also drawing on relevant findings from the qualitative research. Figures from the quantitative research presented in this report relate to survey participants; any differences between subgroups are only indicative of potential differences within the general population.
- 1.11.2. In chapter 2 and 3 we explore existing attitudes towards the environment and recycling and existing consumption patterns and behaviour. In chapter 4 we explore attitudes towards the broad concept of a DRS and in chapter 5 we explore likely usage of a particular scheme design and some of the factors that are likely to affect usage. In chapter 6 we explore consumer preferences for optimising the scheme, and in chapter 7 we look specifically at the results of the conjoint exercise. In the final section (8), we pull out the implications of findings and make a series of recommendations for the scheme design and communications.
- 1.11.3. Each chapter begins with a brief summary of the key findings, drawing out implications from both strands of research for the scheme design where relevant. For an overview of key findings, please refer to the Executive Summary.

2. Attitudes towards the environment and recycling

2.1. This section provides an overview of general attitudes towards the environment and recycling¹³.

Summary

Findings

- In both the survey and the qualitative research, participants expressed concerns about the environment and acknowledged a role for individuals in contributing to environmental efforts.
- The qualitative research suggested plastic waste in particular was a salient issue for consumers, following high levels of media coverage, and there was high levels of support in theory for efforts to reduce plastic waste.
- In the survey, around nine in ten (88%) agreed that everyone has a responsibility to clean up the environment and 78% claimed to be prepared to make lifestyle compromises to benefit the environment.
- In this context, current recycling efforts were perceived to be worthwhile (79% agreed this was the case) and just over eight in ten (82%) disagreed that recycling was too much of a hassle to bother with.
- For qualitative participants, recycling was established as a 'civic duty' and social norm, although littering could often provoke more emotional responses and was viewed extremely negatively.
- There were some differences across the audience, with younger survey participants more likely than older survey participants to find recycling burdensome and to agree that it is only worth doing environmentally friendly things if it saves them money a finding supported by qualitative findings.
- In addition to this, survey participants who supported the introduction of a DRS were far more likely
 as those who opposed it to be willing to make lifestyle compromises to benefit the environment (83%
 vs 56%) again this was supported by the qualitative research.

Implications

- Both the qualitative and quantitative findings suggest there is an underlying support for the idea of government initiatives to reduce plastic and to combat littering.
- Likewise, both strands suggest that younger people and those who are less willing at present to take action to benefit the environment may be more likely than others to find using a DRS burdensome.

¹³ Figures from the quantitative research presented in this chapter relate to survey participants; any differences between subgroups are only indicative of potential differences within the general population.

2.2. Attitudes towards the environment and recycling

- 2.2.1. To gauge general attitudes, survey participants were asked to what extent they agreed or disagreed with five different statements about the environment and recycling.¹⁴
- 2.2.2. Overall, a strong sense of civic duty emerged, with 88% of survey participants strongly agreeing or tending to agree that 'everyone has a responsibility to help towards cleaning up the environment'. Strength of agreement was high with around seven in ten (69%) strongly agreeing with this statement. Also, nearly eight in ten (78%) strongly agreed or tended to agree that 'I am prepared to make lifestyle compromises to benefit the environment'. However, strength of agreement was lower, with only around a third (39%) strongly agreeing with this statement.
- 2.2.3. Views were a little more varied regarding motivations for taking environmentallyfriendly action. Just over half of survey participants (53%) disagreed that 'it's only worth doing environmentally friendly things if they save you money' while a sizable minority (26%) agreed with this statement. This suggests that some may be encouraged to take environmentally-friendly action if it saves them money.
- 2.2.4. Attitudes towards recycling more specifically, were also positive. The majority of survey participants agreed that 'my recycling efforts are worthwhile' (79%) and disagreed that 'recycling is too much hassle to bother with' (82%). This indicates that survey participants generally felt a sense of purpose in their recycling efforts and did not feel the current recycling system (most likely kerbside recycling) impinged on their life in a way that made it too much of a hassle to recycle.

¹⁴ Please see the draft questionnaire in appendix B for the order in which the statements were asked (the statements were not randomised).

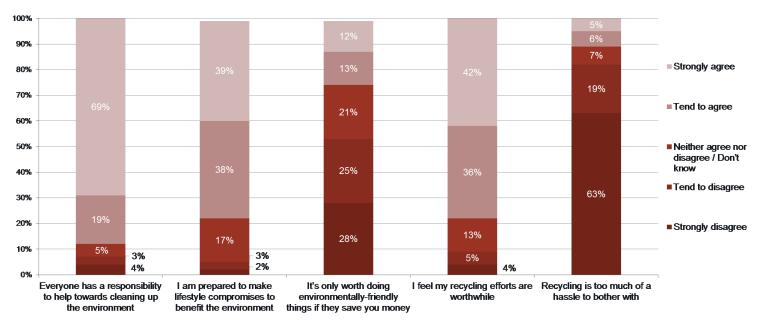


Figure 2.1: Attitudes towards the environment and recycling

(F1_(1~5)) Here are some statements people have made about themselves. How much do you agree or disagree. Base: All Adults (Wales) - 1,453.

2.2.5. These sentiments were echoed in the qualitative research, where plastic waste was a very top-of-mind issue for most participants. Media coverage, particularly from the BBC's Blue Planet, had created high levels of concern about the levels of plastic in the ocean and elsewhere. Most were also able to relate concerns to their own experiences, either when on holiday or in their local area, where plastic was most strongly associated with littering. In this context, recycling was an established social norm: it was typically understood as a 'civic duty' and an action that individuals can and should take to 'do their bit' for the environment. Littering, as a highly visible and local issue, was viewed extremely negatively and associated with anti-social people and behaviour.

Younger survey participants were more likely than older survey participants to find recycling burdensome and to feel it is only worth doing environmentally-friendly things if it saves money

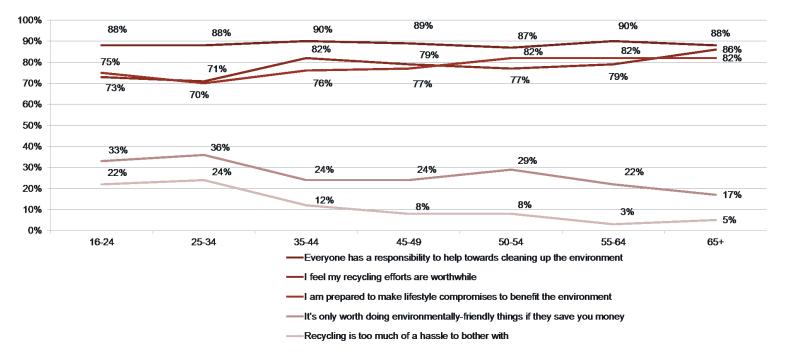
2.2.6. Among survey respondents, there were some differences in attitudes by age:

• Younger survey participants were more likely than older survey participants to agree that 'recycling is too much of a hassle to bother with'. Just under a

quarter (22%) of 16-24 year olds and 24% of 25-34 year olds agreed with this statement compared with only 5% of people aged 65 or over.

- People aged 25-34 were more likely than those aged 65 or over to agree 'it is only worth doing environmentally-friendly things if it saves you money' (36% of 25-34 year olds agreed compared with 17% of 65+ year olds).
- On the other hand, older survey participants were more likely than younger survey participants to agree that 'their recycling efforts are worthwhile' (86% of 65+ year olds agreed compared with 71% of 25-34 year olds).

Figure 2.2: Attitudes towards the environment and recycling by age (percentage that agreed with each statement)



(F1_(1~5)) Here are some statements people have made about themselves. How much do you agree or disagree. Base: All adults (Wales) (16-24) 147; (25-34) 266; (35-44) 206; (45-49) 114; (50-54) 117; (55-64) 288; (65+) 296.

2.2.7. These findings were supported in the qualitative research where young people aged 16-24 who were still living at home with parents or in shared accommodation were less likely to have established recycling routines and tended to prioritise convenience over recycling. Interestingly, this contrasted with children aged 11-15 interviewed, who tended to be positive about recycling as a

result of learning about it at school, but notably did not yet need to take much personal action in order to recycle.

Those who supported a DRS were more likely than those who opposed the scheme to be prepared to make lifestyle changes to benefit the environment

- 2.2.8. Survey participants were asked to what extent they would support or oppose the introduction of a DRS. Overall 74% of adults either strongly supported or supported the introduction of a DRS, compared with 10% who strongly opposed or opposed it and 16% who said they neither supported nor opposed a DRS.
- 2.2.9. Survey participants who supported the introduction of a DRS (see section 4.2) were more likely than those who opposed it to agree with the statement 'I am prepared to make lifestyle compromises to benefit the environment' (83% vs 56%). As the introduction of a DRS is likely to require behaviour change it is worth exploring what would motivate those who oppose the scheme to shift their behaviour even if they only make up a minority, as this may be challenging if it requires them to make compromises.
- 2.2.10. On the surface, saving money does not appear to be a sufficient motivator for taking environmentally-friendly action for most of those who opposed the introduction of a DRS. Survey participants who opposed the DRS were just as likely as those who supported it to agree with the statement 'It's only worth doing environmentally friendly things if they save you money' (25% and 26% respectively). This was supported in the qualitative research were those who were most disengaged with recycling were less likely to be in support of the scheme (see section 5.3.12).

3. Existing consumption and disposal behaviours

- **3.1.** This chapter provides an overview of participants' current shopping behaviours and how they currently consume and dispose of in-scope drinks and drinks containers.¹⁵
- **3.2.** The in-scope drinks containers, subject to consultation are: plastic bottles, glass bottles and metal cans. All soft drinks (including water and juice), alcoholic drinks and milk-containing drinks (but not milk itself). In addition to the in-scope containers listed here, disposable coffee cups were included in the qualitative strand of this work.

Summary

Findings

- For purchasing, current behaviour tends to involve one main weekly shop (even if top-ups are needed), with only 12% who do not do a main weekly shop.
- In a typical week most survey participants (86%) visit a large supermarket and travel to do their main shop by a car or van driven by them or someone in the household (79%), although people from lower social grades were less likely to travel by car.
- For disposal, in the survey empty drink containers were more likely to be recycled at home than away from home (94% vs between 57% and 60% depending on the type of container).
- This was supported by the qualitative research, where recycling practices were highly habitual and context dependent.
- The qualitative research found that whilst most had established routines for recycling from home, away from home convenience was typically prioritised and most were disposing of containers in the nearest available bin, only recycling if there is a clear prompt to do so.

Implications

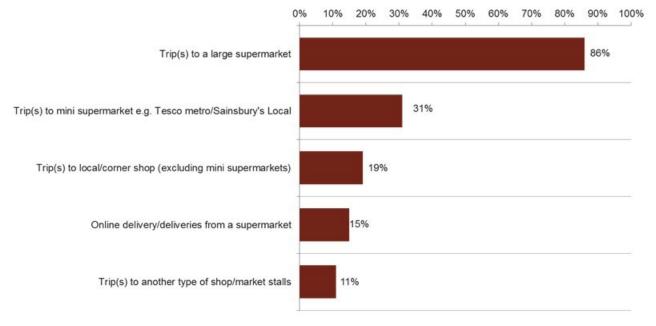
- Whilst locating DRS return points at major supermarkets is likely to create accessibility for the majority bringing waste from home, the design will also need to consider the needs of those who shop in smaller shops and/or do not have cars, who tend to be in lower social grades.
- As recycling is currently already strongly associated with the home environment, the design of the scheme should consider how it can accommodate and encourage recycling away from home.

¹⁵ Figures from the quantitative research presented in this chapter relate to survey participants; any differences between subgroups are only indicative of potential differences within the general population

3.3. Current purchasing behaviour

- 3.3.1. In order to design a DRS that fits into people's everyday lives, it is important to understand current purchasing behaviour. Survey participants were asked a number of questions within the survey about their current food and grocery shopping habits.
- 3.3.2. **How participants shop**: Around seven in ten (71%) survey participants said that they do one main shop plus top-up shops when needed, 17% said that they buy all their food and groceries in one main shop (e.g. weekly or fortnightly) and 12% said that they did not do a main shop, but instead bought food and groceries as and when needed.
- 3.3.3. Where participants shop: Survey participants were asked how their household typically buys food and groceries each week (they could provide more than one answer). The most popular response was that they visit a large supermarket (86%), followed by making trips to mini supermarkets (31%).

Figure 3.1: How households buy food and groceries in a typical week



(A5) How does your household buy food and groceries in a typical week? Base: All adults (Wales) - 1,453.

- 3.3.4. **How participants travel to do their main shop:** Survey participants who did not solely shop online, were asked how they usually travelled when they did their main shop. Most survey participants (79%) travelled by car or van (driven by themselves or another household member), followed by on foot (10%) and public transport (5%).
- 3.3.5. Looking at differences by social grade, survey participants from social grades DE were less likely than those from higher social grades to say they travelled by car or van to do their main shop (64%, compared with AB 89% and C1/C2 81%). Almost one in five (17%) of survey participants from social grades DE said they travelled on foot to do their main shop, compared with only 5% of survey participants from social grades C1/C2.

The majority of survey participants would find it easy to travel to a large supermarket, local corner shop or mini supermarket using their usual form of transport

3.3.6. Survey participants were asked how easy or difficult it would be for them to get to large supermarkets, local corner shops and mini supermarkets using their usual form of transport. The majority would find accessing large supermarkets (88%), local corner shops (84%) and mini supermarkets (74%) easy, suggesting that they are likely to be convenient places to locate return points for a DRS.

3.4. Current consumption behaviour at home and away from home

- 3.4.1. Survey participants were asked which of the following drinks they consumed at home or away from home, excluding drinks consumed in restaurants, cafes or bars:
 - 1. Bottled wine
 - 2. Bottled spirits
 - 3. Beer/cider/other alcoholic drinks (glass or plastic bottles, cans)
 - 4. Non-alcoholic drinks such as fizzy drinks, juice, tonic water, smoothies (glass or plastic bottles, cans, cartons)
 - 5. Bottled water (including flavoured water)

- 6. None of the above
- 3.4.2. Survey participants were more likely to consume all types of drinks at home rather than away from home. However, the difference between consumption at home and away from home was smaller for bottled water (46% consumed bottled water at home, 41% away from home). Non-alcoholic drinks (excluding bottled water) were the most popular drinks consumed both at home (65%) and away from home (47%).

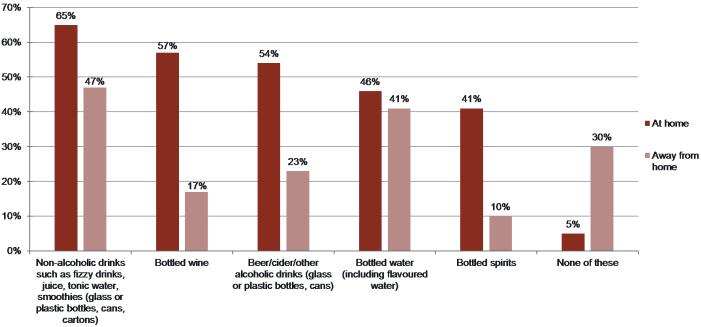


Figure 3.2: Drinks consumed at home/ away from home (adult survey participants)

(B1) Which of these do you personally drink at home, even if only on an occasional basis? Base: All adults (Wales) – 1,453. (B5) Which of these do you personally drink away from home, even if only on an occasional basis? Base: All adults (Wales) – 1,453.

3.4.3. Responses to the online diary task in the qualitative research revealed a similar range of consumption behaviours, with responses varying from those buying and drinking large amounts of soft drinks or water for everyday consumption at home and on-the-go, to those actively trying to reduce consumption of drinks in containers and only regularly buying alcoholic drinks for consumption (see case studies in Section 3.7 for further examples).

For surveyed children aged 11 to 15, juice/smoothies/squash were the most popular type of drinks consumed at home while bottled water was the most popular drink consumed away from home

3.4.4. Juice / smoothies/ squash were the most popular type of drinks consumed at home by children aged 11 to 15 (73%), while bottled water was the most popular drink consumed away from home (71%).

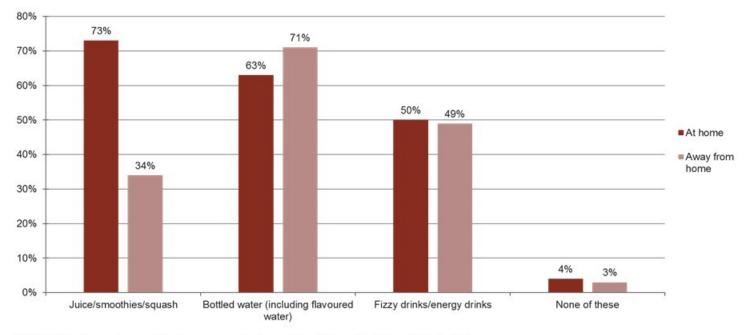


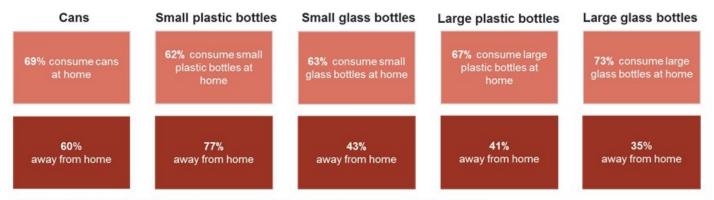
Figure 3.3: Drinks consumed at home and away from home (surveyed children)

(B01) Which of these do you drink at home, even if only sometimes? Base: All children (Wales) – 372. (B04) Which of these do you drink away from home, even if only sometimes? Base: All children (Wales) – 372.

3.5. Consumption of drinks in different container types

3.5.1. Survey participants who consumed drinks at home or away from home were asked what type of container the drinks came in. Generally, they were more likely to consume drinks in all types of containers at home than away from home, except small plastic bottles which is probably due to their portability.

Figure 3.4: Types of containers the drinks consumed by adult survey participants came in: at home and away from home

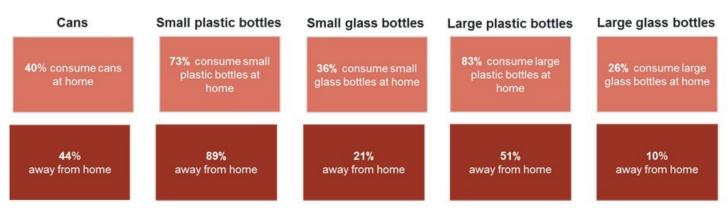


(B2) Drinks at home: what types of packaging do these drinks come in? Base: Adults who drink at home (Wales) - 1376.

(B6) Drinks away from home: What types of packaging do these drinks come in? Base: Adults who drink away from home (Wales)-1135.

3.5.2. As seen with adult participants, surveyed children aged 11 to 15 were more likely to consume drinks in all container types at home rather than away from home, apart from small plastic bottles and cans.

Figure 3.5: Types of containers the drinks consumed by surveyed children came in: at home and away from home



(B02) What types of packaging do these drinks come in? Base: Children who drink at home (Wales) - 356.

(B05) Drinks away from home: What type of packaging do these drinks come in? Base: Children who drink away from home (Wales) - 362.

3.5.3. This pattern was mirrored in the qualitative research, where participants completing online diaries were frequently consuming cans of soft drinks or small plastic bottles of water or soft drinks at home. Various reasons were given for this during depths interviews: smaller containers, especially plastic bottles, were seen as more flexible and could be consumed either at home or taken out of home according to the need at the time; for fizzy drinks, smaller containers were

seen to be of higher quality as, unlike larger bottles, they were typically consumed in one go and so did not lose their carbonation; and some claimed to prefer the taste of drinks consumed from cans. Depending on the volume consumed, participants could be buying either multipacks (for bottled water or soft drinks) or single bottles/cans.

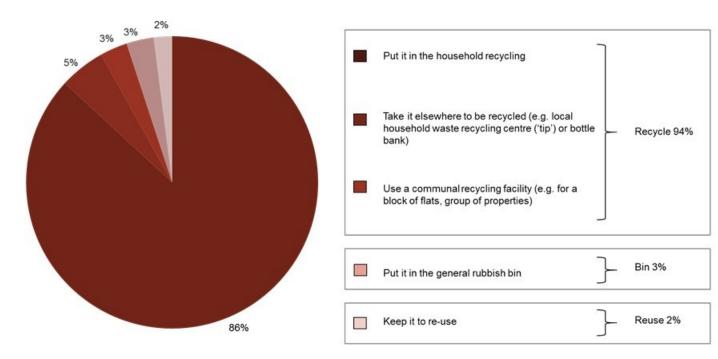
3.6. Current disposal behaviour

3.6.1. Survey participants were asked how they usually disposed of empty bottles and/or cans at home and away from home. It is important to bear in mind that this question captured usual recycling behaviour, so survey participants may not always behave in this way.

The majority of survey participants said they usually recycled at home

3.6.2. At home, virtually all (94%) survey participants said they usually recycled empty bottles and cans. To breakdown typical recycling behaviour in more detail, 86% put empty bottles and cans in the household recycling, 5% took bottles and cans elsewhere to be recycled and 3% used a communal recycling facility. Only 3% said they usually put empty containers in the general rubbish bin.

Figure 3.6: Usual disposal method of empty bottles and/or cans when survey participants finish these items at home

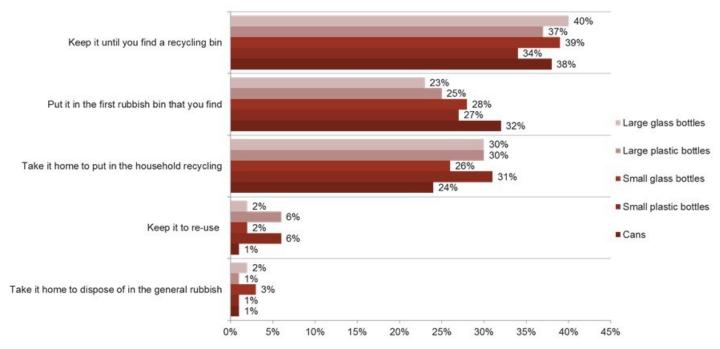


(B3) Drinks at home: how do you usually dispose of the empty bottles and/or cans when you finish these items at home? Base: Adults who use in scope drinks packaging at home (Wales) – 1,365.

Survey participants were more likely to recycle at home than away from home

- 3.6.3. As might be expected, survey participants were less likely to say they usually recycled empty drinks containers away from home (between 57% and 60% depending on the type of container). Disposal behaviour was also relatively consistent across different types of drinks containers (see figure 3.7), although survey participants were more likely to say they threw cans in the nearest bin than plastic and glass bottles.
- 3.6.4. The most commonly mentioned disposal method was to keep drink containers until a recycling bin was found, between 34% and 40% disposed of empty containers in this way. This was closely followed by putting it in the first rubbish bin found (between 23%-32% disposed of empty containers in this way). A sizable minority (between 24% and 31%) of survey participants said they took empty containers home to put in the household recycling.

Figure 3.7: Usual disposal method of empty bottles and/or cans away from the home (adult survey participants)

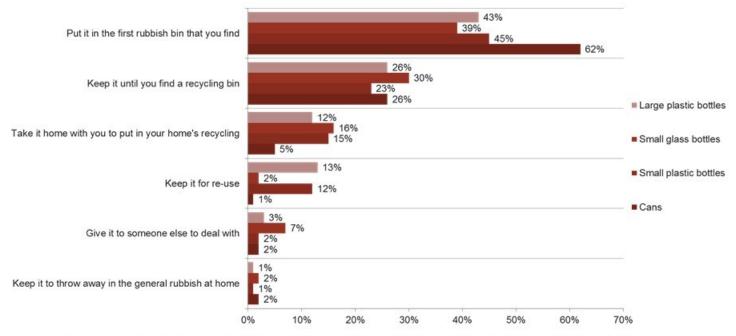


(B7) Drinks away from home: When you finish a drink, how do you usually dispose of the empty bottles and/or cans? Base: Adults who use in scope drinks packaging away from home (Wales) Cans: 694; Small plastic bottle: 891; Small glass bottle: 492; Large plastic bottle: 504; Large glass bottle: 387.

- 3.6.5. Like adult survey participants, surveyed children aged 11 to 15 were more likely to say that they recycled at home than away from home. Around eight in ten (79%) said they usually disposed of empty bottles and cans in their home recycling and 5% said they usually put them in the general rubbish bin.
- 3.6.6. Surveyed children aged 11 to 15 were more likely to say that they threw cans (62%) in the first rubbish bin they found away from home compared with other container types (between 39% and 45%).¹⁶

¹⁶ Figures for large glass bottles have been excluded due to a low base size (38)

Figure 3.8: Usual disposal method of empty bottles and/or cans away from home (surveyed children)



(B06) Drinks away from home: When you finish a drink away drink from home, what do you usually do with the empty packaging? Base: Children who use in scope drinks packaging away from home (Wales) Cans: 163; Small plastic bottle: 322; Small glass bottle: 75; Large plastic bottle: 191; Large glass bottle: 38.

The qualitative research also showed participants were more likely to recycle at home than away from the home

- 3.6.7. In the qualitative research too, participants were more likely to recycle at home than away from home. For most, recycling was typically a very habitual act, performed with little conscious thought. It was also highly context-dependent, reliant on the right triggers to prompt it. As such, it was associated most strongly with the home, where it had been mandated and where most individuals had developed recycling routines based on the demands made of them by local collection policies, including, for some, the threat of penalisation for noncompliance.
- 3.6.8. Away from home, recycling was far less consistent and for many participants depended on the presence of facilities to prompt it. Although some more environmentally-conscientious individuals claimed to consciously carry their drinks container until they found a recycling bin, many prioritised convenience

around disposal, using a recycling bin if that option were readily available but a regular bin if not. This highlights the need for behaviour change initiatives to enable outdoor recycling and suggests that the design of a DRS scheme may need to prioritise convenience for away from home disposals.

3.6.9. The extent to which different individuals engaged with recycling consciously was related to their wider attitudes towards the environment. Across the qualitative research, a spectrum of attitudes and behaviours emerged, which could be broken down into three broad groups, with the majority of people we spoke to being in the 'Passive' group:

Figure 3.9: Spectrum of recycling behaviour encountered in the qualitative research

ACTIVE	PASSIVE	DISENGAGED
Recycling as strong environmental concern and open to lifestyle changes	Recycling as civic duty and part of household duties but less open to lifestyle changes	Recycling not a personal priority or responsibility, not currently integrated into lifestyle
 Recycle all containers at home, with clear understanding of process Take containers consumed out of home to recycle Reduce or reuse plastic where possible 	 Recycle all containers at home, but may be unclear on process Will dispose of items where convenient out-of-home – will only recycle if a clear option 	 Don't recycle at home – even where facilities provided Will dispose of items where convenient out-of-home – but may still recycle if a clear social prompt (e.g. relative's house)
More common amongst	Majority across locations	More common in areas with less

families with children

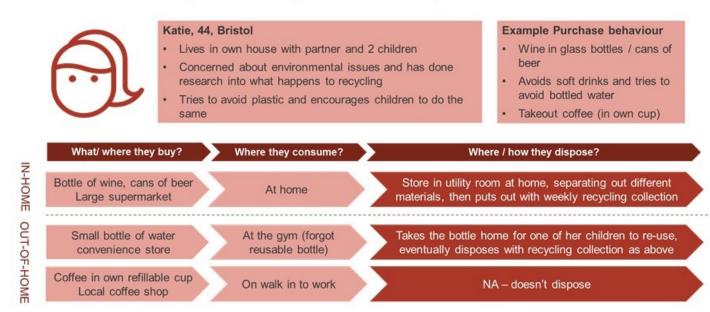
access to recycling facilities

3.7. Qualitative case studies

3.7.1. Across the qualitative research, we encountered a wide range of purchasing and disposal behaviours. The following three case studies provide examples of the spread of behaviours encountered (we return to these case studies in Section 5.4 to illustrate likely responses to the DRS).

Case Study 1: Active recycler

Purchase, consumption and disposal: Active recycler



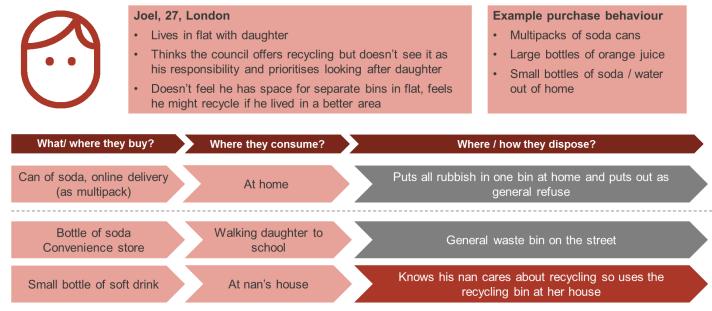
Case Study 2: Passive recycler

Purchase, consumption and disposal: Passive recycler



Case Study 3: Disengaged recycler

Purchase, consumption and disposal: Disengaged recycler



4. Attitudes towards a Deposit Return Scheme

4.1. This section explores attitudes towards a DRS including the extent to which the scheme is supported or opposed, how easy or inconvenient it would be to fit the scheme into everyday life and whether the scheme is deemed necessary given there are already ways to recycle.¹⁷

Summary

Findings

- The survey revealed broad support for a DRS, with 74% in support and only 10% opposed to the introduction of a DRS. Similarly, most (64%) felt that they would find it easy to fit the scheme into their everyday life, with only a minority (16%) claiming it would be difficult.
- Initial responses to a DRS were also positive in the qualitative research, as it was seen to address an issue of high concern (plastic waste) and tapped into a sense of nostalgia about bottle return schemes of the past.
- However, with consideration, most in the discussion group stage of the qualitative research came to
 question the idea of a DRS, which they felt asked a lot from consumers with no strong environmental
 benefit given the existence of kerbside recycling. Many suggested that the introduction of better onstreet recycling facilities away from home would be cheaper, fit more closely with the current system,
 and demand less from consumers. There was also typically a call for action to be taken directly with
 manufacturers or retailers, such as the reduction of plastic at source.
- Given a lack of perceived benefit, it was also considered to be unfair to ask consumers to change their behaviour, with particularly strong concerns about the impact on vulnerable groups who may not be able to access the scheme.
- A range of other concerns emerged in the qualitative research, including questions about how the scheme would be funded, what happens to unclaimed deposits, and whether consumers would still have access to kerbside recycling.
- When considering actual use of the scheme, in the survey a majority (65%) felt that it would be convenient for them to carry multiple bottles from home to a return point, although 31% felt that this would be inconvenient.
- When considering use of the scheme away from home, six in ten (59%) survey participants agreed that the introduction of a DRS would encourage them to recycle (13% disagreed). However, four in ten (40%) felt that it would be inconvenient to carry around empty drinks containers until they found a return point, suggesting that this may be a barrier to use

¹⁷ Figures from the quantitative research presented in this chapter relate to survey participants; any differences between subgroups are only indicative of potential differences within the general population.

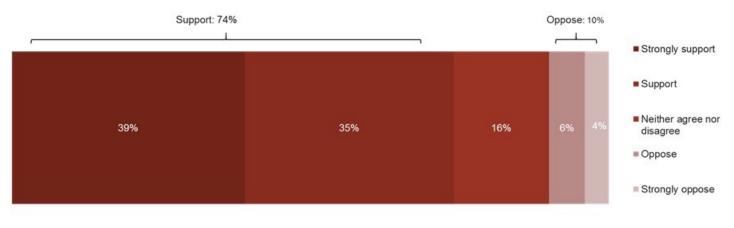
Implications

- Although most survey respondents were in support of the scheme, responses in the qualitative research suggest that it will be important for communications to counter perceptions that the scheme unfairly places the burden for recycling on consumers and offers little benefit over existing recycling kerb side recycling or the provision of better on-street recycling facilities.
- The survey found that survey participants in social grades DE (lower socio-economic grade) and those without access to a household car were less likely than those in social grades AB (higher socio-economic grade) and those with access to a household car to find it easy to store empty containers at home and take empty containers back to return points. This suggests it may be important to prioritise convenience in the design of the scheme and distribution of return points to ensure they are accessible to all.

4.2. Support for the introduction of a DRS

- 4.2.1. Earlier on in the survey, prior to asking about attitudes towards a DRS, survey participants were provided with a brief description of how a DRS would work in practice (see section 5.2).
- 4.2.2. As might be expected when it comes to interventions that seek to encourage 'socially desirable' behaviour, survey participants were overwhelmingly in support of introducing a DRS in Wales. Around three quarters (74%) were in support of a DRS, while one in ten (10%) opposed the introduction of a DRS.
- 4.2.3. Relatively high levels of uncertainty were also observed (16% neither agreed nor disagreed), a trend seen across many of the attitudinal based questions in the survey. This is perhaps reflective of a lack of understanding about the impact a DRS might have on everyday life, given for many survey participants the questionnaire is likely to be the first time they have been introduced to the concept. This reflects findings from the qualitative research, where uncertainty about the workings of the DRS and it impact on everyday life tended to increase as participants discussed the scheme in more detail.

Figure 4.1: The extent to which survey participants supported or opposed the introduction of a deposit return scheme



(G8) Would you support or oppose the introduction of a Deposit Return Scheme? Base: All adults (Wales) - 1,453.

4.2.4. Surveyed children aged 11 to 15 were also in support of a DRS; 85% supported the introduction of the scheme while only 3% opposed it.

Survey participants with access to a car or van and in higher social grades were more likely to be in support of a DRS

- 4.2.5. Some survey participants were more likely than others to be in support of a DRS. These included:
 - Survey participants with access to a car or van in their household (three quarters (76%) supported the introduction of a DRS vs 64% without access). It is reasonable to assume that people without access to a household car or van may find it more challenging to access return points. This was reinforced in qualitative group discussions, where participants often raised concerns about access amongst those without their own means of transport.
 - Survey participants in higher social grades (AB) were more likely that those in lower social grades (DE) to be in support of a DRS (81% vs 71%). Survey participants in social grades DE were less likely than survey participants in social grades AB to travel by car or van to do their main shop, which again may suggest they would find it more challenging to access return points.
- 4.2.6. There were no clear patterns by socio-demographics amongst those in opposition to the DRS.

Surveyed participants who were more uncertain about the scheme were more likely to live in households without access to a car or van and to be from lower social grades

4.2.7. Survey participants who were undecided (neither supported nor opposed the scheme) were more likely to live in households without access to a car or van (25% vs 14% of those who did have access) and to be from lower social grades (18% in DE vs 11% in AB).

4.3. Fitting the scheme into everyday life

4.3.1. It is reasonable to assume the scheme may cause some inconvenience and require at least some behaviour change for people. However, around two thirds of survey participants (64%) felt it would be easy to fit this new method of disposing of drinks containers into their everyday life (16% felt it would be difficult) and that the extra effort would be worthwhile to help protect the environment (74% agreed and only 9% disagreed).

- 4.3.2. The pattern for surveyed children aged 11 to 15 was similar; 66% agreed that it would be easy to fit this new method of disposing of drinks containers into their everyday life, 10% would find it difficult and 84% agreed and that any extra effort would be worthwhile to help protect the environment.
- 4.3.3. Initial responses in the qualitative research were similar. The majority who already had established recycling routines at home felt that that they could fit use of the scheme into their life with limited inconvenience and were willing to do so given the focus of the scheme on tackling the issue of plastic waste. Only those who were not currently engaged with recycling tended to see the scheme as more inconvenient at this stage (see Section 3.6.7.). However, when given more time to consider the practicalities of the scheme, such as having to carry containers from home on shopping trips or hold onto containers after consumption when away from home, many of the qualitative participants began to see the scheme as inconvenient given that they were unclear about the benefits compared to existing kerb side recycling (see Section 4.4.).

Fitting the scheme into everyday home life

4.3.4. Survey participants were asked how easy or inconvenient it would be to do some of the practical tasks required of them when the scheme is introduced, such as storing empty containers at home and taking empty containers back to a return point.

Most survey participants felt they would find it easy to fit the scheme into their everyday life at home

4.3.5. Around seven in ten survey participants (68%) felt that it would be easy for them to store empty drinks containers at home until getting around to taking them to a return point while 28% said it would be inconvenient for them to do this. This is perhaps unsurprising, given this behaviour is likely to be familiar to those who already store items to put out in the household recycling.

4.3.6. Approximately two thirds of survey participants (65%) said it would be easy for them to bring multiple bottles or cans from home to a return point, 31% said it would be inconvenient.

Survey participants without access to a car or in lower social grades were less likely to find it easy to store drinks containers at home or take them to a return point

- 4.3.7. Certain socio-demographic groups were less likely to say they would find it easy to store empty containers at home or bring empty containers to a return point.
 - 55% of survey participants without access to a household car said they would find it easy to store containers at home compared with 70% of those with access.
 - Half (50%) of those without access to a household car would find it easy to take **empty containers to a return point** compared with 68% of those with access.
 - 66% of survey participants from social grades DE and 65% from social grades C1/C2 would find it easy to store containers at home compared with 78% of those from social grades AB.
 - 62% of survey participants from social grades DE would find it easy to take empty containers to a return point compared with 72% of those from social grades AB.
- 4.3.8. Those who opposed a DRS were less likely than those who supported the scheme to say it would be easy for them to store containers at home (18% vs 81%) and that it would be easy for them to take empty containers to a return point (13% vs 79%).
- 4.3.9. This suggests the perceived convenience of a DRS may influence people's opinion. Therefore, for a DRS to be well perceived by all provision should be made for those who would find it harder to store containers at home and those without access to a car who may find it more challenging to take multiple containers to a return point.

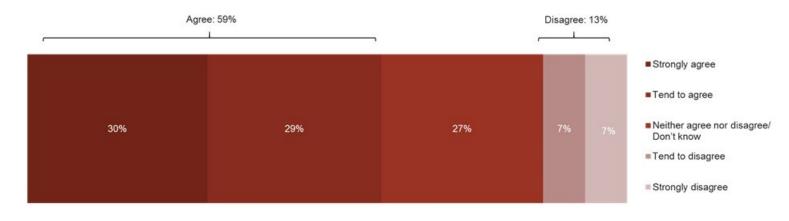
Fitting the scheme into everyday life away from the home

- 4.3.10. It is important that a DRS should seek to change the behaviour of consumers, to deliver a step change both in the recycling of empty drinks containers and in reducing litter. Given recycling is currently most strongly associated with the home environment, behaviour is likely to be harder to shift away from home.
- 4.3.11. Therefore, survey participants were also asked about fitting the scheme into their everyday life away from home, including whether they felt the scheme would encourage them to recycle more when out and about and how easy it would be for them to carry empty drinks containers around until they found a return point.

Survey participants generally felt the scheme would encourage behaviour change away from home

4.3.12. While we cannot make any assumptions about what will happen once a DRS is introduced, around six in ten survey participants (59%) agreed the scheme would encourage them to recycle more when out and about.

Figure 4.2: The extent to which survey participants agreed or disagreed that the scheme would encourage them to recycle more when out and about



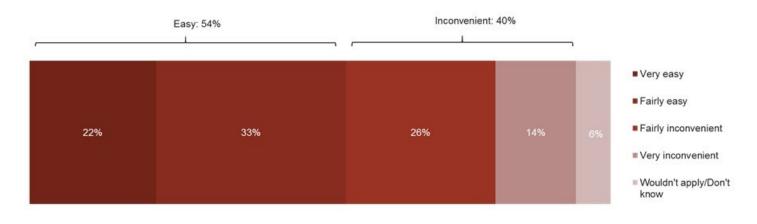
(G2) Here are some statements. How much do you agree or disagree - The scheme would encourage me to recycle more when out and about. Base: All adults (Wales) – 1,453.

4.3.13. Agreement was also high among surveyed children aged 11 to 15, more than eight in ten (84%) agreed a DRS would encourage them to recycle more when away from home. Encouraging behaviour change among children is particularly important, given around two thirds (65%) of surveyed children aged 11 to 15 agreed with the statement 'most of my friends throw their empty cans or bottles in general rubbish bins rather than recycling them'.

A sizable minority would find it inconvenient to carry empty containers around with them away from home

4.3.14. Four in ten (40%) survey participants would find it inconvenient to carry empty items around with them until they found a return point.

Figure 4.3: Whether survey participants would find it easy or inconvenient to carry empty bottles or cans around with them when out and about until they found a return point



(G3) How would you find fitting each of the following into your everyday life? Easy or inconvenient - When I am out and about, carrying empty bottles or cans around until I find a return point. Base: All adults (Wales) – 1,453.

4.3.15. While it is not clear what impact this inconvenience will have on behaviour, there is a risk that it could lead good intentions to slip, if return points are not made available in areas with high foot fall over the course of a day.

4.4. This positivity was mirrored in the qualitative research but only initially

4.4.1. Spontaneous reactions to the idea of a DRS were typically positive in the qualitative research. For all but the 'disengaged recyclers', there was a positive reaction to the idea that government wants to tackle plastic waste and the

scheme was spontaneously associated with this effort. For many, positive reactions were also reinforced by the idea that a DRS could help to reduce littering and improve local environments. A minority had experience of using similar schemes abroad, and more had heard of them, typically associating them with 'green' countries such as Germany or Scandinavia. Alongside this, a DRS also tapped into a strong current of nostalgia for many, particularly older, participants. For these people, the scheme was often linked back to glass bottle return schemes which gave it a sense of familiarity and of a return to 'old-fashioned values'.

Perceptions of whether a DRS is necessary given there are already ways to recycle

4.4.2. Despite support for a DRS being positive in the survey, when prompted on the necessity of the scheme, views were more divided. Around a third of survey participants (34%) agreed 'the scheme is unnecessary as there are already ways to recycle' while 42% disagreed with this statement.

Survey participants who opposed the scheme were more likely to perceive it as unnecessary, unfair and hard to fit into everyday life

- 4.4.3. As might be expected, survey participants opposing the scheme (10%) were more likely than those in support (74%) to:
 - Think the scheme is unnecessary given there are already ways to recycle (88% vs 22%).
 - Agree that it is unfair that they would be made to use the scheme to get back their deposit (84% vs 14%).
 - Disagree that 'I would find it easy to fit this new method of disposing of drinks packaging into my everyday life' (71% vs 5%).

Qualitative participants came to question the idea of a DRS when given time for consideration

4.4.4. Most participants in the discussion group stage of the qualitative research came to question the idea of a DRS when given time for consideration, particularly in the discussion groups. Although they acknowledged an issue with plastic waste, on reflection many felt that the DRS was not in fact the right way to address this.

As the majority associated recycling most strongly with the home, where they were already largely recycling, the environmental benefit offered by the scheme was not obvious. Although some acknowledged that it could help address recycling, and perhaps more importantly littering, away from home, they typically saw better on-street recycling facilities as a simpler and less costly solution.

- 4.4.5. Given this lack of perceived benefit, it was considered to be unfair to ask consumers to change their behaviour, with particularly strong concerns about the impact on vulnerable groups who may not be able to access the scheme, such as the elderly or others with mobility issues, and those who may struggle to afford the deposit. As such, there was typically a preference for government to tackle the issue by taking stronger action with manufacturers or retailers to tackle the issue of plastic at source.
- 4.4.6. A range of other questions and concerns emerged in the qualitative research about how a DRS will run in practice, reflecting some of the negative perceptions and concerns that people held:
- 4.4.7. Who will run the scheme?
 - Participants tended to assume that government would run the scheme, which, due to a general lack of trust in government that was prevalent across the people we spoke to, could lead to cynicism about the effectiveness of implementation and expense to the taxpayer. On the other hand, whilst business was better trusted to run the scheme, some participants raised concerns that it then would be profit-making at the consumer's expense.

4.4.8. How will the scheme be funded?

 Regardless of who was believed to be running the scheme, participants questioned the expense of installing sufficient machines to make it a success, especially when compared to other approaches that they perceived to be simpler, such as providing more out-of-home recycling bins.

4.4.9. What happens to unclaimed deposits?

 Again, the issue of unclaimed deposits could raise cynicism. As participants did not understand whether these would be used to fund the scheme, they could be perceived as a (regressive) tax if going back to government.

4.4.10. Will the scheme replace kerbside recycling?

 There were strong concerns amongst some that kerbside collection of in-scope materials would be discontinued with the introduction of a DRS. Consumers tended to want to retain the option of 'opting out' of the deposit and continuing with their current behaviour if they wanted to prioritise convenience. Against this, whilst it was generally seen as a positive that the scheme might encourage the collection of litter for recycling by those seeking to reclaim the deposits, there was some concern about people having their own bins raided for materials.

4.4.11. Will the materials need to be intact for them to be recycled?

- Participants tended to assume that they would be able to crush materials down before taking them to be recycled, as many currently do in order to save space when recycling. Needing to keep containers intact was seen as quite inconvenient, especially for larger plastic bottles.
- 4.4.12. This suggests that, despite most survey participants being in support of a DRS, it is worth challenging perceptions that the scheme is unnecessary, unfair and hard to fit into everyday life in design considerations and communication plans. This may help prevent the shift seen during the qualitative research where most people taking part in discussion groups moved from being in support of, to opposing the scheme as they had more time to consider the implications. It should also be noted that uncertainty surrounding the scheme does not necessarily equate to lack of engagement.

5. Likely usage of a Deposit Return Scheme

5.1. This section explores participants' claims about whether they would use a DRS both at home and away from home, how this might vary across drink or container types, and the reasons given for using or not using the scheme, drawing on findings from the qualitative research to highlight some of the factors likely to drive or hold back usage across the audience. The in-scope drinks containers, subject to consultation are: plastic bottles, glass bottles and metal cans, and in addition, disposable coffee cups were included in the qualitative strand of this work. ¹⁸

Summary

Findings

- Survey participants were given a brief overview of a DRS and asked about the likelihood of them using the scheme.
- Support for using a DRS was high for drinks consumed at home and away from home with little variation across the different types of container included in the scheme. Between 78% and 80% of survey participants said they would use a DRS on all or most occasions for drinks consumed at home and between 77% and 83% for those consumed away from the home, depending on the type of container.
- Qualitative participants raised concerns surrounding various elements of the scheme: the storage and retention of containers prior to disposal, the practicalities of carrying around used coffee cups, cans and heavy glass bottles and not being able to crush bottles prior to return.
- Surveyed children aged 11-15 were less likely than adult survey participants to see themselves using a DRS away from home on all occasions (32% to 45% of surveyed children compared with 54% to 59% of adult survey participants depending on the type of container).
- Already recycling at home was a key reason that survey participants gave where they had said they would not always use a DRS for drinks consumed at home (63%), indicating that established recycling practices for drinks packaging consumed at home are already in place for a large portion of survey participants.
- For both surveyed adults and children, the top reasons for not using a DRS away from home included factors relating to time and convenience. These were 'might not have time to find a return point' (mentioned by 43% of adults and 54% of children) and 'would not want to carry around empty packaging' (mentioned by 31% of adults and 48% of children).
- The main reasons for why survey participants would use a DRS were environmental or monetary based. Around three in ten (31%) survey participants said that the main reason they would use the scheme would be because it would help the environment and 28% said it would be to get their deposit back.
- All six reasons why someone might use a DRS, shown to survey participants, were more commonly selected by older survey participants than younger survey participants. For example, 'it will help improve the number of bottles and cans that are recycled' was selected by two thirds of those over 65 (66%) compared with closer to four in ten survey participants aged 16-34 (40-44%).

¹⁸ Figures from the quantitative research presented in this chapter relate to survey participants; any differences between subgroups are only indicative of potential differences within the general population.

- Younger survey participants aged 16-34 were more likely than older survey participants to say they would buy fewer cans and bottles due to the introduction of a DRS. Just under half (46%) of 16-24 year olds and 43% of 25-44 year olds would reduce the number of drinks they buy compared with 21% of those aged 65 and over. The qualitative research showed that changes in purchasing behaviour seemed more likely for some container types than for others (e.g. switch from consuming cans away from home to bottles that are easier to transport home and switch from using disposable coffee cups and water bottles to reusable ones).
- Just under half (47%) of children aged 11-15 said that they would reduce the number of bottles and cans they buy by a lot or a little, while 3% would stop buying drinks in these types of containers altogether.

Implications

- Likelihood of using a DRS is unlikely to be driven primarily by packaging type; factors such as convenience, ease of use, and time spent at return points will carry a heavier influence on usage of the scheme.
- It may be more challenging to shift people's behaviours away from home, especially 'non-recyclers'.
 A DRS must be designed to be convenient and time efficient to ensure it is accessible to all groups in society.
- The introduction of a DRS may have an impact on the purchasing and consumption of in-scope drinks containers, particularly among younger age groups and children aged 11-15. This impact should be borne in mind when designing and implementing such a scheme by making it convenient for them to use.

5.2. Whether survey participants would use a DRS on all or most occasions

5.2.1. Prior to asking survey participants about the likelihood of using a DRS they were given a brief description to read of how it would work in practice. The wording is shown below:

A new recycling scheme for most drinks that come in cans and bottles (excluding milk) is being considered by the Government. It is called a Deposit Return Scheme and aims to improve recycling rates and reduce litter. The scheme would work as follows:

- 1. People pay a deposit when buying a can or bottle. This would be added to the price of the drink.
- 2. They take the empty packaging to a return point and get their deposit back. It doesn't need to be the same place where it was bought from.
- 3. Different methods of returning packaging are being considered. For example, 'return points' could be via a machine at supermarkets or in public places such as train stations and leisure centres, or over the counter at a local shop.
- 4. If the bottle or can is not returned to one of these return points, the deposit is lost.
 - 5.2.2. The description summarised a 'best case' scenario of a DRS which included return points in a wide variety of locations and this should be borne in mind when interpreting the results. Following this description was a request to imagine a DRS was already up and running and a deposit of 15p had been added to each item¹⁹.

Support for using a DRS was high, with little variation by type of container and whether the drink was consumed at home or away from home

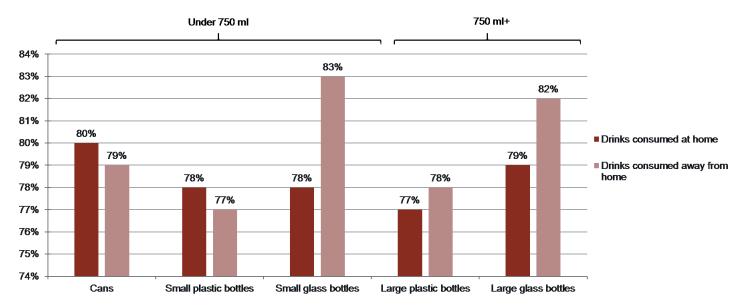
5.2.3. Initial questions about perceived use of a DRS were met with positive responses with three quarters or more saying they would use a DRS on all or most occasions for all five types of containers explored in the survey (77-83%). Over

¹⁹ Please note that a small number of survey participants were shown an example of 20p and these have been removed from the base of any relevant questions. This was because these cases had to be moved from the English sample into the Welsh sample, as their postcode implied they lived in Wales.

half of survey participants said they would use a DRS on all occasions (54-60%)²⁰.

5.2.4. These findings suggest the likelihood of using a DRS is unlikely to be driven by or differ by container type. It is more likely that other factors such as convenience, ease of use and time spent at return points will influence whether or not people use the scheme (see chapter 6).

Figure 5.1: Whether survey participants would use DRS on all or most occasions by where drink consumed



(D1/D3) Please indicate which option most closely describes your likelihood of using the Deposit Return Scheme rather than your usual disposal method. Base: Adults who reported using these types of drinks packaging (Wales) – At home: Cans 968; Small plastic bottles 851; Small glass bottles 836; Large plastic bottles 921; Large glass bottles 962 - Away from home: Cans 688; Small plastic bottles 888; Small glass bottles 488; Large plastic bottles 501; Large glass bottles 383.

5.2.5. As expected, those who were in support of a DRS were more likely to say they would use it all of the time than those who opposed it, and this pattern held across all types of container at home and away from home. However as stated previously, the majority of survey respondents supported the introduction of a

²⁰ At home: cans 58%; small plastic bottles 58%; small glass bottles 59%; large plastic bottles 59%; large glass bottles 60%

Away from home: cans 55%; small plastic bottles 54%; small glass bottles 58%; large plastic bottles 58%; large glass bottles 59%

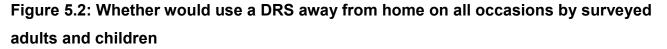
DRS (74%) and therefore only a minority were in opposition (10%). There were no clear patterns by socio-demographics across the different types of container.

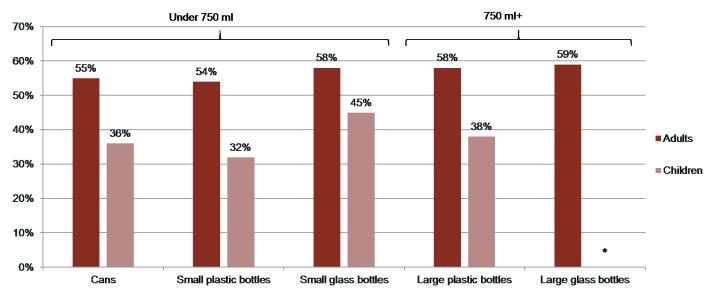
The qualitative research suggested concerns about use of the scheme for some materials

- 5.2.6. In the qualitative research, when given time to reflect, concerns did arise relating to some materials that may in practice affect usage of the scheme. Some of these issues were around the storage and retention of containers prior to disposal. Coffee cups were seen as particularly problematic to store, as they tend to lose their integrity, are hard to clear of dregs and may carry smells, and many felt they were likely to dispose of these in a DRS only if very conveniently located in an outdoor location (e.g. at train station). Similarly, cans were also seen as potentially messy to carry around after consumption, due to the lack of a lid, and some felt they were less likely to carry them home to store with bulk disposals compared to small plastic bottles. Other issues related to the portability of certain materials. Glass bottles in particular were seen as heavy to transport, especially for those without a car. A minority also raised concerns about transporting large plastic bottles, especially when they learn that they cannot crush bottles prior to return. The combination of the findings from the survey data and the qualitative research suggest that whilst many are in support of a DRS, the practicalities of using a scheme may affect usage, especially for disposing of drinks containers away from home.
- 5.2.7. In the qualitative research the majority of participants felt that they were less likely to use a DRS away from home due to the perceived inconvenience of carrying containers around and only the more active recyclers consistently felt that they would carry their empty container until they either found a return point or reached home.

Surveyed children were less likely than adult survey participants to see themselves using a DRS away from home

5.2.8. When disposing of each container type away from home, fewer children than adults said they would use a DRS on all occasions (32-38% for cans and plastic bottles). As very few surveyed children said they used large glass bottles away from home, these have been excluded from analysis and instead answers relating to cans, small glass bottles and plastic bottles are explored (see figure 5.2). While the pattern was similar, the difference was less marked for using a DRS on all or most occasions. This may indicate that while intentions are good in terms of returning most containers via a DRS, children can clearly see occasions where it is simpler to dispose of containers in other ways. There was a degree of reluctance among surveyed children to carry empty containers around with them (explored in more detail in section 5.3.8) and this may go some way in explaining these results.





⁽D3/Q0D1) Please indicate which option most closely describes your likelihood of using the Deposit Return Scheme rather than your usual disposal method. Base: Those who reported using these types of drinks packaging (Wales) – Away from home. Adults: Cans 688; Small plastic bottles 888; Large plastic bottles 501; Small glass bottles 488; Large glass bottles 383. Children: Cans 163; Small plastic bottles 322; Small glass bottles 75; Large plastic bottles 191.

5.3. Reasons for and against using a DRS

5.3.1. Starting with reasons for not using a DRS, all survey participants who said they would not use a DRS on all occasions were asked about their reasons for not doing so both for drinks consumed at home and away from home.

Already recycled at home was a key reason why survey participants would not always use a DRS for drinks consumed at home

5.3.2. Over six in ten (63%) survey participants selected 'already recycle at home' as a reason why they would not always use a DRS. This indicates that established recycling practices for drinks containers consumed at home already exist for a large portion of survey participants who would not use the scheme on all occasions (indeed 98% of survey participants who selected this option were 'recyclers'). No other reason stood out in the same way (see figure 5.3); just over a quarter (26%) of survey participants said the deposit would not be worth the hassle. Difficulty accessing return points due to lack of transport (14%) and age, disability or mobility (11%) were selected by a smaller proportion of survey participants.

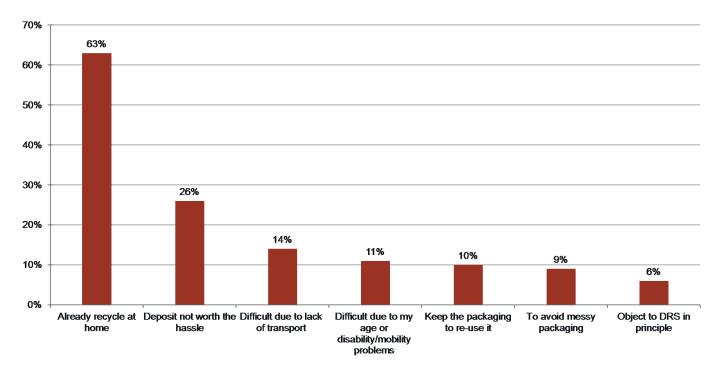


Figure 5.3: Reasons would not always use a DRS for drinks consumed at home

(D2) You mentioned that you would not always use the Deposit Return Scheme when you are at home. Why is this? Base: Adults who would not always use the DRS for drinks consumed at home (Wales) – 615.

Survey participants who were older were more likely to cite practical reasons for why they would not always use a DRS for drinks consumed at home

5.3.3. There were some differences by socio-demographic groups surveyed:

 Those aged 65 or over were more likely than 16-24 year olds to say they would not always use a DRS because they already recycle at home (69% vs 51%). This supports findings in section 2.2.1., where younger survey respondents were more likely than older ones to find recycling burdensome.

Survey participants living in urban areas were more likely to say they already recycle at home

5.3.4. Looking at differences by **where survey participants live**, those in urban areas (67%) were more likely to say they already recycle at home compared with those in rural areas (55%).

The reasons why survey participants would not always use a DRS away from home were less clear; convenience and time carried the most importance

- 5.3.5. Survey participants gave a variety of reasons why they thought that they would not always use a DRS for drinks consumed away from home. The top reason related to time ('I might not have time to find a return point' at 43%) and the next main reason related to convenience ('I would not want to carry empty packaging around until I find a return point' at 31%). Just over a fifth said reclaiming the deposit was not worth the hassle (21%) and a similar proportion said they would rather keep the containers to dispose of at home (19%).
- 5.3.6. The research findings suggest that a DRS needs to be designed to be convenient and time efficient, so that return points are readily available and people are required to spend minimal time storing and returning their containers.

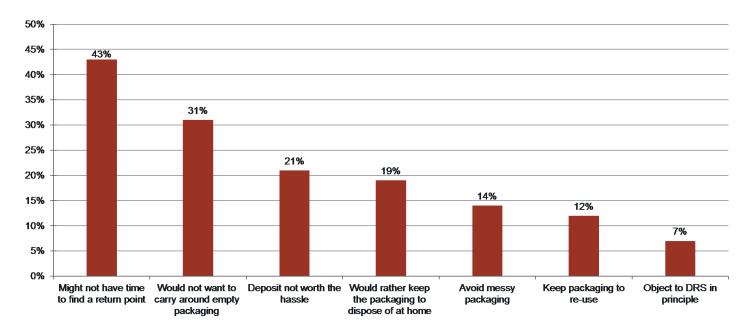


Figure 5.4: Reasons why survey participants would not always use a DRS for drinks consumed away from home

(D4) You mentioned that you would not always use the Deposit Return Scheme when you are away from home. Why is this? Base: Adults who would not always use the DRS for drinks consumed at home (Wales) – 498.

5.3.7. Only 7% of survey participants gave their objection to a DRS in principle as a reason for not using it for drinks consumed away from home.

Surveyed children also selected convenience and time as the main reasons they would not always use a DRS away from home; there was a reluctance among this age group to carry empty containers around

5.3.8. The main reason why surveyed children aged 11-15 would not always use a DRS away from home was the same as adults, that they might not have the time to find a return point with over half (54%) selecting this option and the other main reason was not wanting to carry around the empty containers with just under half selecting this option (48%).

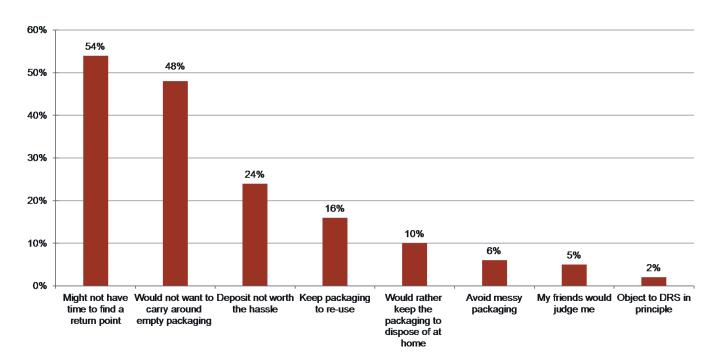


Figure 5.5: Reasons why surveyed children would not always use a DRS for drinks consumed away from home

(Q0D2) You mentioned that you would not always use the Deposit Return Scheme when you are away from home. Why is this? Base: Children who would not always use the DRS for drinks consumed away from home (Wales) – 249.

Prime motivators for why survey participants might use a DRS were environmental or monetary; social norms were less important

5.3.9. The top four reasons given for why survey participants might use a DRS, all selected by over half of the sample (53-63%), focused on the environment (reducing litter and improving recycling rates) and reclaiming the deposit. Moral reasons ('It would be the right thing to do') and social norms ('Everyone else will be doing it') were selected by fewer survey participants indicating that these are perhaps less of a concern. It might be the case that social norms become more important as a DRS becomes commonplace and more of a habit.

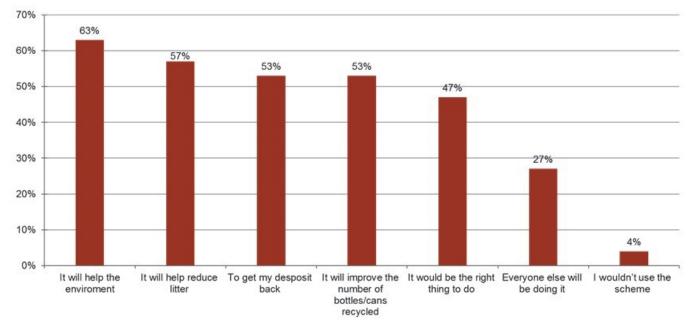
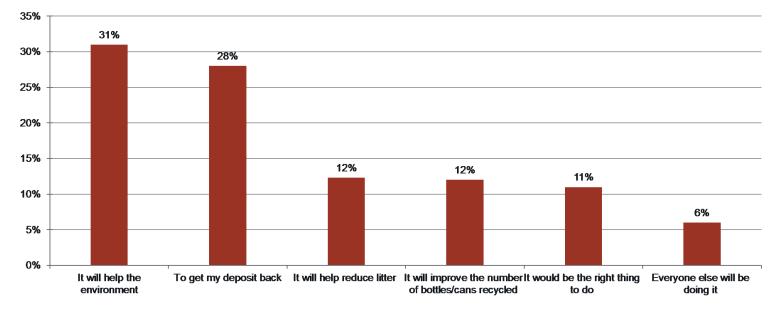


Figure 5.6: Reasons why survey participants might use a DRS

(G6) If you were to use the scheme, which of these would be reasons for you to do so? Base: All adults (Wales) - 1,453.

5.3.10. When asked to narrow down the reasons they had given to just one main reason²¹, 31% of survey participants selected 'it will help the environment' and a similar proportion chose 'to get my deposit back' (28%).





(G6/G7) Which would of these would be your main motivation for using the scheme? Base: Adults who would use the scheme (Wales) -1,390.

²¹ Answers include responses from survey participants who only gave one answer.

Older survey participants showed greater support for the positive reasons behind using a DRS

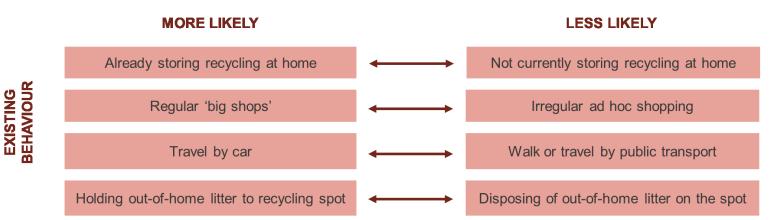
- 5.3.11. All six reasons why someone might use a DRS, shown to survey participants, were more commonly selected by older survey participants than younger survey participants. For example, 'it will help improve the number of bottles and cans that are recycled' was selected by two thirds of those over 65 (66%) compared with around four in ten survey participants aged 16-34 (40-44%). This fits with the findings in section 2.2.1 which showed that older survey participants had a greater sense of civic duty than younger ones. Younger survey participants were more likely than older age groups to report recycling as burdensome and to say they felt it is only worth doing environmentally friendly things if it saves them money.
- 5.3.12. Surveyed children's answers also focused on the environment and reclaiming the deposit. 'It will help the environment was the most commonly selected option with almost three quarters (72%) selecting this. Reducing litter and getting the deposit back were the second and third choices (69% and 57% respectively). Over half of children (54%) also selected 'it would be the right thing to do' and 'it will help improve the number of bottles and cans that are recycled'.

In the qualitative research, claimed usage varied depending on how much of a shift was perceived to be required from existing behaviour

5.3.13. In general, individuals were more open to using the scheme when they could imagine fitting it around their existing behaviour. Given that most imagined return points to be at big supermarkets, reached by car and integrated with a regular 'big shop', those in lower social-economic groups and young people cited specific issues with using a DRS. Those not currently recycling were also less likely to claim they would use a DRS. For this group, who did not have existing routines around recycling, use was felt to require a bigger shift in behaviour, and recycling was also not typically prioritised on moral or civil grounds. As such, they were more likely to claim to be willing to lose the deposit, although it is hard to predict the effect of a financial incentive if the scheme were to launch. Those that were already recycling were typically more open to using

the scheme, especially for materials consumed in-home, as it could be accommodated within existing patterns of behaviour without significant inconvenience. More conscientious active recyclers could be encouraged if reassured that use of the scheme will ensure better quality recycling.

Figure 5.8: Factors affecting claimed usage in the qualitative research



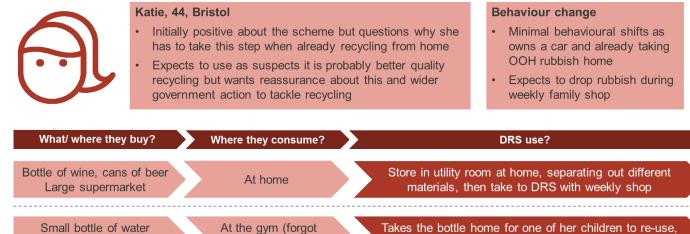
5.3.14. To a lesser extent claimed usage was affected by price sensitivity. As such, within the qualitative sample those budgeting for a household, such as families, were more likely to be motivated by the deposit to use the scheme. Young people, who tended to be using income more disposably, were often less motivated by the financial incentive.

5.4. Revisiting the qualitative case studies

5.4.1. In this section, we revisit the qualitative case studies highlighted in Section 3.7 to illustrate claimed usage across a range of individuals and situations.

Case Study 1 Revisited: Active recycler

Claimed DRS usage: Active recycler



eventually disposes with recycling collection as above

NA-doesn't dispose

reusable bottle)

On walk in to work

IN-HOME OUT-OF-HOME

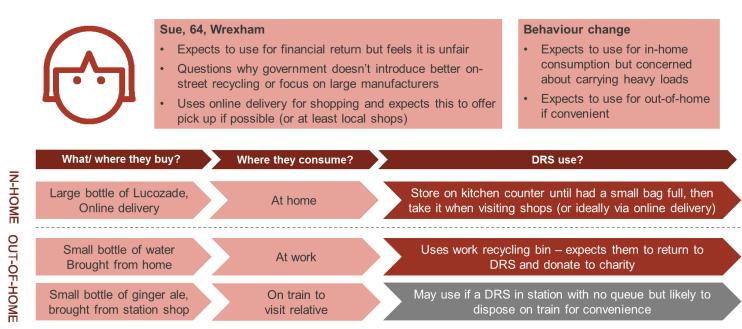
Convenience store

Coffee in own refillable cup

Local coffee shop

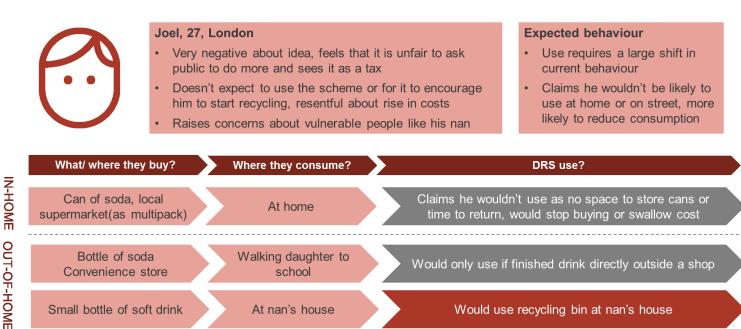
Case Study 2 Revisited: Passive recycler

Claimed DRS usage: Passive recycler



Case Study 3 Revisited: Disengaged recycler

Claimed DRS usage: Disengaged recycler



Small bottle of soft drink

Would use recycling bin at nan's house

At nan's house

5.5. The impact of a DRS on purchasing behaviour

- 5.5.1. Survey participants were asked whether the introduction of a DRS would mean they would buy fewer cans and bottles.
- 5.5.2. Just over half (53%) of survey participants said they would not make any changes to the number of cans and bottles they buy in light of the introduction of a DRS, 13% said they would reduce drinks containers they buy by a lot and a fifth (20%) said they would do so by a little (i.e. a third (33%) would reduce the amount of drinks containers they purchased overall). Only 5% said they would stop buying these types of container altogether. A reduction in the use of bottles and cans is not one of the aims of the deposit return scheme. Though this comes with benefits from an environmental standpoint, this also comes with a potential negative impact on manufacturing and sales sectors.

Younger survey participants were more likely to say they would buy fewer cans and bottles due to a DRS

5.5.3. There was a clear pattern by age; younger survey participants were much more likely than older age groups to say they would reduce the number of bottles and cans they bought by a lot or a little. Just under half (46%) of 16-24 year olds and 43% of 25-44 year olds would reduce the number of drinks they buy compared with 21% of those aged 65 and over (see figure 5.9).

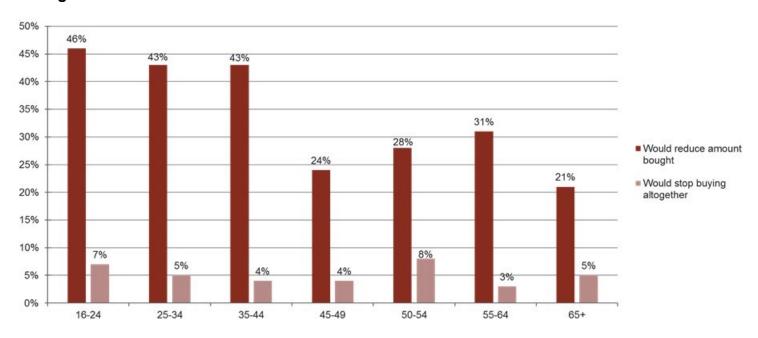


Figure 5.9: Whether survey participants would reduce number of drinks bought by age²²

(D5) Which of the following do you think is most likely to apply to you? Base: All adults (Wales) - 1,445.

Half of surveyed children said they would reduce the number of bottles and cans they buy

5.5.4. There was a different pattern for child participants aged 11-15; the idea of a DRS had a much bigger impact on potential purchasing behaviour for this group. Four in ten children surveyed aged 11 to 15 said they would not make any changes to the number of drinks they would buy (40%) but just under half (47%) said they would reduce the number of drinks they buy by a lot or a little. This is similar to the finding for younger adult survey participants aged 16 to 24 where a similar proportion said that they would reduce the number of drinks in these types of containers altogether.

In the qualitative research, changes in purchase behaviour seemed more likely for some container types than for others

²² A small number of cases have been removed from the base as the example they were shown was based on a deposit level of 20p rather than 15p

- 5.5.5. In the qualitative research, some common themes emerged around switching purchase and consumption patterns, which to some extent aligned with the concerns individuals held about using the scheme for some materials (see Section 5.2.6.). For example, some suggested that they would switch from consuming cans away from home to using plastic bottles that are easier and less messy to transport home after consumption.
- 5.5.6. Similarly, in response to the idea that they were unlikely to hold onto disposable coffee cups for recycling, some suggested that a DRS could act as a trigger for them to begin using a reusable coffee cup. More generally, some also felt that the introduction of the deposit may act as a trigger for them to purchase a reusable water bottle and reduce their use of small plastic bottles.
- 5.5.7. Some participants raised concerns about multipacks, with the cumulative effect of a deposit applied across containers increasing their awareness of the cost and therefore reducing their likelihood of purchasing. That said, in the interest of keeping the scheme simple and avoiding further market effects (e.g. skewing towards multipack purchase) most could not see a viable alternative to including multipacks in the scheme.
- 5.5.8. These findings suggest a DRS may impact purchasing behaviour, particularly among children and young adults and this impact should be borne in mind when designing and implementing such a scheme by making it convenient for them to use.

6. Optimising the scheme design

6.1. Participants were asked to give their views on different aspects of the scheme design including the deposit amount, preferred return points and how they would like to receive the refunded deposit.²³

Summary

Findings

- Participants were asked to give their views on different aspects of the scheme design including the deposit amount, preferred return points and how they would like to receive the refunded deposit.
- The most popular deposit amount was 10p with 37% of survey participants selecting this option. 15p and 20p were preferred by around a quarter (23% and 25% respectively) and a tenth (10%) chose 25p. Views differed among surveyed children aged 11-15 where the strongest preference was for a 20p deposit amount (31%).
- There was more support for a 10p deposit level among older survey participants than younger survey participants (just under half (48%) of survey participants aged 65 and over compared with 20-21% of 16-34 year olds) and those who opposed a DRS (almost three quarters (74%) thought the deposit amount should be 10p).
- The qualitative research emphasised the need for the deposit level to strike a balance between being high enough to motivate people to use the scheme but not so high as to influence affordability. An effective deposit level was typically seen to be around 15p to 25p. Discussions focused on three factors: accumulation (how deposit money could 'add up'), loss aversion (framing the money spent as a clear loss that can be reclaimed) and specificity (being able to track deposits clearly in an app or donating them to charity).
- Overall, among survey participants cash/coins were favoured by both adults (65%) and surveyed children aged 11-15 (74%) over other methods to receive the deposit refund, although electronic methods such as returning via debit card or a smartphone app were more appealing to younger adults. Qualitative participants also expressed a preference for alternative refund options.
- Large supermarkets were highlighted as the most convenient way to return containers for survey participants although other centrally and locally placed return points would also be used. This was supported by the qualitative research where discussions raised concerns for those who shop on an ad hoc basis, those who do not visit large supermarkets as a habit and those who were resistant to the idea of altering habits.
- Qualitative participants indicated a DRS should be designed to accommodate use as far as possible within existing behaviour. Return points at large supermarkets should be quick and easy to use.
 Machines should also be located in busy areas (e.g. transport hubs, schools and workplaces) and consideration given to returns being accommodated as part of online delivery services.
- Survey participants' views on whether the deposit amount should differ by size of container were mixed (50% thought it should be the same while 37% thought it should differ). Support was stronger for a sliding scale among surveyed children aged 11-15 and younger participants.

²³ Figures from the quantitative research presented in this chapter relate to survey participants; any differences between subgroups are only indicative of potential differences within the general population.

• 81% of survey participants were in favour of an 'all-in' DRS, that is, for containers of all sizes being included and this was echoed in the qualitative research where participants saw simplicity as key to the design of the DRS. Subsequent qualitative discussions however uncovered some concerns surrounding the practicalities of this design.

Implications

- A higher deposit amount may be less affordable for certain groups (older age groups and those in lower social grades). The preference of a lower deposit amount among those who oppose a DRS may indicate they will not return their containers via the scheme and 'lose' the deposit.
- A balance needs to be struck between the deposit amount being high enough to motivate people to use the scheme but not so high as to influence affordability.
- Deposit levels that are a round number and that participants are able to easily 'chunk' up into larger units of value are likely to increase the sense of value from using the scheme.
- Cash/coins should be the main refund method although a choice of options may help to drive a sense of value.
- While return points should be located at large supermarkets it may also be important to cite these at other centrally and locally placed return points to ensure access for everyone.
- Mixed views regarding whether the deposit amount should differ depending on the size of the container and concerns surrounding how the DRS would work in practice demonstrates the need for clear communication on the set up to alleviate concerns surrounding the practical use of the scheme, the loss of deposits and the impact on current recycling practices and services.

6.2. Deposit amount

- 6.2.1. Survey participants were asked how much their preferred deposit amount would be, choosing between 10p, 15p, 20p, 25p or more than 25p.
- 6.2.2. Asking survey participants their preferred deposit amount differs to the way the deposit amount was explored in the qualitative interviews and the conjoint exercise which focused more on the deposit level that would encourage them to use a DRS. There may be a conflict between preference and likelihood of use, that is, a participant may prefer the deposit to be 10p as they would feel happier about 'writing off' the cost and not always reclaiming it. The same participant may say a 20p deposit would make them more likely to use a DRS as the higher deposit amount is an incentive to make the effort to reclaim it.
- 6.2.3. The findings in this section cover the survey questions (which asked for the preferred deposit amount) and the qualitative findings (which discussed the deposit as an incentive for using a DRS). The conjoint exercise is written up separately (see chapter 6).

Survey participant's preference was for a 10p deposit amount

6.2.4. The most popular deposit amount was 10p with 37% of survey participants selecting this option. 15p and 20p were preferred by around a quarter of survey participants (23% and 25% respectively), a tenth (10%) said they thought the deposit amount should be 25p and only 5% chose more than 25p.

Figure 6.1: Preferences for deposit amount

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37%	23%	25%	10%	5%

There was more support among survey participants for a 10p deposit level among older age groups and those living in urban areas

6.2.5. Survey participants in older age groups were more in favour of the lowest deposit amount (10p) than younger age groups (see figure 6.2). This could imply that a higher deposit amount may be less affordable to older age groups who may be more likely to have less disposable income. Survey participants living in urban areas were also more likely to prefer a 10p deposit level compared with those living in rural areas (40% compared with 31% of rural).

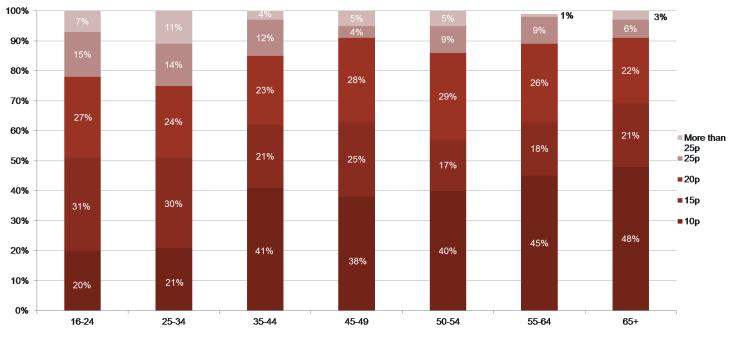


Figure 6.2: Preferred deposit amount by age²⁴

(D7) What do you think the deposit amount should be set at for a Deposit Return Scheme? Base: All adults (Wales): (16-24) 145; (25-34) 263; (35-44) 203; (45-49) 114; (50-54) 117; (55-64) 288; (65+) 296.

Survey participants who opposed the scheme were more likely to prefer a 10p deposit level

6.2.6. While overall the majority of survey participants supported a DRS (74%), those who opposed a DRS were more likely than those in support to think the deposit amount should be 10p (74% and 30% respectively) While those who opposed a DRS may simply prefer a lower deposit amount for affordability reasons, other

²⁴ The base excludes a small number of cases shown the 20p example

possible reasons may be that they object that people will be forced to pay a deposit or that a lower deposit amount may be more acceptable to them should they choose to 'lose' their deposit by not returning the containers through the scheme.

Surveyed children aged 11 to 15 were also in favour of 10p and 20p deposits with a stronger preference for the lower amount

6.2.7. Surveyed children aged 11 to 15 were shown the same deposit amounts as adults (10p, 15p, 20p, 25p and more than 25p). Views differed to those of adults; the strongest preference among children aged 11-15 was for a deposit amount of 20p (31%). A fifth (20%) felt the deposit amount should be set at 10p and equal proportions supported 15p and 25 (17% for both). A larger group compared with adults (15%) felt the deposit amount should be more than 25p. The qualitative research uncovered that young people tended to be less sensitive than adults in relation to the deposit amount, as they were not budgeting for a household the money they did have was by definition disposable and so this may go some way towards explaining this difference.

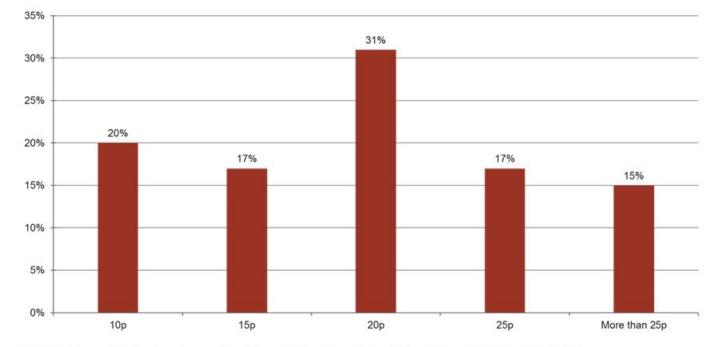


Figure 6.3: Preferred deposit amount among children

(Q0D5) What do you think the deposit amount should be set at for a Deposit Return Scheme? Base: All children (Wales) - 372

In the qualitative research, the deposit level was seen to need to strike a balance between being high enough to create motivation, but not so high as to influence affordability

- 6.2.8. Within the qualitative research, an effective deposit level was typically seen to be around 15p to 25p. For the majority of participants, a deposit level any lower than this was seen to be unlikely to prompt any action. Conversely, many considered a deposit level of over 25p to be high as a proportion of the container purchase price and claimed that it would be likely to affect decisions about whether to purchase in the first place. People were more willing to absorb the deposit price for higher priced items, for which the deposit was lower as a proportion of the overall cost, such as bottles of wine or spirits.
- 6.2.9. Alongside this, a number of participants raised concerns about accessibility issues for a deposit level of anything over 10p and questioned whether this would be unaffordable or could affect cash flow for those at lower levels of income in particular.

In the qualitative research, perceptions of the likely effectiveness of any given deposit level were affected by how it was framed

- 6.2.10. Beyond the absolute deposit level, findings from the qualitative research suggest that effectiveness of any given deposit level are likely to depend on how it is framed.
- 6.2.11. Accumulation: When presented with information about the scheme, participants tended to think about the deposit in relation to the return of a single container, in which case the monetary value was often not considered to be worth the effort involved. However, perceptions of the value of using the scheme were improved when participants were prompted to think in terms of multiple deposits, such as in a situation when they are returning a large number of containers that they have stored up at home. In addition to this, participants tended to favour deposit amounts that allowed them to easily 'chunk' up the value of a number of returns into larger units of money. As such 20p and 25p were typically preferred as a deposit level compared to 15p, which participants were less intuitively able to add up to work out the value of bulk deposits. This

also had implications for disposals away from home, where encouraging consumers to think of a single container in terms of their larger consumption habits (for example, via the use of a smartphone app tracking returns – see section 6.3.5) could help to encourage use of the scheme.

- 6.2.12. Loss aversion: Perceptions of value are also likely to be affected by how deposit levels are presented to participants. Part of the effectiveness of the plastic bag charge has arguably been due to its leverage of loss aversion, a cognitive bias that means people attach greater value to any given loss than to an equivalent gain²⁵. By introducing a prompt to think about a previously passive decision and offering an opportunity to avoid the loss of money, the scheme is likely to have been more effective than if it were to have, say, offered a discount on the money already spent. The mechanism for a DRS is necessarily different to this, as a deposit is paid on all containers at the point of purchase. However, making the deposit level very clear is likely to encourage use of the scheme by framing the money spent as a clear loss that can be reclaimed (e.g. this 20p is already yours, reclaim to make sure you don't lose it).
- 6.2.13. **Specificity:** Some participants claimed that offering ways to make the value of their returns more tangible could help to increase the sense of value. For example, a number felt that allowing returns to be claimed as a donation to a charity could help increase the sense of value, and additionally provide a 'feel good' reward for return. For others, having some way to track the value of returns, for instance in an app, could also help to increase the real-life benefit of the value reclaimed.

6.3. Ways of refunding the deposit

6.3.1. The survey included a question about how participants would like their deposit refunded and they could choose as many options as they liked.

²⁵ See for example Kahneman, D. & Tversky, A. (1992). "Advances in prospect theory: Cumulative representation of uncertainty". *Journal of Risk and Uncertainty*. **5** (4): 297–323

Cash/coins were favoured by survey participants over other methods to receive the deposit refund

6.3.2. Cash/coins was by far the most popular choice of refund method, with just under two thirds (65%) of survey participants selecting this option. The second most selected option was refunded onto a debit card, selected by around a third (32%) of survey participants. Receiving the deposit back via a smartphone app was chosen by 18%, coupon/voucher by 16% and donation to charity by 9%.

Electronic methods were more appealing to younger age groups

6.3.3. Older survey participants were more likely than younger ones to say they would prefer the deposit to be returned in cash/coins. Younger survey participants also showed a preference for cash/coins, but were more likely than older ones to select electronic methods of repayment (via debit card and smartphone app) (see figure 6.4).

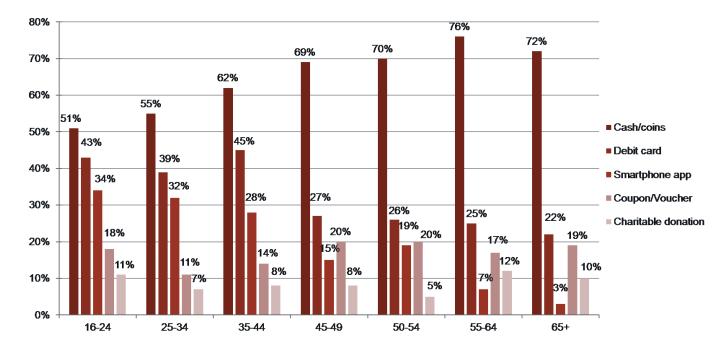


Figure 6.4: Preferred deposit refund methods among survey participants by age

(D6) In which of these ways would you like to receive your deposit refund after returning the empty packaging? Base: All adults (Wales) (16-24) 145; (25-34) 263; (35-44) 203; (45-49) 114; (50-54) 117; (55-64) 288; (65+) 296.

Surveyed children aged 11 to 15 also favoured cash/coins as their preferred method

6.3.4. Surveyed children aged 11 to 15 had a strong preference to receive their deposit back in cash/coins with around three quarters (74%) selecting this option (see figure 6.5). This preference for cash/coins was even stronger among children than adults. Children may not have access to debit cards and therefore this limits the options available to this group.

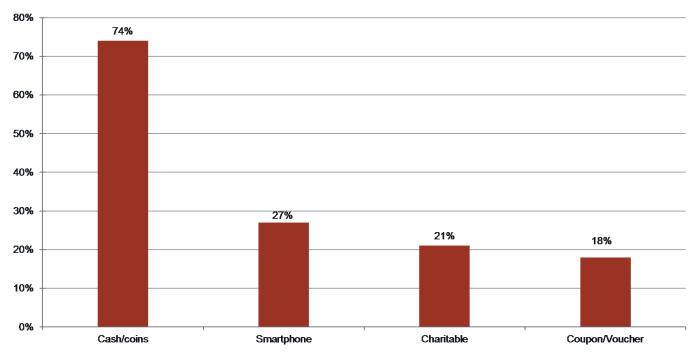


Figure 6.5: Preferred deposit refund methods among children

(Q0D4) Still imagining the scheme is already in use, in which of these ways would you like to receive your deposit refund after returning the empty packaging? Base: All children (Wales) - 372.

In the qualitative research, there was a preference for including a variety of alternative refund options

6.3.5. Participants typically felt that machines should offer cash returns, to ensure accessibility for those who do not own a smartphone or debit/credit card. However, despite this many felt they would be more likely to make a return directly to a debit or credit card, to avoid the inconvenience of dealing with small change. Some suggested vouchers as a way to ensure accessibility whilst

avoiding the need to stock machines with cash, although others were concerned about linking returns to specific stores.

6.3.6. Responses to other forms of return were mixed, although there was generally a preference to include these alongside other options, with positivity around the idea of choice. The idea of a smartphone app, linked to a card account, was popular amongst some as they felt it could help them to track the value of their returns. For others, this was felt to require a level of involvement that went beyond how they expected to interact with the scheme. The idea of charity donations was popular for some, particularly older, participants as it helped to make the value of return more tangible, whilst providing a feel-good factor.

6.4. Return point locations for drinks consumed at home and away from home

6.4.1. Survey participants were asked about their preferred return points for bottles and cans for drinks consumed both at home and away from home.

Although large supermarkets were the clearly favoured return point, other centrally and locally placed return points will be required

- 6.4.2. Regardless of whether survey participants were thinking about drinks consumed at home or away from home, having return points located at large supermarkets was felt to be the most convenient way to return empty drinks containers. Around seven in ten (69%) survey participants said a large supermarket would be a convenient return point for cans and bottles consumed at home and over six in ten (62%) felt it would be convenient for drinks consumed away from home.
- 6.4.3. A machine located at a park or high street was also popular, selected by 34% of survey participants for drinks consumed at home and 41% of those thinking about drinks consumed away from home. Being able to return empty containers over the counter at a mini supermarket was convenient for 35% of survey participants for drinks consumed at home and 34% for those consumed away from home.

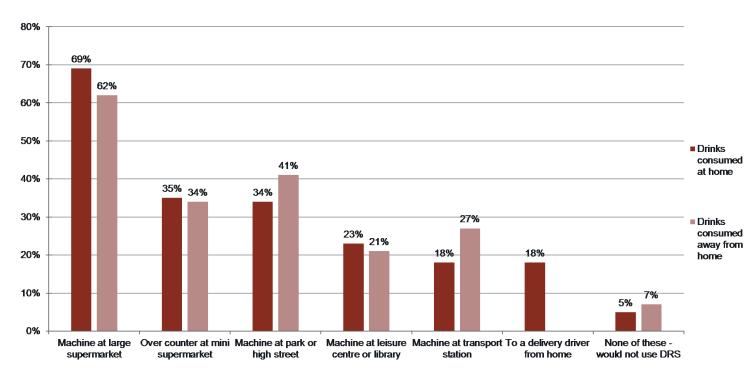


Figure 6.6: Convenient return points by where the drink was consumed

(D8/ D9) If you were to use a Deposit Return Scheme for drinks bottles and cans consumed at home, which of these would be convenient return points for you? At home and Away from home. Base: All adults (Wales) – 1,445.

While large supermarkets were the favoured return point overall, younger survey participants were more in favour of alternative return points for drinks consumed at home than older survey participants; some return points may be inconvenient for older age groups

- 6.4.4. The chart below (see figure 6.7) shows that **older** survey participants more commonly chose large supermarket as a convenient return point for drinks consumed at home than younger survey participants (74% of 55-64 year olds and 78% of those aged 65 and over compared with 59% of 16-24 year olds and 58% of 25-34 year olds). This pattern was not significant for drinks consumed away from home.
- 6.4.5. Younger survey participants were more likely than older ones to select return points situated in alternative locations to large supermarkets. For example, for drinks consumed at home, 31% of 16-24 year olds and 29% of 25-34 year olds selected a machine at a leisure centre or library compared with 17% of those aged 65 and over and again, there was a similar pattern for away from home.

Younger survey participants were also more likely than older ones to say that the option to return containers via an online shopping provider for drinks consumed at home would be convenient (21% of 16-24 year olds and 25% of 25-34 year olds compared with 12% of those aged 65 and over).

6.4.6. The pattern for other alternative locations such as at parks or other public spaces and transport stations was more that these stood out for the oldest age group as being inconvenient. Only 21% of survey participants aged 65 and over selected a machine at a park or other public space as a convenient return point for drinks consumed at home compared with 35-42% across the other age groups and a similar pattern existed for away from home. Similarly, 9% of survey participants aged 65 and over selected a machine at a transport station compared with 16-24% across the other age groups and again this pattern was also found for away from home.

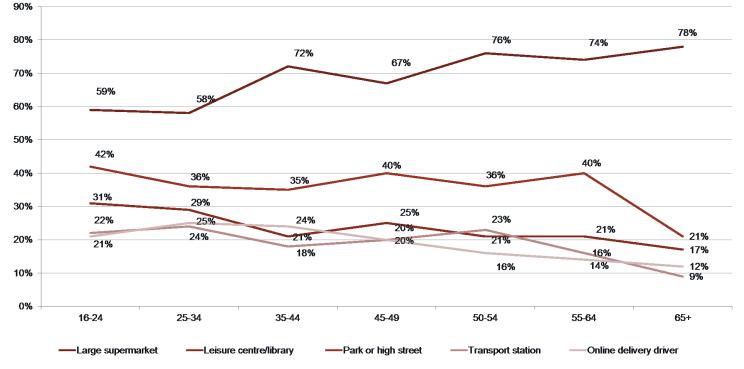


Figure 6.7: Convenient return points for drinks consumed at home by age

(D8) If you were to use a Deposit Return Scheme for drinks bottles and cans consumed at home, which of these would be convenient return points for you? Base: All adults (Wales) (16-24) 145; (25-34) 263; (35-44) 203; (45-59) 114; (50-54) 117; (55-64) 288; (65+) 296.

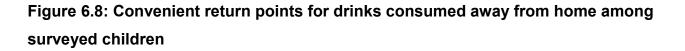
Certain groups were more likely than others to require alternative options to return empty containers than via large supermarkets

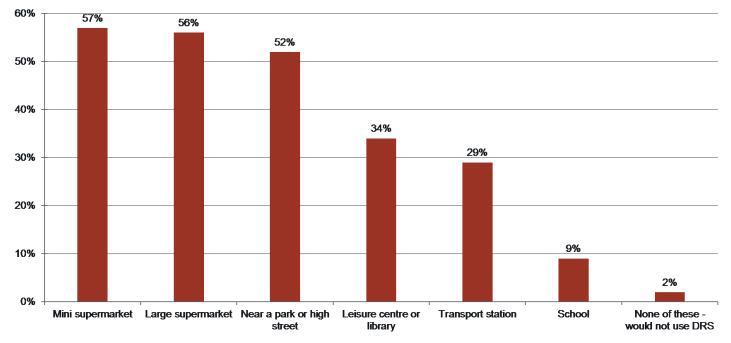
- 6.4.7. Although large supermarkets were the most convenient return point for all the sub-groups surveyed, there were certain groups for whom these were less convenient.
 - Those in lower social grades (DE) were more likely than those in higher social grades (AB and C1/C2) to say that none of the options on the list would be convenient and they would not use a DRS at all; 10% of those in DE said they would not use a DRS at all for drinks consumed away from home compared with 5% in AB and 6% in C1/C2. Section 5.3.3 showed that those in lower social grades (DE) were more likely than those in higher social grades to say they would not use a DRS all of the time because they would have difficulty accessing return points due to issues such as age, disability and lack of transport. This suggests that alternative options (e.g. council collection) may be required for those who may find it difficult to access return points, particularly those with mobility issues and those without access to transport who do not live near a convenient return point.
 - There was one difference by the type of area survey participants lived in. Those who lived in urban areas were more likely than those who lived in rural areas to select transport stations as convenient return points for both drinks consumed at home (19% compared with 14% in rural areas) and away from home (30% compared with 22% in rural areas).
 - Again, although return points at large supermarkets formed the overall preference among survey participants, those who lived in flats were less likely to choose this option (57%) as a convenient return point for drinks consumed at home compared with those living in houses (70%) or other accommodation (75%) and instead were more likely to say that alternative return points would be convenient (this may be linked to the type of area survey participants lived in as flats are more prevalent in urban areas).

- Survey participants who travelled to do their main shop using a household car were more likely to select large supermarket as a convenient return point (74%) compared with those who travel to do their main shop on foot (64%). Those who travelled to do their main shop on foot were more likely to select other alternative return points for drinks consumed at home such as machines at parks or other public places, at leisure centres or libraries and at transport stations than those who used a household car to do their main shop. This pattern broadly followed for drinks consumed away from home where mini supermarkets were also more likely to be selected by those who do their main shop on foot (43% compared with 33% of survey participants who do their main shop via household car).
- 6.4.8. While some of these findings might not be surprising, they provide a reminder that it is important that a variety of return point locations and alternative options (e.g. council collection) are made available to cater for different needs and to ensure particular groups are not disadvantaged by the scheme.

Surveyed children aged 11 to 15 also favoured large supermarkets as the most convenient return point location

6.4.9. Mini supermarket and large supermarket were the most convenient return points for surveyed children aged 11-15 (57% and 56% respectively). A machine at a park or other public space (52%), a leisure centre or library (34%) and at a transport station (29%) were also seen as convenient by sizable groups of child survey participants (see figure 6.8).





(Q0D6) If you were to use a Deposit Return Scheme for drinks bottles and cans consumed away from home, for example, at work, in the car, on public transport, or out and about, which of these would be convenient return points for you? Base: All children (Wales) – 372.

Findings from the qualitative research suggest that participants had some concerns about only locating return points at large supermarkets

6.4.10. For many participants, large supermarkets were considered the most convenient location for returns points, allowing the bulk return of materials from home alongside a weekly big shop. However, those shopping on a more ad hoc basis, which included young unmarried individuals and the more elderly, did not visit large supermarkets as a habit and were resistant to the idea of altering habits. More generally, large supermarket return points were seen as inconvenient for the return of bottles consumed away from home. A minority also raised broader concerns about how concentrating return points in large supermarkets could take away business from smaller shops.

A range of other expectations emerged in the qualitative research around the location and design of return point locations

- 6.4.11. Participants expected the scheme to be designed to accommodate use as far as possible within existing behaviour, with minimal inconvenience. As such, they expected return points at large supermarkets for bulk return to require minimal queueing, with multiple functional machines to accommodate busy periods.
- 6.4.12. They also expected the design of the scheme to as far as possible accommodate the return of materials consumed away from home, to avoid the need to carry empty containers. Here they expected machines to be in areas frequented during the course of the day, such as transport hubs (for instance those encountered during the daily commute), schools and workplaces. Some of those currently shopping online hoped that returns could be accommodated as part of the delivery service, in the same way that plastic bags are at present.

6.5. Views on whether the scheme should use a sliding deposit level and whether it should include all sizes of drinks containers

- 6.5.1. Survey participants were asked two questions about the overall design of a DRS. First, they were asked whether they thought the deposit amount should differ depending on the size of bottle or can. Second, they were asked whether they thought cans and bottles of all sizes should be included in the scheme or whether it should just include smaller ones of less than 750ml.
- 6.5.2. As outlined in the introduction, Defra have proposed two different options for a DRS, the first is an 'all-in' DRS which would mean cans and bottles of all sizes would be included. The second option is an 'on-the-go' DRS which would restrict drinks containers in-scope to less than 750ml in size and sold in single format containers. The rationale behind the 'on-the-go' option is to target drinks containers believed to be most often consumed away from home. Drinks containers consumed and disposed of 'on-the-go' are a key source of litter, the reduction of this litter being one of the key drivers of the introduction of a DRS in England and Wales.

Survey participants had mixed views on whether the deposit amount should differ for smaller and larger cans and bottles

- 6.5.3. Half (50%) of survey participants thought the deposit amount should be the same across all container sizes and 37% thought the deposit amount should differ by size. 14% said they were not sure, indicating a degree of uncertainty about how the scheme would work in practice.
- 6.5.4. In the qualitative research there was generally a preference for a fixed deposit level for the sake of simplicity and clarity, although some participants did question whether a deposit of 10p or 20p would be motivating for more expensive drinks (typically spirits or wine). This idea of a fixed deposit level also extended to multipacks, which participants felt should each carry a single deposit, again in the interest of keeping the scheme consistent and easy to understand. However, some did feel that the cumulative effect of deposits on the price of a multipack would make the cost more apparent and could therefore make them think twice about purchase.

Younger survey participants were more in favour of a sliding deposit scale than older ones

6.5.5. Support for a sliding deposit scale was stronger among younger survey participants (46% of 16-24 year olds preferred a sliding deposit compared with 27% of 65 year olds and over) and this pattern held across age groups. Accordingly, older survey participants felt the opposite with six in ten (60%) 65 year olds or over saying the deposit amount should be the same across all drinks containers regardless of size compared with 44% of 16-24 year olds (see figure 6.9).

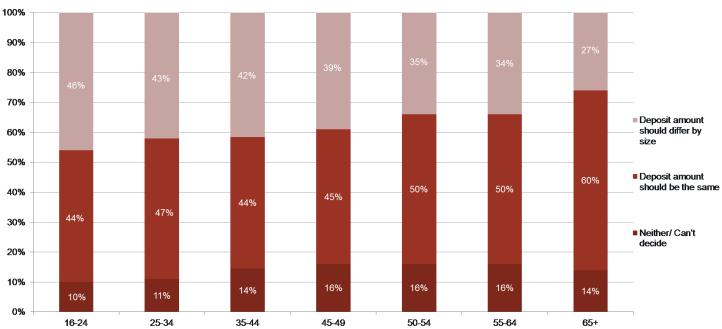


Figure 6.9: Whether deposit amount should differ by size of container by age

(G4) Which of the following statements comes closest to your view? The deposit amount should be lower for smaller items and higher for larger items OR the deposit amount should be the same across all sizes of packaging to keep things simple. Base: All adults (Wales) (16-24) 147; (25-34) 266; (35-44) 206; (45-49) 114; (50-54) 117; (55-64) 288; (65+) 296.

Views on whether the scheme should use a sliding deposit amount were also mixed among surveyed children aged 11 to 15

6.5.6. There was a higher level of support for a sliding deposit scale among surveyed children aged 11-15. Close to six in ten (58%) said the deposit amount should differ depending on size and just over a third (34%) felt it should be the same. A smaller proportion than adults (8%) said they couldn't decide.

Participants were in favour of bottles and cans of all sizes being included in the scheme

6.5.7. Over eight in ten (81%) survey participants were in favour of an 'all-in' DRS compared with only 10% who favoured the 'on-the-go' model and 9% said they could not decide between the two options. Support for an 'all-in' design was even higher among older age groups than for adults overall: 87% of survey participants aged 65 or over were in support of including all sized bottles and cans in a DRS. (see figure 6.10).

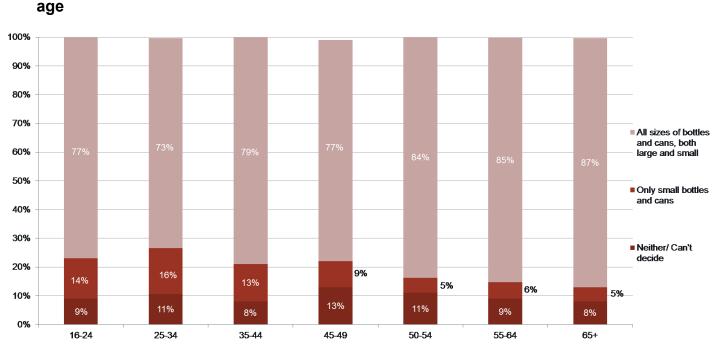


Figure 6.10: Whether deposit amount should include all sizes of cans and bottles by

(G5) Whether or not you would personally use the scheme, which of the following do you think would work best for people in general? The scheme should include all sizes of bottles and cans, both large and small. Base: All adults (Wales) (16-24) 147; (25-34) 266; (35-44) 206; (45-49) 114; (50-54) 117; (55-64) 288; (65+) 296.

6.5.8. The pattern for surveyed children aged 11-15 was broadly similar; 90% said they would prefer the 'all-in' model and only 5% said they would prefer the 'on-the-go' model. A further 5% were undecided.

In the qualitative research, participants also tended to favour the 'all-in' model

6.5.9. When presented with a choice between the 'all-in' and 'on-the-go' models, participants tended to spontaneously favour the 'all-in' model. For the public, there was no clear-cut distinction between the types of drinks containers consumed at home and those consumed away from home, meaning that the distinction between different container sizes for inclusion in a DRS seemed arbitrary and potentially confusing, increasing the sense of disruption. The need for two parallel routines for recycling, with larger containers returned via household recycling and smaller via a DRS, was also seen as inconvenient and unwieldy. Overall, there was a preference for simplicity in the design in order to reduce the need to think about use, and the 'all-in' model was seen to present the least cognitively-demanding and effective model.

6.5.10. With consideration, in the discussion groups some participants switched to a preference for the 'on-the-go' model. However, this was typically accompanied by a lack of support for the scheme and seemed to reflect a desire to reduce the need to engage with the scheme. Alongside this, these participants claimed that they would switch to larger bottles for consumption at home to reduce their need to engage with the scheme.

7. Conjoint analysis

7.1. Conjoint analysis involves the comparison of different DRS 'scenarios' which allows

the most important components to be drawn out relative to each other.

Summary

Findings

- The **location of return points** was the greatest driver in terms of likelihood of use of a DRS, this attribute holding more importance than the other two attributes (deposit amount and time added to the week) combined.
- The second strongest driver of usage of a DRS was the **extra time** added to a week to return bottles and cans where anything more than 20 minutes added to the week was seen as extremely unattractive.
- The message regarding **deposit amount** was a lot less clear it was far less important than the other two attributes and the attribute for which there was the least agreement among participants.
- The 'best' scheme which 91% of survey participants indicated they would use involved: a deposit amount of 10p, a return point at a large supermarket and, the individual would spend up to an extra 10 minutes a week storing and returning the drinks packaging. The overall appeal score was also high at 83.6.
- Despite being the 'worst' scheme in terms of likelihood of usage, two thirds of survey participants (67%) said they would use it. The components were: a deposit amount of 25p, a return point at a transport station and, spending between 20 and 30 minutes each week returning the containers. However, the appeal score was 11.8 showing that while a relatively high proportion of survey participants were prepared to use it, the overall appeal was very low. Therefore, while there may be good intentions to use the scheme, people may well revert to former disposal behaviours and not use a DRS in practice.

Implications

- The overall message from the conjoint exercise was the importance of return points being easily accessible. These should first and foremost be placed at large supermarkets, although it will be important for certain groups that they are also placed in other local and/or central locations.
- Return points should be quick and easy to use.
- The deposit amount is not as important as location of return points and time spent on a DRS each week. However, findings relating to the deposit amount should be interpreted with caution as there is a potential conflict between likelihood of using a DRS and overall preference of design. This means a participant may *prefer* the deposit to be 10p as they would feel happier about 'writing off' the cost, but also say a 20p deposit would make them more likely to *use* a DRS as the higher deposit amount could be an incentive to reclaim the deposit.

7.2. What is conjoint analysis and why is it useful for exploring potential take up of a DRS?

- 7.2.1. Conjoint analysis is a statistical technique that enables better understanding of the most important factors in the decision to use a DRS and what drives these decisions. Survey participants were asked to compare pairs of scenarios where components or 'attributes' of a DRS were combined meaning they were required to assess the components as a package rather than individually (shown in figure 7.1 below). The attributes used were: deposit amount, location of return point and additional time spent over the course of a week to return bottles and cans.
- 7.2.2. The other survey questions asked about each component of the DRS separately, exploring survey participants' preferences of each in turn. The conjoint analysis approach allowed us to take this analysis one step further and tease out which components were most important **relative to one another**. After an introductory screen explaining the task, each survey participant was randomly presented with 4 pairs of scenarios and asked to **choose the one they would be most likely to use**. If neither suited, it was possible to select 'Neither of these'. More detailed information on the conjoint exercise and methodology used can be found in Appendix G.

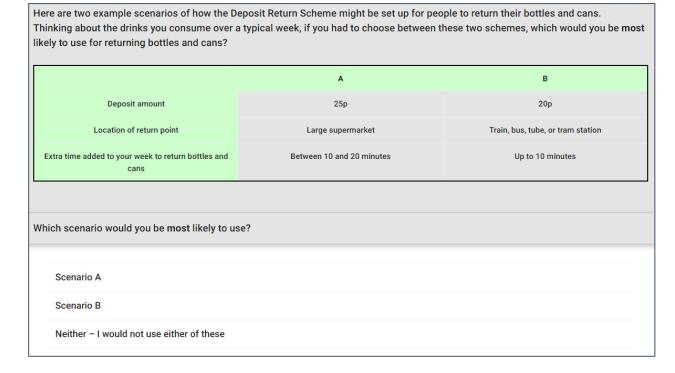


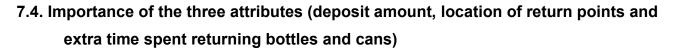
Figure 7.1: Example of conjoint exercise

7.3. Conjoint measures

- 7.3.1. This section draws on three key measures:
- 7.3.2. **Utility score**: while these scores themselves are not particularly meaningful the **gaps between them** are used as relative measures of the value of or the attractiveness of each level across survey participants. They are also used to calculate the overall **importance** of each attribute across the sample, the importance measures expressed as percentages.
- 7.3.3. **Potential usage**: derived from the 'share of preference', this measure provides a percentage showing the proportion of the sample who said they would be prepared to use any particular scenario. The higher the value, the more share the scenario will receive. This percentage can be compared against other scenarios to give a sense of the overall share.
- 7.3.4. Appeal: this number, between 0-100, indicates the overall attractiveness or effectiveness of the scenario and adds context to the potential usage figure. More information on the three measures can be found in Appendix G.
- 7.3.5. Figure 7.2 below shows a real example of these measures. First, the red box indicates how the share of preference was spread across three scenarios. This shows clearly that scheme 1 (10p, large supermarket and up to 10 minutes) received 74% of the preference share when compared with two other schemes and the option to say neither (which received 8% of the preference share). Scheme 1 was, in fact, the scheme survey participants said they were most likely to use overall and scheme 3 the one they were least likely to use (with scheme 2 somewhere in between). The blue box indicates the appeal measure which demonstrates that the appeal for scheme 1 is also very high.

Scheme 1	Scheme 2	Scheme 3	Scheme 4
10 p	15p	10p	25p
Location Large supermarket		Train, bus, tube, or tram station	A park or near a high street
Up to 10 minutes	Between 10 and 20 minutes	Between 20 and 30 minutes	Up to 10 minutes
83.6	54.0	11.8	
74.0	14.5	3.1	
		Wouldn't use any of these options	8.4
	10p Large supermarket Up to 10 minutes 83.6	10p15pLarge supermarketA park or near a high streetUp to 10 minutesBetween 10 and 20 minutes83.654.0	10p15p10pLarge supermarketA park or near a high streetTrain, bus, tube, or tram stationUp to 10 minutesBetween 10 and 20 minutesBetween 20 and 30 minutes83.654.011.874.014.53.1Wouldn't use any

Figure 7.2: Example of conjoint measures



7.4.1. The first step in analysing the conjoint model is to compare the three attributes to help us understand whether deposit amount, location of return points or time spent returning containers holds the most importance to survey participants. Figure 7.3 below shows the relative importance of the three attributes tested in the conjoint exercise. The relative difference between the attributes indicates which are the strongest drivers of likelihood of using a DRS and these differences hold more importance than the actual scores examined in isolation²⁶.

²⁶. It should be noted that the importance of these attributes is based on the specific levels which were tested; should different levels have been tested within each attribute (e.g. a higher deposit amount, alternative return points or longer times added to a week to spend returning bottles and cans) then the importance of the attributes might be different.

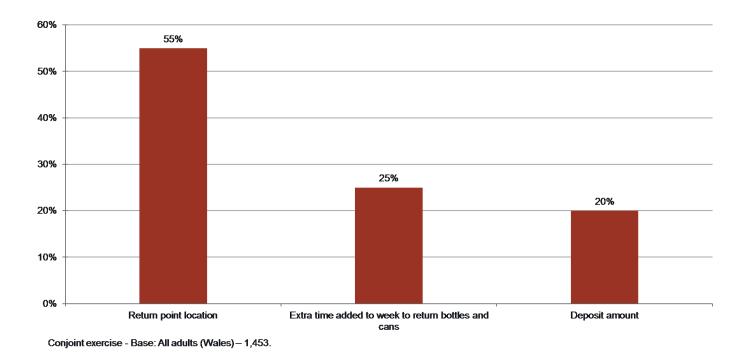


Figure 7.3: Relative importance of attributes in terms of likelihood of use of a DRS

7.4.2. It was very clear that the **location of return points** was the greatest driver in terms of likelihood of use of a DRS, this attribute holding more importance than the other two attributes combined. Survey participants were given four return point options: a large supermarket, a mini supermarket or local shop, a park or near a high street or at a train, bus, tube, or tram station. Figure 7.4 below shows relative preference for these four locations; large supermarket was the clear first choice, followed by mini supermarket, park or high street then transport station. In the survey, participants were asked to identify return points that would suit them and there was the option to choose between specific return point locations and the finding was very clear that participants considered they would be most likely to use a DRS if these were located at large supermarkets. This is not to say that positioning return points in other locations would not be important, rather that when asked to choose between individual return points, large supermarkets were a key location.

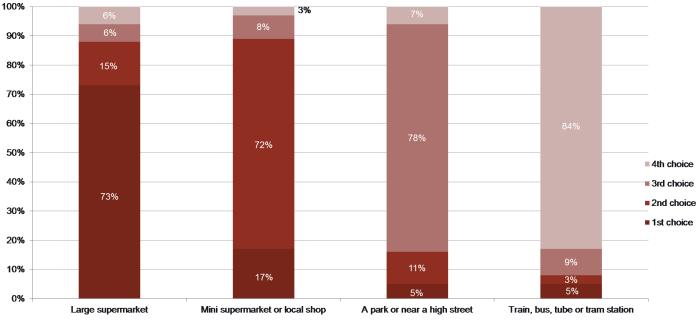


Figure 7.4: Survey participants' choices of return point locations

Conjoint exercise: Return point location - Base: All adults (Wales) - 1,453.

- 7.4.3. The second strongest driver of usage of a DRS was the **extra time** added to a week to return bottles and cans. Survey participants were given options of: Up to 10 minutes, 10-20 minutes and 20-30 minutes.
- 7.4.4. Returning to the utility scores, the gaps between levels at the extra time attribute show clearly how important it is that using the DRS adds as little time as possible to peoples' weeks. As figure 7.5 shows, there was a significant drop between 10-20 minutes and 20-30 minutes, this losing twice as many utility points as the difference between up to 10 minutes and 10-20 minutes. Therefore, the reason time is important is largely connected to just how unattractive the second drop to 20-30 minutes was.

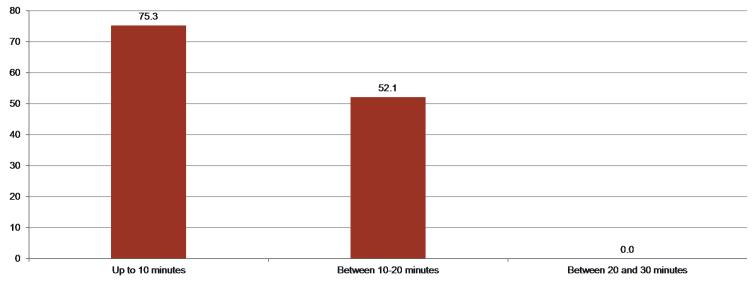
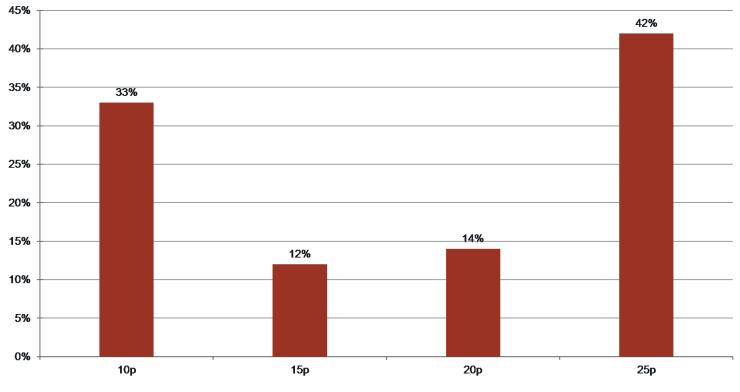
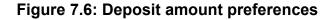


Figure 7.5: Utility scores for the extra time attribute

Conjoint exercise : Extra time attribute - Base: All adults (Wales) - 1,453.

7.4.5. The picture for deposit amount was much more mixed. This was the least important of the three attributes in terms of driving likelihood of using a DRS and the attribute for which there was the least agreement among participants. Figure 7.6 shows how survey participants' answers indicated the overall effectiveness of each deposit amount in driving likelihood of usage of a DRS. The most effective deposit amount was 25p (42%) followed by 10p (33%) showing support for both ends of the scale. This finding differs to that found in the survey where there was greater support for deposit levels of 10p and 20p; however, perhaps this is unsurprising due to the context of each. The survey and qualitative research both focused on the deposit level participants preferred and this may differ considerably to the deposit level participants consider would make them most likely to use a DRS, which was the focus of the conjoint exercise. The difference between the two sets of findings may show some participants were able to think about both preference and likelihood of usage and lends support for the use of a combination of survey questions and a conjoint exercise within this exploratory work surrounding a DRS.





Conjoint exercise: Deposit amount - Base: All adults (Wales)-1,453.

7.5. Key messages on the importance of the three attributes

- 7.5.1. There is a straightforward message in terms of return point location and extra time survey participants were prepared to spend each week returning their bottles and cans.
 - Location of return points was the top priority, the location most likely to lead to usage of the DRS being large supermarket.
 - Time was the second priority with a clear relationship shown between time spent using a DRS and likelihood of usage (i.e. the less time it took out of participants' weeks to use the scheme, the greater the likelihood that they would use it).
- 7.5.2. As mentioned in section 6.2, deposit amount however, is more complicated to interpret; survey participants were asked which of two hypothetical DRS scenarios they would be most likely to use. This differs to asking them to choose which scheme they preferred. While this distinction is unlikely to affect the

answers regarding return point locations and extra time added to their week to return bottles and cans for deposit amount these answers could be quite different.

- 7.5.3. Due to this conflict between likelihood of use and preference, it is expected that some survey participants considered likelihood of use as we intended and some thought more in terms of their preference. Some participants may have used a mixture of the two strategies. This potential conflict should be borne in mind when interpreting findings from the conjoint exercise.
- 7.5.4. To summarise, the results from the conjoint analysis indicate that return point location will be the key driver of usage of a DRS and keeping time spent returning bottles and cans to a minimum will be very important. The message regarding deposit amount was a lot less clear, it was not as important as the other two attributes and there was disagreement among participants on the most effective level.

7.6. The 'best' and 'worst' DRS models

- 7.6.1. There were 48 possible scheme combinations from the range of components included in the conjoint exercise. These are listed in order of likelihood of usage in Appendix G. The 'best' scheme is defined here as the scheme that had the highest potential usage score (i.e. the scheme which had the most survey people say they would use it). 91% of survey participants indicated they would be most likely to use the 'best' scheme, which involved: a deposit amount of 10p, a return point at a large supermarket and, the individual would spend up to an extra 10 minutes a week storing and returning the drinks containers. The appeal measure was 83.6 and 9% said they would not use it.
- 7.6.2. The 'worst' scheme design involved: a deposit amount of 10p, a return point at a transport station and, spending between 20 and 30 minutes each week returning the containers. Just over two thirds of survey participants (67%) said they would use the 'worst' scheme indicating a high level of motivation to use the DRS whatever the design. However, the appeal level was very low at 11.8 suggesting that while survey participants have good intentions to use the scheme, this may

lead to people reverting to former disposal behaviours and not using a DRS in practice.

	Attributes/levels	Potential usage	Appeal
Best scheme	10p Large supermarket Up to 10 minutes	91%	83.6
Worst scheme	10p Transport station Between 20-30 minutes	67%	11.8

Figure 7.7: 'Best' and 'worst' DRS models within the conjoint exercise

- 7.6.3. As shown, 9% of survey participants rejected the 'best' DRS. Looking in a little more detail at how the 'Neither of these' option was selected, 6% of survey participants used this option to reject both scenarios at every question and 72% selected either scenario A or B at every question. This left 21% who sometimes chose a scenario and sometimes chose 'Neither of these' and it is these participants who drive the differences in terms of potential usage.
- 7.6.4. In line with findings throughout this report, participants who fell into some of the groups that rejected both scenarios at every question were more likely than those who selected a scenario at all four questions to be non-car owners or use another method of transport to do their main shop than on foot or using their own car. As expected, those who opposed a DRS were much more likely to reject both scenarios or one or more questions.
- 7.6.5. Subgroup analysis of the 'best' and 'worst' schemes can be found in Appendix G.

7.7. Key findings from the conjoint exercise

7.7.1. The overall message from the conjoint exercise was the importance of return points being easily accessible and that, in keeping with the findings from the survey questionnaire, these should first and foremost be placed at large supermarkets, although it will be important for certain groups that they are also placed in other local and/or central locations. The scheme should be quick and easy to use, it is important that people are not required to add much time to their week to return bottles and cans. The amount of the deposit is not as important as location of return points and time spent on a DRS each week; results surrounding deposit amount should be interpreted carefully given the potential conflict surrounding likelihood of usage of a DRS and overall preference of design.

8. Recommendations for the scheme design

8.1. This research explored consumer's attitudes towards the concept of a DRS and their stated behavioural response, to ensure that the public's view is incorporated into the design of any future scheme. In interpreting these responses, it is important to bear in mind that public views and behaviours are likely to shift as the context in which they are responding changes, including in response to the launch of the scheme itself. For example, research has shown that support for the plastic bag charge increased following its launch, with spill over effects on attitudes towards other charges to reduce plastic waste²⁷. Given support for the underlying rationale of the scheme to reduce plastic waste and littering, there are good reasons to believe that a similar effect could take place in response to a DRS scheme. That said, any response will also depend on how the scheme is executed, and this research suggests a range of areas in which the design and communications could be optimised to accommodate public views and concerns if a decision is made to progress with a DRS initiative in Wales.

8.2. Communicating the scheme

8.2.1. Support for the scheme was high amongst survey participants and also when initially shown to participants in the qualitative research. It was seen to tackle a relevant issue – plastic waste – and tapped into nostalgic feelings around glass bottle return schemes. However, with greater consideration, participants began to consider the practicalities surrounding the reality of using a DRS and potential time or financial cost. Given that the majority had already established routines for recycling at home and felt they recycled away from home when presented with the option, use of the scheme was seen to require considerable effort on the part of consumers with no clear benefits. As such, many participants questioned whether it would not be preferable to simply improve on-street recycling facilities to capture out-of-home waste. Some also worried that they would no longer be able to recycle from home in future even if that was their preference due to a roll back of council collection services. There is a risk that the journey experienced by participants in the qualitative research could be

²⁷ See for example Thomas, Gregory Owen et al. (2019) <u>The English Plastic Bag Charge Changed Behavior</u> and Increased Support for Other Charges to Reduce Plastic Waste. Frontiers in psychology vol. 10:266

replicated amongst the wider public following launch without clear communication of the environmental benefits of the scheme and the wider government approach to tackling plastic waste. It will be important that communications about the scheme provide information helping to address these concerns.

- Highlight the benefits: Provide a clear reason to believe and actively
 participate in the scheme by placing a strong emphasis in communications on
 the environmental benefits of recycling through the DRS compared to
 alternatives (e.g. kerbside and on-street recycling) and around tackling littering
 in local areas.
- **Contextualise the consumer role:** Ensure that consumers don't feel unfairly targeted by the scheme by stressing in communications the actions that businesses and governments are also taking to help reduce plastic waste, within the scheme but also more widely.
- Reassure about current practices: Aim to make it clear that kerbside recycling will continue to collect all recyclable material and that people will still be able to recycle in that way if it is more convenient (and they are willing to forego the deposit).
- Be informed by behavioural insights: Any communication materials would benefit from being informed by behavioural insight science in order to positively affect behaviour. Providing information alone is unlikely to encourage the uptake of a DRS.

8.3. 'All-in' vs 'On-the-go'

8.3.1. Away from home and in-home consumption was not restricted to containers of a specific size: the consumption of all drinks containers is higher at home than away from the home, with the exception of small plastic bottles where they are broadly similar, and large containers are also consumed away from home on occasion by nearly half of people. As such, the 'all-in' and 'on-the-go' scheme designs do not fit with natural patterns of behaviour amongst consumers. When the different designs were explained to participants, the majority preferred the

'all-in' model, as it is simple, without the requirement to develop separate behaviours for different types of material. This was felt to be cognitively less onerous, and many participants felt that they would be more likely to engage with the scheme if they knew it applied to all drinks containers. This preference for simplicity extended to the design of the deposit level, where there was a preference for a uniform level across different container types (including multipacks in the qualitative research). Including all container sizes within the scope of the scheme also feels likely to drive effectiveness of the scheme and reduce confusion.

- 8.3.2. Recycling and disposal behaviours are highly habitual and creating frequent opportunities for use is more likely to lead to use becoming part of disposal routines. Creating one uniform rule around disposal is also more likely to lead to containers consumed away from home being brought home to recycle later in a DRS with other materials from home if there is no immediate return point at the time the drink is consumed. Finally, the qualitative research suggests that an 'on-the-go' model risks creating market distortions, as people switch to large bottles from cans or small bottles for drinks consumed at home, or switch to cartons for consumption away from home.
 - **Keep it simple:** Base the design around the 'all-in' model in order to reduce the cognitive load on the public, instil habitual behaviour and minimise market effects. This focus on simplicity should ideally extend to all aspects of the scheme, including deposit level.

8.4. Return points

8.4.1. Use of a DRS is likely to be greater if it can reduce the demands for behaviour change from the public – and as such a clear public priority for the scheme design was that it should be quick and easy to use, with a low claimed threshold for inconvenience in terms of queueing or otherwise spending time on returns. There was a clear preference in the survey and conjoint analysis for return points to be located at large supermarkets, most likely so that bulk returns can be incorporated into the weekly shop. However, in the qualitative research, this created concerns about access for those without cars or who do not shop at large supermarkets, and this was supported by the survey findings which

indicated particular groups may find it more inconvenient to access return points at large supermarkets. As such, there was a demand for alternative return points, via smaller high street shops or other centrally located return points in areas with high footfall (e.g. transport stations and parks or high streets). In terms of effectiveness, there are also questions about how well return points at large supermarkets will be able to capture waste consumed away from home. Finally, in the qualitative discussions, some participants raised concerns about how concentrating returns at large supermarkets could take customers away from smaller businesses.

- Make bulk returns quick and easy: Many expect to return their containers in bulk as part of their main shop, so there will be a need to ensure that there are multiple return points at large supermarkets that are well maintained and monitored to reduce queuing times.
- Ensure broad access: To ensure broad access to the scheme, there will also be a need for return points at locations that are accessible by those without a car or who for other reasons might struggle to access supermarkets with their returns due to accessibility issues. Machines located in areas of high footfall will be vital and we also suggest collections by online delivery driver or council collections for the most vulnerable. It may also be worth considering a scheme that is designed to work with existing local authority collections for drinks consumed at home to reduce the burden on consumers.
- Think about away from home disposal: As most claimed in the qualitative research that they are unlikely to go out of their way to return a single container when away from home, there is likely to be a need for a large number of away from home return points (e.g. in all shops where drinks can be purchased) to facilitate these returns. If this is not possible then communications could be used to help encourage new social norms about taking containers home to recycle with other materials, although this is likely to be less effective, particularly in the short term.

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8.5. Deposit level

- 8.5.1. The deposit level needs to act as an incentive for use of a DRS. If it is too low then it is unlikely to be motivating and is more likely to be absorbed into costs and forfeited. Conversely, if it is too high then it is likely to start to affect purchase decisions and can be perceived as punitive on those with lower incomes and for those groups who will find it more inconvenient to return empty drinks containers. Thresholds varied across individuals: in the survey 10p and 20p gained equal support (though it is unclear from this which would be most effective at driving behaviour); in the qualitative research 15p to 25p was generally seen as motivating without affecting behaviour, although some felt that anything above 10p would start to penalise those on lower incomes or with reduced access to return points. The conjoint analysis, which focused on likelihood of usage rather than preferred deposit level, showed 10p and 25p as the most effective amounts. Regardless of the precise level of deposit, the effectiveness of the deposit to drive behaviour depends on how it is framed and the value that it is therefore attached to the act of making the return. Some clear guidelines emerged within the qualitative research about how the deposit could be framed to maximise its effectiveness. Likewise, although there was a preference for cash returns in the survey, the qualitative research highlighted that a choice of return options may help to drive a sense of value.
 - Use round numbers: The sense of value to use of a DRS increases when people are made to think in terms of the value of multiple deposits – using a round number, such as 20p, for the deposit level allows people to easily 'chunk' up the value of deposits and increases the sense of value to use.
 - Leverage loss aversion: Leverage the fact that people react more strongly to the loss of something they already own by making the deposit paid very clear at the point of sale and on containers – e.g. this is already your money, all you need to do is claim it back (or you lose it).
 - Offer a choice of refund methods: Although most felt that cash returns were necessary to ensure broad accessibility, offering a choice will carry some benefit. Some preferred the convenience of returns to a debit card, and other

routes were also seen to offer benefits e.g. charity returns could make the value more tangible and provide a feel-good factor; an app could help people to track the value of their returns over a long period and create a sense of accumulated value, as well as provide information about the scheme, such as location of return points.

Appendix A: Achieved qualitative sample

Depth Interviews

	Bridgend /Cardiff	Wrexham	London	Newcastle	Leeds	Bristol	Totals
Age							
16-24	1	1	1	1	1	1	6
25-39	1	1	2	1	2	1	8
40-59	1	1	2	1	2	1	8
60-69	1	1	1	0	1	1	5
70 +	1	1	0	1	0	0	3
Housing type							
house owners	2	3	2	2	2	2	13
flat owners in blocks	1	0	1	1	1	1	5
flat private renters in blocks;	1	1	2	0	1	1	6
social housing (house or flat)	1	1	1	1	2	0	6
Car ownership							
Car owners	3	3	3	2	3	2	16
non car owners	2	2	3	2	3	2	14
Urban/rural*							
urban	0	1	5	0	5	2	13
peri- urban/suburban	2	0	1	2	1	2	8
small town or rural	3	4	0	2	0	0	9
Social grade							
BC1	2	2	5	2	1	2	14
C2DE	3	3	1	2	5	2	16
Sex							
male	1	2	3	1	4	2	13
female	4	3	3	3	2	2	17
Total	5	5	6	4	6	4	30
Children							
Depths with child aged 11- 15 of any adult respondent	1	1	1	1	1	1	6

*self-defined

Discussion Groups

	Age	Location	England /Wales	Recycling behaviour*	Area
1	16-24	Urban	England	NON- CONSCIENTIOUS	London
2	16-24	Peri-urban	N Wales	CONSCIENTIOUS	Wrexham
3	25-39	Peri-urban	England	NON- CONSCIENTIOUS	Bristol
4	25-39	Urban	S Wales	NON- CONSCIENTIOUS	North Cardiff
5	25-39	Small town/rural	England	CONSCIENTIOUS	Manchester
6	40-59	Peri-urban	S Wales	CONSCIENTIOUS	North Cardiff
7	40-59	Small- town/rural	England	NON- CONSCIENTIOUS	Manchester
8	40-59	Urban	England	CONSCIENTIOUS	London
9	60+	Peri-urban	England	CONSCIENTIOUS	Bristol
10	60+	Small- town/rural	N Wales	NON- CONSCIENTIOUS	Wrexham

* Defined according to definition adapted from the WRAP recycling attitudes tracker.²⁸

In response to the question 'Which of the following statements do you feel most closely describes you?' those selecting statement 1 (representing 51% of the UK population according to WRAP's Spring 2018 tracking survey) were defined as **conscientious** and those selecting statement 2-5 were defined as **non-conscientious**.

- 1. I want to be a really good recycler and I take the trouble to ensure that I'm doing everything right
- 2. Recycling is a good thing, but I don't spend too much time worrying about it the same things go in every week and I feel like I'm doing my bit
- 3. Recycling is good in principle but for various reasons I don't really do it as much as I ought to
- 4. I'm not sure recycling is that worthwhile to be honest. It's not going to make a difference whether I take the time or not
- 5. I disagree with recycling I don't see the point

²⁸ <u>Recycling Tracker Report</u>

Appendix B: Qualitative Topic Guides

DEFRA - Deposit Return Scheme Research

Depth Interview Topic Guide

Background to the research

Deposit Return Schemes (DRS) operate on the basis that consumers pay an upfront deposit when purchasing a product packaged in a container – such as a can or plastic bottle. This deposit can then be redeemed when the container is returned. This encourages the return of packaging, enabling it to be recycled. Typically, containers are returned to supermarkets and shops, either at a counter or automated reverse vending machine. Schemes such as this already operate in other countries, such as Canada, Germany and the Scandinavian states.

Following a call for evidence on measures to reduce littering of drinks containers and promote recycling, Defra has confirmed that, subject to consultation, it will introduce a DRS scheme in England, and is currently developing proposals on the model, scope and scale of a DRS. The Welsh Government has not committed to a scheme but is also interested in how best to implement a DRS, should it be decided to introduce one in Wales.

The materials currently proposed to be in scope are plastic bottles, glass bottles and metal cans for all soft drinks (including water and juice), alcoholic drinks and milk-containing drinks (but not milk itself or plant-based drinks such as soya). Beyond this there are two potential DRS models being proposed: one which places a deposit on all cans and bottles below 750ml ('on-the-go') and one which places a deposit on all cans and bottles irrespective of their size ('all-in'). The deposit level itself has not been set and is subject to consultation, including whether there should be one flat deposit fee or if it should vary across container or product types.

This objective of this research is to understand how consumers in England and in Wales are likely to respond to the introduction of a DRS scheme and how this is likely to vary depending on the design of the scheme. Ultimately, it will provide evidence to inform the effective design of a DRS scheme in England and potentially Wales.

More specifically, the research aims to understand:

- What are **consumer attitudes** towards a DRS in principle (both 'all-in' and 'on-the-go')?
- How are consumers **likely to use** both types of DRS in practice?
- How should a DRS be **designed**, **delivered** and **communicated** to maximise takeup and minimise potential barriers to usage, including the most effective deposit level?
- What are levels of take-up, for different DRS designs, likely to be?

The research will proceed across a series of interlinked stages:



Objectives for this stage

The specific aims for this stage of the research are to understand:

- Current behaviours around the disposal of containers and the underlying drivers of these
- Existing awareness of the DRS concept and attitudes towards the idea
- Likely usage of a DRS scheme and how this may differ depending on design

All participants will have completed an auto-ethnography pre-task prior to their interview, using a mobile app to record all the in-scope drinks that they have purchased and disposed of the packaging for over the course of the preceding week. The outputs from this pre-task will be used to stimulate the initial section of the conversation. Please note that participants have not been informed or asked about their views of a DRS scheme as part of this pre-task.

For some interviews, we will also interview a child within the household – please use the separate abridged guide for this interview.

NB please note that Iceland/Morrisons have recently run a scheme in some of their stores in which participants can return used containers in return for store rewards. This scheme works on a different mechanic (e.g. no deposit) and so we are not interested in responses specifically about this, but participants may have come across this so do be prepared to talk about how this differs and what that might mean for use/effectiveness/acceptability.

Stimulus & materials list

- Dictaphone
- Pen and A4 paper
- Signature sheet / GDPR form
- Pre-task print-outs
- DRS concept description
- DRS design scenarios

Please note, this guide is not a script and is intended to be used flexibly, with participant responses guiding the conversation flow, topics covered in the order that they naturally arise

Moderators will use additional follow-ups throughout to understand what is driving response (e.g. WHY do participants feel/act the way they do?)

1. Introduction	(2 mins)
-----------------	----------

Introduce research, reassure about confidentiality and set tone of discussion

• Warm up and introduction

- Introduce moderator and Kantar Public an independent social research agency
- Research on behalf of Defra/Welsh Government to understand how people currently dispose of drinks containers and their views on alternative approaches to this
- Thank for completing pre-task explain that we will look at what they have done today
- Length 90 mins
- No right or wrong answers interested in honest views.
- Research is voluntary you can stop participating any time
- The information will be used for research purposes only
- Research is confidential and anonymous your personal details will not be shared and although a report will be published no one will be identified within that
- Recording
 - Ask participant for permission to record, then start recording and confirm consent
 - Any questions?

2. Warm up

(5 mins)

(25 mins)

Warm up participants and establish rapport

• Participant introductions

- Name, occupation, who they live with
- One thing they like/dislike about their local area
- Favourite drinks / drinks they buy most regularly

Establish current behaviour and the drivers of this

Moderator to refer to pre-task responses to explore range of disposal 'journeys' (e.g. from purchase \rightarrow Use \rightarrow disposal), mapping out each on paper so that they can be referred to later

- Overall experience of pre-task
 - How did they find this?
 - Was it a typical week? If not then what was different?
 - Anything that surprised them completing the exercise
- Journey mapping ask participant to talk through different examples of purchase / disposal from their pre-task to identify different journey 'types' NB in this section aim to encourage respondents to discuss behaviour that is not 'correct' e.g. leaving empty can on train to discuss in later sections
 - What was each container made of (glass, plastic bottle, disposable cup or can)?
 - What was the size?
 - Where did they purchase?
 - Where did they consume?
 - Where did they dispose of the container?
 - In-home / on-street bin / bin elsewhere
 - Not in bin e.g. left on train / on street etc.
 - Recycling / non-recycling / not sure
 - For each occasion aim to understand underlying drivers
 - Convenience
 - Environmental considerations
 - Habit (do they always do it that way/do they think about it?)
 - Social setting (does who they are with influence behaviour?)
 - Setting (does the availability of disposal points influence behaviour?)
 - Any others?
 - Was this a typical experience?
 - Are there other similar examples from their pre-task

Repeat until all journeys are covered then probe if there are any more situations in which they sometimes buy drink in containers that are not covered here and repeat for them

- Probe around effect of seasonality – e.g. differences in Summer etc.

NB ensure that you cover journeys for both smaller and larger containers (750ml and above)

- **Reflection on journeys –** ask participant to think back over different journeys
 - Overall, what are the most important factors driving their decision about where to dispose of the container?
 - Explore relative role of drivers
 - Convenience

- Environmental considerations
- Habit (do they always do it that way/do they think about it?)
- Social setting (does who they are with influence behaviour?)
- Setting (does the availability of disposal points influence behaviour?)
- Any others?
- How does behaviour/drivers differ across the journeys?
 - Role of setting of consumption out-of-home/in-home/elsewhere
 - Role of container size smaller and larger
 - Role of container type glass bottle/plastic bottle/disposable cup/can
 - Gauge Influence of whether container is reclosable

4. Attitudes to recycling and DRS concept (15 mins)

Focus in on attitudes towards recycling and introduce DRS concept

• Briefly, attitudes to recycling

- How do they feel about recycling?
 - For those that feel it is important, explore why...
 - Environmental concerns
 - Social contract 'right thing to do'
 - Influence of other e.g. kids
 - For those that don't feel it is important, explore why not...
 - E.g. time, effort, feeling that others don't do it so why bother
- Refer to mapping exercise what is driving recycling behaviour on some occasions and not on others?
 - Role of setting of consumption out-of-home/in-home/elsewhere
 - Role of container size smaller and larger
 - Role of container type glass bottle/plastic bottle/can

Moderator explain that the English/Welsh Government is considering introducing a new approach to recycling drinks containers, which we would like to get their response to and show DRS concept

• Response to DRS concept

- Spontaneous responses
- Have they heard of this kind of scheme in the past? If so, where?
- Can they describe it in their own words?
- Have they experienced this kind of scheme? If so, where and how was experience?
- How do they feel about this being introduced?
- Is it a good idea? Why/not? Should the government go ahead?
- Any concerns?

5. Behavioural Impact Mapping

(20 mins)

Explore potential impact of xxx DRS scheme designs on disposal behaviour

Moderator explain that we would now like to explore what impact the introduction of a DRS scheme might have on their behaviour

Introduce first DRS scenario and explore reactions – rotate order across interviews

• Response to DRS concepts

- Briefly how would they feel if this was introduced?
- Would they use it?
- Refer to key journeys identified in section 3 and explore impact on behaviour
 - For which would they use the DRS? Why these?
 - What would this replace?
 - How would they use it? E.g. collect in bulk or on more piecemeal basis?
 - What would 'work' and what would not?
 - Are there any journeys for which they would not use the DRS? Why not?
- Throughout refer to earlier behavioural influences to understand what is driving behaviour
 - Convenience
 - Environmental considerations
 - Habit (do they always do it that way/do they think about it?)
 - Social setting (does who they are with influence behaviour?)
 - Setting (does the availability of disposal points influence behaviour?)
 - Any others?
- Ensure that we understand the role of deposit level here how important is this as a behavioural motivator?
- NB ensure coverage of different journey types
 - Role of setting of consumption out-of-home/in-home/elsewhere
 - Role of container size smaller and large
 - Role of container type glass bottle/plastic bottle/can
 - Gauge role of whether the container is re-closable

Repeat for alternative scenario

Location

scheme is in encouraging them to use it?

Overall views on effectiveness of scenarios

recycle via the DRS?

Deposit level

Design effectiveness

_

• To what extent is convenience important?

What level seems reasonable to them?

• Would they behave differently if they had to travel further to recycle?

How high does this need to be to make recycling worthwhile?

Does a higher price make it more likely they will recycle?

- Where would they expect/hope to see return points?
- Deposit return type
 - What difference could this make to recycling behaviour?
 - Do they have a preferred method of redeeming deposits?
 - Probe: Cash; direct to card; shop vouchers; charitable donations

Design preference

- Thinking of the different elements, how would they design their own scheme?
 - Deposit level
 - Location
 - Deposit return type
- Does this differ from that which they feel will be most effective?

Moderator explain that there are two ways in which a Deposit Return Scheme can done. In many of the international models a deposit is paid on all bottles, cans and disposable cups, whatever the size, or there is another option where the deposit is only paid on bottles, disposable cups and cans <u>below 750ml</u>.

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Explore what design elements are most likely to drive behaviour change

considerations when designing the scheme so we would like to explore some of these

Which of the scenarios shown do they think would be most likely to get them to

Thinking of both of the scenarios, how important do they think the design of the

Which of the scenarios would be most likely to get them to recycle more in

general - i.e. things they are not currently recycling at home?

Moderator explain that the government will have to consider a range of different

(20 mins)

6. Design prioritisation

choices

• Scheme options

- Which of these do they prefer? Why?
- What might 'work' and what would not?
- What do they think is the government's rationale here?

6. Final thoughts

(3 mins)

Collect final thoughts and close interview

- Any final advice for the Government on how this should be implemented?
- Any concerns that they want to pass on to the Government
- Anything else they would like to discuss/share
- Confirm incentive process £75 either as an online (PERKS) voucher or as a PayPal payment as arranged with recruiter

Close

DEFRA - Deposit Return Scheme Research

Depth Interview (young people) Topic Guide

Background to the research

Deposit Return Schemes (DRS) operate on the basis that consumers pay an upfront deposit when purchasing a product packaged in a container – such as a can or plastic bottle. This deposit can then be redeemed when the container is returned. This encourages the return of packaging, enabling it to be recycled. Typically, containers are returned to supermarkets and shops, either at a counter or automated reverse vending machine. Schemes such as this already operate in other countries, such as Canada, Germany and the Scandinavian states.

Following a call for evidence on measures to reduce littering of drinks containers and promote recycling, Defra has confirmed that, subject to consultation, it will introduce a DRS scheme in England, and is currently developing proposals on the model, scope and scale of a DRS. The Welsh Government has not committed to a scheme but is also interested in how best to implement a DRS, should it be decided to introduce one in Wales.

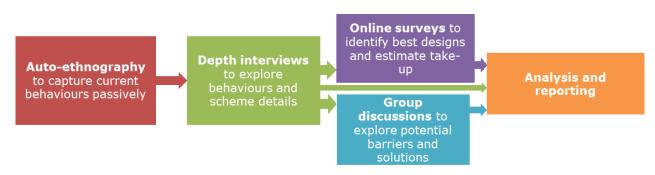
The materials currently proposed to be in scope are plastic bottles, glass bottles and metal cans for all soft drinks (including water and juice), alcoholic drinks and milk-containing drinks (but not milk itself or plant-based drinks such as soya). Beyond this there are two potential DRS models being proposed: one which places a deposit on all cans and bottles below 750ml ('on-the-go') and one which places a deposit on all cans and bottles irrespective of their size ('all-in'). The deposit level itself has not been set and is subject to consultation, including whether there should be one flat deposit fee or if it should vary across container or product types.

This objective of this research is to understand how consumers in England and in Wales are likely to respond to the introduction of a DRS scheme and how this is likely to vary depending on the design of the scheme. Ultimately, it will provide evidence to inform the effective design of a DRS scheme in England and potentially Wales.

More specifically, the research aims to understand:

- What are **consumer attitudes** towards a DRS in principle (both 'all-in' and 'on-the-go')?
- How are consumers likely to use both types of DRS in practice?
- How should a DRS be **designed**, **delivered** and **communicated** to maximise takeup and minimise potential barriers to usage, including the most effective deposit level?
- What are levels of take-up, for different DRS designs, likely to be?

The research will proceed across a series of interlinked stages:



Objectives for this stage

The specific aims for this stage of the research are to understand:

- Current behaviours around the disposal of containers and the underlying drivers of these
- Existing awareness of the DRS concept and attitudes towards the idea
- Likely usage of a DRS scheme and how this may differ depending on design

This guide is for interviews with young people to follow the main householder interviews. The interview will cover similar ground but is abridged to fit the timeline and does not refer to the pre-task, as young people will not have completed this.

NB please note that Iceland/Morrisons have recently run a scheme in some of their stores in which participants can return used containers in return for store rewards. This scheme works on a different mechanic (e.g. no deposit) and so we are not interested in responses specifically about this, but participants may have come across this so do be prepared to talk about how this differs and what that might mean for use/effectiveness/acceptability.

Stimulus & materials list

- Dictaphone
- Pen and A4 paper
- Signature sheet / GDPR form
- Pre-task print-outs
- DRS concept description
- DRS design scenarios

Please note, this guide is not a script and is intended to be used flexibly, with participant responses guiding the conversation flow, topics covered in the order that they naturally arise

Moderators will use additional follow-ups throughout to understand what is driving response (e.g. WHY do participants feel/act the way they do?)

1. Introduction	(2 mins)
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Introduce research, reassure about confidentiality and set tone of discussion

• Warm up and introduction

- Introduce moderator and Kantar Public an independent social research agency
- Research on behalf of Defra/Welsh Government to understand how people currently dispose of drinks containers and their views on alternative approaches to this
- Thank for completing pre-task explain that we will look at what they have done today
- Length 45 mins
- No right or wrong answers interested in honest views.
- Research is voluntary you can stop participating any time
- The information will be used for research purposes only
- Research is confidential and anonymous your personal details will not be shared and although a report will be published no one will be identified within that
- Recording
 - Ask participant for permission to record, then start recording and confirm consent
 - Any questions?

2. Warm up

(3 mins)

Warm up participants and establish rapport

• Participant introductions

- Name, hobbies/interests, who they live with
- One thing they like/dislike about their local area

3. Explore current behaviours

(10 mins)

Establish current behaviour and the drivers of this

Moderator to explore purchase and disposal behaviours and map these out

• Consumption habits

- Thinking of a typical week, what drinks do they typically consume that comes in a plastic or glass bottle, can or disposable cup?
- Who makes purchasing decisions in the household? Do they buy any of their own drinks? Do they make decisions on what is purchased?

Moderator to explain that we would now like them to think back over the last week to times when they have drunk and disposed of a drink in a plastic or glass bottle, can or disposable cup. If possible ask them to think of journeys where they have purchased as well as those where they have consumed drinks taken from home.

- Disposal journeys for each record, aim to capture around 3
 - What was each container made of (glass, plastic bottle, disposable cup or can)?
 - What was the size?
 - Where did they purchase/receive?
 - Where did they consume?
 - Where did they dispose of the container?
 - In-home / on-street bin / bin elsewhere
 - Not in bin e.g. left on train / on street etc.
 - Recycling / non-recycling / not sure
 - For each occasion aim to understand underlying drivers
 - Convenience
 - Environmental considerations
 - Habit (do they always do it that way/do they think about it?)
 - Social setting (does who they are with influence behaviour?)
 - Setting (does the availability of disposal points influence behaviour?)
 - Any others?
 - Was this a typical experience?

4. Attitudes to recycling and DRS concept (15 mins)

Focus in on attitudes towards recycling and introduce DRS concept

- Briefly, attitudes to recycling
 - How do they feel about recycling?
 - For those that feel it is important, explore why...
 - Environmental concerns
 - Social contract 'right thing to do'
 - Influence of other e.g. parents
 - For those that don't feel it is important, explore why not...
 - E.g. time, effort, feeling that others don't do it so why bother
 - Explore any differences with parents and drivers of this
 - Refer to mapping exercise what is driving recycling behaviour on some occasions and not on others?
 - Role of setting of consumption out-of-home/in-home/elsewhere
 - Role of container size smaller and larger
 - Role of container type glass bottle/plastic bottle/can

Moderator explain that the English/Welsh Government is considering introducing a new approach to recycling drinks containers, which we would like to get their response to and show DRS concept

Response to DRS concept

- Spontaneous responses
- Have they heard of this kind of scheme in the past? If so, where?
- Can they describe it in their own words?
- Have they experienced this kind of scheme? If so, where and how was experience?
- How do they feel about this being introduced?
- Is it a good idea? Why/not? Should the government go ahead?
- Any concerns?

5. Behavioural Impact Mapping

(10 mins)

Explore potential impact of xxx DRS scheme designs on disposal behaviour

Moderator explain that we would now like to explore what impact the introduction of a DRS scheme might have on their behaviour

Introduce first DRS scenario and explore reactions – rotate order across interviews

Response to DRS concepts

- Briefly how would they feel if this was introduced?
- Would they use it?
- Refer to key journeys identified in section 3 and explore impact on behaviour
 - For which would they use the DRS? Why these?
 - What would this replace?
 - How would they use it? E.g. collect in bulk or on more piecemeal basis?
 - What would 'work' and what would not?
 - Are there any journeys for which they would not use the DRS? Why not?
- Throughout refer to earlier behavioural influences to understand what is driving behaviour
 - Convenience
 - Environmental considerations
 - Habit (do they always do it that way/do they think about it?)
 - Social setting (does who they are with influence behaviour?)
 - Setting (does the availability of disposal points influence behaviour?)
 - Any others?

- Ensure that we understand the role of deposit level here how important is this as a behavioural motivator?
- NB ensure coverage of different journey types
 - Role of setting of consumption out-of-home/in-home/elsewhere
 - Role of container size smaller and large
 - Role of container type glass bottle/plastic bottle/can
 - Gauge role of whether the container is re-closable

Repeat for alternative scenario

6. Design prioritisation

(5 mins)

Explore what design elements are most likely to drive behaviour change

Moderator explain that the government will have to consider a range of different considerations when designing the scheme so we would like to explore some of these choices – thinking in particular about what would be most likely to encourage them to recycle via the DRS

• Overall views on effectiveness of scenarios

- Which of the scenarios shown do they think would be most likely to get them to recycle?
- Thinking of both of the scenarios, how important do they think the design of the scheme is in encouraging them to use it?
 - Deposit level
 - How high does this need to be to make recycling worthwhile?
 - Does a higher price make it more likely they will recycle?
 - What level seems reasonable to them?
 - Location
 - To what extent is convenience important?
 - Would they behave differently if they had to travel further to recycle?
 - Where would they expect/hope to see return points?
 - Deposit return type
 - What difference could this make to recycling behaviour?
 - Do they have a preferred method of redeeming deposits?
 - Probe: Cash; direct to card; shop vouchers; charitable donations

6. Final thoughts

Collect final thoughts and close interview

- Any final advice for the Government on how this should be implemented?
- Any concerns that they want to pass on to the Government
- Anything else they would like to discuss/share

Close

DEFRA - Deposit Return Scheme Research

Group Discussion Topic Guide

Background to the research

Deposit Return Schemes (DRS) operate on the basis that consumers pay an upfront deposit when purchasing a product packaged in a container – such as a can or plastic bottle. This deposit can then be redeemed when the container is returned. This encourages the return of packaging, enabling it to be recycled. Typically, containers are returned to supermarkets and shops, either at a counter or automated reverse vending machine. Schemes such as this already operate in other countries, such as Canada, Germany and the Scandinavian states.

Following a call for evidence on measures to reduce littering of drinks containers and promote recycling, the Government confirmed that, subject to consultation, it will introduce a DRS in England. The Welsh Government has not committed to a scheme but is also interested in how best to implement a DRS, should it be decided to introduce one in Wales. In February, the UK and Welsh Governments, together with the Department for Agriculture, Environment and Rural Affairs in Northern Ireland, published a consultation on introducing a DRS for drinks containers in England, Wales and Northern Ireland.

The materials currently proposed to be in scope of a DRS are plastic bottles, glass bottles and metal cans for all soft drinks (including water and juice), alcoholic drinks and milk-containing drinks (but not milk itself or plant-based drinks such as soya). Beyond this there are two potential DRS models being proposed: one which places a deposit on all cans and bottles below 750ml ('on-the-go') and one which places a deposit on all cans and bottles irrespective of their size ('all-in'). The deposit level itself has not been set and is subject to consultation, including whether there should be one flat deposit fee or if it should vary across container or product types.

This objective of this research is to understand how consumers in England and in Wales are likely to respond to the introduction of a DRS and how this is likely to vary depending on the design of the scheme. Ultimately, it will provide evidence to inform the effective design of a DRS in England and potentially Wales.

More specifically, the research aims to understand:

- What are **consumer attitudes** towards a DRS in principle (both 'all-in' and 'on-the-go')?
- How are consumers **likely to use** both types of DRS in practice?
- How should a DRS be **designed**, **delivered** and **communicated** to maximise takeup and minimise potential barriers to usage, including the most effective deposit level?
- What are levels of take-up, for different DRS designs, likely to be?

The research has been designed with a series of interlinked stages:



Objectives for this stage

The specific aims for this stage of the research are to build on understanding developed during the depth interview to deepen understandings of:

- Existing awareness of the DRS concept and attitudes towards the idea
- Likely usage of a model DRS scheme, motivations for use and expected differences across situations and container types
- Considerations for scheme design to drive effectiveness, including any practical barriers to use

NB please note that Iceland/Morrisons have recently run a scheme in some of their stores in which participants can return used containers in return for store rewards. This scheme works on a different mechanism (e.g. no deposit) and so we are not interested in responses specifically about this, but participants may have come across this so do be prepared to talk about how this differs and what that might mean for use/effectiveness/acceptability.

Stimulus & materials list

- Dictaphone
- Pen and A4 paper
- Signature sheet / GDPR form

		Size	Copies
Stim 1	In scope drinks	A3	X 2 boards
Stim 2	DRS concept	A3	X 2 boards
Stim 3	DRS details	A3	X 2 boards
Stim 4	Scenarios	A4	X 8 handout sets

Please note, this guide is not a script and is intended to be used flexibly, with participant responses guiding the conversation flow, topics covered in the order that they naturally arise

Moderators will use additional follow-ups throughout to understand what is driving response (e.g. WHY do participants feel/act the way they do?)

new approach	to recvclind	ı drinks	containers

adencv

Warm up and introduction

- Findings will be used to inform design
- Length 2 hours
- No right or wrong answers interested in honest views.

Introduce research, reassure about confidentiality and set tone of discussion

- Research is voluntary you can stop participating any time
- The information will be used for research purposes only
- Research is confidential and anonymous your personal details will not be shared and although a report will be published no one will be identified within that

Introduce moderator and Kantar Public – an independent social research

Research on behalf of Defra/Welsh Government to understand responses to a

• Recording

1. Introduction

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- Ask participant for permission to record, then start recording and confirm consent
- Any questions?

2. Warm up	2.	Warm	up	
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(7 mins)

Warm up participants and establish rapport

Moderator to explain that they we would first like to get to know participants and – as we will be talking about the disposal of drinks containers – we would also like to understand a little bit about what drinks they are currently buying and consuming

• Participant introductions

- Name, occupation, who they live with
- Purchased drinks they consume regularly... (show stim 1_in scope drinks as prompt)
 - At home
 - When out of home

(3 mins)

3. Recycling/littering behaviour and attitudes (15 mins)

Establish current recycling behaviour (at home and out of home) and underlying drivers of recycling behaviour to build contextual understanding

Moderator to explain that we will be talking about recycling today and that we want to understand what people are currently doing – stress that this is not a test and that we are interested in honest answer, not what they feel they SHOULD say

• Recycling behaviour

- Current recycling behaviours at home (focus on bottles, cans etc.)
 - Do they recycle at home
 - What do they recycle
 - How do they recycle (e.g. individual bins, communal bins, take it to recycling centre etc.)
 - How consistently do they recycle
 - Are there ever occasions when they don't recycle
 - Do they wash or otherwise prepare materials
 - Is it clear what they are required to do / anything unclear
- Current recycling behaviours out of home
 - Do they recycle when disposing of drinks containers out of home
 - Occasions when they do / don't recycle
 - When recycling how do they do this
 - E.g. wait until they find an appropriate bin; take home

Recycling attitudes

- Why do they recycle
- For those that feel it is important, explore why...
 - Environmental concerns
 - Social contract 'right thing to do'
 - Influence of other e.g. kids
 - Easiness/convenience of recycling
- For those that don't feel it is important, explore why not...
 - E.g. time, effort, feeling that others don't do it so why bother
- Littering (very quickly)
 - Do they ever dispose of empty drinks containers without using a bin
 - Probe leaving stuff standing on a train / or on side
 - Probe behaviour when 'on-the-go' e.g. walking around, in parks etc.
 - What is driving behaviour in these cases
 - How much of an issue is litter in their local area
 - How do they feel about littering

4. Response to DRS concept

(20 mins)

Introduce DRS concept and collect initial reactions

Moderator explain that the English/Welsh Government is considering introducing a new approach to recycling drinks containers, to which we would like to get their response

Show stim 2_DRS concept

• Response to DRS concept

- Spontaneous responses
- Awareness of this kind of scheme
- Any previous experience of this kind of scheme (e.g. abroad; in past)
- Feelings about it being introduced
- Support for the scheme should it go ahead
- Any concerns
 - Moderator gauge: home recycling bins may be raided for drinks containers

• Expectations

- Deposit level what would they expect the deposit level to be
- Location where would they expect to be able to return bottles
- Mechanism what do they expect as the mechanism for returns

Moderator explain that we would now like to explain in a little more detail how the scheme might work in practice. Make it clear that the scope of the scheme has not yet been decided, that the government is considering different options, and that this is just one possibility that we would like to hear their thoughts on.

Show stim 3_DRS details

- Response to DRS details
 - Spontaneous responses
 - How far is this in line with expectations
 - Check for deposit level and location
 - Do they think they would use it
 - For drinks consumed at home
 - For drinks consumed out of home
 - For some materials/sizes but not for others
 - Check on motivations for using
 - Environmental concerns
 - Civic duty
 - Financial
 - Others
 - Any concerns

5. Behavioural responses to DRS scheme

(45 mins)

Explore potential usage of DRS scheme across different potential journeys

Moderator explain that we would now like to explore in more detail how they may expect to use the scheme in real life. Explain that we are going to show a number of different scenarios in which they might find themselves, and we want to understand if they would use the DRS or not. Not all the situations will be relevant to everyone, and the images are just for illustration, but please try to put yourself in the situation.

NB for each explore how responses would different with different container types/sizes/materials

Show stim 4_disposal scenarios and for each explore

• Response to scenarios

- Can they relate to the situation
- Would they use DRS why/why not
 - Identify any barriers to use e.g. inconvenience
- How would they use it
 - For in-home
 - How/where would they store containers prior to disposal
 - How would they take for disposal
 - How often/when would they take for disposal
 - How would this affect current curbside recycling practices
 - For out-of-home
 - What would they do with container prior to disposal
 - When would they take for disposal (e.g. immediately or would they take it home first)
- Check for any differences by container type/size (show stim 1_in scope drinks to prompt)
 - Probe for cans and disposable coffee cups in particular
 - Probe for any differences by container size / material
- How far would this require a change to current behaviour
 - How do they feel about this
- Any issues / questions

Repeat for alternative scenarios

- **Reflection** (throughout refer back to earlier responses)
 - Having explored various scenarios, how do they now feel about the scheme
 - Do they think they would use it explore motivations/barriers for each
 - Situations they would use / wouldn't use

- Container materials they would be more or less likely to use it for
- Container size they would be more or less likely to use it for
- What changes would be required from current behaviour
 - How do they feel about making these changes
- Any emerging issues or concerns
 - Spontaneous thoughts on how these could be addressed
- Thoughts on deposit level
 - Is this the right level to encourage use
 - Should it be higher / lower why

• Market effects

- Do they think the introduction of the scheme could have any impact on what they currently buy
 - E.g. change in format or size
 - E.g. stop / reduce buying some things
 - E.g. switch to more refillable bottle use (e.g. for coffee / water)
- In each case, what is driving this

6. DRS design	(25 mins)

Explore what design elements are most likely to drive behaviour change

Moderator to explain that we would now like to explore the design of the scheme in a bit more detail – and that we would like them to think about how the scheme could be designed to most effectively prompt recycling behaviour

Deposit level

- How high does this need to be to make recycling through the DRS worthwhile
 - Does a higher deposit make it more likely they will recycle
 - Would it make any difference if the deposit level was 20p
 - What about 50p
- Would a higher deposit affect what they might choose to purchase in the first place
- What level seems reasonable to them
- What about multipacks
 - Do they think these should carry the same deposit level even if it means that multipacks will be several pounds more expensive than at present
 - If not then what do they see as an alternative

• Flat rate vs proportionality

- Preference for flat rate vs different rates for different containers or size of containers
- If interest in proportionality, explore how they think this should work...
 - Different rates for different bottle sizes
 - Proportion of price
 - Something else

Location

- How important is convenience
- How much extra time would they be prepared to spend to return packaging compared to current recycling behaviour
- If they had to travel further, will this change how they would use the scheme
- Where would they expect/hope to see return points

• Deposit return type

- What difference would the way in which the deposit is returned affect how they use the scheme
- Do they have a preferred method of redeeming deposits
 - Probe: Cash; direct to card; dedicated app; shop vouchers; charitable donations
- Would they want to choose each time?

• Practical considerations

- How many machines would they expect to be at any given point
- How long would they be prepared to queue
- Explain that machines may only accept cans / bottles that have not been crushed – does this affect responses or raise concerns

Moderator explain that the Government is currently consulting on two options for how a Deposit Return Scheme could operate. One option is known as an 'all in' DRS, which would see a deposit placed on all plastic and glass bottles and metal cans regardless of size. The other option is known as an 'on-the-go' DRS, where a deposit is only paid on containers below 750mls and in single format containers (those not in multipacks)

- Scheme options
 - Which of these do they prefer? Why?
 - What might 'work' and what would not?

6. Overall thoughts on launch and communications (10 mins)

Explore overall views and concerns on the scheme, including any thoughts about how the scheme is communicated to the public

• Overall views on the scheme

- Thinking back over everything discussed what do they think of the scheme
- How would they describe it in their own words
- What works about the idea / what doesn't work
- Do they see their use of the DRS more as a necessary means to get their deposit back? Or more as part of their civic duty / doing their bit for the environment?
- Should the government go ahead why / why not
- If the government does go ahead, what should they keep in mind for the design

• Communication about the scheme – if time

- What is it important that the government informs people about the scheme
 - How should they tell people about the scheme
 - Channel
 - Messenger
- How should the scheme be 'branded'
 - E.g. what should be the look and feel
- How important is it that there is information about the scheme on the pack
 - What information would they expect to be included
 - Probe for: deposit level; DRS logo

6. Final thoughts

Collect final thoughts and close interview

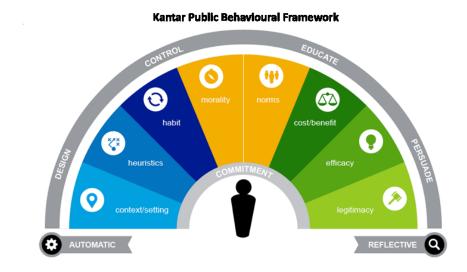
- Any concerns that they want to pass on to the Government
- Anything else they would like to discuss/share
- Confirm incentive process £50 either as an online (PERKS) voucher or as a PayPal payment as arranged with recruiter

Close

Appendix C: Kantar Public Behavioural Model

Our model summarises what we know (from a combination of academic work and practical research experience) are the key generic influences on people's behaviours. Unlike many other models which seek to be an all-encompassing explanation of behaviour, we have developed our model specifically to assist us in designing and analysing research into people's behaviours: it is a practical tool as well as a theoretical construct.

The way we use the model is premised on two things. First, most influences on decisions and behaviours are nonconscious, so if people are asked open questions about why they do what they do, they are likely to give surface level or post-rationalised responses rather than



articulating the real reasons for their behaviours. Second, good qualitative research unearths a wealth of information, and we need some way to understand and interpret all this if we are to derive insights that lead to conclusions about how to influence behaviour.

Our solution to the first of these challenges – getting beyond surface-level responses to open questions – is to identify the likely influences on people's decisions and behaviours in advance and explore these directly. Our solution to the second challenge is to map what we find in the research onto the model, in order to see which factors are influential and which are not, and how those that are influential manifest themselves, and therefore what can be done to affect change. In short, therefore, we use the model to help us anticipate what to look for, and then to understand what we find.

For this research we used the model to frame the discussion and analysis around the factors underlying current recycling behaviour. We have also considered some of the factors that may influence behaviour if a DRS were to be introduced, although our analysis at this stage is based on a hypothetical situation and is therefore necessarily more

speculative. We have incorporated these analyses into the main body of this report, but also include the analysis by each factor here for reference.

Current drivers and barriers of recycling behaviour

Context/setting	Heuristics	Habit	Morality	Norms	Cost / Benefit	Efficacy	Legitimacy
 Recycling behaviour is highly contextual and is associated primarily with the home environment where it has been mandated OOH recycling for most depends on a clear prompt and accessibility of recycling facilities 	 Social desirability bias – people tend to assume that they are better recyclers than they actually are to suit their self- image 		was viewed more negatively and seen as anti- social behaviour and strongly sanctioned	considered a social norm, that good citizens perform • However, it is a relatively private act as it currently takes place primarily in-home – so direct social	 penalisation by council has been an effective motivator for some Sense of cost 	confidence in understanding of what can and cant be recycled • Belief amongst some of the more active recyclers	 Doubts about quality of recycling by some active recyclers

Potential drivers and barriers to use of a DRS scheme

Context/setting	Heuristics	Habit	Morality	Norms	Cost / Benefit	Efficacy	Legitimacy
 Recycling behaviour is highly contextual and away from home use of the scheme is likely to rely on consistent prompts 	 Loss aversion: Sense of deposit return value likely to increase if framed as a loss 	 Behaviour change is less likely when it requires shifts from current recycling habits e.g. amongst those not already separating litter at home Behaviour change is also less likely when it requires shifts from existing shopping habits e.g. amongst those not doing a planned weekly shop 	moral case for use of DRS could be bolstered by clear explanation of benefits to the environment of recycling via a DRS		No perceived benefit to recycling via DRS vs recycling through existing collections Low threshold for expending time on recycling given perceived level of deposit Sense of return from DRS considered greater when users encouraged to 'chunk' deposits into larger amounts	 Belief that scheme is unlikely to work effectively due to a lack of machines, repairs etc. Belief that scheme could help to improve littering by encouraging people to collect empty container – but could also lead to people rifling through kerb side recycling to find materials to deposit 	government efforts to encourage recycling should be focused more on businesses and production

Appendix D: Technical note

This section provides a technical summary of the quantitative research including the survey design, achieved number of interviews, questionnaire development and weighting strategy.

The target population for the quantitative survey consisted of:

- Adults aged 16 or over living in Wales
- Children aged 11 to 15 living in Wales

Survey design

Given the time available for fieldwork and to provide value for money, fieldwork was conducted online, using Kantar's online access panel Lightspeed as the main sample source for adults. Online interviewing brings benefits in terms of speed and cost-efficiency, and in helping to minimise social desirability bias as there is no interviewer present (which in this case may be significant given normative pressures towards recycling). However, it is important to flag that there are some potential downsides to online surveying as well: first, since panels are opt-in there is the risk that panellists are not representative of the general population; and second, even though Lightspeed is among the largest panels in the UK, it was necessary to use other panels in partnership with Lightspeed to achieve the interviews required.

To minimise the risk of bias, Lightspeed uses a diverse set of recruitment sources and a variety of recruitment methods. This includes opt-in email, co-registration, e-newsletter campaigns, and traditional banner placements.

Sample design

The sample design differed for adults and children.

Adults aged 16 or over

Defra required the sample to be representative in terms of age, gender, ethnicity, urbanicity, housing type, social grade and car ownership. This was achieved through a combination of quotas and weighting. In the first instance, quotas were set to compensate for known biases in online panels. Younger people and men are generally under-

represented on panels, and Lightspeed is no different, so we set an interlocking quota by age and gender. ²⁹

Additional quotas were not set for the following reasons:

- The more quotas there are, the greater the amount of screening required to identify eligible respondents, affecting the project costs and timings.
- Having too many quotas could make it impossible to reach the target number of interviews: as the quotas for the fastest responding demographic sub-groups fill up first, we may be left looking for unachievable combinations that cannot be fulfilled.
- Setting additional quotas would not necessarily reduce bias: a 2015 experiment found that "...increasing the extent of demographic selection quotas used did not reduce bias or improve accuracy".³⁰

As Lightspeed (and the other panel partners used) hold basic demographic information about their panellists, such as region and social grade, the sample was stratified before it was drawn. This helped to ensure that the final sample was representative of the population (in terms of these characteristics).

Moreover, while the unweighted sample is not fully representative of the population, weighting was used to address observed imbalances.

Sample sources

The Lightspeed panel is part of an association of quality-conscious panel providers that work together to fulfil sample requirements that cannot be met by a single provider within the required timescales. For this survey the Lightspeed panel was supplemented with the following panels: Panelbase, SSI, Cint and Lucid, all of which have been vetted by Lightspeed as reputable and offering high-quality sample.

Children aged 11 to 15

The child survey was conducted using an online methodology using a 'lifestyle database' held by Sample Answers as the sample source. From this database Kantar drew a sample

²⁹ The following quotas were used: men aged 16-34, women aged 16-34, men aged 35-44, women aged 35-44, men aged 45-54, men aged 55+ and women aged 55+.

³⁰ Gittelman, S.H., Thomas, R.K., Lavrakas, P.J. and Lange, V., 2015. Quota Controls in Survey Research: A Test of Accuracy And Intersource Reliability in Online Samples. Journal of Advertising Research, 55(4), pp.368-379.

of parents of children aged 11-15, stratifying the sample by age of child and region (within Wales). Sampled parents were then sent a letter telling them about the study and asking them to provide consent for up to two eligible children to participate in the study. Up to two reminder letters were sent and all children who took part were provided with a £10 shopping voucher to thank them for their time.

Both an English and Welsh version of the letters were sent.

Questionnaire development

In advance of the survey, Kantar conducted a small phase of cognitive testing to ensure the questions were fit for purpose. A total of nine adults and six children took part in the testing.

Fieldwork

For both the adult and the child surveys fieldwork took place in March 2019. Overall 4,057 interviews were achieved with adults and 603 interviews with children aged 11 to 15.

The questionnaire was available for both adults and children to complete in English or Welsh.

Weighting

The sample profile was compared to benchmark population statistics and weighting was applied to compensate for imbalances.

The benchmark population statistics used are listed in the table below.

Adults (16+)	Benchmark population counts Wales
Urban / Rural (source= ONS Small Area Population Estimates 2017 & ONS urban /	
rural classification)	220/
Wales Rural	33%
Wales City	67%
Age * Gender (source=ONS Mid-Year Population Estimates 2017)	
Wales Male 16-24	7%
Wales Male 25-34	8%
Wales Male 35-44	7%
Wales Male 45-54	8%
Wales Male 55-69	11%
Wales Male 70+	8%
Wales Female 16-24	7%
Wales Female 25-34	8%
Wales Female 35-44	7%
Wales Female 45-54	9%
Wales Female 55-69	12%
Wales Female 70+	10%
Region (source=ONS Mid-Year Population Estimates 2017)	
Wales	100%
Ethnicity (source=ONS Crime Survey for England and Wales 2017-18)	
Wales White	97%
Wales Non-white	3%
Car/van use (source=ONS Crime Survey for England and Wales 2017-18)	
Wales None	14%
Wales 1	36%
Wales 2+	50%
Social Grade (source=Kantar TGI October 2017 - September 2018)	
Wales AB	24%
Wales C1C2	52%
Wales DE	24%
Property type (source=ONS Crime Survey for England and Wales 2017-18)	
Wales Detached	31%
Wales Flat	7%
Wales Other	63%

Young people (11-15)	Wales
Urban / Rural (source= ONS Small Area	
Population Estimates 2017 & ONS urban /	
rural classification)	
Wales Rural	32%
Wales City	68%
Age * Gender (source=ONS Mid-Year Population Estimates 2017)	
Wales 11 Male	11%
Wales 12 Male	10%
Wales 13 Male	10%
Wales 14 Male	10%
Wales 15 Male	10%
Wales 11 Female	10%
Wales 12 Female	10%
Wales 13 Female	10%
Wales 14 Female	9%
Wales 15 Female	9%
Region (source=ONS Mid-Year Population Estimates 2017)	
Wales	100%

Significance tests

A two-sample t-test was used to assess differences between subgroups and highlight those at the 95% confidence level (where the p value<.05).³¹ Strictly speaking, significance tests can only be applied to probability samples; they are not applicable to quota-based designs because of a number of issues including bias, lack of known sampling probability and the unknown population. Hence, due to the quota sampling methodology used, the tests are not indicative of real differences in the general population.³²

However, some basis was needed to determine which findings provided the most insight for this report. Statistical testing has therefore been used as a practical tool to identify any

³¹ If the p-value is less than 0.05 it is possible to conclude that a significant difference does exist. This means that should you repeat an experiment or survey over and over again 95 percent of the time your results will match the results you get from a population.

³² A significance test estimates whether differences are statistically significant but this is an estimation only.

noteworthy differences between subgroups (see 'Socio-demographic subgroups') and to help determine where a pattern is emerging from the findings. These tests have been used to highlight differences that would, given the assumption of a Simple Random Sample (SRS), have been significant differences at the 95% confidence level. However, as noted above, this assumption is not strictly statistically correct but it has been made purely to provide some insights into the findings. Only the differences identified as noteworthy using statistical testing are included in the report, noting that they are only indicative of potential differences in subgroups within the general population.

Qualitative analysis

Our analysis of the qualitative data was iterative and incorporated throughout the design of the project. At the inception meeting, we discussed initial hypotheses and assumptions about what might be driving behaviour. Following this we held an internal brainstorm session using the Kantar Public Behavioural Framework (see Appendix A) to consider the full range of potential behavioural influences. These elements informed the design of the Topic Guides for the depth interviews, which were semi-structured and allowed for unexpected attitudes and behavioural influences to emerge. Throughout the fieldwork, researchers kept field notes which were shared with the rest of the team, allowing new lines of enquiry and hypotheses to emerge across the course of the research. Findings from the depth interviews were used to inform the approach and stimulus for the group discussions.

Following each stage of fieldwork, we conducted a thematic analysis of the qualitative date using a process called 'matrix mapping'. Researchers input data from each interview and group into an Excel framework, organised according to the key objectives of the research, the contents of the Topic Guides (see Appendix B) and the behavioural drivers identified in the Kantar Public Behavioural Framework. The completed frameworks were used to conduct a systematic comparison of responses within and between cases and to identify themes, which were then used to further flag and identify relevant data.

Alongside this, we also conducted a series of more intuitive analyses following each project stage through creative brainstorm sessions, led by the project director with the involvement of all researchers. These were used to consider the underlying influences of respondents' attitudes and behaviour; identify further themes, which were then validated against data in the framework; and consider the implications of the research for a DRS design and communications.

Appendix E: Quantitative questionnaire

DRS QUESTIONNAIRE (Adult)

Firstly, a few questions about you. This to make sure we survey a range of different people

ASK ALL

SEX. Are you

Male Female

ASK ALL

AGEIF. How old are you?

16...99 Prefer not to say

ASK IF AGE = REF FOR EVERYONE ELSE FORCE DATA INTO RELEVANT AGE BAND FOR QUOTA SET UP

AGEIF2. Could you please tell me which age band you are in?

- 1. 16 to 34
- 2. 35 to 44
- 3. 45 to 49
- 4. 50 to 54
- 5. 55 or older

ASK ALL

QSEG. Which of the following groups does the Chief Income Earner in your household belong to?

The Chief Income Earner is the person in your household who has the highest income (from earnings, benefits, pensions and any other sources)

- 1. Semi or unskilled manual worker
- 2. Skilled manual worker
- 3. Supervisory or clerical/ Junior managerial/ Professional/ Administrator
- 4. Intermediate managerial/ Professional/ Administrative
- 5. Higher managerial/ Professional/Administrative
- 6. Student
- 7. Retired and living on state pension only
- 8. Unemployed (for over six months) or not working due to long term sickness
- 9. Not in paid employment and looking after family or home

10. Prefer not to say

ASK ALL

QWALES. Do you currently live in England or Wales?

- 1. England
- 2. Wales

ASK ALL IN QUOTA

This survey is being conducted on behalf of the Welsh Government by Kantar Public, an independent research organisation.

Your answers are important in helping the Welsh Government understand people's views on the environment and recycling and will take around 20 minutes to complete. Your answers will be kept private. Kantar's privacy policy can be found here {INSERT LINK TO PP].

Welsh translation

ASK IF QWALES = 2

QLANG. Would you like to complete the survey in English or Welsh?

- 1. English
- 2. Welsh

Section A: General food/grocery shopping behaviour and habits

ASK ALL

A1. Including yourself, how many people **aged 16 and older** live with you regularly as members of your household?

DROP DOWN GRID (NUMBERS DISPLAYED 1, 2, 3 ETC THEN 10+)



ASK ALL

A2. And how many **children aged under 16** live with you regularly as members of your household?

DROP DOWN GRID (NUMBERS DISPLAYED 0, 1, 2, 3 ETC THEN 10+)

Now a few questions about food and grocery shopping.

ASK IF 2+ ADULTS IN THE HOUSEHOLD (A1=2+)

A3. Thinking about your household's typical food and grocery shopping, which of these best describes who is mainly responsible for this? SINGLE CODE

- 1. I am responsible for all or most of the food and grocery shopping
- 2. I have equal responsibility with others in the household

3. Someone else is mainly responsible, but I do food and grocery shopping from time to time

4. I am not responsible for any of the food and grocery shopping

5. I am in a house share with other adults and we are all responsible for our own shopping

6. Other arrangement

ASK ALL

A4. Which of the following best describes the way [you do/your household does] the food and groceries shopping?

SINGLE CODE

- 1. One main shop (e.g. weekly or fortnightly) and no 'top-up' shops
- 2. One main shop plus 'top-ups' when needed
- 3. No main shop food and groceries are bought as and when needed
- 4. Other, please type in your answer

ASK ALL

A5. How [do you/does your household] buy food and groceries in a typical week? Please include all food and grocery shopping, including any main shopping trips and top-up shopping.

PLEASE SELECT ALL THAT APPLY

- 1. Trip(s) to large supermarket
- 2. Trip(s) to mini supermarket e.g. Tesco Metro/Sainsbury's Local
- 3. Trip(s) to local/corner shop (excluding mini supermarkets
- 4. Trip(s) to another type of shop or market stalls
- 5. Online delivery/deliveries from a supermarket
- 6. Other, please type in your answer

ASK IF SHOP IN PERSON (A5=1-4 or 6)

A6. How [do you/does the main food shopper in your household] usually travel when doing the [main] food and groceries shopping? If different methods are used, please choose the one that takes the most time.

SINGLE CODE

- 1. On foot
- 2. By car or van driven by me or another household member
- 3. By car or van -a lift from someone who is not part of the household
- 4. By public transport
- 5. By taxi or minicab
- 6. By motorcycle/scooter/moped
- 7. By bicycle
- 8. Other, please type in your answer

ASK ALL

A7. How easy or difficult would it be for you to get to each of the following using your usual form of transport?

SINGLE CODE

	Very	Quite	Neither	Quite	Very	Unable
	easy	easy	easy	difficult	difficult	to go
			nor			
			difficult			
A large supermarket						
A mini supermarket e.g.						
Tesco Metro/Sainsbury's						
Local						
A local corner shop						
(excluding mini						
supermarkets)						

Section B: Use of in-scope containers

ASK ALL

B1. Which of these do **you personally** drink **at home**, even if only on an occasional basis?

PLEASE SELECT ALL THAT APPLY

- 1. Bottled wine
- 2. Bottled spirits
- 3. Beer/cider/other alcoholic drinks (glass or plastic bottles, cans)
- 4. Non-alcoholic drinks such as fizzy drinks, juice, tonic water, smoothies (glass or plastic bottles, cans, cartons)
- 5. Bottled water (including flavoured water)
- 6. None of the above

IF CONSUME DRINKS AT HOME (B1=1-5)

B2. You said that **you personally** drink the following at home: [LIST ITEMS FROM B1]

What types of packaging do these drinks come in? We are only interested in cans and bottles

[INSERT PACKAGING NAME FROM A/B LIST BELOW AND PICTURE]

- 1. Yes
- 2. No

INCLUDE PICTURES FOR ALL (PICTURES WILL INCLUDE REFERENCES TO SIZES IN ML)

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

ASK ALL WHO USE IN SCOPE DRINKS PACKAGING AT HOME (B2 ANY A-E = 1)

B3. Thinking about all the drinks you personally consume at home in: [LIST PACKAGING USED AT B2: A-E = 1]

How do you **usually** dispose of the empty bottles and/or cans when you finish these items **at home?**

Please select one answer only. If you use different methods, please choose the most common.

- 1. Put it in the general rubbish bin
- 2. Put it in the household recycling
- 3. Use a communal recycling facility (e.g. for a block of flats, group of properties)
- 4. Take it elsewhere to be recycled (e.g. local household waste recycling centre ('tip') or bottle bank)
- 5. Keep it to re-use
- 6. Leave it for someone else to dispose of
- 7. Do something else, please type in your answer

ASK ALL WHO USE IN SCOPE DRINKS PACKAGING AT HOME (B2 ANY A-E = 1)

B4. Roughly how many drinks in [ITEM AT B2] do **you personally** drink per week **at home**? Please exclude drinks in refilled bottles.

If you are not sure, especially if you share the drinks with others in your household, please give your best estimate of how many you **personally** drink.

- 1. Less than one a week
- 2. 1-5
- 3. 6-10
- 4. 10-20
- 5. 20-30
- 6. 30+

Ask for each of the following items:

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

ASK ALL

B5. Now thinking about **away from home**, for example at work, in the car, on public transport, or out and about. Which of these do you personally drink **away from home**, even if only on an occasional basis. *Do not include drinks consumed in restaurants, cafes or bars.*

PLEASE SELECT ALL THAT APPLY

- 1. Bottled wine
- 2. Bottled spirits
- 3. Beer/cider/other alcoholic drinks (glass or plastic bottles, cans)
- 4. Non-alcoholic drinks such as fizzy drinks, juice, tonic water, smoothies, (glass or plastic bottles, cans, cartons)
- 5. Bottled water (including flavoured water)
- 6. None of the above

IF CONSUME DRINKS AWAY FROM HOME (B5=1-5)

B6. You said that you personally drink the following **away from home**, for example at work, in the car, on public transport or out and about:

[LIST ITEMS FROM B5]

What types of packaging do these drinks come in? We are only interested in cans and bottles *Do not include drinks consumed in restaurants, cafes or bars.* [INSERT PACKAGING NAME FROM A/B LIST BELOW AND PICTURE]

- 1. Yes
- 2. No

INCLUDE PICTURES FOR ALL (PICTURES WILL INCLUDE REFERNCES TO SIZES IN ML)

Loop for the following items:

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

ASK ALL WHO USE IN SCOPE PRODUCTS (B6 ANY A-E = 1)

B7. When you finish a drink in a [ITEM AT B6] away from home, in which **one** of these ways do you **usually** dispose of the empty bottles and/or cans?

Please select one answer only. If you use different methods, please choose the most common.

SINGLE CODE

	Can	Small plastic bottle	Large plastic bottle	Small glass bottle	Large glass bottle
Put it in the first rubbish bin that you find					
Keep it until you find a recycling bin					
Take it home to put in the household recycling					
Take it home to dispose of in the general rubbish					
Keep it to re-use					
Leave it somewhere, for instance					
on a bench or on the ground					
Do something else, please type in					
your answer					

ASK ALL WHO USE IN SCOPE PACKAGING (B6 ANY A-E =1)

B8. Roughly how many drinks in a [ITEM AT B6] do **you personally** drink per week when you are **away from home,** for example, at work, in the car, on public transport, or out and about? Please exclude drinks in refilled bottles.

- 1. Less than one a week
- 2. 1-5
- 3. 6-10
- 4. 10-20
- 5. 20-30
- 6. 30+

Ask for each of the following packaging if used [B6 A-E = 1].

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

Section C: Intro to DRS

ASK ALL

A new recycling scheme for most drinks cans and bottles (excluding milk) is being considered by the Government. It is called a **Deposit Return Scheme** and aims to improve recycling rates and reduce litter. The scheme would work as follows:

- 1. People pay a deposit when buying a can or bottle. This would be added to the price of the drink.
- 2. They take the empty packaging to a return point and get their deposit back. It doesn't need to be the same place where it was bought from.
- 3. Different methods of returning packaging are being considered. For example, 'return points' could be via a machine at supermarkets or in public places such as train stations and leisure centres, or over the counter at a local shop.
- 4. If the bottle or can is not returned to one of these return points, the deposit is lost.

ASK ALL

Here is an example of how it might work. You buy a bottle of water which costs 75p, which includes a 15p refundable deposit. On returning the bottle you get the 15p back, so the drink has only cost you 60p. If you didn't return the bottle to a designated return point you would lose the 15p.

Section D: Perceived use of DRS

ASK IF A-E = 1 AT B2 OR B6

Now imagine the Deposit Return Scheme is already in use and you pay a 15p deposit for **all** cans and plastic and glass bottles that you buy.

ASK ALL WHO USE IN SCOPE DRINKS PACKAGING AT HOME (B2 A-E any = 1)

Loop D2 for each type of drinks packaging used at home (B2 A-E=1)

D1. Thinking first about disposing of drinks packaging **at home**.

For each of the following consumed **at home**, please indicate which option most closely describes your likelihood of using the Deposit Return Scheme rather than your usual disposal method?

Please give your honest answer; we are interested in what you think you WOULD do, not what you think you SHOULD do.

[INSERT ANSWER AT B2]

SINGLE CODE FOR EACH

[ITEMS SELECTED AT B2]	I would use the Deposit Return Scheme on all occasions	I would use the Deposit Return Scheme on most occasions	I would use the Deposit Return Scheme on some occasions	I would never use the Deposit Return Scheme – I would keep disposing of these items in the usual way	I would never use the Deposit Return Scheme – I would stop buying this type of packaging to avoid paying the deposit
Cans					
Small plastic bottles					
Large plastic bottles					
Small glass bottles					
Large glass bottles					

ASK IF WOULD CONTINUE WITH CURRENT DISPOSAL METHOD AT HOME FOR ANY PACKAGING TYPE (ANY AT D1=2-4)

D2. You mentioned that you would not always use the Deposit Return Scheme when you are **at home**, for the following:

[LIST OF ITEMS AT D2=2-4]

Why is this? You can choose as many reasons as you wish. PLEASE SELECT ALL THAT APPLY. RANDOMISE

- 1. Reclaiming the deposit would not be worth the hassle of returning the packaging
- 2. I already recycle at home
- 3. I would find it difficult to get to a return point due to my age or disability/mobility problems
- 4. I would find it difficult to get to a return point due to lack of transport (e.g. no car, don't drive, poor access to public transport)
- 5. To avoid dealing with messy/dirty/smelly drinks packaging
- 6. I object to a Deposit Return Scheme in principle
- 7. I would keep the packaging to re-use it
- 8. Other reasons, please type in your answer

ASK ALL WHO USE IN SCOPE DRINKS PACKAGING AWAY FROM HOME (B6 A-E ANY=1)

Loop D3 for each type of drinks packaging used away from home (B6 A-E=1)

D3. Thinking now about disposing of drinks packaging **away from home**, for example, on public transport, in the car, at work, or when you are out and about.

Again, please imagine the Deposit Return Scheme is already in use and you pay a 15p deposit for **all** cans and plastic and glass bottles that you buy.

For each of the following consumed **away from home**, please indicate which option most closely describes your likelihood of using the Deposit Return Scheme rather than your usual disposal method?

[LIST ITEMS SELECTED AT B6] SINGLE CODE FOR EACH

[ITEMS SELECTED AT B6]	I would use the Deposit Return Scheme on all occasions	I would use the Deposit Return Scheme on most occasions	I would use the Deposit Return Scheme on some occasions	I would never use the Deposit Return Scheme – I would keep disposing of these items in the usual way	I would never use the Deposit Return Scheme – I would stop buying this type of packaging to avoid paying the deposit
Cans					
Small plastic bottles					
Large plastic bottles					
Small glass bottles					
Large glass bottles					

ASK IF WOULD CONTINUE WITH CURRENT DISPOSAL METHOD OTG (ANY AT D3=2-4)

D4. You mentioned that you would not always use the Deposit Return Scheme when you are **away from home**, for the following: [LIST OF ITEMS AT D3=2-4]

Why is this? PLEASE SELECT ALL THAT APPLY. RANDOMISE

- 1. Reclaiming the deposit would not be worth the hassle of returning the packaging
- 2. I would not want to carry empty packaging around until I find a return point
- 3. I might not have time to find a return point
- 4. I would rather keep the packaging to dispose of at home
- 5. To avoid dealing with messy/dirty/smelly drinks packaging
- 6. I object to a Deposit Return Scheme in principle
- 7. I would keep the packaging to re-use it
- 8. Other reasons, please type in your answer

ASK ALL

D5. Still imagining the Deposit Return Scheme is already in use with a deposit level of 15p, which of the following do you think is most likely to apply to you? SINGLE CODE

- 1. I would reduce the number of drinks bottles and cans that I buy by a lot
- 2. I would reduce the number of drinks bottles and cans that I buy by a little
- 3. I would stop buying these types of drinks bottles and cans altogether
- 4. I would not make any changes to what I buy now
- 5. Don't know

ASK ALL

D6. Still imagining the scheme is already in use, in which of these ways would you like to receive your deposit refund after returning the empty packaging? PLEASE SELECT ALL THAT APPLY

- 1. In cash/coins
- 2. Refunded to a smartphone app
- 3. Refunded directly to a debit card
- 4. A money-off coupon/voucher to use in a shop
- 5. Donated to a charity of your choice
- 6. Other, please type in your answer

ASK ALL

D7. What do you think the deposit amount should be set at for a Deposit Return Scheme?

- 1. 10p
- 2. 15p
- 3. 20p
- 4. 25p
- 5. More than 25p

ASK ALL

D8. If you were to use a Deposit Return Scheme for drinks bottles and cans consumed **at home**, which of these would be convenient return points for you? PLEASE SELECT ALL THAT APPLY [RANDOMISE ORDER]

- 1. Using a machine at a large supermarket
- 2. Over the counter at a mini supermarket (e.g. Tesco Metro/Sainsbury's Local) or local/corner shop
- 3. Using a machine at a train, bus, tube, or tram station
- 4. Using a machine at a park, near a high street or other public place
- 5. Using a machine at a leisure centre or library

- 6. To a shopping provider who delivers to your home (e.g. online food and grocery shopping service)
- 7. Somewhere else, please type in your answer [FIXED POSITION]
- 8. None of these I would not want to use the Deposit Return Scheme

ASK ALL

D9. If you were to use a Deposit Return Scheme for drinks bottles and cans consumed **away from home**, for example, at work, in the car, on public transport, or out and about, which of these would be convenient return points for you? PLEASE SELECT ALL THAT APPLY

- 1. Using a machine at a large supermarket
- 2. Over the counter at a mini supermarket (e.g. Tesco Metro/Sainsbury's Local) or local/corner shop
- 3. Using a machine at a train, bus, tube, or tram station
- 4. Using a machine at a park, near a high street or other public space
- 5. Using a machine at a leisure centre or library
- 6. Somewhere else, please type in your answer
- 7. None of these I would not want to use the Deposit Return Scheme

Section E: Conjoint exercise

Introduction screen

The next few questions aim to find out what you think about different aspects of the Deposit Return Scheme.

You will be shown **two** different 'scenarios' of how the scheme might be set up and asked to choose which one you would be **most likely to use**. Each scenario will have:

- 1. A deposit amount to be paid on top of the price of each drink
- 2. A location where you can return the empty drinks packaging
- 3. The **additional** time you would need to spend over a week to use the scheme (e.g. including any extra time spent on travel, queuing, storage, and handling)

Please state which scenario you would be **most** likely to use, if these were the only two options available. There is also an option to choose 'neither' if you don't think you would use either.

There are four exercises in total. There are only subtle changes between the exercises but each one differs slightly.

Attributes	Levels
Deposit amount	10p
	15p
	20p
	25р
Location of return point	Large supermarket
	Mini supermarket or local
	shop
	Train, bus, tube or tram
	station
	A park or near a high street
Extra time added to your	
week to return bottles	Up to 10 minutes
and cans	
	Between 10 and 20 minutes
	Between 20 and 30 minutes

Attributes/levels

Exercise 1

Here are two example scenarios of how the Deposit Return Scheme might be set up for people to return their bottles and cans.

Thinking about the drinks you consume over a typical week, if you had to choose between these two schemes, which would you be **most** likely to use for returning bottles and cans?

	Scenario A	Scenario B
Deposit amount		
Location of return point		
Extra time added to your week to return bottles and cans		

Which scenario would you be most likely to use?

- 1. Scenario A
- 2. Scenario B
- 3. Neither I would not use either of these

Exercises 2, 3, 4

Here are two more example scenarios of how the Deposit Return Scheme might be set up for people to return their bottles and cans.

Again, thinking about the drinks you consume over a typical week, if you had to choose between these two schemes, which would you be **most** likely to use for returning bottles and cans?

	Scenario A	Scenario B
Deposit amount		
Location of return point		
Location of return point		
Extra time added to your week to return bottles and		
cans		

Which scenario would you be most likely to use?

- 1. Scenario A
- 2. Scenario B
- 3. Neither I would not use either of these

Section F: Attitudes to recycling and golden questions

Now a few questions about your attitudes towards recycling more generally.

ASK ALL

F1. Here are some statements people have made about themselves. Please select how much you agree or disagree with each one.

	Strongl y agree	Tend to agree	Neither agree nor disagre e	Tend to disagre e	Strongly disagre e	Don't know
Recycling is too much of a hassle to bother with						
Everyone has a responsibility to help towards cleaning up the environment						
I am prepared to make lifestyle compromises to benefit the environment						
It's only worth doing environmentally-friendly things if they save you money						
I feel my recycling efforts are worthwhile						

Section G: Attitudes towards DRS

ASK ALL

Below are some things people have said about a Deposit Return Scheme.

Convenience and accessibility

G1. Thinking about how a scheme might work in practice, to what extent do you agree or disagree with these statements? SINGLE CODE FOR EACH

	Strongly agree	Tend to agree	Neither agree nor disagre e	Tend to disagre e	Strongly disagre e	Don't know
It's unfair that I would be forced to use this scheme to get my deposit back						
Even if I had to make an extra effort to use the scheme, it would be worth it to help protect the environment						
I would find it easy to fit this new method of disposing of drinks packaging into my everyday life						

Underlying ethos of the scheme, impact on rubbish and litter

ASK ALL

G2. And to what extent do you agree or disagree with these statements? SINGLE CODE FOR EACH

	Strongl	Tend to	Neither	Tend to	Strongly	Don't
	y agree	agree	agree nor	disagre	disagree	know
			disagree	е		
The scheme would						
encourage me to						
recycle more when out						
and about						
The scheme is						
unnecessary as there						
are already ways to						
recycle bottles and						
cans						
I would worry that						
people might go						
through my bins to find						
packaging to return for						
a deposit						

Ability to fit into everyday life

G3. How would you find fitting each of the following into your everyday life? SINGLE CODE FOR EACH

	I would find this							
	Very easy to fit into my everyday life	Fairly easy to fit into my everyday life	Fairly inconvenient	Very inconvenient	This situation would not apply to me	Don't know		
Storing empty bottles and cans at home until I get around to taking it to the return point Bringing multiple bottles or cans from home to a return point								
When I am out and about, carrying empty bottles or cans around until I find a return point								

Logistics and complexity

Now a couple of questions on how the scheme might work for different sizes of packaging.

ASK ALL

G4. Whether or not you would personally use the scheme, which of the following statements comes closest to your view?

1. The deposit amount should be lower for smaller items and higher for larger items OR

- 2. The deposit amount should be the same across all sizes of packaging to keep things simple
- 3. Neither/can't decide

ASK ALL

G5. Whether or not you would personally use the scheme, which of the following do you think would work best for people in general?

- 1. The scheme should include **all sizes** of bottles and cans, both large and small
- 2. The scheme should only include **small** bottles and cans
- 3. Neither/can't decide

Motivations and general support

ASK ALL

G6. If you were to use the scheme, which of these would be reasons for you to do so? MULTICODE

[RANDOMISE]

- 1. To get my deposit back
- 2. Everyone else will be doing it/it will become the expected way to dispose of drinks packaging
- 3. It will help improve the number of bottles and cans that are recycled
- 4. It will help reduce litter
- 5. It will help the environment
- 6. It would be the right thing to do
- 7. Other, please type in your answer
- 8. (EXCLUSIVE) Not applicable I would not use the scheme

ASK IF TWO OR MORE REASONS FOR USING DRS (2+ MENTIONS AT G6 (1-7))

[SHOW RESPONSES SELECTED AT G6 IF 1-7] G7. And which of these would be your **main** reason for using the scheme? SINGLE CODE [RANDOMISE]

- 1. To get my deposit back
- 2. Everyone else will be doing it/it will become the expected way to dispose of drinks packaging
- 3. It will help improve the number of bottles and cans that are recycled
- 4. It will help reduce litter
- 5. It will help the environment
- 6. It would be the right thing to do
- 7. Other, please type in your answer
- 8. Not applicable I would not use the scheme

ASK ALL

G8. From what you know so far, to what extent would you support or oppose the introduction of a Deposit Return Scheme? SINGLE CODE

- 1. Strongly support
- 2. Support
- 3. Neither support nor oppose
- 4. Oppose
- 5. Strongly oppose

Section 8: Demographics

Finally, a few questions about yourself. We ask these questions to ensure that we include people from all backgrounds.

ASK ALL

H1. The next question of this survey is about your ethnicity, which is considered as sensitive data. It will be used by our client for data classification purpose only. It will remain confidential in line with our privacy policy. If answering this question makes you uncomfortable, please feel free to choose the answer "I would prefer not to respond". Do you agree to answer this question on this basis?

- 1. Yes, I agree
- 2. No, I do not agree

ASK IF AGREED TO ANSWER ETHNICITY QUESTION (H1=1)

H2. What is your ethnic group? SINGLE CODE

- 1. White British/Scottish/Welsh/Northern Irish
- 2. White other
- 3. Asian
- 4. Black African
- 5. Black Caribbean
- 6. Chinese
- 7. Mixed or multiple ethnic groups
- 8. Any other ethnic group
- 9. I would prefer not to respond

ASK ALL

H3. What type of accommodation do you live in? SINGLE CODE

- 1. Detached house
- 2. Semi-detached house
- 3. Mid-terraced house
- 4. Bungalow
- 5. Flat purpose-built block
- 6. Flat conversion from a house
- 7. Flat above a shop
- 8. Bedsit
- 9. Other, please type in your answer

ASK ALL

H4. How many cars or vans [do you/does your household] own or have regular use of? Include company cars (if available for private use). SINGLE CODE

- 1. None
- 2. 1
- 3. 2 or more

ASK ALL

H5. This research being conducted by Kantar Public on behalf of, the Welsh Government. The Welsh Government would like to analyse the results of this survey using geographical areas. For this purpose, Kantar would like to collect your postcode.

Your data will be processed and kept securely in accordance with Kantar's Privacy Policy [LINK]. All information you provide is only used for research purposes related to this project, will be held in strict confidence and your personal information will not be shared in any public domain.

Do you agree to share your postcode with Kantar for that purpose?

- 1. Yes, I agree
- 2. No, I do not agree

If you agree, please enter your postcode:

/____/

ASK ALL

Qlive. Would you describe the place where you live as...

- 1. A big city
- 2. The suburbs or outskirts of a big city
- 3. A small city or town
- 4. A country village
- 5. A farm or home in the country
- 6. (Other answer (WRITE IN))
- 7. Don't Know
- 8. Prefer not to say

DRS QUESTIONNAIRE (Child)

Section 1: Parental consent [ASK OF PARENTS IN THE ADHOC SURVEY FOR YOUNG PEOPLE]. SAMPLE VARIABLE {#SampParent = 1}

[ASK IF {#SampParent = 1}]

INTRO. Thank you for agreeing to allow your child/children to take part in this important survey for the Welsh Government about recycling. The survey will take around 15 minutes for them to complete and we ask that they complete it on their own.

We just need to collect a few details from you before your child/children can take part. Please click the (>) button to continue.

[ASK IF SAMPLE VARIABLE {#SampParent = 1}]

QPARENT. Are you the parent or legal guardian of any children living in your household aged 11-15 years old?

- 1. Yes, to one child aged 11-15
- 2. Yes, more than one child aged 11-15
- 3. No screen out and do not activate child serials (I'm sorry we are only able to obtain consent from a parent or legal guardian)

[ASK IF QPARENT = 1 OR 2]

QCONSENT. Do you agree for your [child/ two of your children] aged 11-15 to participate in this survey?

- 1. Yes, I agree [IF QPARENT = 2 for one to take part]
- 2. Yes, I agree for two to take part [code to only appear if QPARENT = 2]
- 3. No, I don't agree screen out and do not activate child serials (I'm sorry we are only able to survey 11 to 15 year olds if we obtain consent from a parent or legal guardian)

QNAME. Please type your full name below to confirm you are the parent or legal guardian and you agree for [your child/ two of your children] to take part in the survey

ENTER NAME

Refused – screen out (I'm sorry but in order to interview children we need to collect the name of the parent or guardian who provided consent)

QEND. Thank you, please now hand over the child letter to your [QCONSENT = 1 child/QCONSENT = 2 children] so they can take part if they want to.

IF QCONSENT = 2: If you have more than two children aged 11-15 please just ask any two to take part.

PARENT SAMPLE TO NOW CLOSE

Section 2: Child survey

ASK ALL

QLANG. Would you like to complete the survey in English or Welsh?

- 1. English
- 2. Welsh

IF WELSH THE REST OF THE CHILD SCRIPT SHOULD APPEAR IN WELSH

ASK ALL

This survey is being conducted on behalf of the Welsh Government/ the government by Kantar Public, an independent research organisation.

Your answers are important in helping the Welsh Government understand young people's views on the environment and recycling and will take around 15 minutes to complete. Your answers will be kept private. Kantar's privacy policy can be found here {INSERT LINK TO PP].

You do not have to take part if you do not want to and you can withdraw from taking part in the survey at any time by closing the window browser.

Please click the (>) button to confirm you are content to take part and to start the survey.

Q0AGE. How old are you?

- 10 or under (Screen out: I'm sorry but we are only surveying young people aged 11-15)
- 2. 11
- 3. 12
- 4. 13
- 5. 14
- 6. 15
- 16 or over (Screen out: I'm sorry but we are only surveying young people aged 11-15)

Q0GENDER. Are you

- 1. Male
- 2. Female
- 3. Other

Use of in-scope containers

ASK ALL

Q0B1. Which of these do you drink **at home**, even if only sometimes? You can choose more than one answer to this question if you want

- 1. Bottled water (including flavoured water)
- 2. Fizzy drinks/energy drinks
- 3. Juice/smoothies/squash
- 4. None of the above

IF CONSUME DRINKS (Q0B1=1-3)

Q0B2. You said that you drink the following **at home**: [LIST ITEMS FROM B1a]

What types of packaging do these drinks come in? We are only interested in bottles and cans

[INSERT PACKAGING NAME FROM A/B LIST BELOW AND PICTURE]

- 1. Yes
- 2. No

INCLUDE PICTURES FOR ALL (PICTURES WILL INCLUDE REFERNCES TO SIZES IN ML)

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

ASK ALL WHO USE IN SCOPE DRINKS PACKAGING AT HOME (Q0B2 ANY A-E = 1)

Q0B3. Thinking about all the drinks you drink **at home** in: [LIST PACKAGING USED AT Q0B2]

How do you usually dispose of the empty bottles and/or cans when you finish these items **at home?**

Please select one answer only. If you use different methods, please choose the one you use the most.

- 1. Put it in a general rubbish bin
- 2. Put it in my home's recycling
- 3. Leave it for someone else to throw away
- 4. Keep it to re-use
- 5. Do something else, please type in your answer
- 6. (EXCLUSIVE CODE) Not applicable/never throw away this type of packaging at home

ASK ALL

Q0B4. Now thinking about when you are **away from home**, such as at school, in a car, on public transport or out and about. Which of these do you drink away from home, even if only sometimes?

Do not include anything you drink in a restaurant or cafe. MULTICODE

- 1. Bottled water (including flavoured water)
- 2. Fizzy drinks/energy drinks
- 3. Juice/smoothies/squash
- 4. None of the above

IF CONSUME DRINKS (Q0B4=1-3)

Q0B5. You said that you drink the following **away from home**: [LIST ITEMS FROM Q0B4]

What type of packaging do these drinks come in? We are only interested in bottles and cans

[INSERT PACKAGING NAME FROM A/B LIST BELOW AND PICTURE]

- 1. Yes
- 2. No

INCLUDE PICTURES FOR ALL (PICTURES WILL INCLUDE REFERNCES TO SIZES IN ML)

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

ASK ALL WHO USE IN SCOPE PRODUCTS (Q0B5 ANY A-E=1)

Q0B6. When you finish a drink in a [ITEM AT Q0B5] away from home, what do you **usually** do with the empty packaging? Please select one answer only. If you use different methods, please choose the one you use the most. SINGLE CODE

	Cans	Small plastic bottle	Large plastic bottle	Small glass bottle	Large glass bottle
Give it to someone else to deal with					
Put it in the first rubbish bin that you find					
Keep it until you find a recycling bin					
Take it home with you to put in your home's recycling					
Keep it to throw away in the general rubbish at home					
Keep it for re-use					
Leave it somewhere, for instance on a bench or on the ground					
Do something else (please type in your answer)					

FOR EACH TYPE OF RELEVANT PACKAGING USED (Q0B5 A-E ANY = 1)

Q0B7. Roughly how many drinks in a [ITEM AT B2b] do you have per week when you are **away from home,** for example, at school, in a car, on public transport, or out and about? Please exclude drinks in refilled bottles. SINGLE CODE FOR EACH

- 1. Less than one a week
- 2. 1-5
- 3. 6-10
- 4. 10-20
- 5. 20-30
- 6. 30+

Ask for each of the following packaging if used [Q0B5 A-E = 1].

- A. Cans
- B. Small plastic bottles
- C. Large plastic bottles
- D. Small glass bottles
- E. Large glass bottles

Intro to DRS

ASK ALL

The Government is thinking about a new recycling scheme for most drink cans and bottles (excluding milk). It is called a **Deposit Return Scheme** and aims to improve recycling rates and reduce litter. The scheme would work as follows:

- 1. People pay a deposit when buying a can or bottle. This would be added to the price of the drink.
- 2. They take the empty packaging to a return point and get their deposit back. It doesn't need to be the same place where it was initially bought.
- 3. Different methods of returning packaging are being considered. For example, 'return points' could be via a machine at supermarkets, in public places such as train stations and leisure centres, or over the counter at a local shop.
- 4. If the bottle or can is not returned to one of these return points, the deposit is lost.

ASK ALL

Here is an example of how it might work. You buy a bottle of juice which costs 75p, which includes a 15p refundable deposit. When you return the bottle you get the 15p back, so the drink has only cost you 60p. If you didn't return the bottle to a return point you would lose the 15p.

SHOW EXAMPLE PIC OF BOTTLE OF WATER AND RVM

Section D: Perceived use of DRS

ASK ALL

Now please imagine the Deposit Return Scheme is already in use and you pay a 15p deposit for **all** cans and plastic and glass bottles that you buy.

ASK ALL WHO USE IN SCOPE DRINKS PACKAGING AWAY FROM HOME (Q0B5=1-5)

Loop Q0D1 for each type of drinks packaging used away from home (Q0B5=1-5)

Q0D1. For each type of drinks packaging you throw away when you are **away from home**, please say which option most closely describes your likelihood of using the Deposit Return Scheme rather than the usual way you would throw it away.

Please give your honest answer; we are interested in what you think you WOULD do, not what you think you SHOULD do. SINGLE CODE FOR EACH

[ITEMS SELECTED AT Q0B5]	I would use the Deposit Return Scheme on all occasions	I would use the Deposit Return Scheme on most occasions	I would use the Deposit Return Scheme on some occasions	I would never use the Deposit Return Scheme – I would keep disposing of these items in the usual way	I would never use the Deposit Return Scheme ever – I would stop buying this type of packaging to avoid paying the deposit
Cans					
Small plastic bottles					
Large plastic bottles					
Small glass bottles					
Large glass bottles					

ASK IF WOULD CONTINUE WITH CURRENT DISPOSAL METHOD OTG (ANY AT Q0D1=2-4)

Q0D2. You mentioned that you would not always use the Deposit Return Scheme when you are **away from home**, for the following:

[LIST OF ITEMS AT Q0D1=2-4] [RANDOMISE]

Why is this?

You can choose more than one answer to this question if you want

- 1. Getting my deposit back would not be worth the hassle of returning the packaging
- 2. I would not want to carry empty packaging around until I find a return point
- 3. I might not have time to find a return point
- 4. I would rather keep the packaging to throw away at home/school
- 5. To avoid dealing with messy/dirty/smelly drinks packaging
- 6. My friends would judge me
- 7. I don't like the idea of a Deposit Return Scheme
- 8. I would keep the packaging to re-use it
- 9. Other reason, please type in your answer

ASK ALL

Q0D3. Still imagining the Deposit Return Scheme is already in use with a deposit level of 15p, which of the following do you think is most likely to apply to you? SINGLE CODE

- 1. I would reduce the number of drinks bottles and cans that I buy by a lot
- 2. I would reduce the number of drinks bottles and cans that I buy by a little
- 3. I would stop buying these types of drinks bottles and cans altogether
- 4. I would not make any changes to what I buy now
- 5. Don't know

ASK ALL

Q0D4. Still imagining the scheme is already in use, in which of these ways would you like to receive your deposit refund after returning the empty packaging? You can choose more than one answer to this question if you want

- 1. In cash/coins
- 2. On a smartphone app
- 3. A money-off coupon/voucher to use in a shop
- 4. Donated to a charity of your choice
- 5. Other, please type in your answer

ASK ALL

Q0D5. What do you think the deposit amount should be set at for a Deposit Return Scheme?

- 1. 10p
- 2. 15p
- 3. 20p
- 4. 25p
- 5. More than 25p

ASK ALL

Q0D6. If you were to use a Deposit Return Scheme for drinks bottles and cans consumed **away from home**, for example at school, in the car, on public transport or out and about, which of these would be convenient return points for **you**?

You can choose more than one answer to this question if you want

- 1. Using a machine at a large supermarket
- 2. Over the counter at a mini supermarket (e.g. Tesco Metro/Sainsbury's Local) or local/corner shop
- 3. Using a machine at a train, bus, tube, or tram station
- 4. Using a machine at a park, near a high street or other public place
- 5. Using a machine at a leisure centre or library
- 6. Somewhere else, please type in your answer
- 7. (exclusive) None of these I would not want to use the Deposit Return Scheme

Attitudes towards recycling

ASK ALL

Q0F1. Below are some things young people have said about recycling. To what extent do you agree or disagree with these statements? SINGLE CODE FOR EACH

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
Most of my friends throw their empty cans or bottles in general rubbish bins rather than recycling them						
Young people are expected to recycle nowadays						
I would be embarrassed if my friends saw me making an effort to recycle empty cans or bottles						
I would leave an empty can or bottle where I finished it if I couldn't see a bin nearby						

Section G: Attitudes towards DRS

Here are some things young people have said about a Deposit Return Scheme.

Convenience and accessibility

Q0G1. Thinking about how a scheme might work in practice, how much do you agree or disagree with these statements?

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
It's unfair that I would be forced to use this scheme to get my deposit back						
Even if I had to make an extra effort to use the scheme, it would be worth it to help protect the environment						
I would find it easy to fit this new method of disposing of drinks packaging into my everyday life						
I would be embarrassed if my friends saw me using the scheme to get my deposit back						
I can see myself collecting empty cans/bottles at school or on the street to help earn a little extra money						

Underlying ethos of the scheme, impact on rubbish and litter

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
The scheme would encourage me to recycle more when out and about						
The scheme is unnecessary as there are already ways to recycle bottles and cans						

Q0G2. And to what extent do you agree or disagree with these statements?

Ability to fit into everyday life

ASK ALL

Q0G3. Still imaging the deposit return scheme is already in use, please think now about carrying empty **bottles and cans** around when you are away from home until you can find a return point. How you would you find fitting this into your everyday life?

- 1. Very easy to fit into my everyday life
- 2. Fairly easy
- 3. Fairly inconvenient
- 4. Very inconvenient
- 5. This situation would not apply to me
- 6. Don't know

Logistics and complexity

Now a couple of questions on how the scheme might work for different sizes of packaging.

ASK ALL

Q0G4. Whether or not you would personally use the scheme, which of the following statements comes closest to your view?

A. The deposit amount should be lower for smaller items and higher for larger items OR

- B. The deposit amount should be the same across all sizes of packaging to keep things simple
- C. Neither/can't decide

ASK ALL

Q0G5. Whether or not you would personally use the scheme, which of the following do you think would work best for people in general?

- 1. The scheme should include all sizes of bottles and cans, both large and small
- 2. The scheme should only include **small** bottles and cans
- 3. Neither/can't decide

Motivations and general support

ASK ALL

Q0G6. If you were to use the scheme, which of these would be reasons for you to do so? You can choose more than one answer to this question if you want [RANDOMISE]

- 1. To get my deposit back
- 2. Everyone else will be doing it/it will become the expected way to throw away drinks packaging
- 3. It will help improve the number of bottles and cans that are recycled
- 4. It will help reduce litter
- 5. It will help the environment
- 6. It would be the right thing to do
- 7. Other, please type in your answer
- 8. (EXCLUSIVE) Not applicable I would not use the scheme

ASK IF TWO OR MORE REASONS FOR USING DRS (2+ MENTIONS AT Q0G6 (1-8))

[SHOW RESPONSES SELECTED AT Q0G6 IF 1-8] Q0G7. And which of these would be your **main** reason for using the scheme? SINGLE CODE [RANDOMISE]

- 1. To get my deposit back
- 2. Everyone else will be doing it/it will become the expected way to throw away drinks packaging
- 3. It will help improve the number of bottles and cans that are recycled
- 4. It will help reduce litter
- 5. It will help the environment
- 6. It would be the right thing to do
- 7. Other, please type in your answer

ASK ALL

Q0G8. From what you know so far, to what extent would you support or oppose the introduction of a Deposit Return Scheme?

- 1. Strongly support
- 2. Support
- 3. Neither support nor oppose
- 4. Oppose
- 5. Strongly oppose

Thank you for taking part.

Appendix F: Social grade definitions

Social grade is a classification system based on occupation.

A	Higher managerial, administrative and professional
В	Intermediate managerial, administrative and professional
C1	Supervisory, clerical and junior managerial, administrative and professional
C2	Skilled manual workers
D	Semi-skilled and unskilled manual workers
E	State pensioners, casual and lowest grade workers, unemployed with state benefits only

Appendix G: Conjoint methodology

A conjoint exercise was used so that survey participants could react to a whole 'package' rather than evaluating attributes separately. This gives a better picture of whether the overall design of a certain scenario is acceptable, and it avoids the need for survey participants to assess the importance of the separate factors while attempting to rationalise their choices. The conjoint is ultimately an artificial exercise as people are not required to choose between DRS models in real life; as such it can be treated as a game rather than a 'real' decision.

The attributes and levels included in the conjoint exercise were designed to offer a balanced set of scenarios, combining the attributes in different combinations that best allow the identification of the factors driving the choices. The attributes used were: deposit amount, location of return point and additional time spent over the course of a week to return bottles and cans. Within each attribute there were 4-5 levels. The attributes and levels included are shown below:

Attributes	Levels
Deposit amount	10p
	15p
	20p
	25р
Location of return point	Large supermarket
	Mini supermarket or local shop
	Train, bus, tube or tram station
	A park or near a high street
Extra time added to your week to return bottles and cans	Up to 10 minutes
	Between 10 and 20 minutes
	Between 20 and 30 minutes

Figure G.1: Attributes and levels included in the conjoint exercise

Each survey participant was randomly presented with 4 pairs of scenarios and asked to **choose the one they would be most likely to use**. If neither suited, it was possible to select 'Neither of these'. Our sample was large enough that we were able to keep burden to a minimum by limiting each participant to reviewing 4 sets of scenarios while collecting sufficient data overall to review the total range of scenarios. Our design included a total of 30 sets of scenarios (i.e. 30 sets of 4 pairs to choose from). The questions were balanced both within each set of 4 pairs of scenarios and across the multiple different sets that are used to allow greater variety of responses across the whole sample.

Limitations of the conjoint methodology

It is important to note that survey participants were asked to choose the version of a DRS they would be **most likely to use**. This differs to asking more simply about preference as is the case with the survey questions. Asking about preference may have led survey participants to choose scenarios in which they would not use a DRS. For example, they may choose a lower deposit amount because they would be happier to forgo the deposit, and in fact, a higher deposit amount would be an incentive to use the DRS to reclaim the deposit. For this reason, we decided to ask explicitly about likelihood of use rather than preference.

It should also be noted that, where survey participants selected 'Neither of these' rather than choosing scenario A or B, we were not able to explore their reasoning behind this decision in this part of the survey. They may have decided they would forgo the deposit money, or they may assume they would reduce the amount of drinks containers they buy. These issues were teased out more generally in the survey questions and qualitative research but not in relation to the conjoint exercise specifically.

Conjoint measures

In the first instance, survey participants are given utility scores for each level; the higher the utility score, the more attractive the level. The utility scores themselves are not particularly meaningful but the **gaps between them** are used as relative measures of the value of or the attractiveness of each level across survey participants. These utility scores are also used to calculate the overall importance of each attribute across the sample, these expressed as percentages.

The next step is to build these utility figures into a model where the generation of a 'utility sum' for each scheme is created for each participant by adding together their scores for

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each level. The model facilitates comparison of the composite scenarios (i.e. potential DRS designs) asked about in the conjoint exercise.

Next, the 'share of preference' measure is generated within the model. This measure is used to compare different scenarios and is based on the relative values of the utility sum of each scenario. It provides a percentage showing the proportion who said they would be more likely to use each scenario being compared. The higher the value, the greater share the scenario will receive.

Subsequently, two key measures are generated which are used within our analysis:

- Potential usage: this measure builds on the 'share of preference', taking this
 measure and including the value of the 'Neither of these' option, ultimately providing
 a percentage showing the proportion who said they would be prepared to use any
 particular scenario.
- 2. **Appeal**: this number indicates the overall attractiveness or effectiveness of the scenario and adds context to the potential usage figure. One way of looking at the appeal score in relation to the DRS is to see it as a driver in terms of which of the range of attributes will most influence behaviour towards using the scheme. The overall appeal score is generated by using the utility scores to calculate a 'best' and 'worst' scheme for each individual participant. The best scheme is awarded 100 points and the worst scheme receives 0 points. These individual scores are then averaged across all survey participants to generate an overall appeal measure.

In practice, survey participants said they were relatively likely to use most of the DRS scheme combinations with differences between them on the 'potential usage' measure often being quite small. Therefore, the additional measure of overall 'appeal' is important as it adds context. Where one combination achieves a higher score, it allows us to feel more confident that people will carry through on their intention to use it, as they are happier with it. For example, we found that survey participants indicated they will use the scheme where return points can be found at a transport station or a supermarket. As we have the additional appeal measure, we know they by far prefer the supermarket option. Therefore, we can interpret this as saying that while they intend to use the DRS scheme where ver it is based, they are probably more likely to do so if the return points are at supermarkets.

No.	Cost	Location	Time	Appeal	Potential
					usage
1	10p	Large supermarket	Up to 10 minutes	83.6	91.2
2	15p	Large supermarket	Up to 10 minutes	86.0	90.8
3	10p	Large supermarket	Between 10 and 20 minutes	75.9	89.9
4	20p	Large supermarket	Up to 10 minutes	87.6	89.7
5	15p	Large supermarket	Between 10 and 20 minutes	78.3	89.4
6	25p	Large supermarket	Up to 10 minutes	85.8	88.2
7	20p	Large supermarket	Between 10 and 20 minutes	79.9	88.1
8	10p	Mini supermarket or local shop	Up to 10 minutes	74.2	87.5
9	15p	Mini supermarket or local shop	Up to 10 minutes	76.6	86.8
10	25p	Large supermarket	Between 10 and 20 minutes	78.1	86.5
11	20p	Mini supermarket or local shop	Up to 10 minutes	78.2	85.8
12	10p	Mini supermarket or local shop	Between 10 and 20 minutes	66.5	85.7
13	10p	Large supermarket	Between 20 and 30 minutes	58.5	85.3

Figure G.2: Conjoint exercise: 48 DRS models in order of likelihood of use

14	15p	Mini supermarket or local shop	Between 10 and 20 minutes	68.8	84.9
15	15p	Large supermarket	Between 20 and 30 minutes	60.9	84.8
16	25р	Mini supermarket or local shop	Up to 10 minutes	76.4	84.1
17	20p	Mini supermarket or local shop	Between 10 and 20 minutes	70.5	83.8
18	20p	Large supermarket	Between 20 and 30 minutes	62.5	83.8
19	25p	Large supermarket	Between 20 and 30 minutes	60.7	82.5
20	25p	Mini supermarket or local shop	Between 10 and 20 minutes	68.7	82.2
21	10p	A park or near a high street	Up to 10 minutes	59.4	81.5
22	15p	A park or near a high street	Up to 10 minutes	61.7	80.8
23	10p	Mini supermarket or local shop	Between 20 and 30 minutes	49.1	80.5
24	20p	A park or near a high street	Up to 10 minutes	63.4	80.0
25	15p	Mini supermarket or local shop	Between 20 and 30 minutes	51.5	79.9
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26	10p	A park or near a high street	Between 10 and 20 minutes	51.7	79.3
27	20p	Mini supermarket or local shop	Between 20 and 30 minutes	53.1	79.1
28	25р	A park or near a high street	Up to 10 minutes	61.6	78.9
29	15p	A park or near a high street	Between 10 and 20 minutes	54.0	78.8
30	25p	Mini supermarket or local shop	Between 20 and 30 minutes	51.3	78.1
31	20p	A park or near a high street	Between 10 and 20 minutes	55.7	78.0
32	25p	A park or near a high street	Between 10 and 20 minutes	53.9	77.0
33	10p	A park or near a high street	Between 20 and 30 minutes	34.3	75.1
34	15p	A park or near a high street	Between 20 and 30 minutes	36.6	75.0
35	20p	A park or near a high street	Between 20 and 30 minutes	38.3	74.5
36	10p	Train, bus, tube, or tram station	Up to 10 minutes	36.9	74.3
37	15p	Train, bus, tube, or tram station	Up to 10 minutes	39.3	74.1
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		A park or near a high	Between 20 and 30		
38	25p	street	minutes	36.5	73.9
39	20p	Train, bus, tube, or tram station	Up to 10 minutes	40.9	73.7
40	25р	Train, bus, tube, or tram station	Up to 10 minutes	39.1	72.9
41	15p	Train, bus, tube, or tram station	Between 10 and 20 minutes	31.6	72.5
42	10p	Train, bus, tube, or tram station	Between 10 and 20 minutes	29.2	72.4
43	20p	Train, bus, tube, or tram station	Between 10 and 20 minutes	33.2	72.3
44	25p	Train, bus, tube, or tram station	Between 10 and 20 minutes	31.4	71.6
45	20p	Train, bus, tube, or tram station	Between 20 and 30 minutes	15.8	68.0
46	15p	Train, bus, tube, or tram station	Between 20 and 30 minutes	14.2	67.7
47	25p	Train, bus, tube, or tram station	Between 20 and 30 minutes	14.0	67.2
48	10p	Train, bus, tube, or tram station	Between 20 and 30 minutes	11.8	66.8

Subgroup analysis of the 'best' and 'worst' schemes

The top scheme design included a 10p deposit amount, return points at large supermarkets and up to 10 minutes extra time added to the week to store and return drinks containers. This design was selected as the most likely scheme survey participants would use by **all** sub- groups, with slightly differing levels of appeal and preference.

- Younger survey participants indicated that they would be more likely to use this version of the DRS than older participants (88% of those aged 55 and over compared with 96% of 16-34 year olds).
- Those in social grade E were less likely to say they would use the 'best' scheme, with 14% opting for no scheme over the best one (compared with 8% of those in social grade A).
- Survey participants with access to a household car were more likely to say they would use this scheme (91% compared with 87% of those who do not have access).
- Survey participants who said they opposed a DRS scheme in principle were far more likely to say they would not use this top version although among this group almost two thirds (63%) still said they would use it (compared with 97% who supported a DRS scheme).

The table below shows for the 'best' scheme, the percentage of each subgroup who said they would use it (as opposed to selecting no scheme at all). Figure G.3: The 'best' DRS model (10p, large supermarket, up to 10 mins) by subgroups

Base size	Sample group	% of usage	Appeal
	10p, large supermarket, up to 10 mi	ins	
1453	Total sample	91%	83.6
702	Male	91%	82.1
751	Female	92%	85.1
421	16 to 34	96%	75.4
207	35 to 44	93%	83.9
115	45 to 49	87%	83.7
119	50 to 54	93%	83.6
591	55 or older	88%	89.4
111	А	92%	82.6
267	В	91%	84.9
358	C1	93%	84.7
222	C2	93%	81.5
186	D	93%	83.0
283	E	86%	83.2
413	Rural	92%	84.4
1040	Urban – City	91%	83.3
1216	Car owner	92%	84.1
237	Non-car owner	87%	80.7
1071	Support a DRS	97%	82.0
234	Neither support nor oppose a DRS	80%	86.4
148	Oppose a DRS	63%	91.2

Regarding the 'worst' scheme, as noted, despite coming bottom of the list of 48 scenarios, there were nevertheless high levels of perceived usage with just over two thirds (67%) claiming they would use it compared with no scheme. However, these results should be taken into account alongside the appeal score which for all subgroups was very low (between 10.1 and 15.8 across all subgroups).

This scheme was listed last or second from last for all subgroups. There was a similar pattern with age as seen with the 'best' scheme (i.e. older people were less likely to say they would use the scheme) although perceived use was still high with just over half (54%) of the oldest age group (55 and older) claiming that they would use it. The figure that really stood out was the group of survey participants who said they oppose the DRS in principle; almost one in seven (68%) who oppose the scheme chose using no scheme over this one and just over half (53%) of those who neither support nor oppose the scheme said the same. These were the only two subgroups where more than half said they would not use the scheme. For all other groups, more than half would have used this (i.e. the worst) scheme over not using any scheme at all. The table below shows for the 'worst' scheme, the percentage of each subgroup who said they would use it (as opposed to selecting no scheme at all).

Figure G.4: The 'worst' DRS model (10p, transport station, 20-30 mins) by subgroups

Base size	Sample group	% of usage	Appeal
	10p, transport station, 20-30 mins	5	
1453	Total sample	67%	11.8
702	Male	69%	12.2
751	Female	65%	11.5
421	16 to 34	79%	11.4
207	35 to 44	72%	12.9
115	45 to 49	69%	11.8
119	50 to 54	74%	11.4
591	55 or older	54%	11.8
111	А	73%	12.3
267	В	65%	11.9
358	C1	67%	10.1
222	C2	68%	13.1
186	D	69%	13.0
283	E	64%	13.1
413	Rural	69%	10.3
1040	Urban – City	66%	12.6
1216	Car owner	67%	11.3
237	Non-car owner	67%	14.9
1071	Support a DRS	76%	10.6
234	Neither support nor oppose a DRS	47%	15.1
148	Oppose a DRS	32%	15.8