

Future Recycling and Separate Collection of Waste of a Household Nature in Northern Ireland

Summary of Responses



Department of
**Agriculture, Environment
and Rural Affairs**

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Proposal 12: Based on the preceding summary of the key issues, we therefore propose to provide national guidance for Northern Ireland to help establish greater consistency in recycling and waste collection services and reduce confusion for households. 109

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Proposal 16: We propose developing an updated set of recycling and waste indicators to monitor performance and cost efficiency and to highlight where services may be improved. We will work with Councils to develop these and other indicators to reflect areas such as quality or contamination levels and service delivery..... 123

 Question 41: Do you agree or disagree that a new set of recycling and waste indicators is required? 123

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Proposal 17: We will look at metrics that can sit alongside weight-based metrics and will work with stakeholders to develop these to better measure reductions of carbon emissions associated with waste in Northern Ireland. 129

 Question 45: Do you agree that alternatives to weight-based metrics should be developed to understand recycling performance?..... 129

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Overview

The Department of Agriculture, Environment & Rural Affairs (DAERA) recently sought views on a public discussion document for consultation which covered the potential options to help improve resource management in Northern Ireland (NI). The consultation opened on 26 June 2020 and closed on 4 October 2020. The discussion document titled “Future Recycling and Separate Collection of Waste of a Household Nature in Northern Ireland” sets out the current position of recycling in Northern Ireland, and the current and new regulatory, climate change and market drivers that will influence policy in the future.

The implementation of the Circular Economy Package (CEP) in UK law amends six existing waste related Directives for Northern Ireland and requires relevant updates to NI waste legislation in relation to waste collection, recovery and preparing for re-use and recycling. CEP drives changes across a broader range of sectors than UK waste policy has previously focussed on including retail, hospitality, education and transport sectors. As such DAERA was keen to seek initial views and insights on a range of proposals in order to help with policy development.

The aim of the consultation was to seek initial views on a range of initial proposals which were designed to help improve resource management in Northern Ireland from households and the wider municipal sector businesses. The public discussion document was not a formal consultation of new policies relating to DAERA’s Waste Management Strategy and the implementation of CEP.

This report covers the analysis of responses to the public discussion document in relation to the proposals and the specific questions asked. This analysis should ideally be read in context of the discussion document report and the findings from the Waste and Resources Action Programme (WRAP) report on Municipal Recycling Potential in Northern Ireland 2020. All relevant documents can be found at <https://www.daera-ni.gov.uk/consultations/discussion-future-recycling-and-separate-collection-waste-household-nature-northern-ireland>

Approach

The consultation was launched using NIDirect’s Citizen Space digital platform which is widely used for consultations in order to collate responses from all potential stakeholders. The consultation was promoted widely particularly through all the relevant stakeholder groups who have an interest in this subject area. A high response rate of 56 responses was received. The majority of responses were submitted via Government’s Citizen Space consultation webpage which helped to standardise the responses from respondents and Stakeholders. 12 submissions were received separately via email and needed to be inputted manually to allow fair comparison and analysis to be undertaken.

The discussion document covered 17 proposals designed to progress cross sector change to help Northern Ireland (NI) move its Waste Management Strategy forward in light of CEP. These areas covered a range of relevant topics including amendments or updates to existing requirements, changes to collection systems, common NI guidance, support mechanisms for businesses and improvements in data management. 47 questions were designed to gauge respondent views on different aspects of the 17 proposals.

A series of 12 public events were set up and delivered by DAERA and WRAP during the process to help potential respondents and stakeholders understand the proposals. The sessions covered the underpinning evidence and enabled attendees to ask questions to better inform their responses. Slides and any further information requested were supplied shortly after the event.

Layout of the proposals and questions

In the Citizen Space platform the content was laid out in a specific format to maximise the opportunity for respondents to complete the form and also designed to minimise burden on them in completing the forms. Respondents were provided with the introductory text summarising the background to the proposal, references to the associated evidence or key policy and then a series of questions initially on business waste and then household waste.

Respondents were not required to answer all the questions but were encouraged to navigate to the sections that were of most relevance to them. Following the key questions in each section a series of free form text boxes allowed respondents to add further insights on their question preferences based on their background, experience and data they may have. In addition, respondents were encouraged to send any further evidence they had to support their perspective. 5 supporting statements including evidence were issued to DAERA for consideration in reviewing the responses.

Layout of the responses in this summary

The large number of proposals, the supporting questions and the associated analysis means that the document is quite long. A detailed contents page was created to help readers navigate to the areas of interest. Each section outlines the proposal and question and then summarises the initial preferences. The quantitative results then cover preferences on the question asked and are then split out by stakeholder. These results are detailed in charts and split by stakeholder to help show the different and overall preferences aspects for the proposal. The numbers at the end of each bar on the bar charts reflects the number of responses represented by the bar.

After the charts a qualitative summary of the free form box responses looks at the key views and further perspectives of stakeholders. The summary of these qualitative responses contains a number in brackets at the end of each opinion which simply reflect the number of comments giving that opinion.

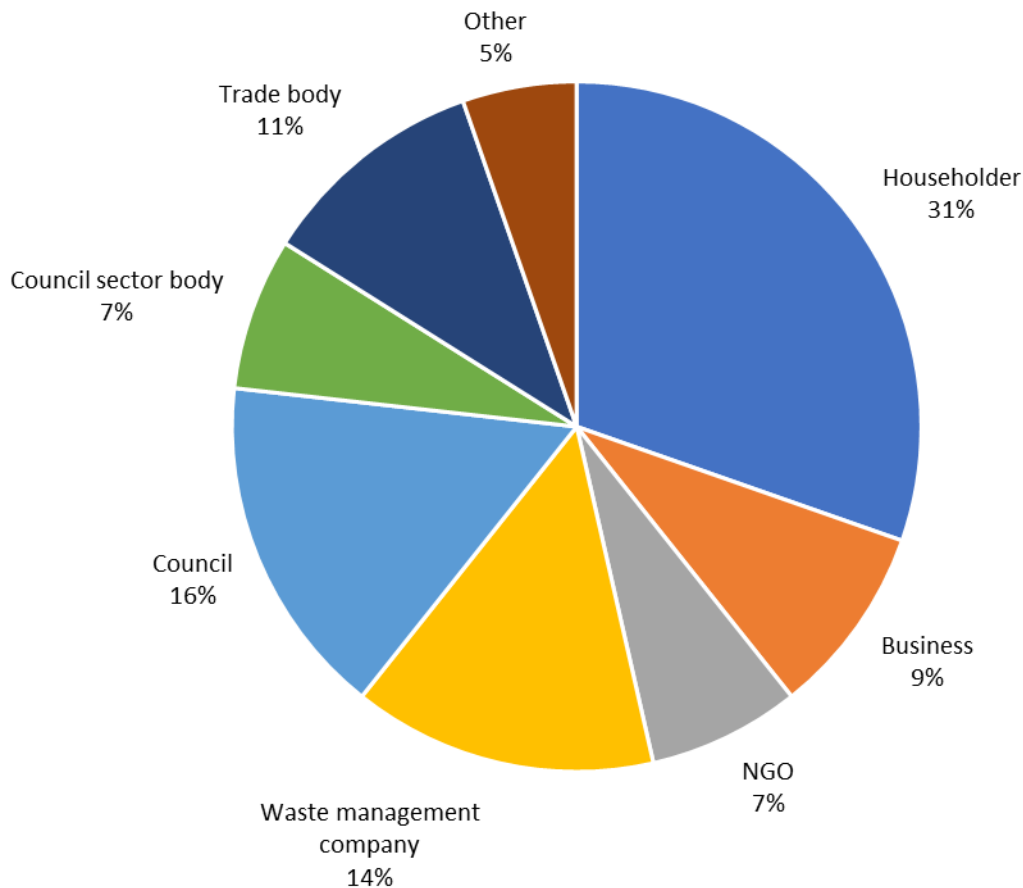
Categorising respondents:

In Citizen Space respondents were asked to classify themselves into one of many potential categories. As stated above the intention was to enable further review of responses particularly to help DAERA understand the context of stakeholder responses. Appendix A lists the categorisation of the respondents. Where respondents could not easily be categorised an 'Other' category was available which included educational

institutions and a health care trust. The proportion of respondents by category is shown in figure 1.

- Householder – **31%**
- Business – **9%**
- Trade body – **11%**
- Non-governmental respondent (NGO) – **7%**
- Waste management company – **14%**
- Council – **16%**
- Council sector body – **7%**
- Other – **5%**

Figure 1: Respondents by category that answered this discussion document.



Non-Household Municipal Waste:

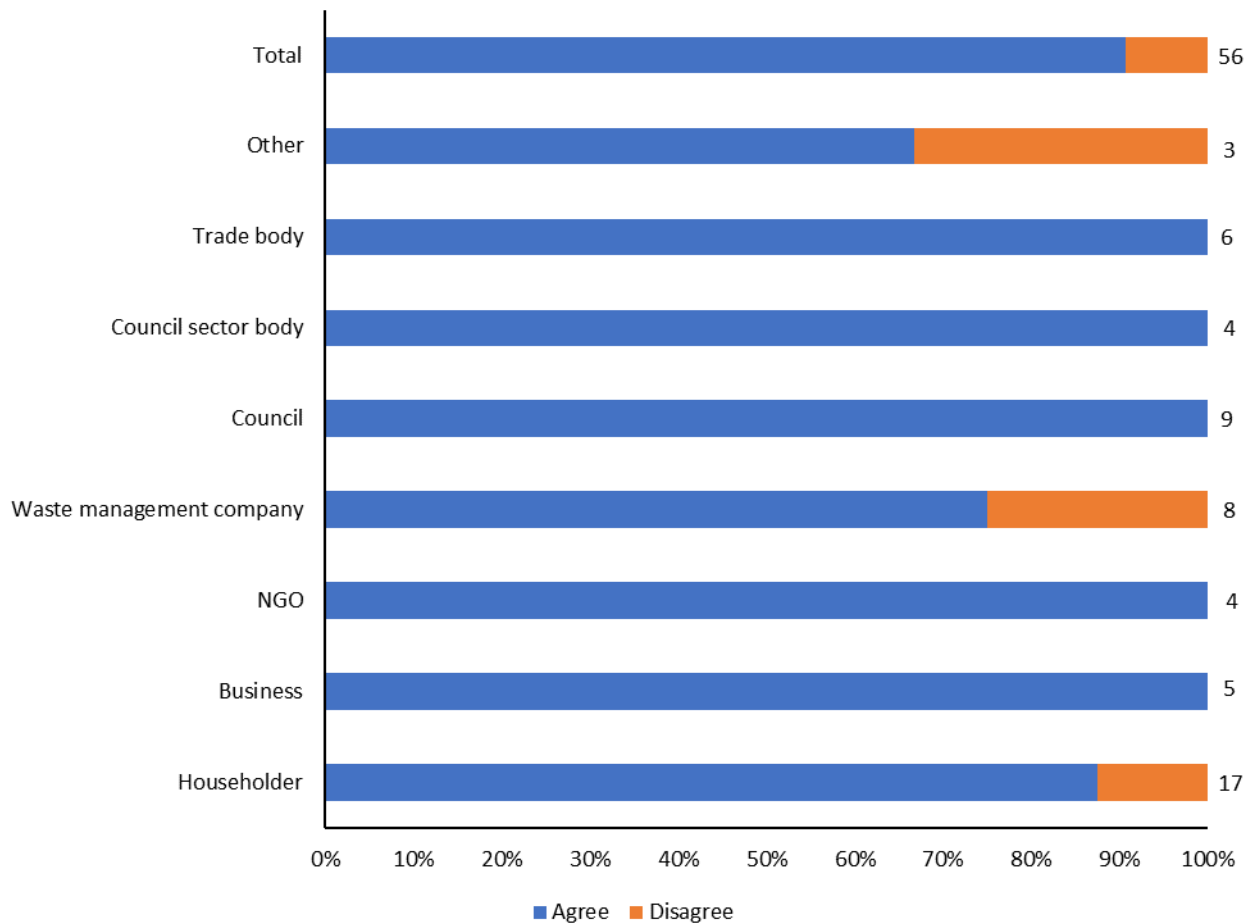
Proposal 1: In order to increase food waste collected from the non-household municipal sector, the Food Waste Regulations (Northern Ireland) 2015 should be reviewed to ensure obligated businesses segregate food waste for collection.

Question 1: Do you agree or disagree that the Food Waste Regulations (Northern Ireland) 2015 should be reviewed regarding food waste collections from food businesses.

- Agree – the Food Waste Regulations (Northern Ireland) 2015 should be reviewed regarding food waste collections from food businesses: **49 responses (88%)**
- Disagree – the Food Waste Regulations (Northern Ireland) 2015 should not be reviewed regarding food waste collections from food businesses: **5 responses (9%)**
- Not answered: **2 responses (4%)**

Figure 2 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but the overall result is positive. In total across all respondent categories 91% answered 'Agree'. 100% agreement is seen for businesses, trade bodies, Councils, Council sector bodies and NGOs. Lower agreement rates are seen for householders (88%), 'Other' respondents (67%) and waste management companies (75%).

Figure 2: Do you agree or disagree that that the Food Waste Regulations (Northern Ireland) 2015 should be reviewed regarding food waste collections from food businesses?



3 respondents answered ‘Disagree’ and left comments. The following reasons were identified.

- DAERA should focus their energy on raising awareness of the Regulations (2) in partnership with the waste management companies (1). Separate food waste collections have already been widely adopted by businesses and work is on-going to change behaviours where there are still issues (1). Supporting media campaigns such as those used to encourage household recycling would improve recycling behaviours significantly (1).
- Changing legislation will have little to no impact on the proper use of food waste receptacles already on sites (1).
- One waste management company queried the WRAP-derived NHM figures. However, no detail was provided to consider alternatives in the response or in supporting statements (1).
- The regulations are already clear (1).

Question 2: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated:

- Awareness of the regulations to obligated businesses**
- Requirements to separate food from all business categories**

- c) Options to amending the regulations for more business categories to be in scope of the requirements
- d) Access to food recycling services for businesses
- e) Charging levels for food waste collections
- f) Monitoring business compliance
- g) Enforcement of business compliance
- h) Data and reporting of food recycling

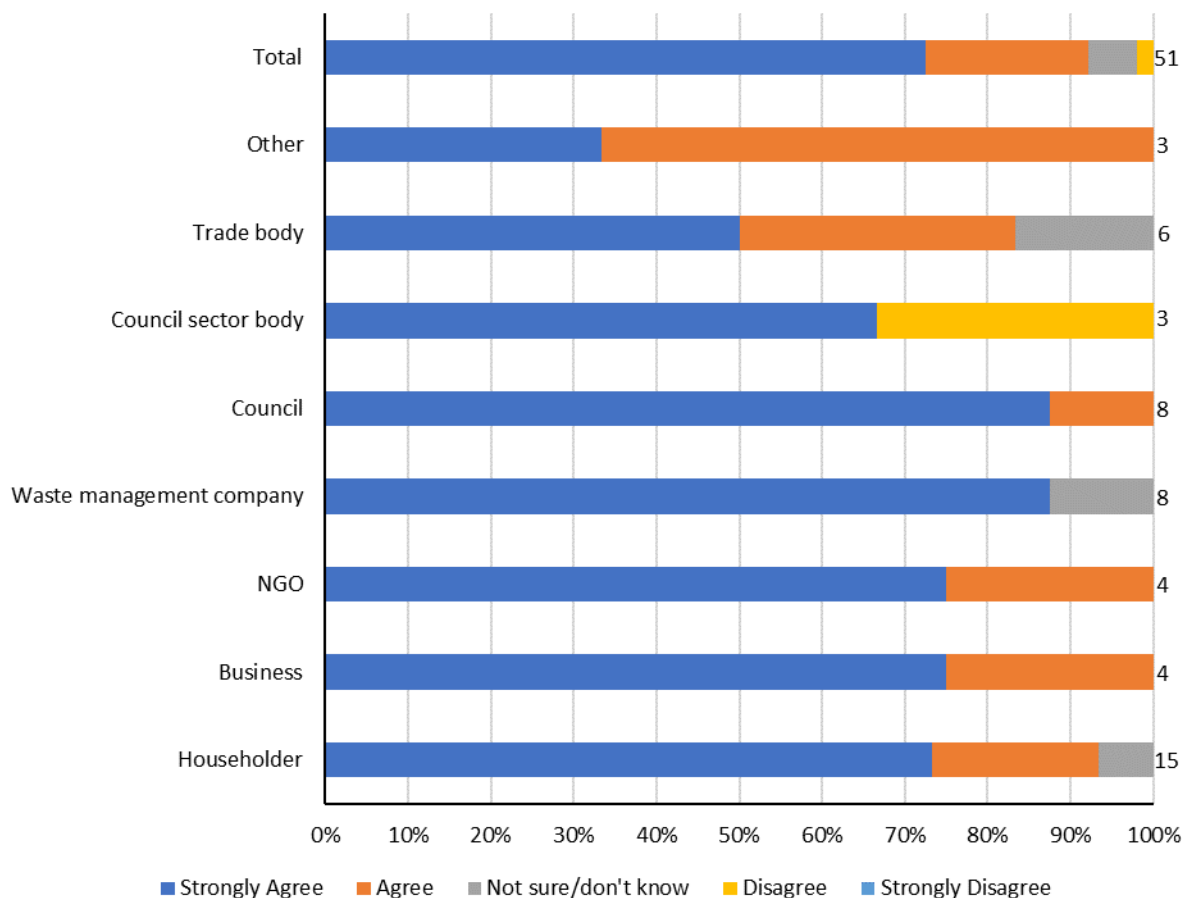
Which other areas of the regulations, if any, do you think should be investigated?

a) Awareness of the regulations to obligated businesses

- Strongly agree – Awareness of the regulations to obligated businesses should be investigated: **37 responses (66%)**
- Agree – Awareness of the regulations to obligated businesses should be investigated: **10 responses (18%)**
- Not sure/ don't know: **3 responses (5%)**
- Disagree – Awareness of the regulations to obligated businesses should not be investigated: **1 response (2%)**
- Strongly Disagree – Awareness of the regulations to obligated businesses should not be investigated: **0 responses (0%)**
- Not answered: **5 responses (9%)**

Figure 3 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but in each case 'Strongly agree' or 'Agree' is the predominant answer. The total who 'Agree' and 'Strongly agree' across all respondent categories is 93%. Notably, the highest rate of disagreement is seen in the 'Council sector body' category where 33% of respondents selected 'Disagree'.

Figure 3: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Awareness of the Regulations to obligated businesses

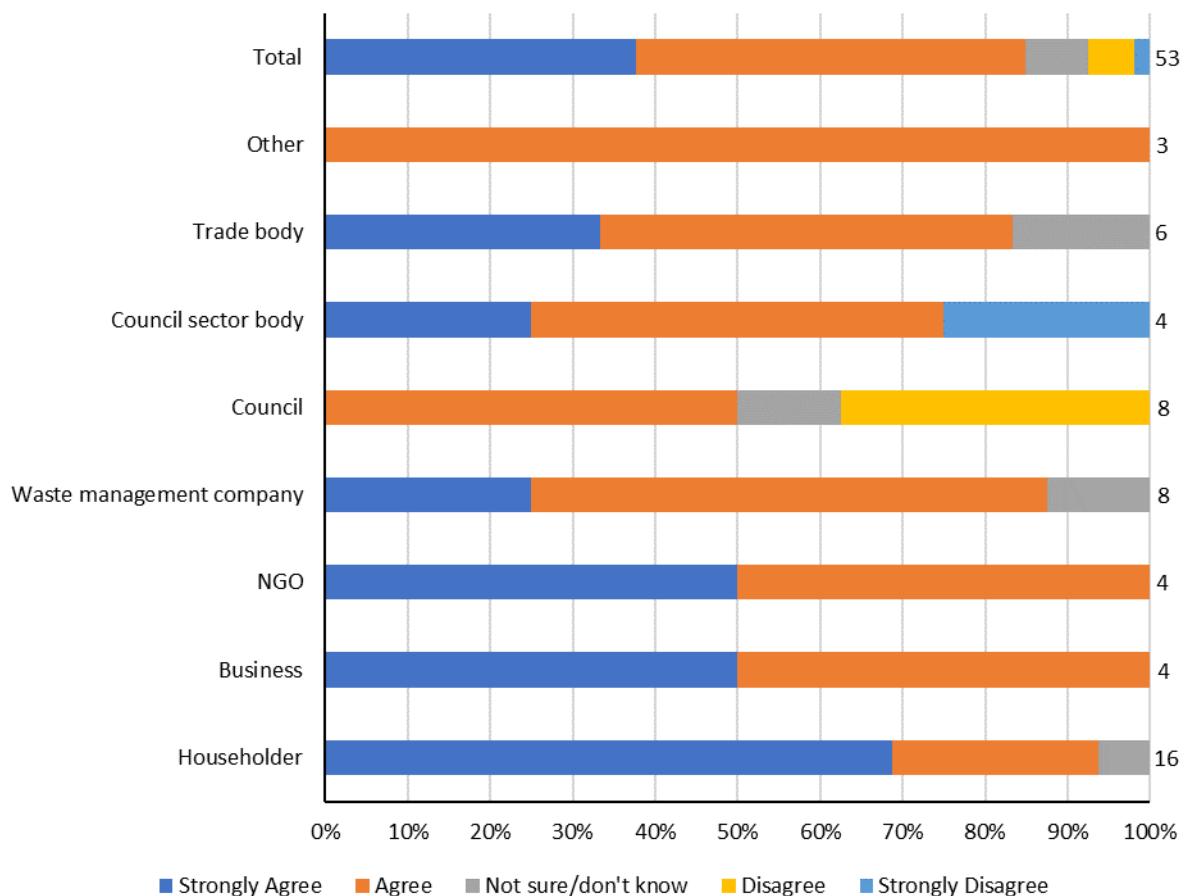


b) Requirements to separate food from all business categories

- Strongly agree – Requirements to separate food from all business categories should be investigated: **20 responses (36%)**
- Agree - Requirements to separate food from all business categories should be investigated: **25 responses (45%)**
- Not sure/ don't know: **4 responses (7%)**
- Disagree – Requirements to separate food from all business categories should not be investigated: **3 response (5%)**
- Strongly Disagree - Requirements to separate food from all business categories should not be investigated: **1 response (2%)**
- Not answered: **3 responses (5%)**

Figure 4 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The total who answered 'Strongly agree' and 'Agree' across all respondent categories is 85% however there is some variation in opinion. For all respondents except Councils, the response is predominantly positive. However, only 50% of Councils agree the requirements to separate food from all business categories should be reviewed. 38% of Councils answered 'Disagree' and 25% of Council sector bodies answered 'Strongly disagree'.

Figure 4: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Requirements to separate food from all business categories

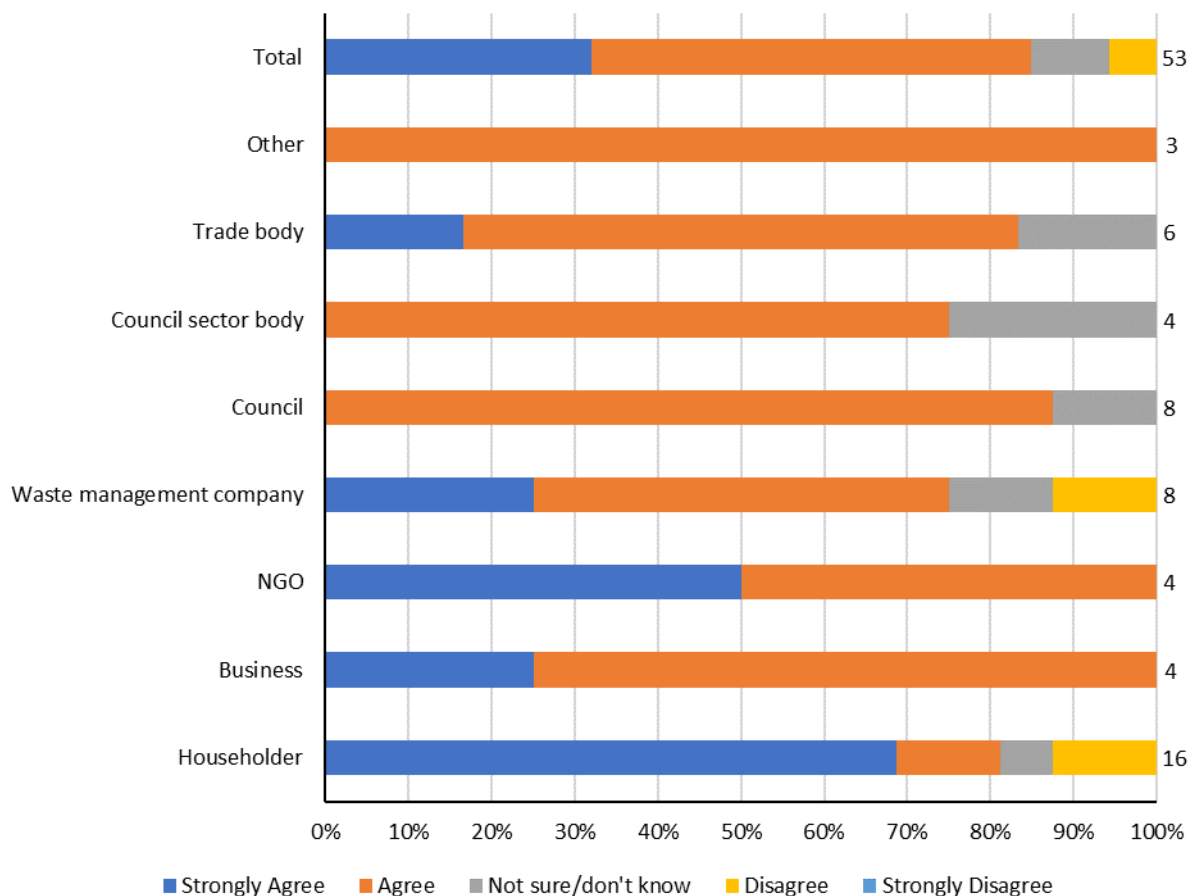


c) Options to amending the regulations for more business categories to be in scope of the requirements

- Strongly agree – Options to amend the regulations for more business categories to be in scope of the requirements should be investigated: **17 responses (30%)**
- Agree - Options to amend the regulations for more business categories to be in scope of the requirements should be investigated: **28 responses (50%)**
- Not sure/ don't know: **5 responses (9%)**
- Disagree - Options to amend the regulations for more business categories to be in scope of the requirements should not be investigated: **3 response (5%)**
- Strongly Disagree - Options to amend the regulations for more business categories to be in scope of the requirements should not be investigated: **0 responses (0%)**
- Not answered: **3 responses (5%)**

Figure 5 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response is predominantly positive across all respondent categories. For all except NGOs, the predominant answer is 'Agree'. For NGOs there is a 50% split between 'Strongly agree' and 'Agree'. Across all respondent categories 32% of respondents 'Strongly agree' and 53% 'Agree' with only 6% selecting 'Disagree'.

Figure 5: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Options to amending the regulations for more business types to be in scope of the requirements

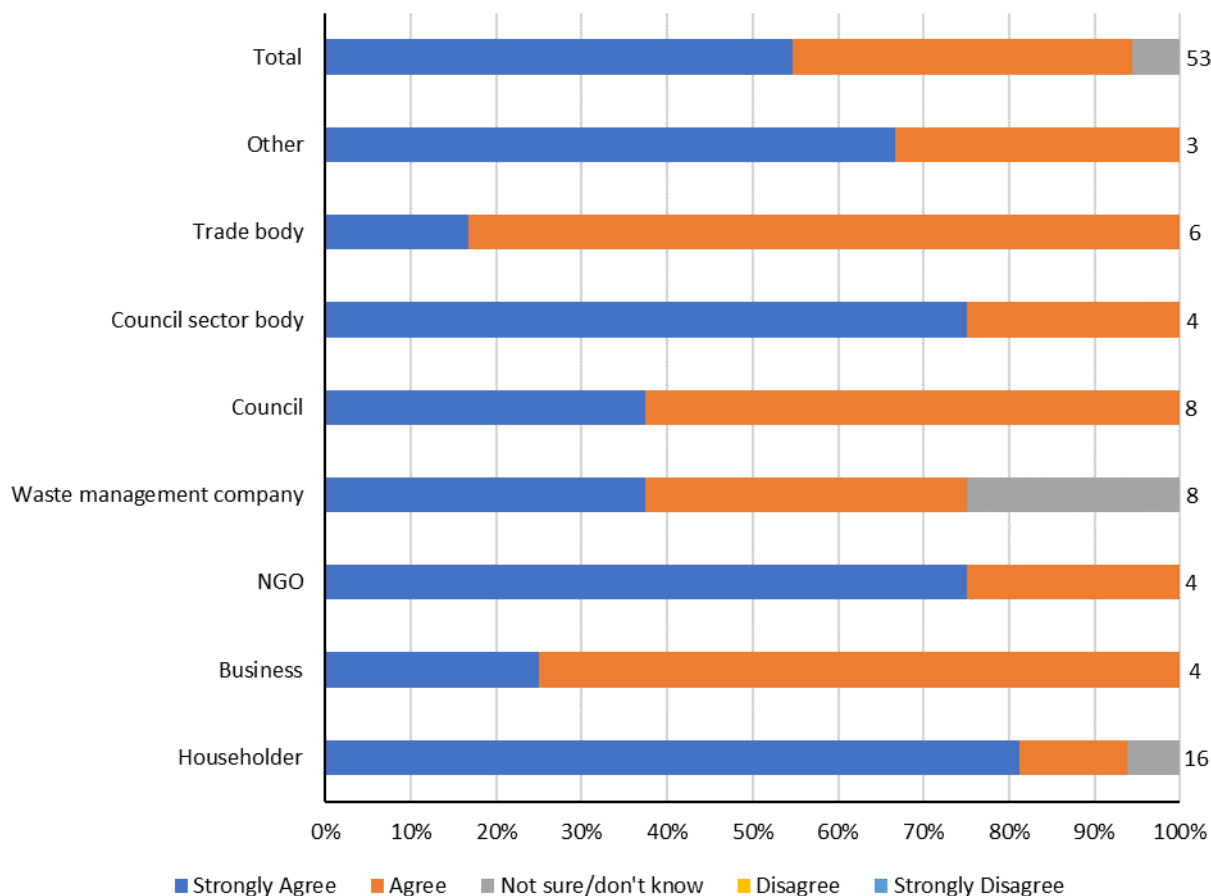


d) Access to food recycling services for businesses

- Strongly agree – Access to food recycling services for businesses should be investigated: **29 responses (52%)**
- Agree - Access to food recycling services for businesses should be investigated: **21 responses (38%)**
- Not sure/ don't know: **3 responses (5%)**
- Disagree - Access to food recycling services for businesses should not be investigated: **0 response (0%)**
- Strongly Disagree - Access to food recycling services for businesses should not be investigated: **0 responses (0%)**
- Not answered: **3 responses (5%)**

Figure 6 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response across all respondent categories is overwhelmingly positive. In each case, over 70% of respondents answered, 'Strongly agree' or 'Agree' and no respondents answered 'Disagree' or 'Strongly disagree'.

Figure 6: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Access to food recycling services for businesses

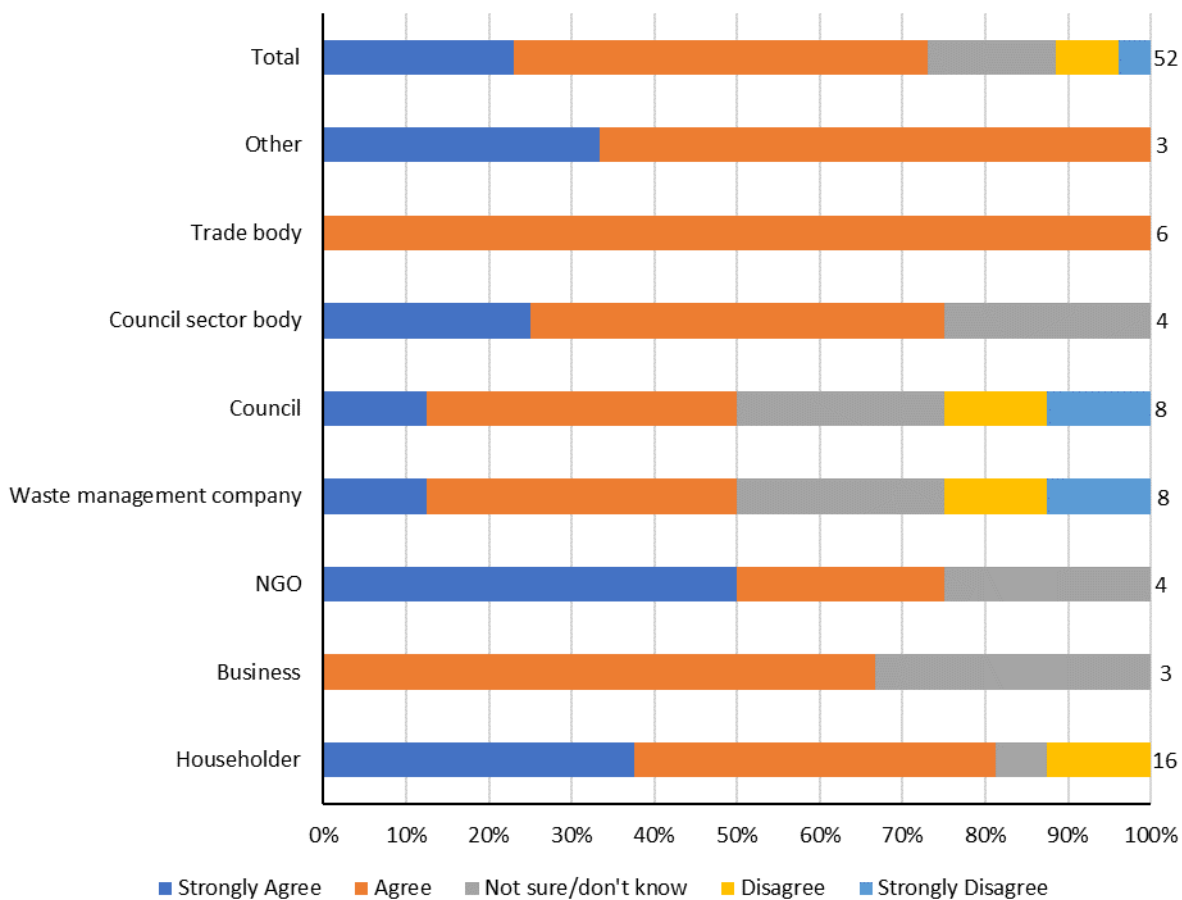


e) Charging levels for food waste collection services

- Strongly agree: Charging levels for food waste collection services should be investigated: **12 responses (21%)**
- Agree - Charging levels for food waste collection services should be investigated: **26 responses (46%)**
- Not sure/ don't know: **8 responses (14%)**
- Disagree: Charging levels for food waste collection services should not be investigated: **4 response (7%)**
- Strongly Disagree: Charging levels for food waste collection services should not be investigated **2 responses (4%)**
- Not answered **4 responses (7%)**

Figure 7 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response is predominantly positive across all respondent categories. For each respondent category 'Strongly agree' and 'Agree' make up the majority of responses although for Councils and waste management companies this is by a slim 1% margin (in each case 51% answered 'Strongly agree' or 'Agree'). Respondents from the Councils and waste management company categories were more likely to disagree that charging levels should be reviewed. In both 13% of respondents answered 'Disagree' and a further 13% answered 'Strongly disagree'.

Figure 7: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Charging levels for food waste collection services

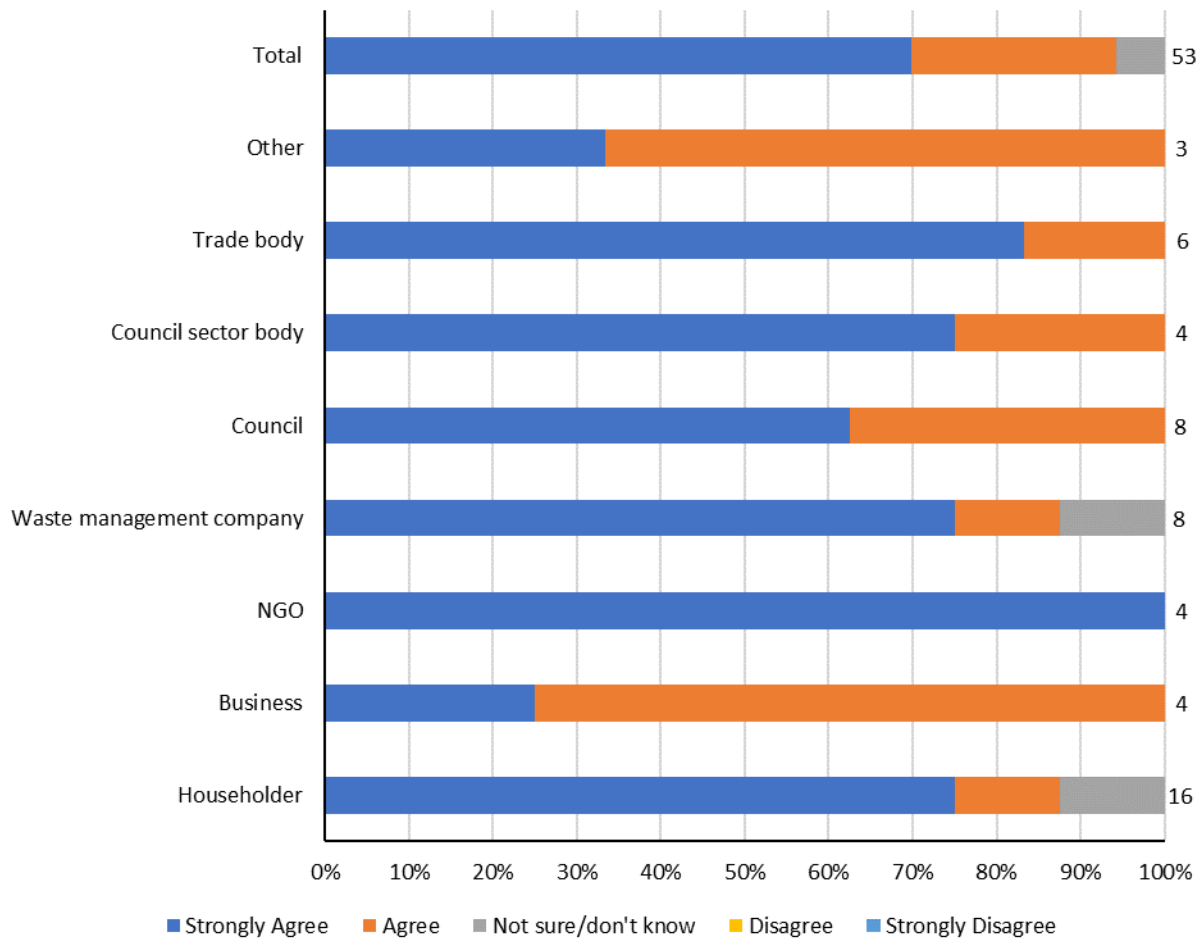


f) Monitoring of business compliance

- Strongly agree – Monitoring of business compliance should be investigated: **37 responses (66%)**
- Agree - Monitoring of business compliance should be investigated: **13 responses (23%)**
- Not sure/ don't know: **3 responses (5%)**
- Disagree - Monitoring of business compliance should not be investigated: **0 response (0%)**
- Strongly Disagree - Monitoring of business compliance should not be investigated: **0 responses (0%)**
- Not answered: **3 responses (5%)**

Figure 8 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response across all respondent categories is overwhelmingly positive. In each case, over 85% of respondents answered 'Strongly agree' or 'Agree' and no respondents answered 'Disagree' or 'Strongly disagree'.

Figure 8: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Monitoring of business compliance

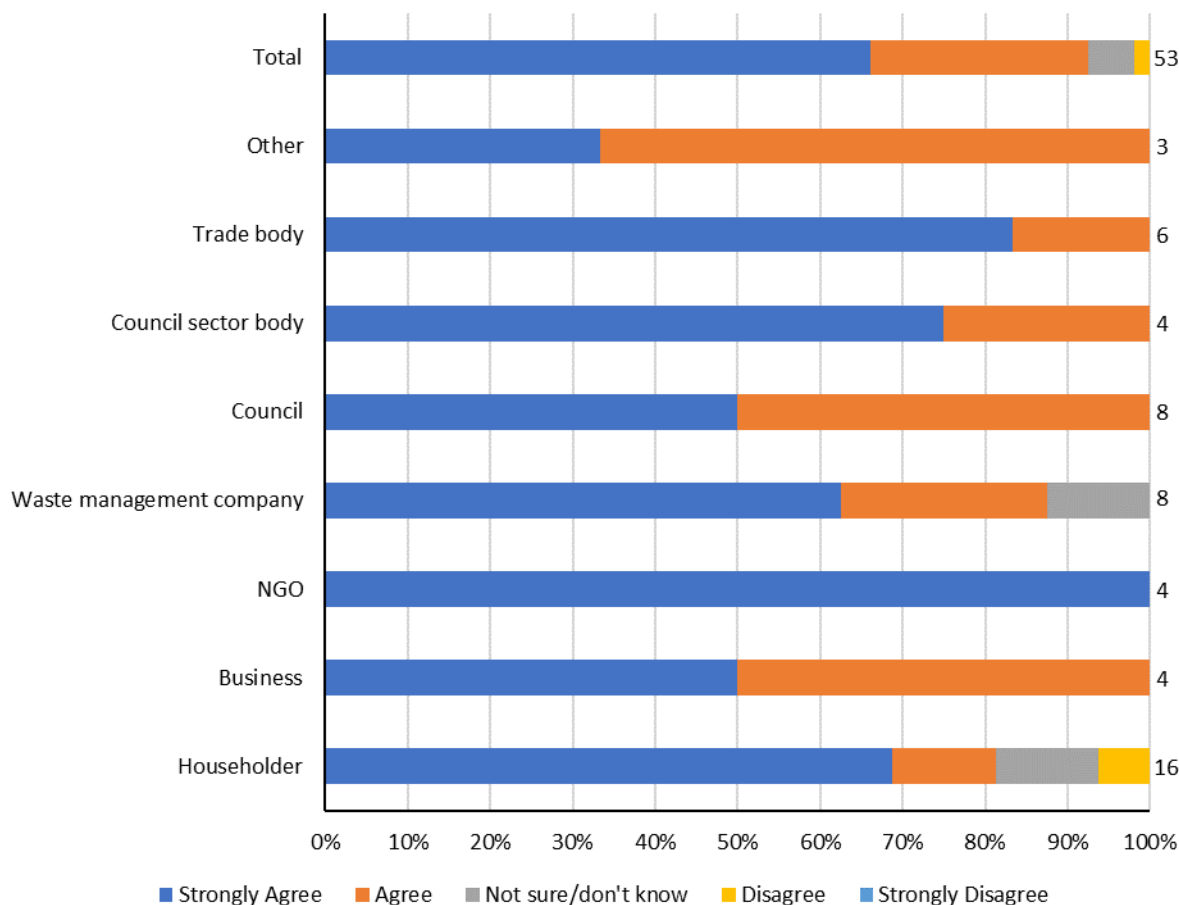


g) Enforcement of business compliance

- Strongly agree – Enforcement of business compliance should be investigated: **35 responses (63%)**
- Agree - Enforcement of business compliance should be investigated: **14 responses (25%)**
- Not sure/ don't know: **3 responses (5%)**
- Disagree - Enforcement of business compliance should not be investigated: **1 response (2%)**
- Strongly Disagree - Enforcement of business compliance should not be investigated: **0 responses (0%)**
- Not answered: **3 responses (5%)**

Figure 9 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response across all respondent categories is overwhelmingly positive. For each respondent category, over 80% of respondents answered 'Strongly agree' or 'Agree'. The household category is the only category in which disagreement was seen where 6% answered 'Disagree'. Across all respondents 66% answered 'Strongly agree', 26% 'Agree', 6% 'Not sure' and only 2% answered 'Disagree'.

Figure 9: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Enforcement of business compliance

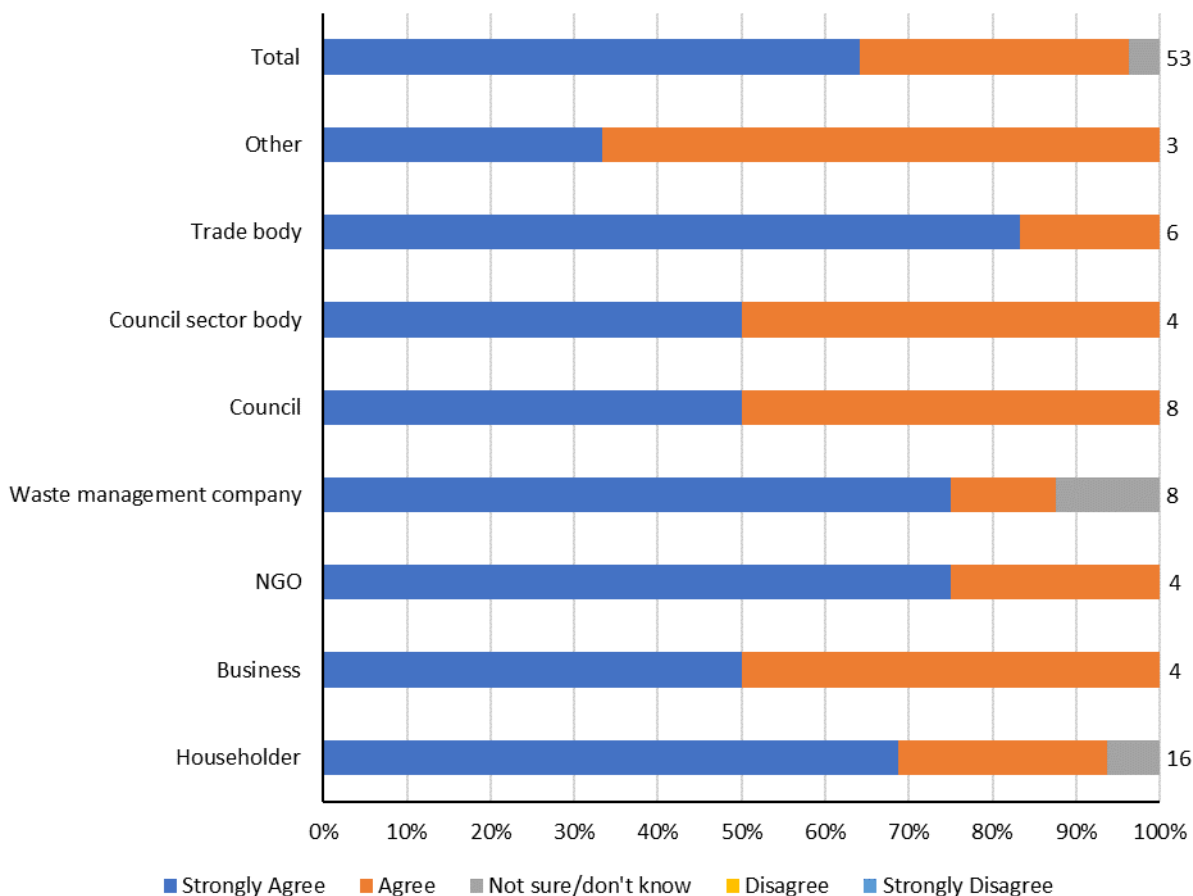


h) Data and reporting of food recycling

- Strongly agree – Data and reporting of food recycling should be investigated: **34 responses (61%)**
- Agree - Data and reporting of food recycling should be investigated: **17 responses (30%)**
- Not sure/ don't know: **2 responses (4%)**
- Disagree - Data and reporting of food recycling should not be investigated: **0 response (0%)**
- Strongly Disagree - Data and reporting of food recycling should not be investigated: **0 responses (0%)**
- Not answered: **3 responses (5%)**

Figure 10 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response across all respondent categories is overwhelmingly positive. For each respondent category, over 85% of respondents answered 'Strongly agree' or 'Agree'. No respondents answered 'Disagree' or 'Strongly disagree'.

Figure 10: If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated - Data and reporting of food recycling



Which other areas of the regulations, if any, do you think should be investigated?

Enforcement of business compliance for all obligated businesses was a key area highlighted for review (8).

- Four respondents mentioned there is need for clarity over who will be responsible for both monitoring and enforcement for separate food waste collection from commercial properties (4). Where separate food waste collections are carried out by private sector operators, there needs to be a clear means of measurement and reporting to DAERA (2). This is already done for non-commercial premises such as schools, but there was consideration whether a similar mechanism be applied for commercial premises (2).
- According to one waste management company, there are numerous incidences of waste operators combining source-segregated waste, including food waste, in the collection vehicles. Businesses often cite this as a reason for not collecting separate food waste. Enforcement was considered key to prevent this from happening (1).

The need for good communication of the Regulations to obligated businesses was reiterated (5).

- The need for communication campaigns to consider language barriers was raised (3).

- Responses stated that businesses will vary in their understanding and abilities regarding data collection and reporting. The mechanisms for this should therefore be co-designed with the private sector and any future monitoring body (3).
- A national food waste target would raise awareness of the damaging impacts of food waste and the need for action. Consumer campaigns should highlight the need for packaging to reduce food waste, as well as the need for the food and drink packaging itself to be recycled (1).

There was discussion around the 5kg threshold for obligated businesses (3).

- Councils and waste management companies suggest it may not be desirable to obligate businesses that produce inconsequential levels of food waste to run a separate food waste collection. This could place an unjustifiable burden on these businesses (3).

The impact of increased implementation of the Regulations on other regulatory activities needs to be considered (5).

- An increased workload for Environmental Health Units (due to public health concerns from inadequate containment or frequency of collection of separate food waste collections) must be acknowledged and funded (5).

Other areas to be investigated included:

- Mandating separate food waste collections will increase the number of containers required to store waste. Space availability must be considered (3).
- Regulations should include detail on the collection of compostable packaging within the food waste stream (1).
- Support should be given to food re-distribution projects to expand options for reducing food waste. This has the added benefit of supporting communities and individuals facing food poverty (1).
- DAERA has been considering regional business collection services for dry recyclables. This could be extended to include food waste collections (1).
- A limit should be set on the amount of non-recyclable waste a business can discard. This should be accompanied by enforcement and incentives for compliance through a waste plan (1).

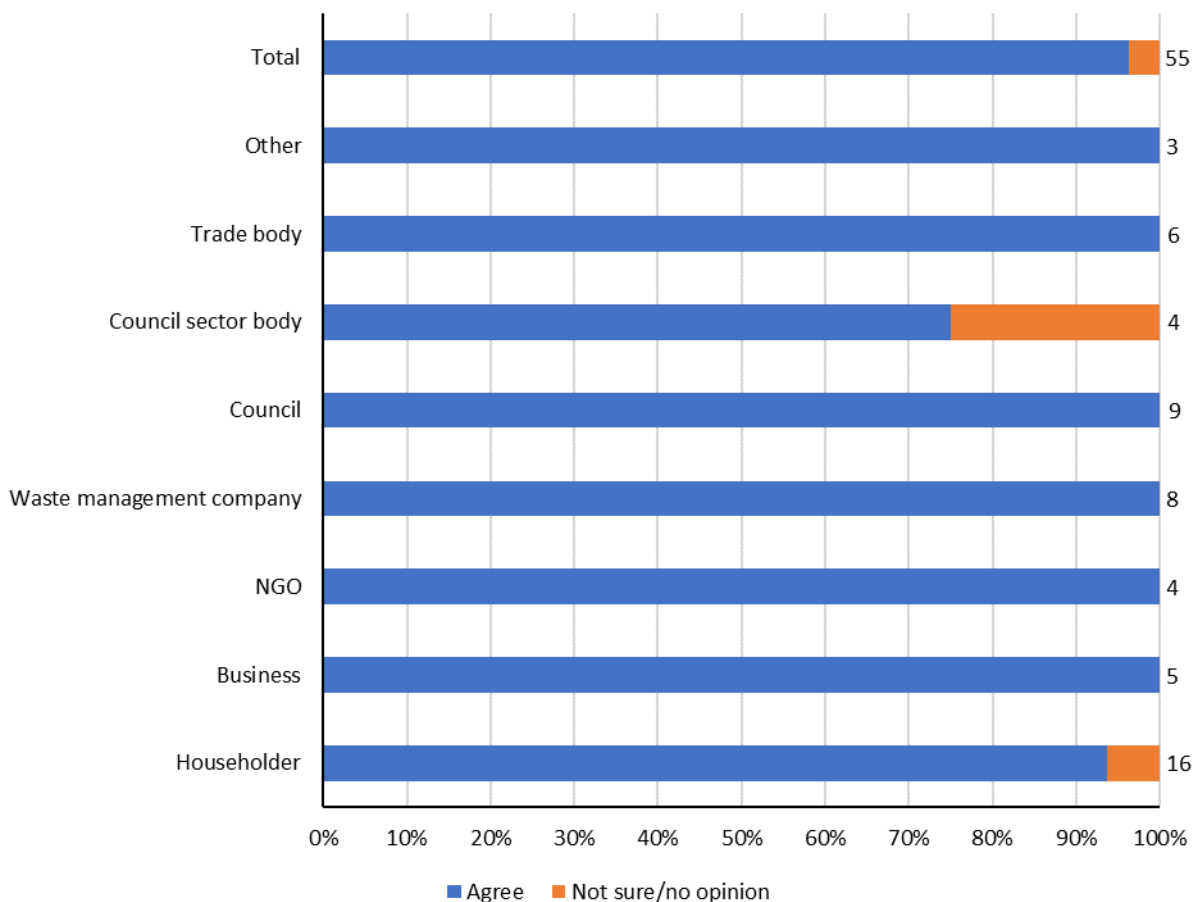
Proposal 2: We want to increase recycling from businesses and other respondents that produce municipal waste. We think the most effective way of doing this would be to require these establishments to segregate their recyclable waste from residual waste so that it can be collected and recycled by waste collectors.

Question 3: Do you agree or disagree that all businesses, public bodies, and other respondents that produce municipal waste should be required to separate dry recyclable material from the residual waste so that it can be collected and recycled? If you selected Disagree please explain why.

- Agree – all businesses, public bodies and other respondents that produce municipal waste should be required to separate dry recyclable material from the residual waste so that it can be collected and recycled: **53 responses (95%)**
- Disagree – all businesses, public bodies and other respondents that produce municipal waste should not be required to separate dry recyclable material from the residual waste so that it can be collected and recycled: **0 responses (0%)**
- Not sure/ no opinion: **2 responses (4%)**
- Not answered: **1 response (2%)**

Figure 11 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Most respondents agree that all businesses, public bodies, and respondents that produce municipal waste should be required to separate dry recyclable material from the residual waste. For each respondent category the percentage of responses that Agree is 75% or above and the total across all respondent categories is 96%.

Figure 11: Do you agree or disagree that all businesses, public bodies and other organisations that produce municipal waste should be required to separate dry recyclable material from residual waste so that it can be collected and recycled?



Question 4: Which of the two options do you favour? Please explain your selection.

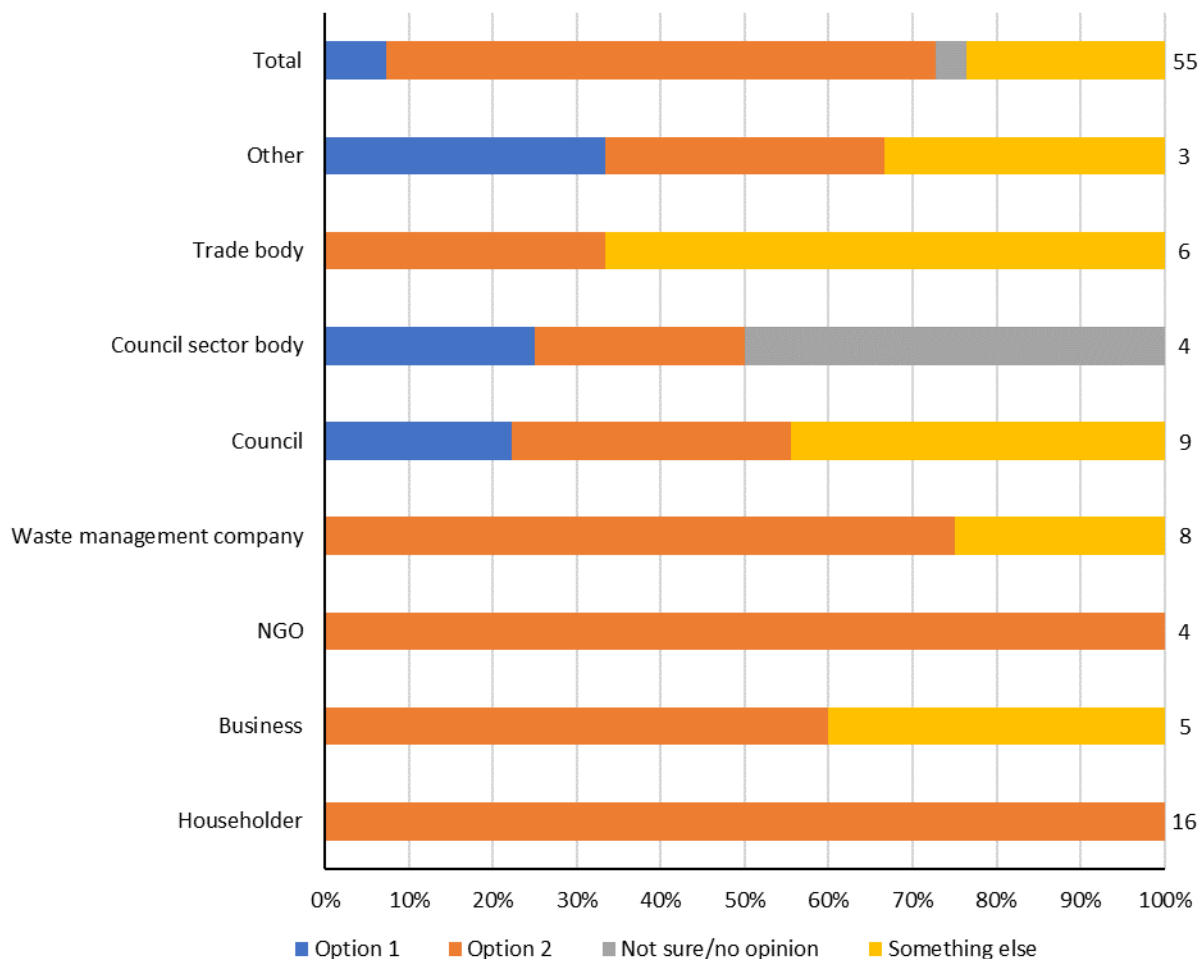
Option 1: Mixed dry recycling and separate food recycling; no glass recycling

Option 2: Mixed dry recycling, separate food recycling and separate glass recycling

- Option 1: **4 responses (7%)**
- Option 2: **36 responses (63%)**
- Not sure/ no opinion: **3 responses (5%)**
- Something else: **13 responses (23%)**
- Not answered: **1 response (2%)**

Figure 12 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category. Option 2 is the predominant answer for waste management companies, businesses, NGOs, and householders with each respondent category recording 60% of responses or above in favour of option 2. 'Something else' is the predominant answer for Councils and trade bodies at 44% and 67% respectively. The total across all respondent categories shows 65% of respondents in favour of option 2.

Figure 12: Which of the two options do you favour?



Please explain your selection.

Option 1: 1 respondent who selected option 1 answered this question.

- The economic and environmental incentives for businesses to recycle more, due to the higher cost of processing residual waste, should be recognised (1).

Option 2: 22 respondents who selected option 2 answered this question.

It is important glass is collected for recycling (12).

- All materials that can be recycled, should be recycled, to increase the recycling rate (4). Glass has an infinite recycling potential (3) and a high conversion ratio to recycled product (1) but takes a long time to decompose in landfill (1). Therefore, it is especially important this material is collected for recycling.

It is equally important glass is collected as a separate stream (7).

- Glass must be collected for recycling as a separate stream to ensure high quality recyclates for both the glass stream and the mixed dry recycling stream (6). Poor quality recyclates results in material wastage (1). Furthermore, with glass removed from the mixed dry recycling stream, a greater range of waste operators can provide the service, resulting in more competitive pricing for businesses (1).

It should not be difficult for businesses to separate recycling into food, dry and glass streams (4).

- Many hospitality businesses already operate a separate glass collection (1).

Different business categories will produce different waste streams and therefore a 'threshold' system may be the most appropriate (4).

- Some businesses may not produce glass waste and therefore mandating a separate glass collection is counterproductive (1). However, the hospitality industry produces very significant amounts and many businesses already operate a separate glass collection (2).
- Once a threshold of glass waste is reached, it is financially beneficial for business to have a separate glass collection. A separate collection could be mandated only for businesses that produce above a threshold level of glass waste, similarly to current legislation for food waste (1).

Three householders suggest there should be an emphasis on waste reduction (3).

- Businesses should only use recyclable or compostable materials (1) and a cap should be placed on the amount of waste a business produces (1). A partnership between businesses producing compostable material and the agri-food sector could be mutually beneficial (1).

Option 2 will deliver the greatest behaviour change (1).

- It is consistent with kerbside collection which will help to minimise confusion and instil behaviour change (1).
- People are also more likely to recycle if all waste that can be recycled, is being recycled (1).

Something else: 13 respondents who selected 'something else' answered this question.

Two Councils believe the category of service should remain flexible as long as quality standards and outcomes are achieved (2).

Other suggestions made include a mixed dry collection including glass (6) and the roll out of a form of both options 1 and 2 (4).

- A mixed dry collection, including glass, would provide a cheaper and more straightforward alternative to option 2, whilst still improving commercial collections beyond the potential of option 1 (5). This will be particularly important for micro and small businesses (2), especially in a post-Covid economy (1). Technology is in place to ensure high quality recyclates from a co-mingled collection including glass (3). This is already being used to process mixed dry recycling including glass for several Councils in the north (1).
- Different business categories produce different waste (4) and therefore some may be disproportionately burdened by procuring a separate collection service for glass, when the business produces such small volumes (2). To counter for this, a form of both options could be rolled out. Businesses that produce significant quantities of glass, for example the hospitality industry, should be mandated to implement a separate glass collection. However, businesses that do not, will not be obligated (2).

Two Councils state Council kerbside collections are designed to meet household needs (2);

- Councils cannot be expected to offer ‘bespoke’ solutions for, a relatively small number of non-household premises. If regulations do require Councils to provide this service, financial support will be needed (2).

However, there is an opinion that the business collection service should mirror the kerbside service in place to avoid confusion and re-enforce behaviour (2);

- Early consultation with the business sector and recycling service providers is necessary to assess the most effective options (2).

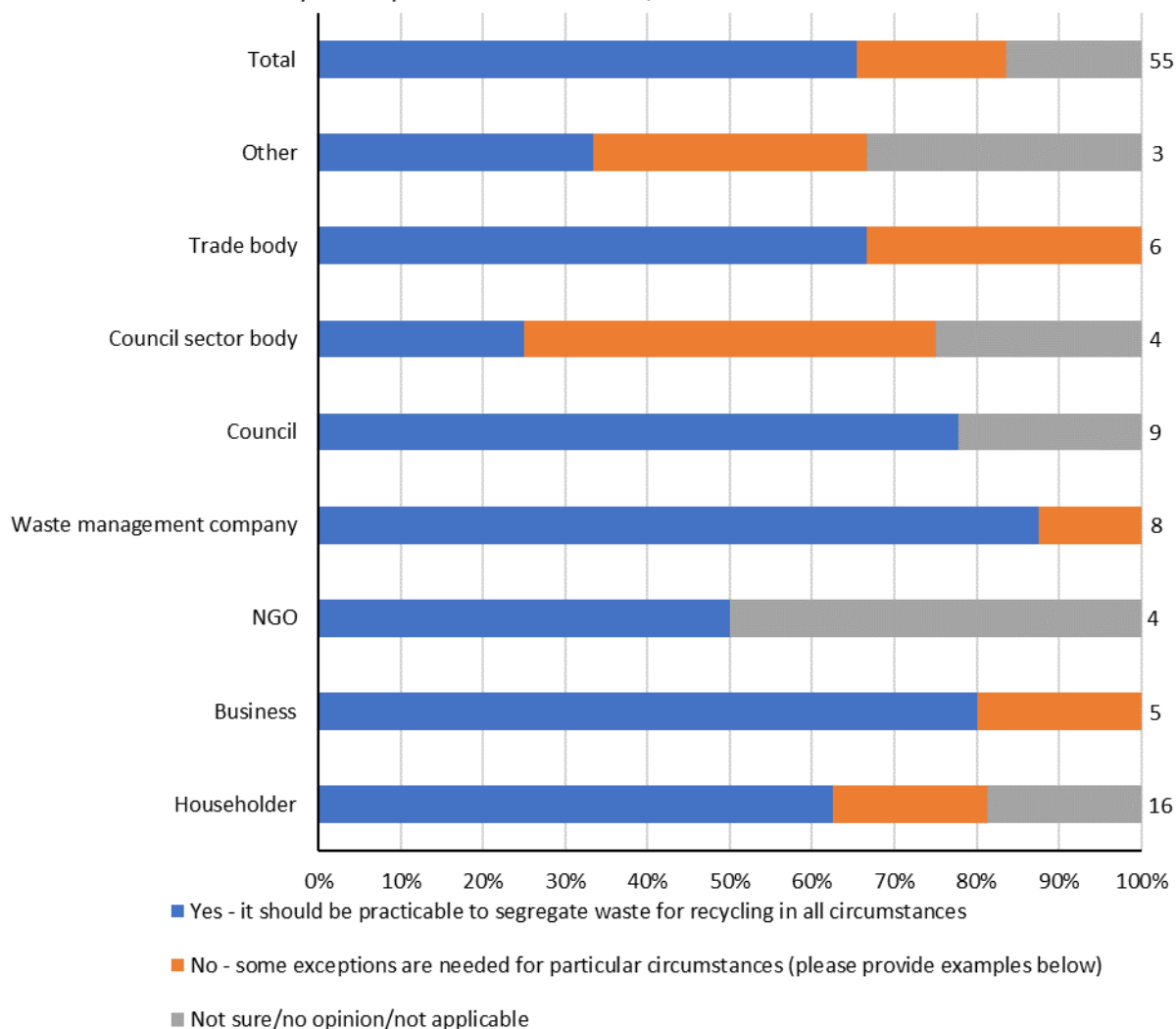
The roll-out across the UK of the new packaging EPR Framework should ensure that the costs of managing household-like packaging waste from businesses is covered by producers. The additional money that this policy framework will inject into the system should reduce some of the cost burden to businesses (1).

Question 5: We would expect businesses to be able to segregate waste for recycling in all circumstances but would be interested in views on a preferred position for instances where this may not be practicable for technical, environmental or economic reasons. If you selected No, please provide examples below.

- Yes – it should be practicable to segregate waste for recycling in all circumstances: **36 responses (64%)**
- No – some exceptions are needed for particular circumstances: **10 responses (18%)**
- Not sure/ no opinion/ not applicable: **9 responses (16%)**
- Not answered: **1 response (2%)**

Figure 13 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes ‘Not Answered’). There is some variation by respondent category. The response across most respondent categories is predominantly positive and in total across all respondents 65% of responses answered ‘Yes’. Exceptions to this are seen for Council sector bodies and ‘Other’ respondents. 50% of respondents in the Council sector body category answered ‘No’ and only 25% of responses answered ‘Yes’. In the ‘other’ category only 33% of respondents answered ‘Yes’.

Figure 13: We would expect businesses to be able to segregate waste for recycling in all circumstances but would be interested in views on a preferred position for instances where this may not be practicable for technical, environmental or economic reason



If you selected No, please provide examples below.

8 respondents answered ‘No’ and left a comment.

The majority of comments raised concerns over lack of storage space for the additional bins required (7).

- The transport industry was highlighted as a specific area for concern. Small kiosks at railway stations, unmanned rural railway huts, and onboard trains and buses were all cited as examples where segregation of waste for recycling, due to the requirement for additional bins, may not be technically practicable (2).
- Planning controls could be used to ensure that all new or changed businesses premises have access to sufficient storage space (1).

Business waste will vary in composition depending on business category; it will not be technically practicable to collect materials, such as glass, from businesses that produce very small volumes of the material (4).

- One response considered that a more co-mingled collection could be beneficial in these cases. Otherwise, the lack of efficiency in collecting low volume material streams from such businesses could outweigh the environmental benefits (1).

The additional cost burden may overburden small and rural businesses (3).

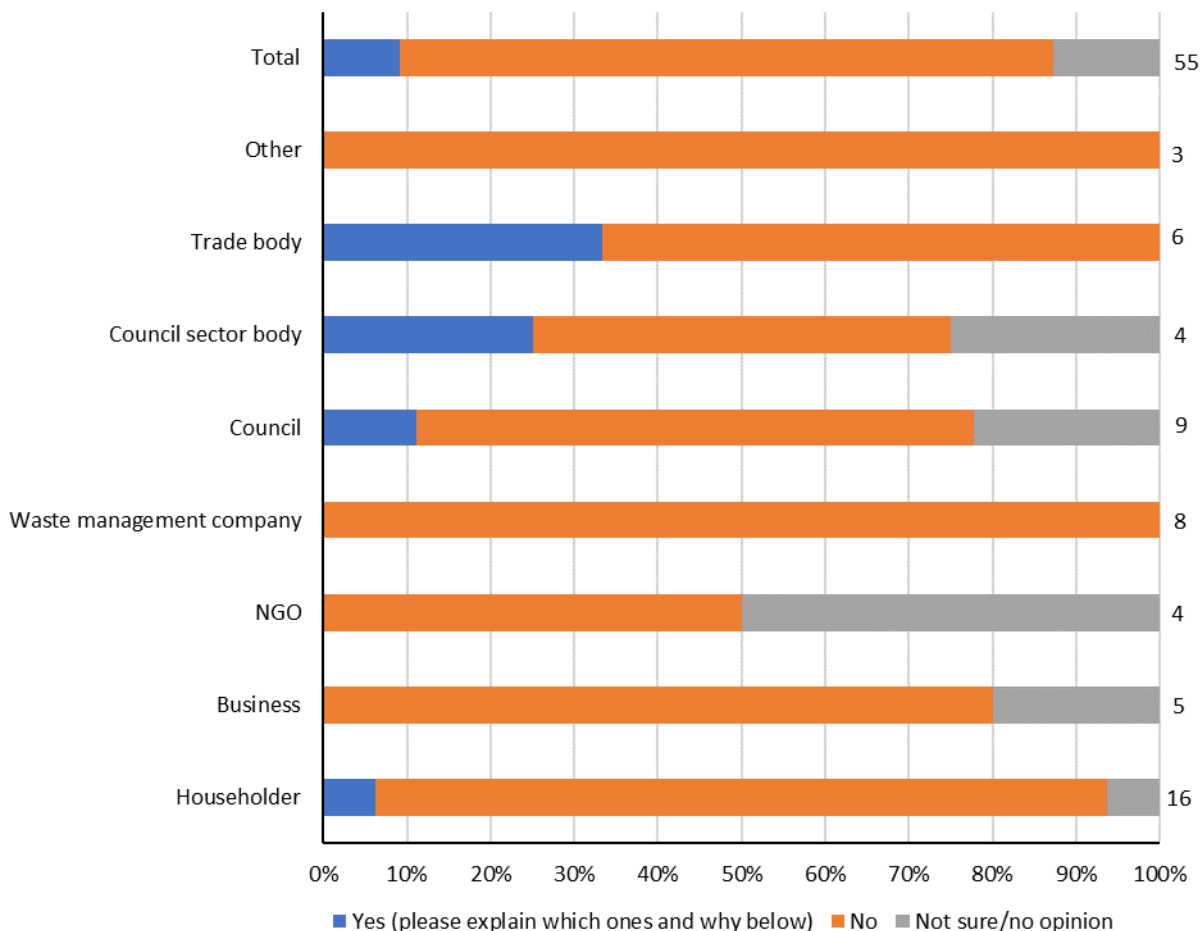
- Therefore, more work will need to be done to ensure these businesses have access to competitively priced services (1).
- The initial outlay on separate bins will also have a financial impact on businesses (1).

Question 6: Should some businesses, public sector premises or other respondents be exempt from the requirements? If you selected Yes, please tell us which ones and why.

- Yes – some businesses, public sector premises or other respondents should be exempt from the requirements: **5 responses (9%)**
- No – some businesses, public sector premises or other respondents should not be exempt from the requirements: **43 responses (77%)**
- Not sure/ no opinion: **7 responses (13%)**
- Not answered: **1 response (2%)**

Figure 14 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but for each respondent category 50% of responses or above answer 'No' and the total across respondent categories is 78%.

Figure 14: Should some businesses, public sector premises or other organisations be exempt from the requirement?



2 respondents selected 'Yes' and left a comment for this question.

- The self-employed and micro-businesses should be exempt due to a prohibitive cost of compliance, especially in a post-Covid economy (2).
- Rural businesses should also be exempt due to high costs and limited access to recycling services (1).
- Any decisions over a minimum threshold should be based on up-to-date data on waste arisings from Northern Ireland businesses (1).

Question 7: Do you have any other comments to make about proposal 2? For example, do you think that there are alternatives to legislative measures that would be effective in increasing business recycling?

42 respondents answered this question.

A change in legislation is necessary but not enough to effectively increase business recycling. Most of the discussion centred around the following areas:

- Communication campaigns around the Regulations and any change in legislation.

- Incentives to positively encourage compliance, especially as it will be expensive to enforce.
- Comprehensive monitoring and enforcement
- The business sector must be involved in the development of legislation.

Communication campaigns are required to both raise awareness of the need for business recycling and the responsibilities of a business under the Regulations (14).

- These could be conducted by 'mail-outs' rather than social media to reach the target audience (1) or be delivered by business representatives such as Chamber of Commerce and Belfast Chamber and Federation of Small Businesses (1).
- Consistency in containers, labels and collection frequencies across Council boundaries will also be important to promote good behaviour (1).

Legislation will be expensive to enforce. Instead incentives could be used to encourage compliance (10). These could take the form of grants to set up facilities (4) or rewards for compliance and high recycling rates (8).

- Grants (4)
 - Grants for new bins (1)
 - Incentive for businesses to be pro-active, for example, shared marketing for businesses to reduce the cost of posters etc. (1)
 - Subsidise the recyclate market to provide stability and improve access to reprocessing infrastructure in Northern Ireland (1)
- Rewards (8)
 - A reduction in rates for businesses that sign up to a recycling scheme or an increase in rates for those that do not (1).
 - A less expensive collection charge for segregated waste compared to residual waste (1).
 - Quality marking for compliance issued by DAERA leading to awards, recognition or economic breaks such as tax relief (1).

There is still a need for monitoring and enforcement of legislative changes to ensure they are effective (8).

- However, as above, this is expensive and should be done in combination with positive incentives (2).
- Accurate data (including end destination data) will be necessary for effective monitoring (2). Clarity is needed on who will be responsible for monitoring and enforcement of business compliance (2).
- As this proposal will impose a cost and administration burden on businesses, it will require a full impact assessment (2) and adequate resourcing (1)

Changes in legislation should be developed with the business sector and waste collectors to ensure a successful outcome (6).

- Local authorities may already have well established links with the local business sector through their Economic Development teams (1).
- Options for collaborative storage provision and/or Waste Recycling Centres for small businesses could be explored (2) and discussions with Business

Improvement Districts may help to develop solutions in urban areas where businesses are already working collaboratively (3).

- Building Control Regulations could also be reviewed to ensure new build businesses have adequate storage space (3).

The cost burden to both businesses (3) and Councils was discussed (3).

- According to three Councils and Council sector bodies, Councils may not offer separate glass or food waste collections to householders and therefore should not be obligated to provide this service for businesses. Without increased funding, the introduction of a weekly kerbside food waste collection will be unaffordable for Councils (3).
- According to one Council the application of TEEP (Technically, Environmentally and Economically Practicable) to rural districts will need to be clarified as operational efficiency and viability may be reduced (1).
- The cost burden to businesses should also be considered and minimised (3). As above, financial incentives may help (1). Allowing some businesses to run a co-mingled collection including glass could also relieve this (1).

Other themes include:

- Improving collection and disposal infrastructure (2)
- Mandating businesses can only use compostable or recyclable products (2)
- Implement policies that promote repair and re-use (1) and develop re-use infrastructure (1)

Proposal 3: As rural communities make up a significant proportion of Northern Ireland, we propose to review the impact on businesses in rural communities so that they are not disproportionately affected by laws introduced to increase recycling of non-household municipal waste.

Question 8: Considering rural needs, what factors should be included in the review of the proposals on non-household municipal waste?

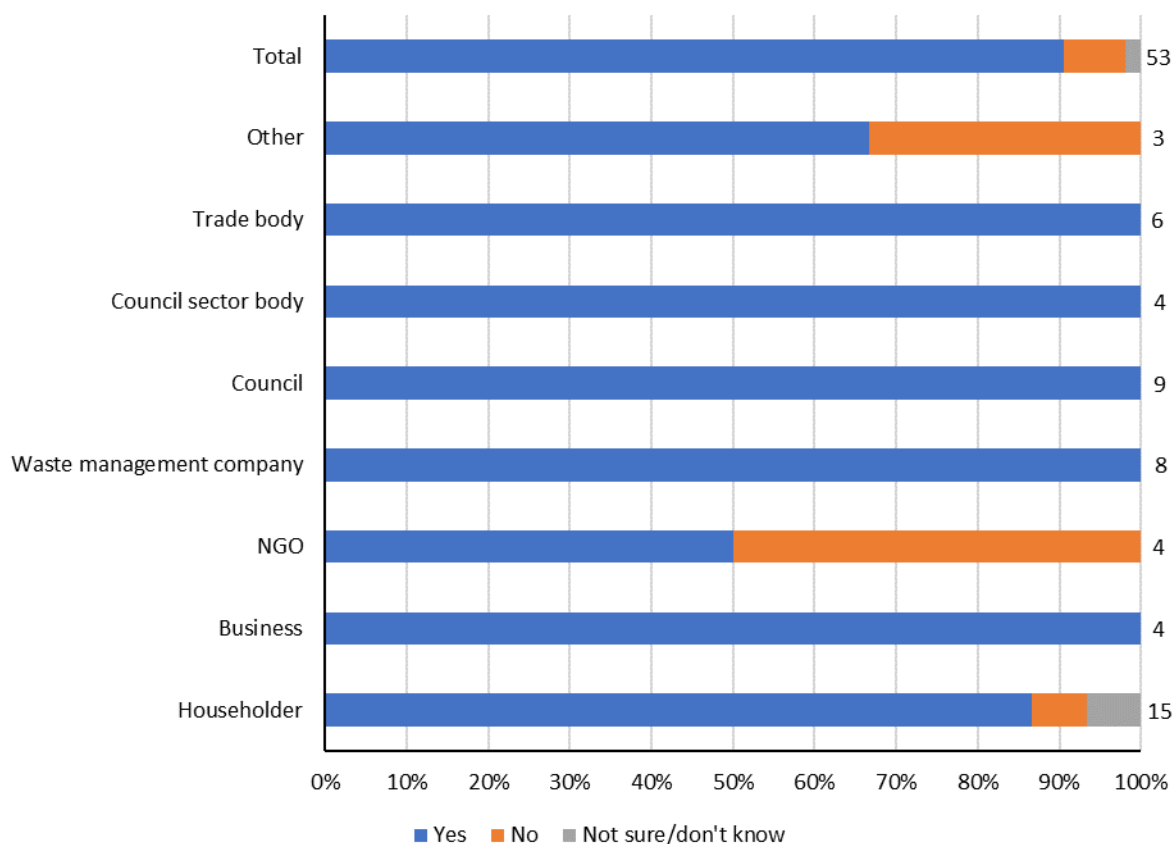
- a) **Cost of recycling services proposed compared to collections in urban areas**
- b) **Ability to reconfigure services to alleviate cost burden in rural addresses**
- c) **Access to recycling services in rural areas**
- d) **Issues with communicating to rural businesses**

List any other factors that should be included in the assessment of the policy proposals specific that may have a different impact on businesses in rural settlements.

- a) **Cost of recycling services proposed compared to collections in urban areas**
 - Yes – Cost of recycling services proposed compared to collection in rural areas should be included in the review of the proposals on non-household municipal waste: **48 responses (86%)**
 - No – Cost of recycling services proposed compared to collection in rural areas should not be included in the review of the proposals on non-household municipal waste: **4 responses (7%)**
 - Not sure/ don't know: **1 response (2%)**
 - Not answered: **3 responses (5%)**

Figure 15 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category. In the trade body, business, Council, Council sector body and waste management company categories, all respondents answered 'Yes' to including the cost of recycling services proposed compared to in urban areas to the review. 87% of householders also answered 'Yes' however only 50% and 67% of NGOs and 'Other' respondents respectively answered 'Yes'. Across all respondents 91% of respondents answered 'Yes' and only 8% 'No'.

Figure 15: Considering rural needs, what factors should be included in the review of the proposals on non-household municipal waste? - Cost of recycling services proposed compared to collections in urban areas

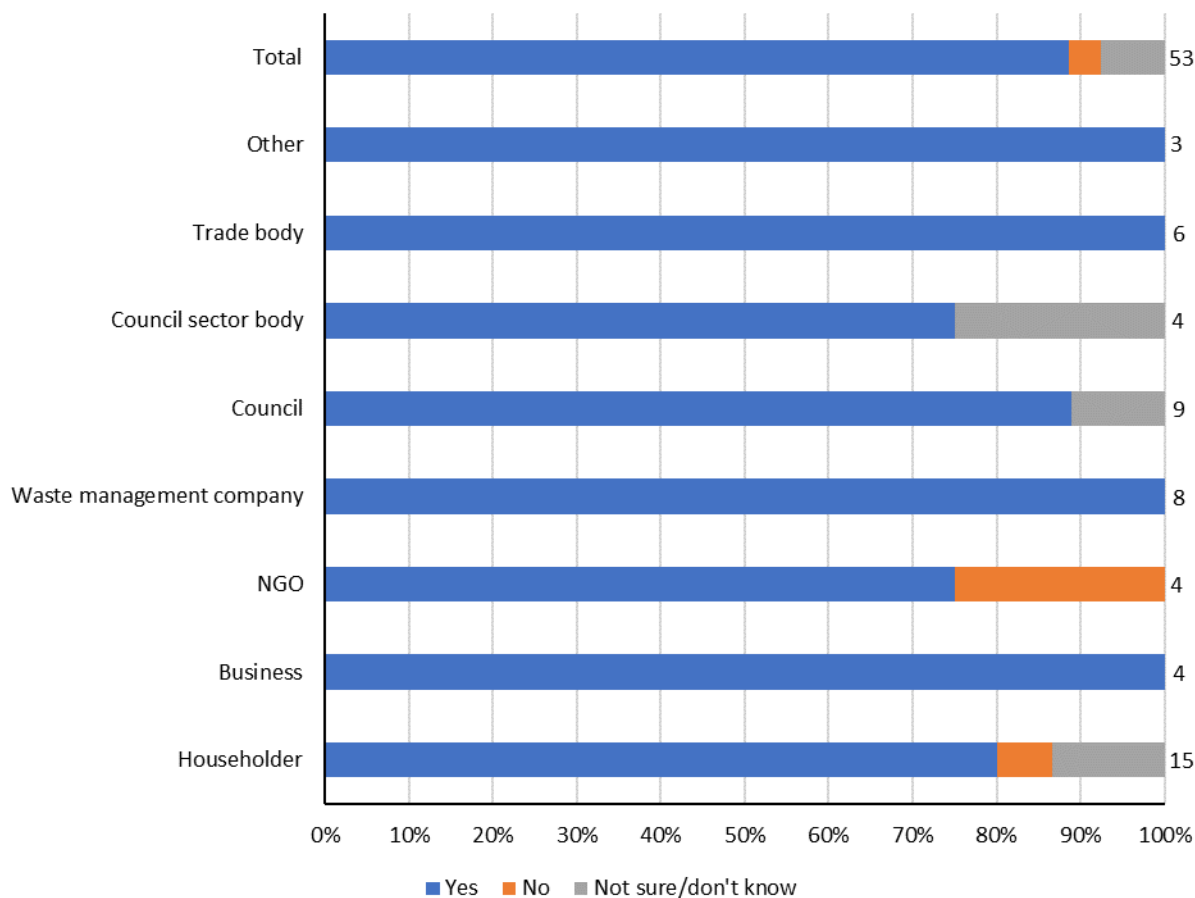


b) Ability to reconfigure services to alleviate cost burden in rural addresses

- Yes – Ability to reconfigure services to alleviate cost burden in rural addresses should be included in the review of the proposals on non-household municipal waste: **47 responses (84%)**
- No – Ability to reconfigure services to alleviate cost burden in rural addresses should not be included in the review of the proposals on non-household municipal waste: **2 responses (4%)**
- Not sure/ don't know: **4 response (7%)**
- Not answered: **3 responses (5%)**

Figure 16 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but across all respondent categories 75% or more of respondents answered 'Yes' and in total across all respondents 89% answered 'Yes' and only 4% 'No'.

Figure 16: Considering rural needs, what factors should be included in the review of the proposals on non-household municipal waste? - Ability to reconfigure services to alleviate cost burden in rural addresses

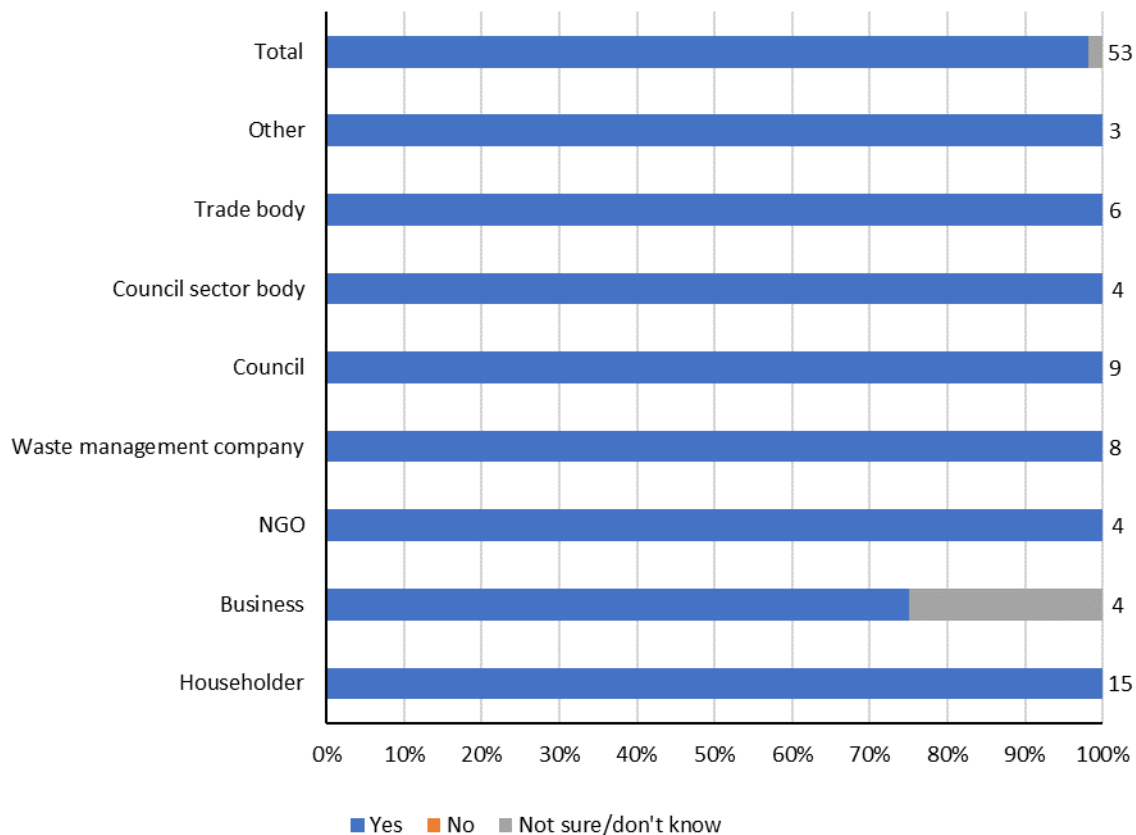


c) Access to recycling services in rural areas

- Yes – Access to recycling services in rural areas should be included in the review of the proposals on non-household municipal waste: **52 responses (93%)**
- No – Access to recycling services in rural areas should not be included in the review of the proposals on non-household municipal waste: **0 responses (0%)**
- Not sure/ don't know: **1 response (2%)**
- Not answered: **3 responses (5%)**

Figure 17 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response is overwhelmingly positive. Across all respondent categories 100% of respondents answered 'Yes' to including 'access to recycling services in rural areas' in the review with the exception of the business category where only 75% of respondents answered 'Yes'. In total across all respondents 98% answered 'Yes'.

Figure 17: Considering rural needs, what factors should be included in the review of the proposals on non-household municipal waste? - Access to recycling services in rural areas

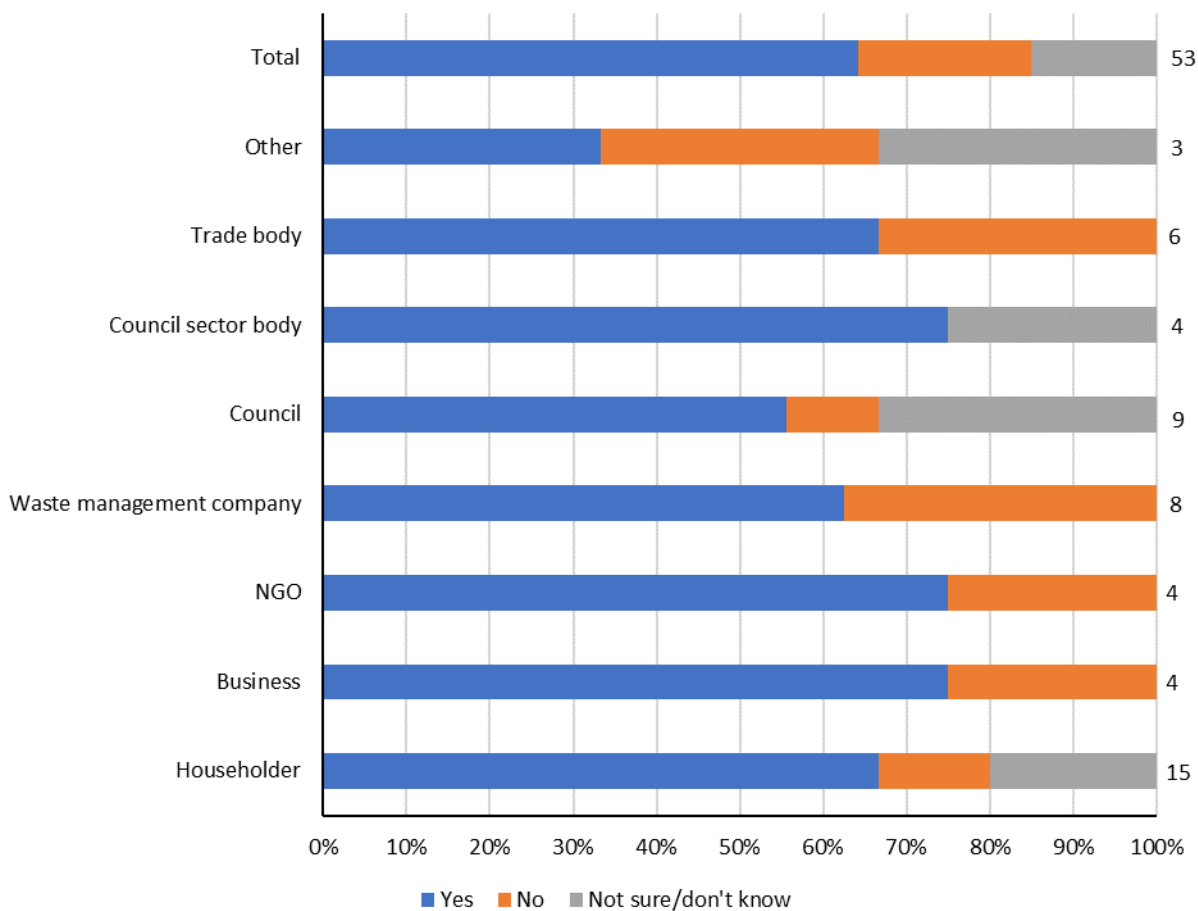


d) Issues with communicating to rural businesses

- Yes – Issues with communicating to rural businesses should be included in the review of the proposals on non-household municipal waste: **34 responses (61%)**
- No – Issues with communicating to rural businesses should not be included in the review of the proposals on non-household municipal waste: **11 responses (20%)**
- Not sure/ don't know: **8 response (14%)**
- Not answered: **3 responses (5%)**

Figure 18 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation in response by respondent category. For all respondent categories excluding 'Other', over 50% of respondents answered 'Yes'. The highest levels of agreement were seen for Council sector bodies where 75% of respondents answered 'Yes'. The highest levels of disagreement were seen for waste management companies where 38% of respondents answered 'No'. However, overall the response was positive with 64% of respondents answering 'Yes' and only 21% answering 'No'.

Figure 18: Considering rural needs, what factors should be included in the review of the proposals on non-household municipal waste? - Issues with communicating to rural businesses



List any other factors that should be included in the assessment of the policy proposals specific that may have a different impact on businesses in rural settlements.

This question was answered by 26 respondents.

The majority of comments addressed concerns over rural businesses access to recycling services at a reasonable price, with some respondents concerned that cost burdens do not shift on to Councils (16).

- In rural settings, there is a low business density and the distance between businesses and waste management facilities can be large (6). This can lead to a reduced number of appropriate collection services available to businesses (5). Services that are available will be more expensive due to greater transport costs (4) and it is likely there will be less competitive pricing (1).
- It is important that policies to reduce the cost burden to rural businesses, do not inadvertently transfer this to Councils (3). There may be a scenario where commercial providers will not provide a recycling service to remoter rural areas due to high cost incurred. The concern is Councils would be required to provide this service and incur above average costs (1).

The following factors have been put forward to be included in the assessment of the policy proposals to reduce the cost burden to rural businesses:

- Consider circumstances where it may be more appropriate for greater co-mingling of dry recycling (2)
- Consider different service provision models for example collective contracting, zoning, etc. (1)

However, not all respondents agree that rural businesses should receive special consideration (3).

- Northern Ireland is a small country and geographical differences between rural and urban areas should not excuse lower levels of regulation (3). However, some specific help such as a review of the current waste providers in rural areas, could be useful (1).

Other themes discussed include:

- Appropriate consideration must also be given to rural needs as part of the development of policy proposals for household waste in rural areas (3).
- The carbon impact may be disproportionate to the volumes of materials being generated (1)
- Communication to businesses needs to be considered (2).

Proposal 4: We propose to review options to maximise business recycling whilst alleviating cost burden on businesses.

Question 9: We would welcome views on these options and also evidence of other measures that may be available to support business recycling and to reduce costs for businesses.

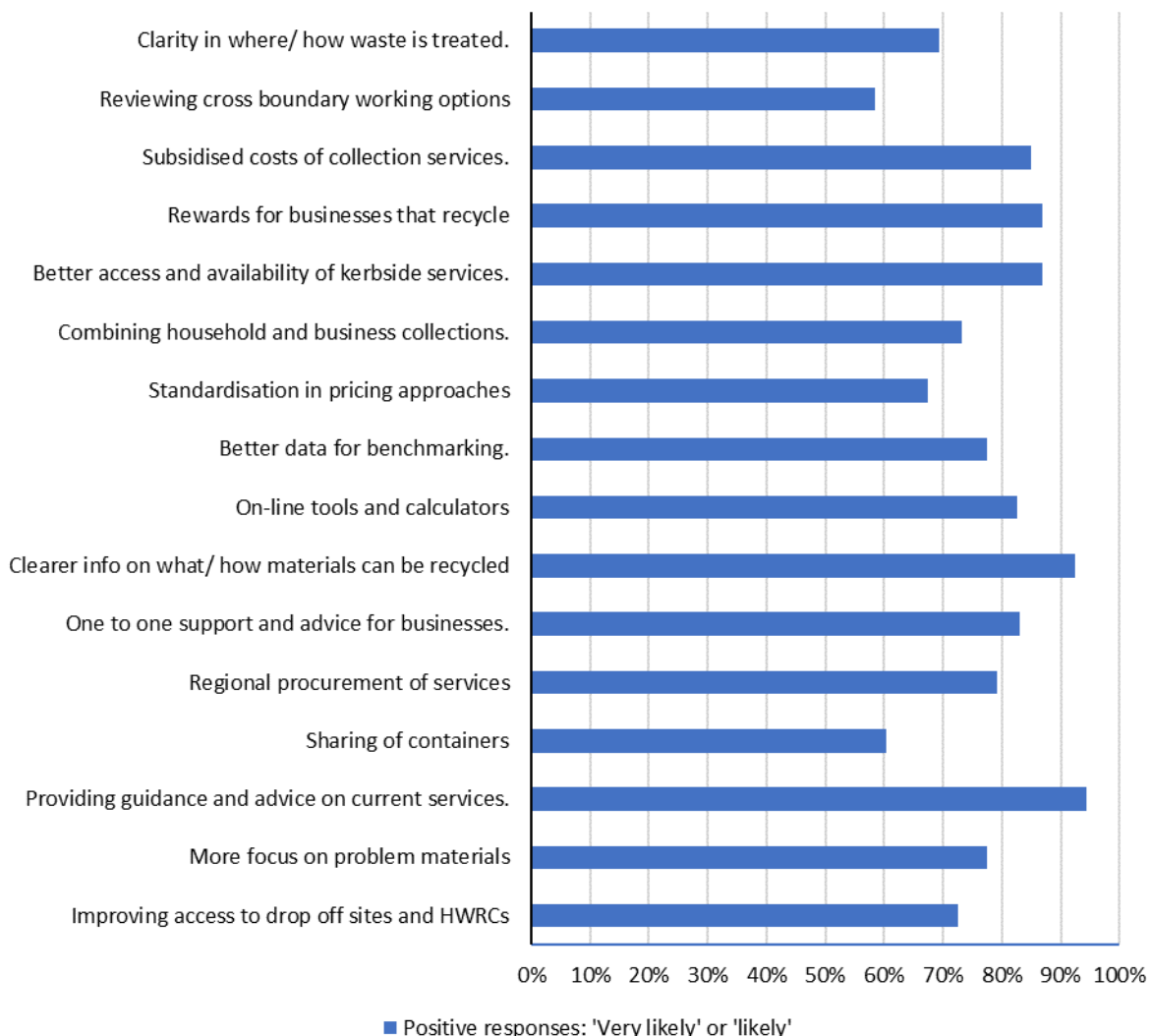
- a) Improving access to drop off sites and Household Waste Recycling Centres (HWRC)s for business use
- b) More focus on problem materials such as office furniture, tyres, batteries, printer cartridges, fluorescent lights, fats and oils
- c) Providing business advice on optimising/rationalising current services
- d) Sharing of containers with neighbouring businesses
- e) Regional procurement of services to enable economies of scale and reduce charges levied on businesses
- f) One to one support and advice for businesses
- g) Clearer information on what materials can be recycled and how
- h) On-line tools and calculators to provide information on reducing costs
- i) Better data to help businesses measure performance and benchmark
- j) Standardisation in pricing approach from private contractors
- k) Combining door-to-door household and business collections
- l) Better access and availability of kerbside services
- m) Rewards for businesses that recycle such as incentives, ratings and reduced costs
- n) Government or industry subsidised cheaper costs of collection services
- o) Reviewing cross boundary working options (both Council and national level)
- p) Clarity in where and how waste and recyclables are treated

List any other measures that may be available to support business recycling and to reduce costs for businesses

Question 9 summary graph:

Figure 19 shows the percentage of respondents who answered 'Very likely' or 'Likely' to the each of the 16 options in question 9 out of the total number of respondents that answered the question (i.e. excludes 'Not answered'). Overall responses were generally positive to all the options suggested. The highest percentage of positive answers was seen for 'Providing guidance and advice on current services' and 'Clearer information on what/how materials can be recycled' where over 90% of respondents answered 'Very likely' or 'Likely'. The lowest percentages of 'Very likely' or 'Likely' answers were seen for 'Review of cross boundary working' (58%), 'Sharing of containers' (60%) and 'Standardisation in pricing approaches' (67%).

Figure 19: An overview on the options to maximise business recycling whilst alleviating cost burden on businesses

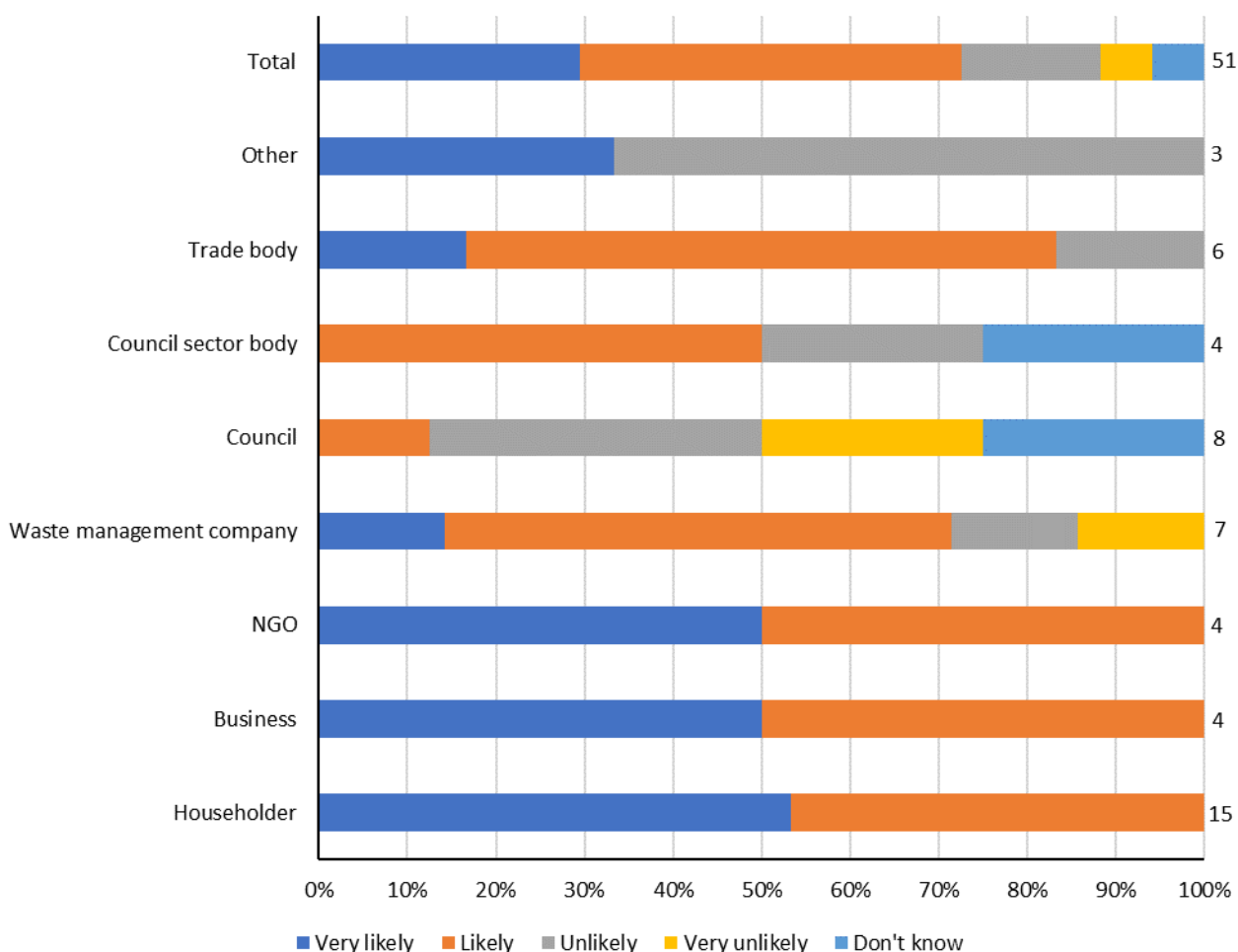


a) Improving access to drop off sites and HWRCs for business use

- Very likely - Improving access to drop off sites and HWRCs for businesses is very likely to maximise business recycling whilst alleviating cost burden to businesses: **15 responses (27%)**
- Likely - Improving access to drop off sites and HWRCs for businesses is likely to maximise business recycling whilst alleviating cost burden to businesses: **22 responses (39%)**
- Unlikely - Improving access to drop off sites and HWRCs for businesses is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **8 responses (14%)**
- Very unlikely - Improving access to drop off sites and HWRCs for businesses is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **3 response (5%)**
- Don't know: **3 responses (5%)**
- Not answered: **5 responses (9%)**

Figure 20 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Responses to this question are mixed. NGOs, householders, businesses, trade bodies and waste management companies indicated improving business access to HWRCs is 'Very likely' or 'Likely' to increase recycling. However, this is not the case for Council sector bodies, Councils and the 'Other' category. 50% of Council sector bodies answered 'Likely', however '25%' answered 'Unlikely'. For Councils, 63% of respondents answered either 'unlikely' or 'very unlikely'. In total across all respondents categories 29% of respondents answered 'Very likely', 43% 'Likely', 16% 'Unlikely' and only 6% 'Very unlikely'.

Figure 20: We would welcome views on these options to support business recycling and to reduce costs for businesses - Improving access to drop off sites and HWRCs for business use



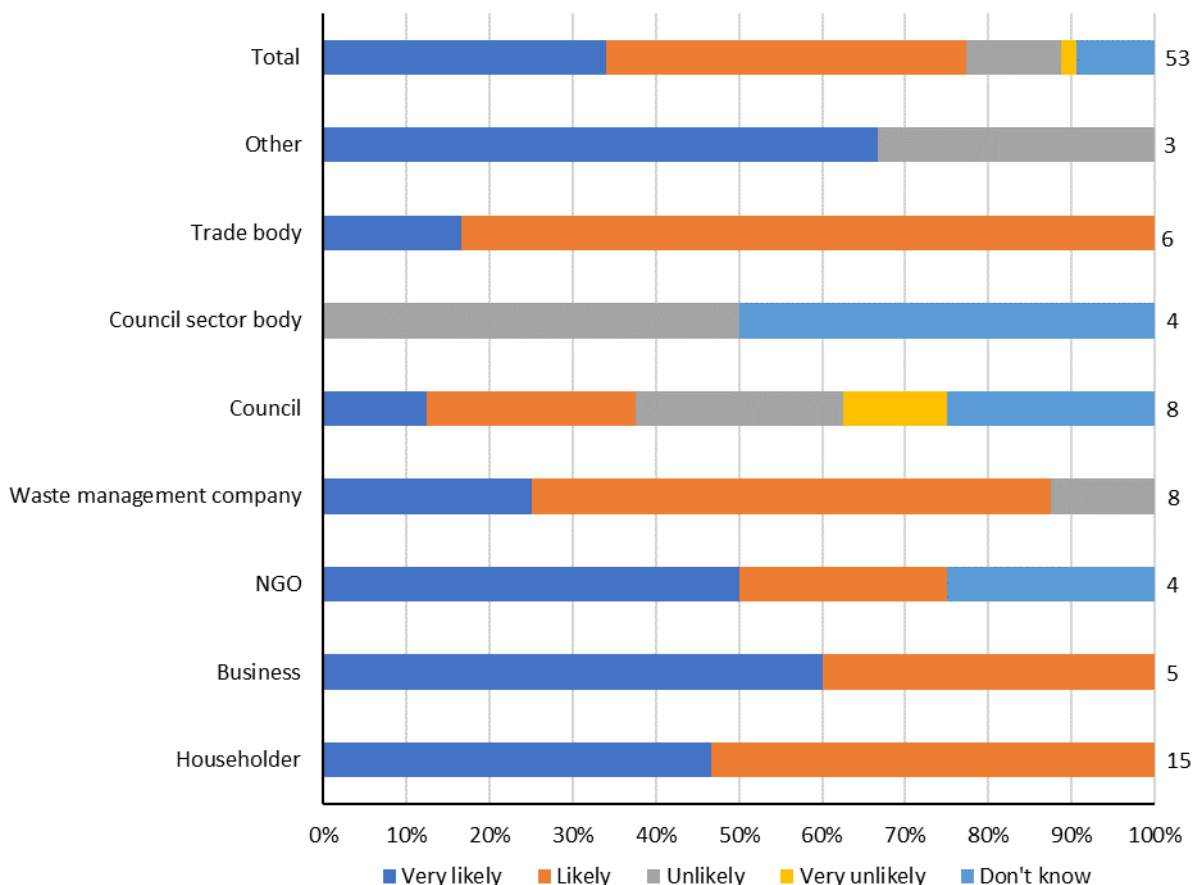
b) More focus on problem materials such as office furniture, tyres, batteries, printer cartridges, fluorescent lights, fats and oils

- Very likely - More focus on problem materials is very likely to maximise business recycling whilst alleviating cost burden to businesses: **18 responses (32%)**
- Likely - More focus on problem materials is likely to maximise business recycling whilst alleviating cost burden to businesses: **23 responses (40%)**
- Unlikely - More focus on problem materials is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **6 response (11%)**

- Very unlikely - More focus on problem materials is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Don't know: **5 responses (9%)**
- Not answered: **3 responses (5%)**

Figure 21 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There are mixed responses to this question. For NGOs, householders, businesses, trade bodies and waste management companies and 'Other' respondents 67% of responses or higher were either 'Very likely' or 'Likely'. However, 50% of Council sector bodies answered 'Unlikely' and 38% of Councils answered 'Unlikely' or 'Very unlikely'. In total, across all respondents categories 34% answered 'Very likely' and 43% 'Likely'.

Figure 21: We would welcome views on these options to support business recycling and to reduce costs for businesses - More focus on problem materials such as office furniture, tyres, batteries, printer cartridges, fluorescent lights, fats and oils



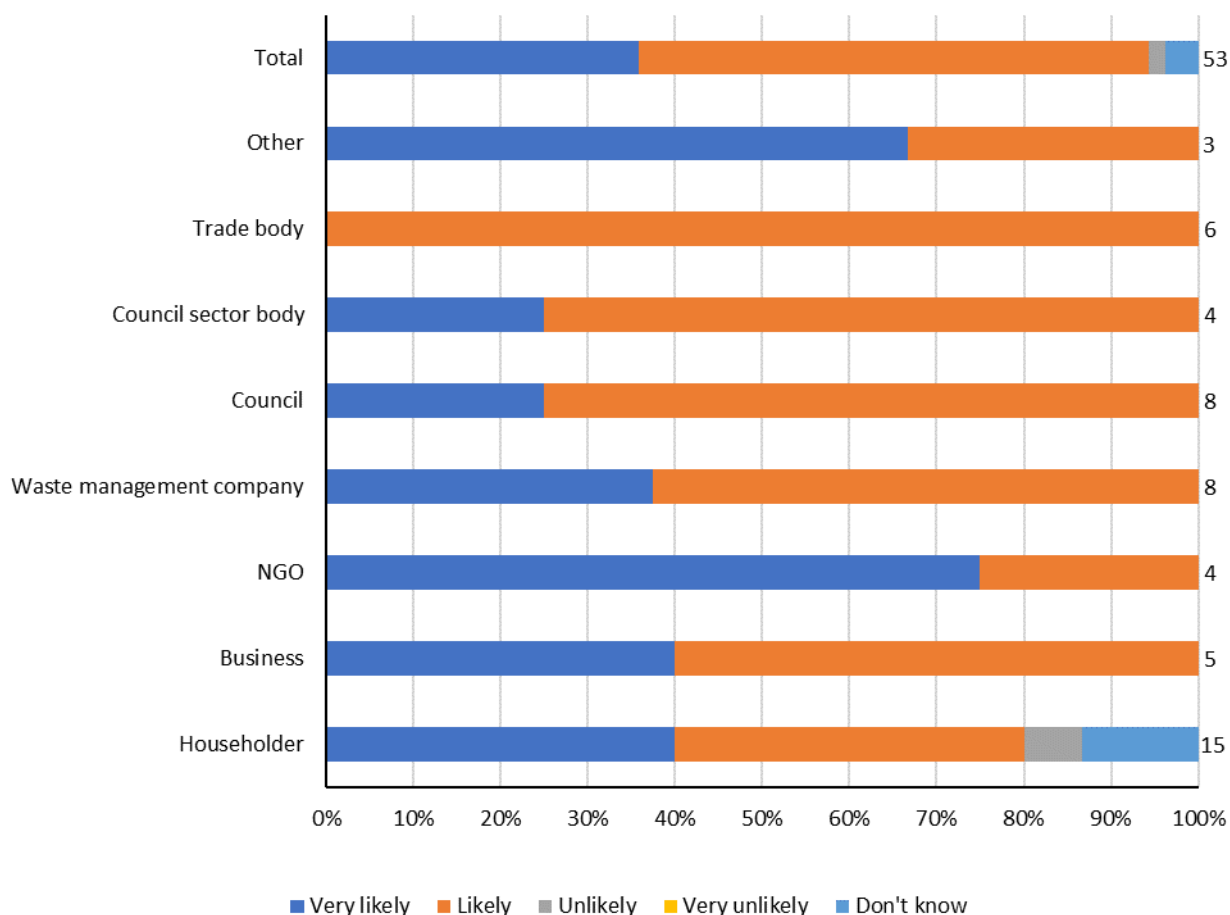
c) Providing business advice on optimising/ rationalising current services

- Very likely - Providing business advice on optimising/ rationalising current services is very likely to maximise business recycling whilst alleviating cost burden to businesses: **19 responses (34%)**
- Likely - Providing business advice on optimising/ rationalising current services is likely to maximise business recycling whilst alleviating cost burden to businesses: **31 responses (55%)**

- Unlikely - Providing business advice on optimising/ rationalising current services is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Very unlikely - Providing business advice on optimising/ rationalising current services is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **0 responses (0%)**
- Don't know: **2 responses (4%)**
- Not answered: **3 responses (5%)**

Figure 22 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There was an overwhelmingly positive response to this question. Across all respondent categories 94% of respondents answered 'Very likely' or 'Likely'.

Figure 22: We would welcome views on these options to support business recycling and to reduce costs for businesses - Providing guidance on business advice on optimising/rationalising current services



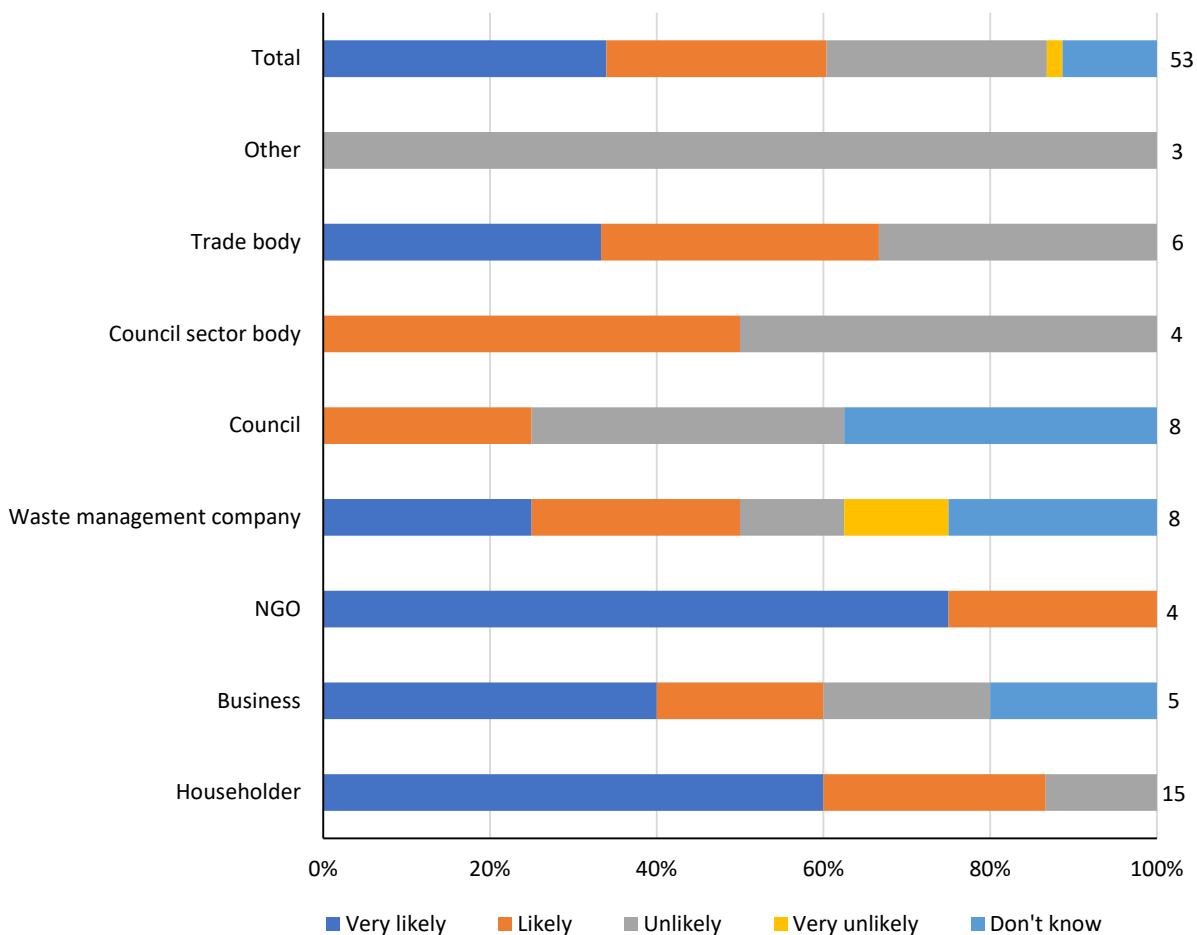
d) Sharing of containers with neighbouring businesses

- Very likely - Sharing containers with neighbouring businesses is very likely to maximise business recycling whilst alleviating cost burden to businesses: **18 responses (32%)**

- Likely - Sharing containers with neighbouring businesses is likely to maximise business recycling whilst alleviating cost burden to businesses: **14 responses (25%)**
- Unlikely - Sharing containers with neighbouring businesses is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **14 responses (25%)**
- Very unlikely - Sharing containers with neighbouring businesses is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Don't know: **6 responses (11%)**
- Not answered: **3 responses (5%)**

Figure 23 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Responses to this question are mixed. In total, across all respondent categories 60% of respondents answered 'Very likely' or 'Likely' and only 28% 'Unlikely' or 'Very unlikely'. However, there is significant variation by respondent category; 100% of NGOs answered 'Very likely' or 'Likely' where as 100% of 'Other' respondents answered 'Unlikely'.

Figure 23: We would welcome views on these options to support business recycling and to reduce costs for businesses - Sharing of containers with neighbouring businesses

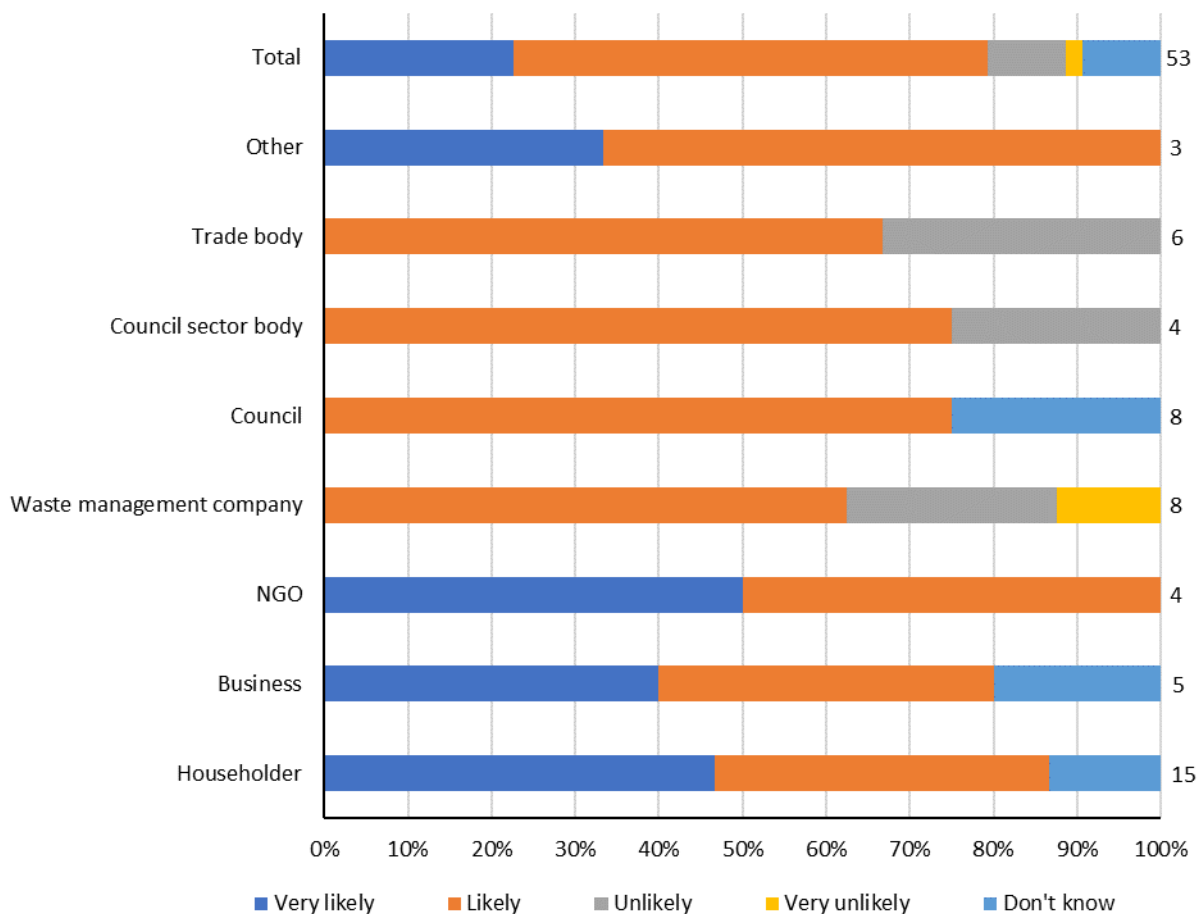


e) Regional procurement of services to enable economies of scale and reduce charges levied on businesses

- Very likely - Regional procurement of services to enable economies of scale and reduce charges levied on businesses is very likely to maximise business recycling whilst alleviating cost burden to businesses: **12 responses (21%)**
- Likely - Regional procurement of services to enable economies of scale and reduce charges levied on businesses is likely to maximise business recycling whilst alleviating cost burden to businesses: **30 responses (54%)**
- Unlikely - Regional procurement of services to enable economies of scale and reduce charges levied on businesses is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **5 response (9%)**
- Very unlikely - Regional procurement of services to enable economies of scale and reduce charges levied on businesses is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Don't know: **5 responses (9%)**
- Not answered: **3 responses (5%)**

Figure 24 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category, but overall responses are positive. Across all respondent categories over 60% responded 'Very likely' or 'Likely'. In total across all respondents categories 23% of respondents answered 'Very likely' and 54% answered 'Likely'.

Figure 24: We would welcome views on these options to support business recycling and to reduce costs for businesses - Regional procurement of services to enable economies of scale and reduce charges levied on businesses



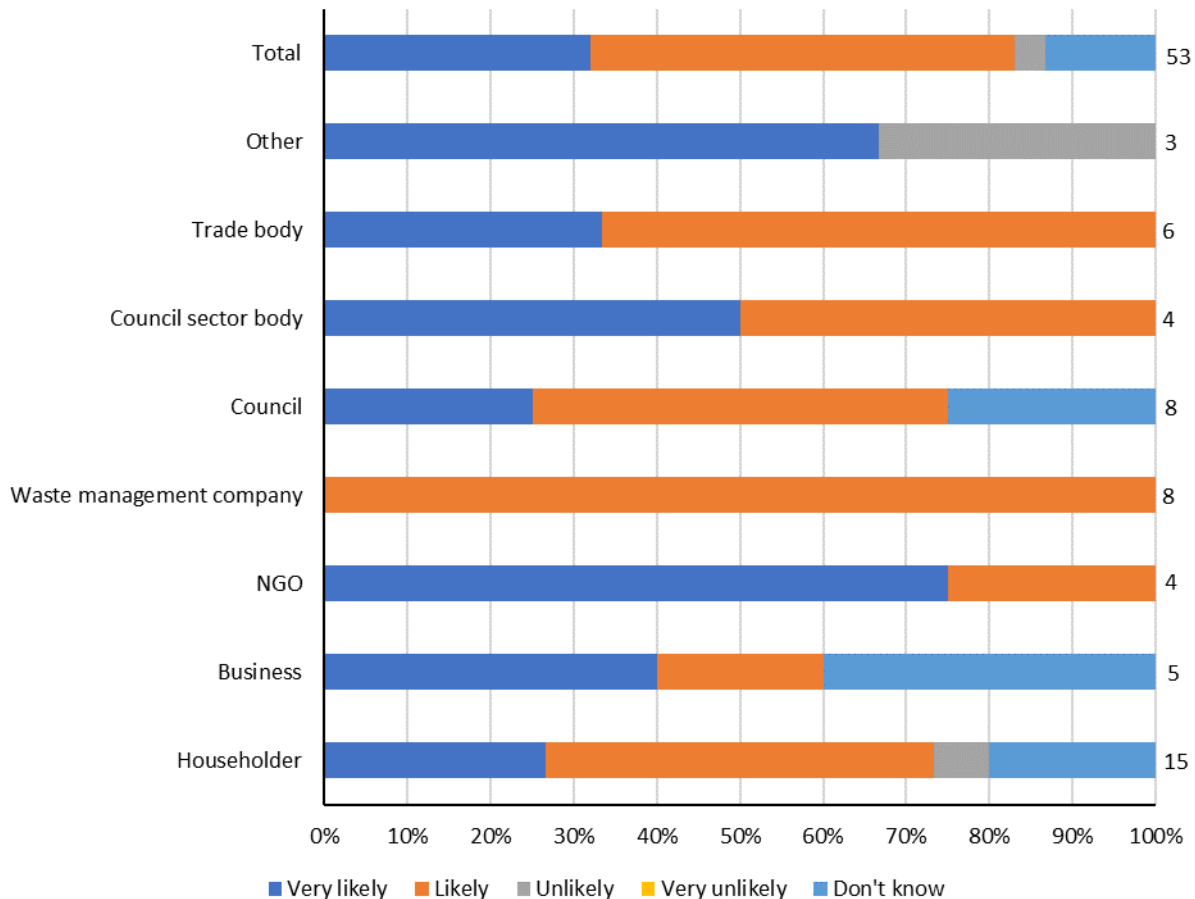
f) One-to-one support and advice for businesses

- Very likely - One to one support and advice for businesses is very likely to maximise business recycling whilst alleviating cost burden to businesses: **17 responses (30%)**
- Likely - One to one support and advice for businesses is likely to maximise business recycling whilst alleviating cost burden to businesses: **27 responses (48%)**
- Unlikely - One to one support and advice for businesses is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **2 response (4%)**
- Very unlikely - One to one support and advice for businesses is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **0 responses (0%)**
- Don't know: **7 responses (13%)**
- Not answered: **3 responses (5%)**

Figure 25 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but in each case 60% or more of the respondents answered 'Very likely' or 'Likely'. The only respondents to answer that one-to-one support for businesses is 'unlikely' to increase recycling are in the 'other' or 'householder' categories. In total, across

all organisations 32% answered ‘Very likely’, 51% answered ‘Likely’ and only 4% answered ‘Unlikely’.

Figure 25: We would welcome views on these options to support business recycling and to reduce costs for businesses - One to one support and advice for businesses



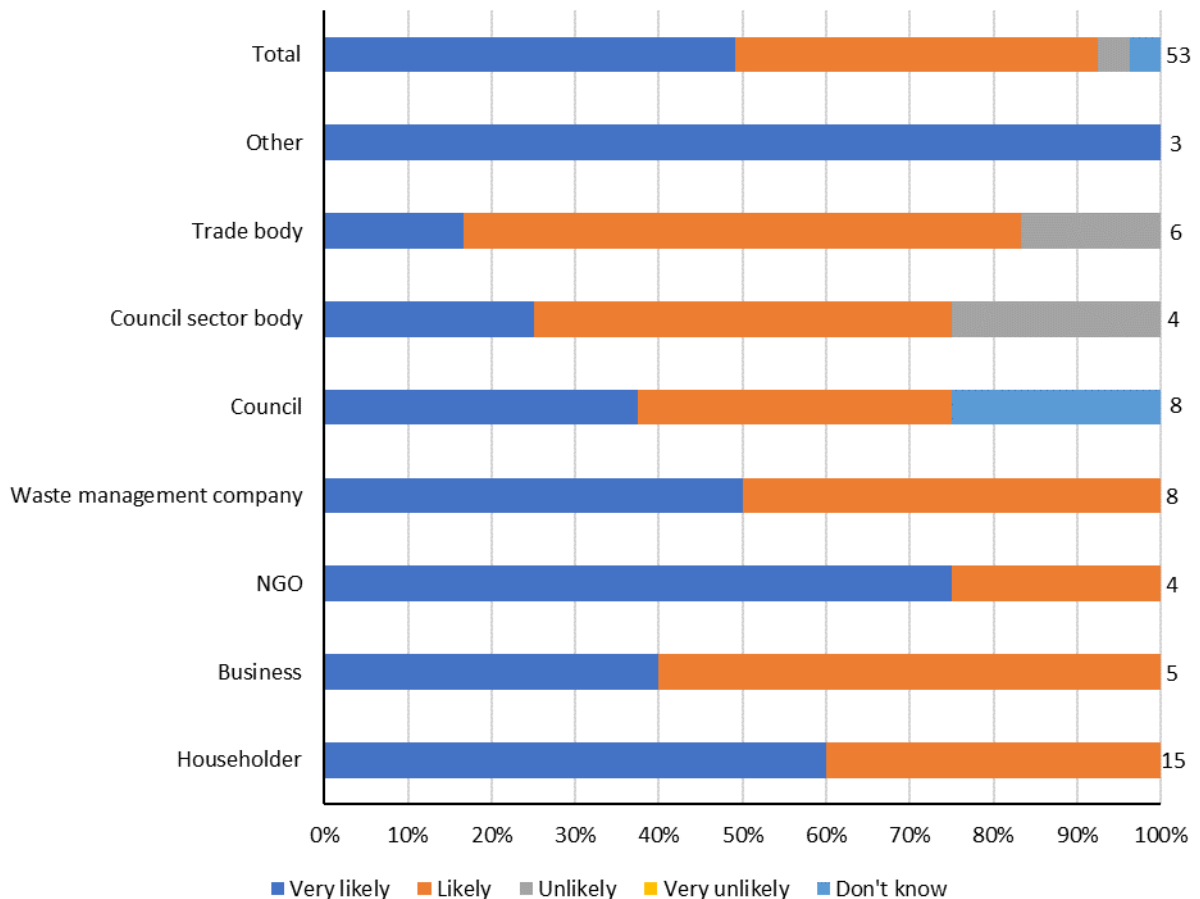
g) **Clearer information on what materials can be recycled and how**

- Very likely - Clearer information on what materials can be recycled and how is very likely to maximise business recycling whilst alleviating cost burden to businesses: **27 responses (47%)**
- Likely - Clearer information on what materials can be recycled and how is likely to maximise business recycling whilst alleviating cost burden to businesses: **23 responses (40%)**
- Unlikely - Clearer information on what materials can be recycled and how is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **2 responses (4%)**
- Very unlikely - Clearer information on what materials can be recycled and how is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **0 responses (0%)**
- Don't know: **2 responses (4%)**
- Not answered: **3 responses (5%)**

Figure 26 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes ‘Not Answered’). There is some variation by respondent however the response is mainly positive. Across each respondent category over 75% of

responses are 'Very likely' or 'Likely'. The only respondents to answer that clearer information is 'Unlikely' to increase recycling are in the 'trade body' or 'Council sector body' categories where 17% and 25% of respondents answered 'Unlikely' respectively. In total across all respondents 49% of respondents answered 'Very likely', 43% answered 'Likely' and only 4% 'Unlikely'.

Figure 26: We would welcome views on these options to support business recycling and to reduce costs for businesses - Clearer information on what materials can be recycled and how

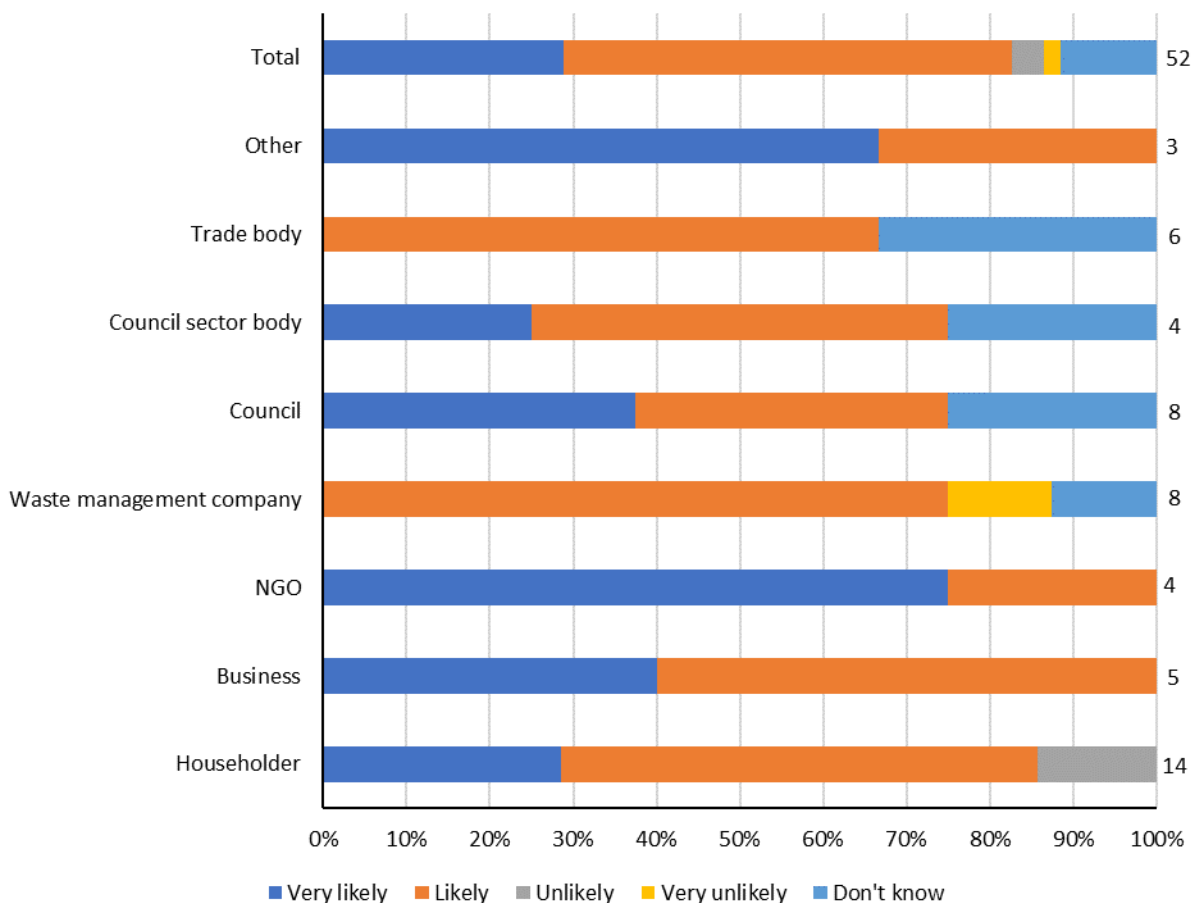


h) On-line tools and calculators to provide information on reducing costs

- Very likely - On-line tools and calculators to provide information on reducing costs is very likely to maximise business recycling whilst alleviating cost burden to businesses: **15 responses (27%)**
- Likely - On-line tools and calculators to provide information on reducing costs is likely to maximise business recycling whilst alleviating cost burden to businesses: **28 responses (50%)**
- Unlikely - On-line tools and calculators to provide information on reducing costs is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **2 response (4%)**
- Very unlikely - On-line tools and calculators to provide information on reducing costs is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Don't know: **6 responses (11%)**
- Not answered: **4 responses (7%)**

Figure 27 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Responses are mixed but overall positive. For each respondent category over 65% of responses were 'Very likely' or 'Likely'. However, some respondents in the waste management company and householder categories indicate online tools and calculators are 'Unlikely' or 'Very unlikely' to increase recycling. 14% of householders answered 'Unlikely' and 13% of waste management companies answered 'Very unlikely'. However, in total across all respondent categories 83% of respondents answered 'Very likely' or 'Likely'.

Figure 27: We would welcome views on these options to support business recycling and to reduce costs for businesses - On-line tools and calculators to provide information on reducing costs



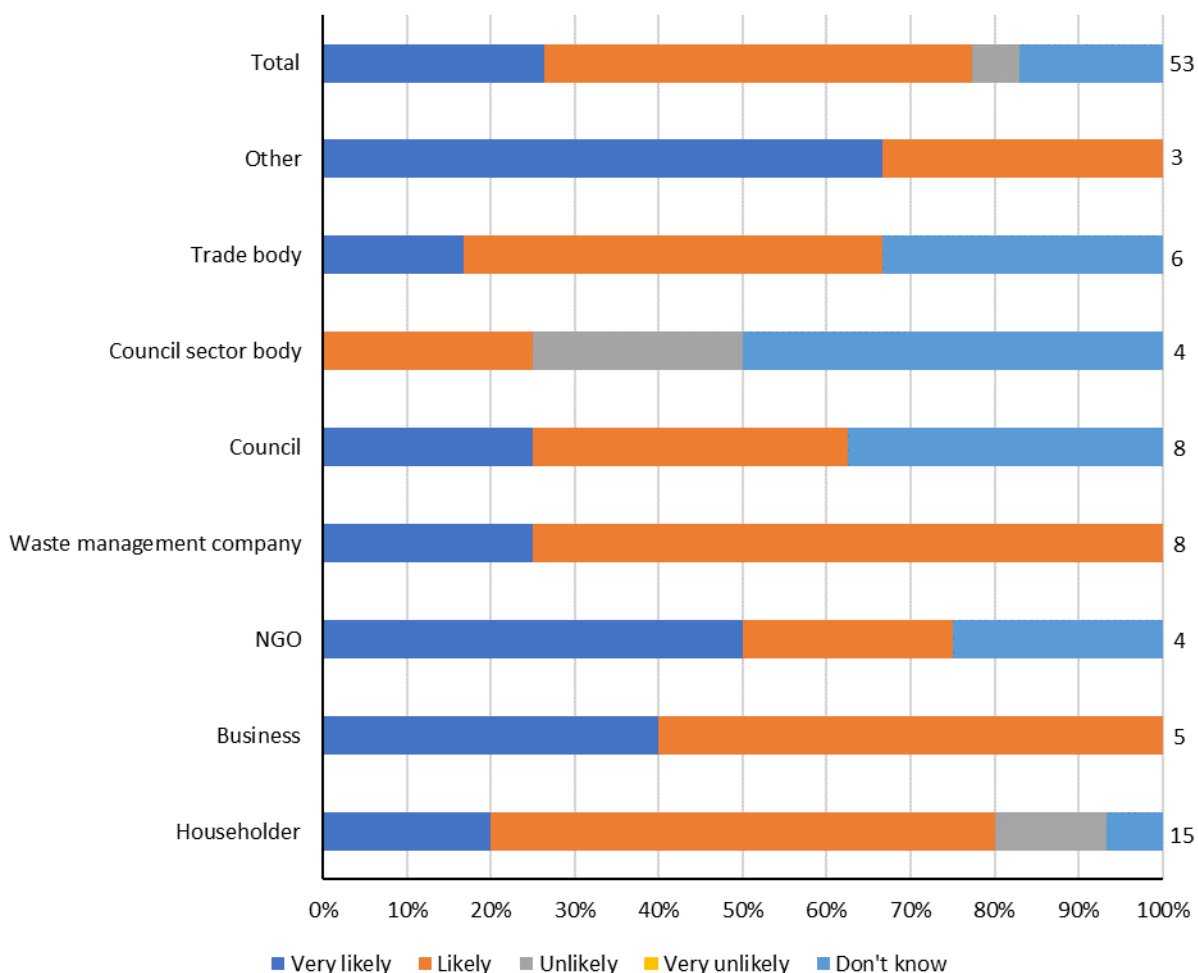
i) Better data to help businesses measure performance and benchmark

- Very likely - Better data to help businesses measure performance and benchmark is very likely to maximise business recycling whilst alleviating cost burden to businesses: **14 responses (25%)**
- Likely - Better data to help businesses measure performance and benchmark is likely to maximise business recycling whilst alleviating cost burden to businesses: **27 responses (48%)**
- Unlikely - Better data to help businesses measure performance and benchmark is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **3 response (5%)**

- Very unlikely - Better data to help businesses measure performance and benchmark is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **0 responses (0%)**
- Don't know: **19 responses (16%)**
- Not answered: **3 responses (5%)**

Figure 28 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent. Overall responses are positive, for each respondent over 60% of responses are 'Very likely' or 'Likely'. However, this is not true for the Council sector body category where only 25% of respondents answered 'Likely' and 25% answered 'Unlikely'. There are much higher levels of respondents answering 'Don't know' to this question than compared to others with overall across all respondent categories 17% of respondents selecting this answer.

Figure 28: Better data to help businesses measure performance and benchmark



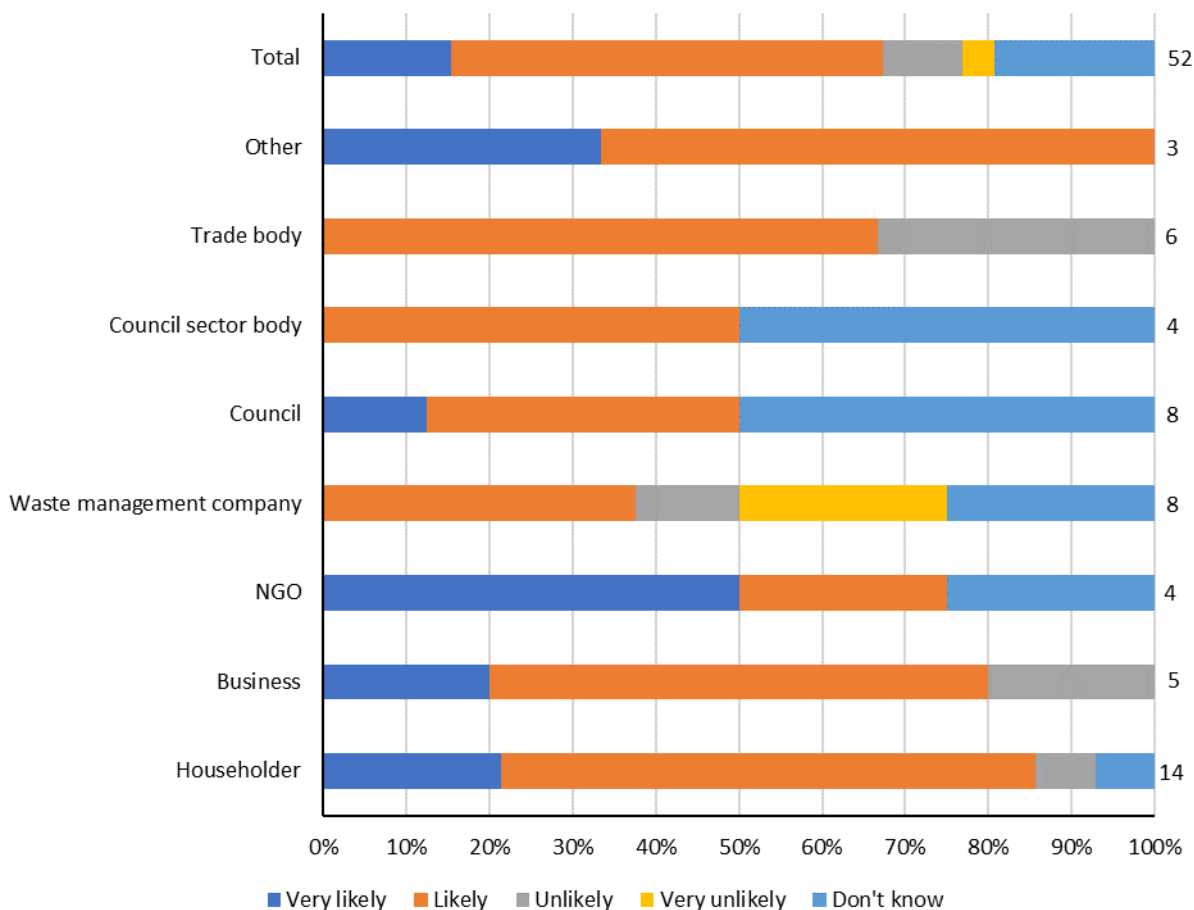
j) Standardisation in pricing approach from private contractors

- Very likely - Standardisation in pricing approach from private contractors is very likely to maximise business recycling whilst alleviating cost burden to businesses: **8 responses (14%)**

- Likely - Standardisation in pricing approach from private contractors is likely to maximise business recycling whilst alleviating cost burden to businesses: **27 responses (48%)**
- Unlikely - Standardisation in pricing approach from private contractors is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **5 response (9%)**
- Very unlikely - Standardisation in pricing approach from private contractors is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **2 responses (4%)**
- Don't know: **10 responses (18%)**
- Not answered: **4 responses (7%)**

Figure 29 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent category. Over 70% of NGOs, businesses, householder and 'Other' respondents answered 'Very likely' or 'Likely'. However, only 50% of Councils and Council sector bodies have given this answer, in each case the other 50% have answered 'Don't know'. The waste management companies and trade bodies have the highest percentage of respondents answering 'Unlikely' or 'Very unlikely' at 38% and 33% respectively. In total across all respondents the response is positive with 15% answering 'Very likely', 52% 'Likely', 10% 'Unlikely' and 4% 'Very unlikely'.

Figure 29: We would welcome views on these options to support business recycling and to reduce costs for businesses - Standardisation in pricing approaches from private contractors

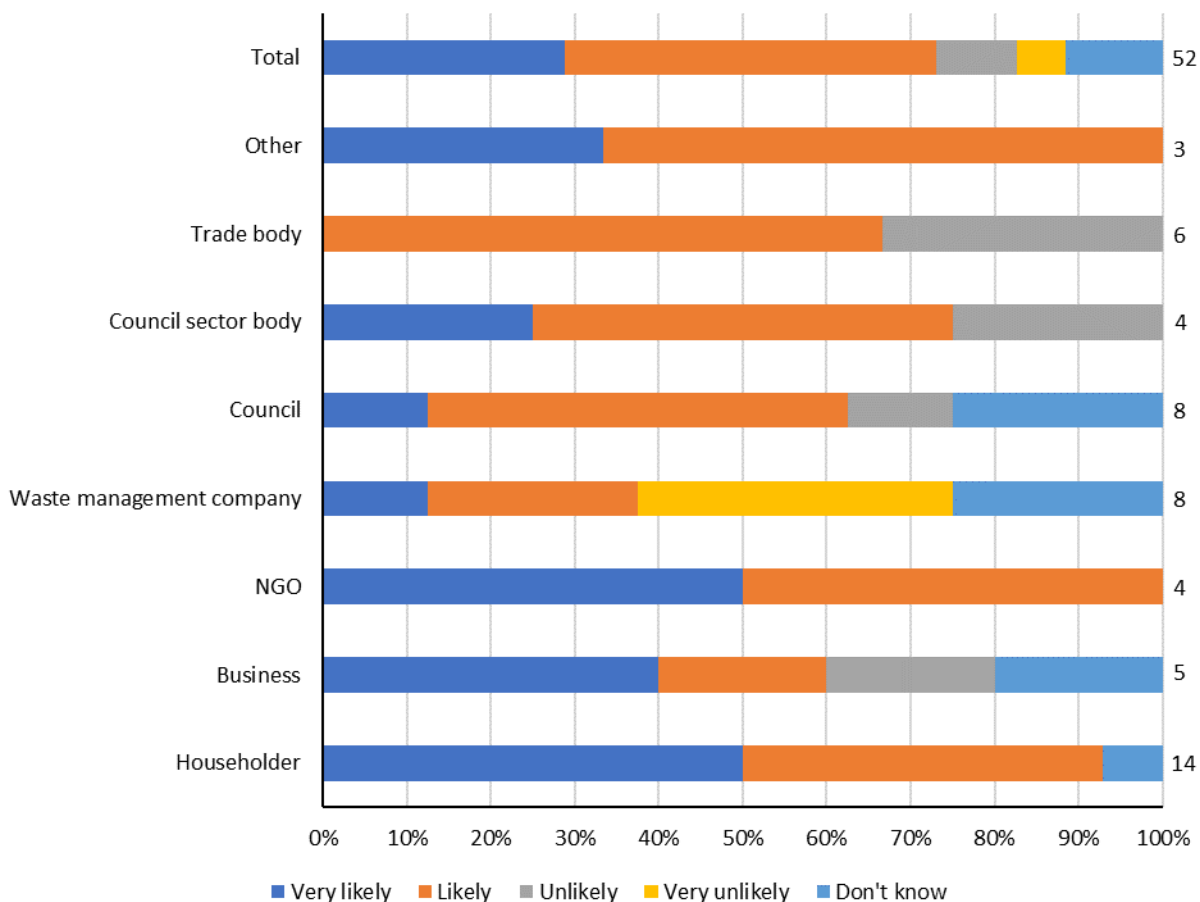


k) Combining door-to-door household and business collections

- Very likely - Combining door-to-door household and business collections is very likely to maximise business recycling whilst alleviating cost burden to businesses: **15 responses (27%)**
- Likely - Combining door-to-door household and business collections is likely to maximise business recycling whilst alleviating cost burden to businesses: **23 responses (41%)**
- Unlikely - Combining door-to-door household and business collections is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **5 responses (9%)**
- Very unlikely - Combining door-to-door household and business collections is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **3 responses (5%)**
- Don't know: **6 responses (11%)**
- Not answered: **4 responses (7%)**

Figure 30 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but excluding waste management companies, 'Very likely' and 'Likely' make up 60% or above of all the responses across each respondent category. For the waste management category, only 38% of respondents answered 'Very likely' or 'Likely' and 38% also answered 'Very unlikely'.

Figure 30: We would welcome views on these options to support business recycling and to reduce costs for businesses - Combining door to door household and business collections



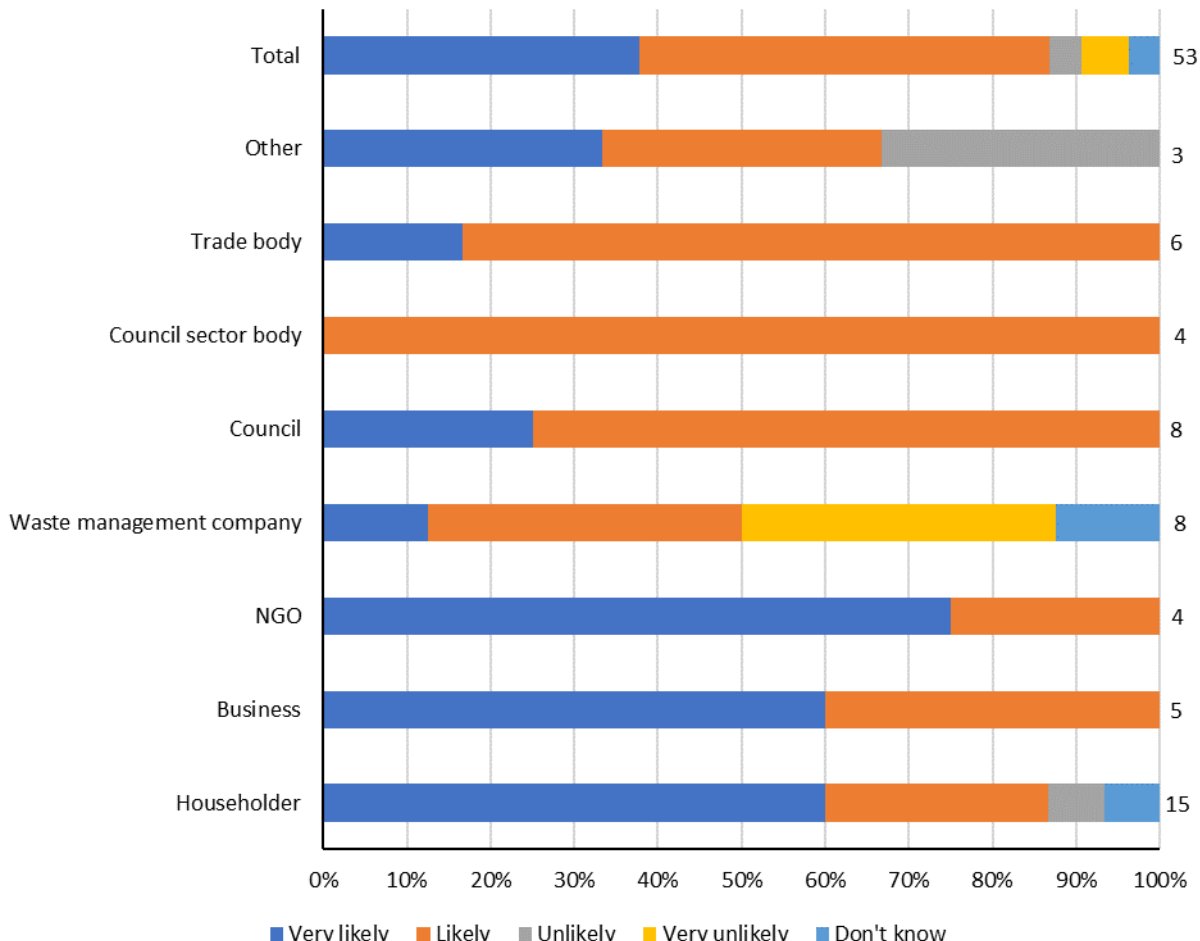
I) Better access and availability of kerbside services

- Very likely - Better access and availability of kerbside services is very likely to maximise business recycling whilst alleviating cost burden to businesses: **20 responses (36%)**
- Likely - Better access and availability of kerbside services is likely to maximise business recycling whilst alleviating cost burden to businesses: **26 responses (46%)**
- Unlikely - Better access and availability of kerbside services is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **2 responses (4%)**
- Very unlikely- Better access and availability of kerbside services is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **3 responses (5%)**
- Don't know: **2 responses (4%)**
- Not answered: **3 responses (5%)**

Figure 31 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Overall, the response to this question was positive. Excluding waste management companies and the 'Other' category, 'Very likely' and 'Likely' make up over 85% of all the responses across each respondent category. For the waste management category, only 50% of respondents answered 'Very likely' or

‘Likely’ and 38% answered ‘Very unlikely’. In total across all respondent categories 87% of respondents answered ‘Very likely’ or ‘Likely’.

Figure 31: We would welcome views on these options to support business recycling and to reduce costs for businesses - Better access and availability of kerbside services

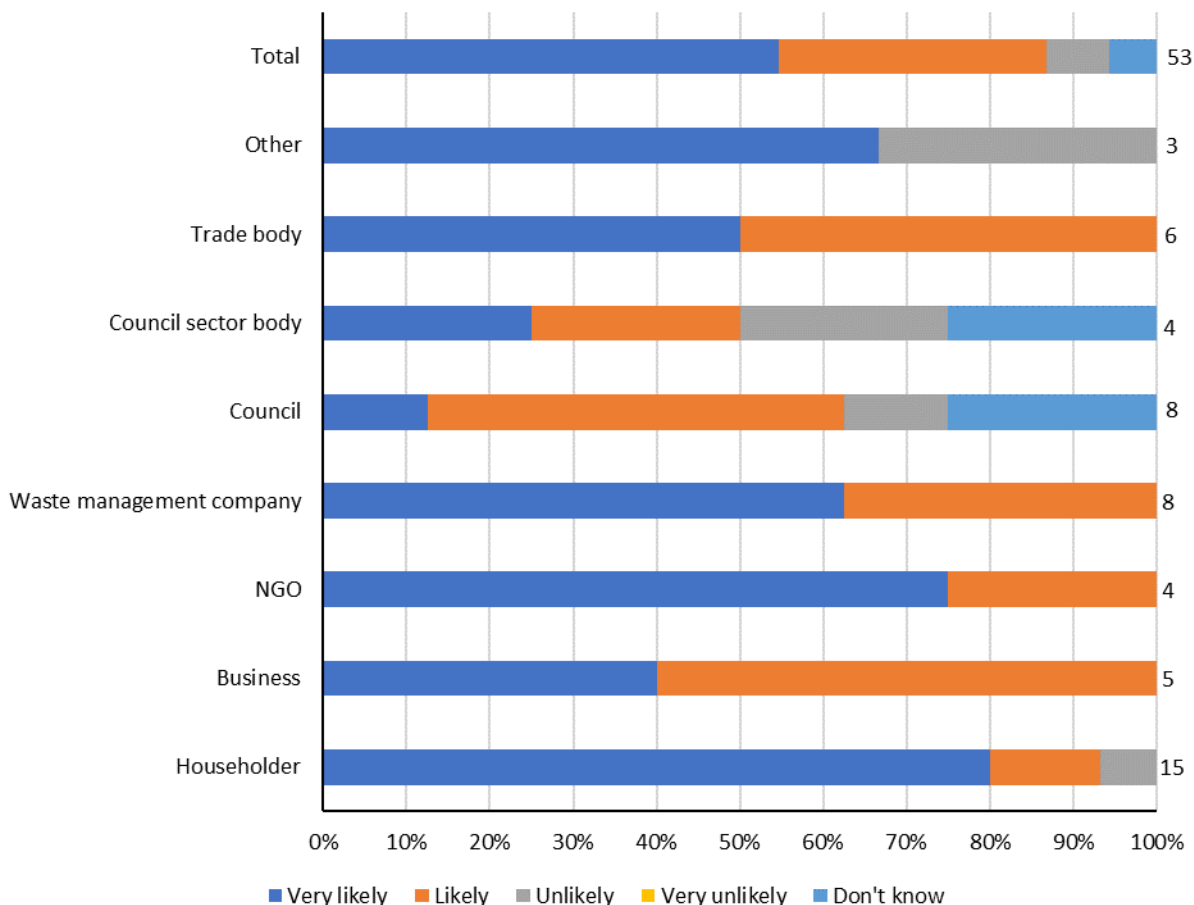


m) Rewards for businesses that recycle such as incentives, ratings and reduced costs

- Very likely - Rewards for businesses that recycle such as incentives, ratings and reduced costs is very likely to maximise business recycling whilst alleviating cost burden to businesses: **29 responses (52%)**
- Likely - Rewards for businesses that recycle such as incentives, ratings and reduced costs is likely to maximise business recycling whilst alleviating cost burden to businesses: **17 responses (30%)**
- Unlikely - Rewards for businesses that recycle such as incentives, ratings and reduced costs is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **4 response (7%)**
- Very unlikely - Rewards for businesses that recycle such as incentives, ratings and reduced costs is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **0 responses (0%)**
- Don't know: **3 responses (5%)**
- Not answered: **3 responses (5%)**

Figure 32 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Overall, the response is positive for this question. In total across all respondent categories 87% of respondents answered 'Very likely' or 'Likely'. Lower levels of agreements were seen for Councils and Council sector bodies where 13% and 25% of respondents answered 'Unlikely' respectively.

Figure 32: We would welcome views on these options to support business recycling and to reduce costs for businesses - Rewards for businesses that recycle such as incentives, ratings and reduced costs

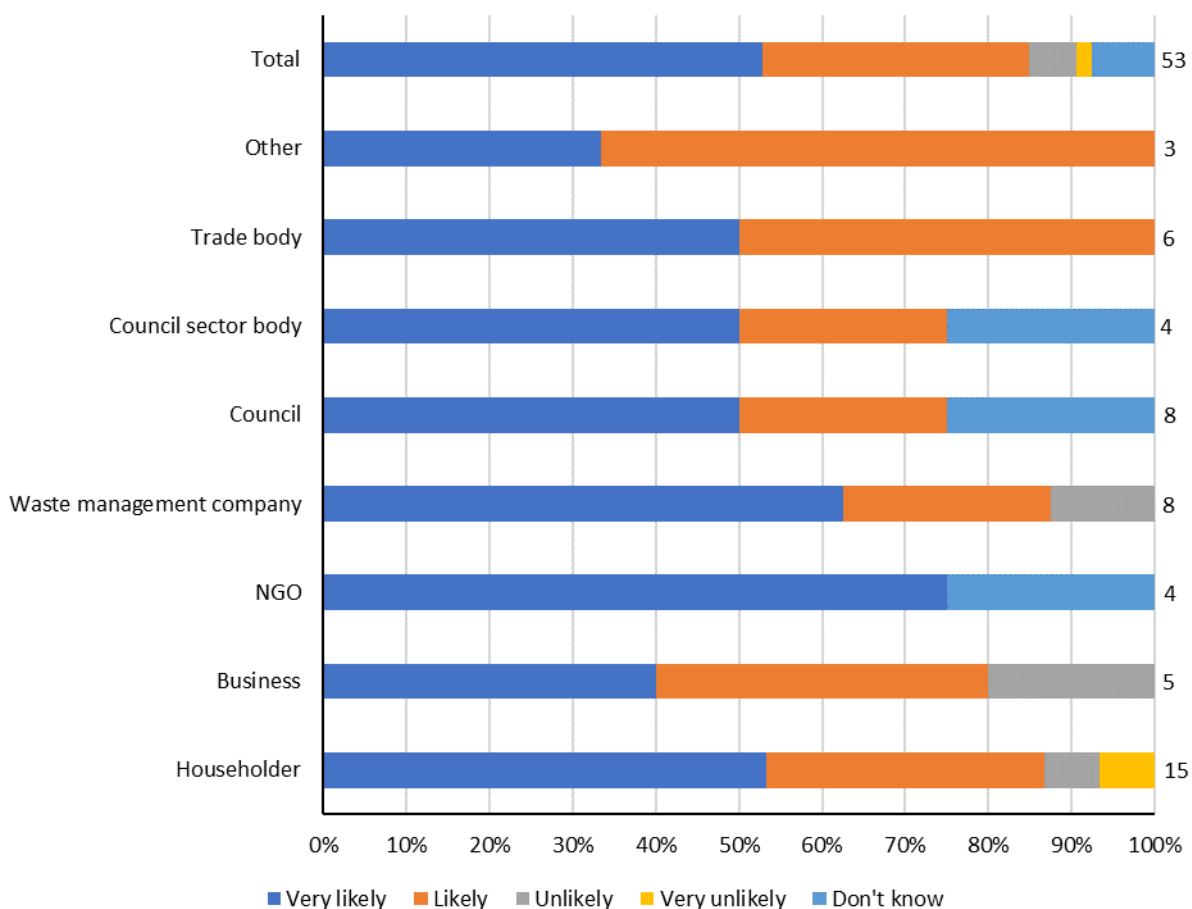


n) Government or industry subsidised cheaper costs of collection services

- Very likely - Government or industry subsidised cheaper cost of collection services is very likely to maximise business recycling whilst alleviating cost burden to businesses: **28 responses (50%)**
- Likely - Government or industry subsidised cheaper cots of collection services is likely to maximise business recycling whilst alleviating cost burden to businesses: **17 responses (30%)**
- Unlikely - Government or industry subsidised cheaper cots of collection services is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **3 responses (5%)**
- Very unlikely - Government or industry subsidised cheaper cots of collection services is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Don't know: **4 responses (7%)**
- Not answered: **3 responses (5%)**

Figure 33 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but in total across all respondents 85% of respondents answered 'Very likely' or 'Likely'. The responses from waste management companies (13%), businesses (20%), and householders (14%) indicate that government or industry subsidised costs of collection are 'Unlikely' or 'Very unlikely' to increase recycling whilst alleviating the cost burden on businesses.

Figure 33: We would welcome views on these options to support business recycling and to reduce costs for businesses - Government or Industry subsidised cheaper costs of collection services



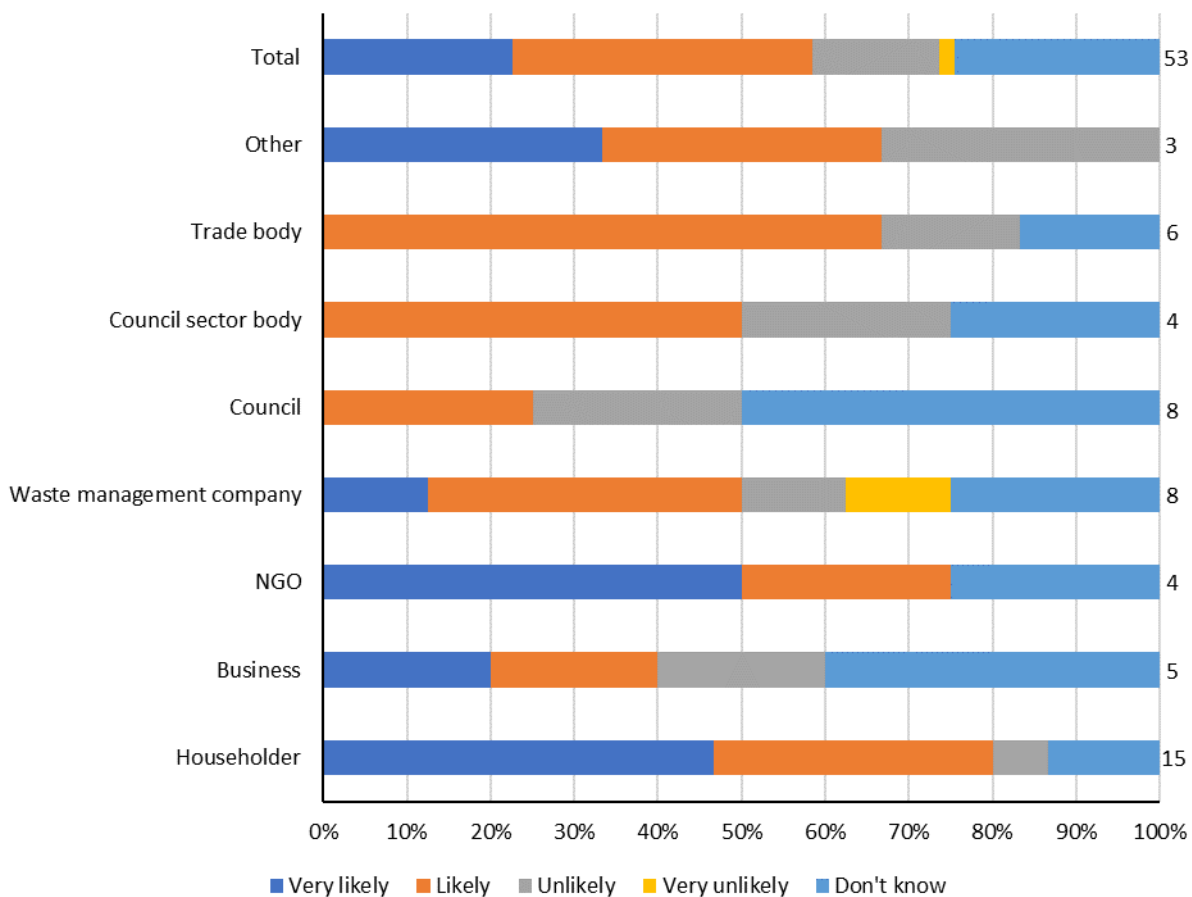
o) Reviewing cross boundary working options (both Council and national level)

- Very likely - Reviewing cross boundary working options is very likely to maximise business recycling whilst alleviating cost burden to businesses: **12 responses (21%)**
- Likely - Reviewing cross boundary working options is likely to maximise business recycling whilst alleviating cost burden to businesses: **19 responses (34%)**
- Unlikely - Reviewing cross boundary working options is unlikely to maximise business recycling whilst alleviating cost burden to businesses: **8 responses (14%)**

- Very unlikely - Reviewing cross boundary working options is very unlikely to maximise business recycling whilst alleviating cost burden to businesses: **1 response (2%)**
- Don't know: **13 responses (23%)**
- Not answered: **3 responses (5%)**

Figure 34 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category. In total across all respondents 59% answered 'Very likely' or 'Likely'. 25% also answered 'Don't know' reflecting a high level of uncertainty about the impact of this measure. Interestingly only 25% of Councils agreed with this measure being introduced.

Figure 34: We would welcome views on these options to support business recycling and to reduce costs for businesses - Reviewing cross boundary working options (both local authority and national level)



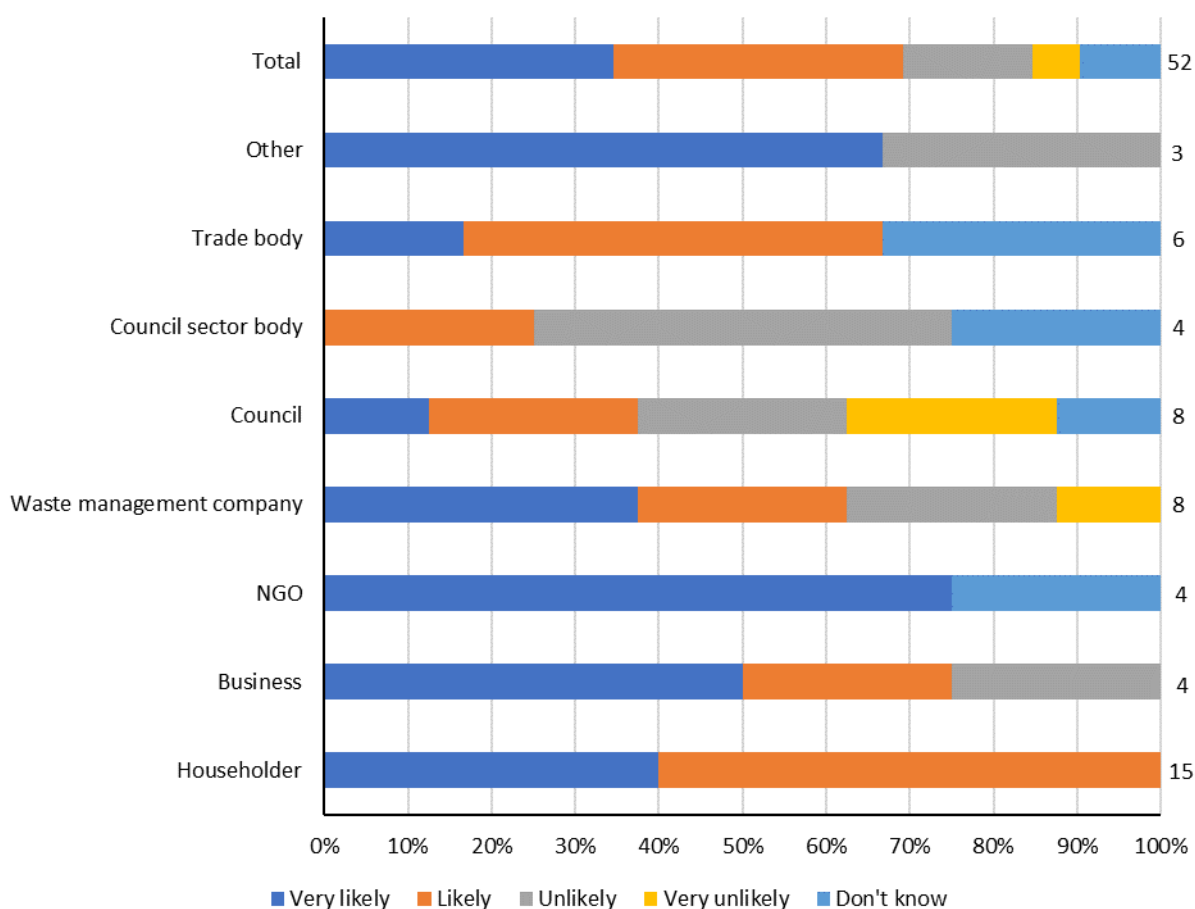
p) Clarity in where and how waste and recyclables are treated

- Very likely: Clarity in where and how waste and recyclables are treated is very likely to maximise business recycling whilst alleviating cost burden to businesses **18 responses (32%)**
- Likely: Clarity in where and how waste and recyclables are treated is likely to maximise business recycling whilst alleviating cost burden to businesses **18 responses (32%)**

- Unlikely: Clarity in where and how waste and recyclables are treated is unlikely to maximise business recycling whilst alleviating cost burden to businesses **8 responses (14%)**
- Very unlikely: Clarity in where and how waste and recyclables are treated is very unlikely to maximise business recycling whilst alleviating cost burden to businesses – **3 responses (5%)**
- Don't know – **5 responses (9%)**
- Not answered – **4 responses (7%)**

Figure 35 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but the response is overall positive. In total across all respondents 70% of respondents answered 'Very likely' or 'Likely'. However, the levels of agreement amongst Councils and Council sector bodies was significantly less with 38% and 25% answering 'Very likely' or 'Likely' respectively. For Council sector bodies 50% answered 'Unlikely' and for Councils 25% answered 'Unlikely' and 25% answered 'Very unlikely'.

Figure 35: We would welcome views on these options to support business recycling and to reduce costs for businesses - Clarity in where and how waste and recyclables are treated



List any other measures that may be available to support business recycling and to reduce costs for businesses

No supporting evidence was submitted for this question.

Question 10: What are your general views on the options proposed to reduce costs?

This question was answered by 45 respondents.

The majority of comments agreed with the proposals designed to reduce the cost burden to businesses whilst increasing recycling. The following areas provoked significant discussion:

HWRCs (13):

- Many HWRCs are already under pressure and allowing businesses access will only increase this (8).
- Businesses will need to pay for use of the HWRCs to ensure the cost burden is not shifted onto Councils (8). However, this will create an administrative burden for Councils (2). It also opens the potential for fraud if businesses attempt to deposit waste as household waste to avoid charges (2).
- A system of Waste Recycling Centres (WRCs) for businesses could help to reduce the cost of waste disposal, however these would require significant infrastructure funding (5). Alternatively, the private sector could provide business WRCs (5).

Price standardisation, government subsidies and incentives (14):

- Standardisation of pricing and government subsidies should be treated with caution (4). Standardising pricing may reduce competition (1) and one waste management company stated that their industry will resist more constraints reducing their ability to make a profit (1).
- In the past, subsidy schemes have been heavily abused (2), however, increasing business access to reasonably priced waste services is likely to increase business recycling (4).
- Incentives and rewards have been met with a positive response (8). One comment specifically raises their use for rural businesses (1). However, change in behaviour due to incentives is often short-lived (2).

Combining business and household kerbside collections (8):

- Feedback over combining household and business kerbside collections is mixed. This is possible where households and businesses collect the same waste in the same way (1) and could lead to a reduction in the number of collection vehicles on the road and a corresponding reduction in carbon emissions (2). However, it requires consideration from an administrative perspective (3).
- Most businesses require weekly collections which Councils are unlikely to offer (3).
- Private sector waste collectors are on average cheaper than Council services so this could overall result in an increased cost to businesses (1).

Bin sharing (5):

- Sharing of bins between businesses would help reduce the cost burden on them (2). However, contamination rates are usually higher, and enforcement is difficult where the offending respondent cannot be identified (4). It will only work if there is joint liability for all contracting parties (1).

Regional procurement of services (6):

- Again, responses are mixed regarding regional procurement. Collaborative procurement has been shown to reduce costs through economies of scale (3).
- However, it may reduce competition resulting in poorer service levels and eventually increased prices (1).
- It is difficult to implement and many national chains already centrally procure their waste services. These would therefore be excluded from the regional procurement process making it less attractive to waste management companies (1).
- Ultimately it would need to be scoped out in more detail in conversation with sector stakeholders (1).

Cross-boundary working (5):

- The proposal to review cross-boundary working was also commented on. The consensus was more detail is needed on how this would work and how this would reduce costs (5).
- Measures that are put in place to reduce costs to businesses should not complicate service delivery for Councils (1).

Providing clear information and guidance to businesses was met with a positive response (11).

- Education and information sharing are suggested to be important in encouraging businesses to recycle (10). A clear core recyclable list would be useful (2), alongside clear labelling on packaging (2). Additionally, one-to-one business support could prove useful (3), however there is not enough detail provided about how this would be provided and funded (1). Another suggestion is to communicate with businesses about the clear cost saving regarding separation and recycling of waste, although this will require discussion with the private sector to ensure this is the case (2).
- Online tools and calculators should increase business recycling (2), as should the provision of better data to help businesses measure performance and benchmark (3). A business league table or rating system could incentivise businesses to recycle (2). However, there is insufficient detail given on the source of this support and how it would be funded (1). End destination date is requested (1) and the proposed waste tracking system will give better clarity on where and how materials are treated (1).

Other areas discussed:

- Consistency: Central government should ensure consistency in services and information across NI (5).
- Cost burden to Councils: The requirement for businesses to recycle should not result in additional costs for Councils (3).
- Waste management companies: Any schemes should be implemented in conjunction with private waste collectors as they have the facilities and expertise to deliver the required services (3).
- Reduction: There should be an emphasis on business waste reduction (2).
- Problem materials (2): Clarity and enforcement is needed around the correct disposal of problem materials (1). The cost of disposal is also too high, particularly

for small amounts (1). One solution could be to include problem materials in waste contracts (1).

- Enforcement: Enforcement will be needed alongside the options discussed above to bring about change in recycling behaviours (3).

Question 11: What might be other viable options to reduce the cost burden that we have not considered?

This question was answered by 23 respondents. The following areas were discussed:

- This is an opportunity for the 11 Councils to develop a consistent, centrally co-ordinated approach for business waste collection (4). This system should allow central government to control policy and set waste targets but allow the private sector to deliver services in the most cost effective and competitive way (1). There should be a core set of materials which is controlled by DAERA to remove any confusion for businesses and households (1).
- The Extended Producer Responsibility Framework should ensure the cost of managing 'household-like' packaging waste is covered by producers, reducing the cost burden to businesses (3). Clarity is needed on how 'transition' costs will be addressed between now and EPR going live (3). This should improve business and Council engagement with this policy (1).
- Options to encourage businesses to re-use items and to promote a circular economy should be explored (4). One suggestion is promotion of collective arrangements for recyclable waste streams that have an inherent value, for example cardboard, which could be baled and sold in bulk for an income (2).
- Incentives are needed to encourage businesses to buy in recyclable packaging (2). This could take the form of incentives via the tax system for good behaviour and penalties for bad behaviour (1).
- Rural areas were discussed (2). Private waste collector prices are highest for rural areas due to a low collection density. This is aggravated by the operation of unregulated collectors and business access to HWRCs further reducing the number of businesses that procure recycling services (1). Where segregation of recycling is not TEEP, greater flexibility should be considered (1).
- Additional suggestions to reduce the price for businesses include:
 - Community bins in residential areas (1)
 - Business clusters so infrastructure can be shared to promote waste segregation (1)
 - Council collections for SMEs located on existing rounds (RFID tags could be used to identify pre-paid containers) (1).

Other themes included:

- It would be helpful for DAERA to look at best practice in the UK or other European countries (including ROI) (2).
- This question should be put directly to the business sector (2).

Question 12: Do you have any other views on how we can support businesses and other respondents to make the transition to improved recycling arrangements?

This question was answered by 27 respondents.

Communication and support are the key to improving business recycling (15).

- Communication campaigns should educate on legal and social responsibilities, as well as the potential financial gains (1). Campaigns could be delivered to the workplace by business representatives such as the Federation of Small Businesses (1) or through professional bodies such as the CIWM (1). As well as promoting recycling, campaigns should also promote waste reduction (2).
- Keeping recycling systems as simple as possible will also help to increase implementation (2).
- One-to-one support for businesses is needed (3). This will be particularly effective if it is accessible, free and does not seek to punish businesses where mistakes have been made in the past (2). Manufacturers will also require support ahead of the planned packaging reforms (1).
- Better/combined use of NetRegs, BITC etc. in the form of a “one stop shop” (2).

Incentives (6) and enforcement (3) are both necessary to increase business recycling.

- Tax breaks for businesses with high recycling rates are specifically suggested (3).
- Alternatively, accreditation systems for businesses could be put in place (2) for example, a similar system to the hygiene stars could be used (1). This should put pressure on businesses to improve as the public shift to shopping more sustainably (1).
- Waste audits could be carried out for businesses to incentivise progress (1).

Additional themes discussed are:

- Producer responsibility: Having greater focus on producer responsibility will lead to a situation where better recycling practices for businesses are the most cost-effective way for businesses to manage their waste streams (2).
- Food regulations: There are significant levels of non-compliance with the food regulations 2015. Learnings must be taken from this (2).
- Infrastructure: Improve infrastructure and feasibility of reprocessing on the island of Ireland (1).
- Business sector: The business sector must be consulted over these proposals (3).
- Consistency with households: If the same range of materials is being presented for households and businesses then these collections can be merged (2).
- Timeframes: Businesses need sufficient warning to implement changes (1)

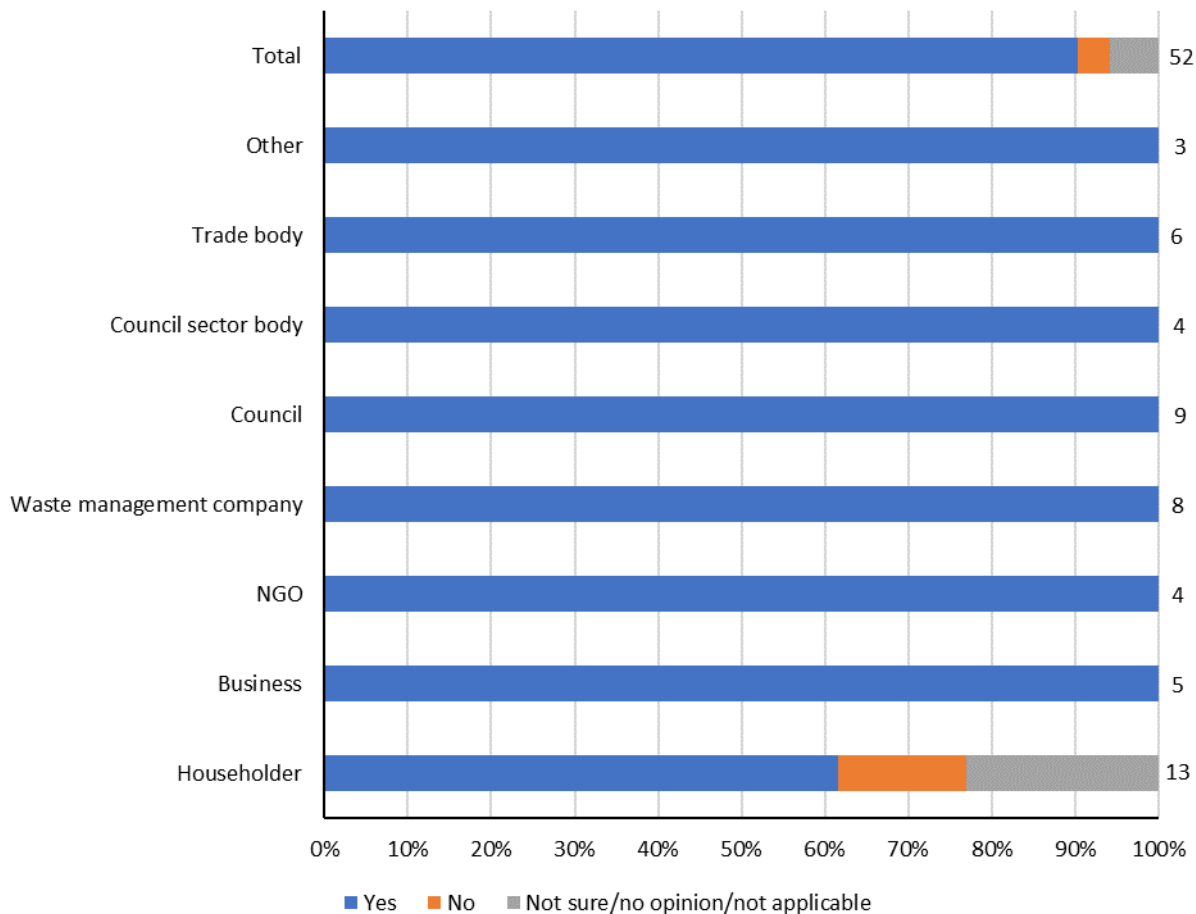
Proposal 5: In advance of implementing changes to business recycling, we will work with waste producers and waste collectors to improve reporting and data capture on waste and recycling performance of businesses and other respondents. Any requirements will be subject to further consultation.

Question 13: Should businesses and other respondents be required to report data on their waste recycling performance? If you selected No, please explain.

- Yes - Businesses and other respondents should be required to report data on their waste and recycling performance: **47 responses (84%)**
- No - Businesses and other respondents should not be required to report data on their waste and recycling performance: **2 responses (4%)**
- Not sure/ don't know: **3 response (5%)**
- Not answered: **responses (7%)**

Figure 36 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question was overwhelmingly positive. For each respondent category, 100% of respondents answered 'Yes'. The only exception to this is seen in the householder category where only 62% of respondents answered 'Yes', 15% answered 'No' and 23% answered 'Not sure'. In total across all respondent categories 90% of respondents answered 'Yes', 4% answered 'No' and 6% answered 'Not sure'.

Figure 36: Should businesses and other organisations be required to report data on their waste recycling performance?



Two respondents who selected No left a comment for this question. Both respondents were householders and their responses have been summarised into the bullet points below.

- A one-off survey can be managed but a continuing requirement to provide data increases the cost burdens on small businesses (1)
- Weighing of materials should be done by the waste collectors. Therefore, this is not necessary unless it forms part of an incentive initiative (1).

Question 14: Who should bear the responsibility for reporting data on waste from businesses and other respondents? (select all that apply)

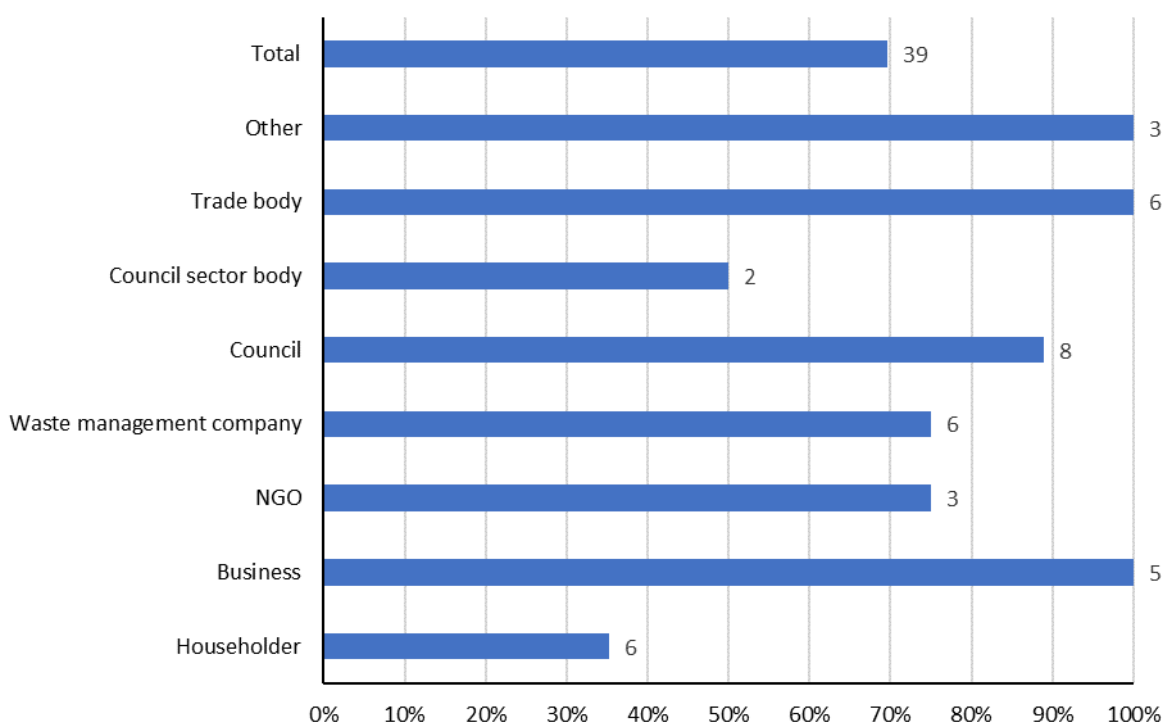
- a) Producers (businesses and other respondents where waste is produced) should bear the responsibility
- b) Collectors (the respondents responsible for the collection of waste from businesses and other respondents) should bear the responsibility
- c) Re-processors/ treatment facilities (the respondents responsible for processing and treatment of waste)
- d) Not sure/ no opinion/ not applicable

a) Producers

- Producers (businesses and other respondents where waste is produced) should bear the responsibility: **39 responses (70%)**

Figure 37 shows the percentage of respondents by respondent category that answered ‘Producers’ out of the total number of respondents that answered this survey. In total across all respondent categories 70% of respondents answered that producers should bear the responsibility for reporting data. However, there is some variation by respondent category with 100% of ‘Other’ respondents, trade bodies and businesses answering ‘Producers’ but only 35% of householders and 50% of Council sector bodies.

Figure 37: Who should bear the responsibility for reporting data on waste from businesses and other organisations? -Producers

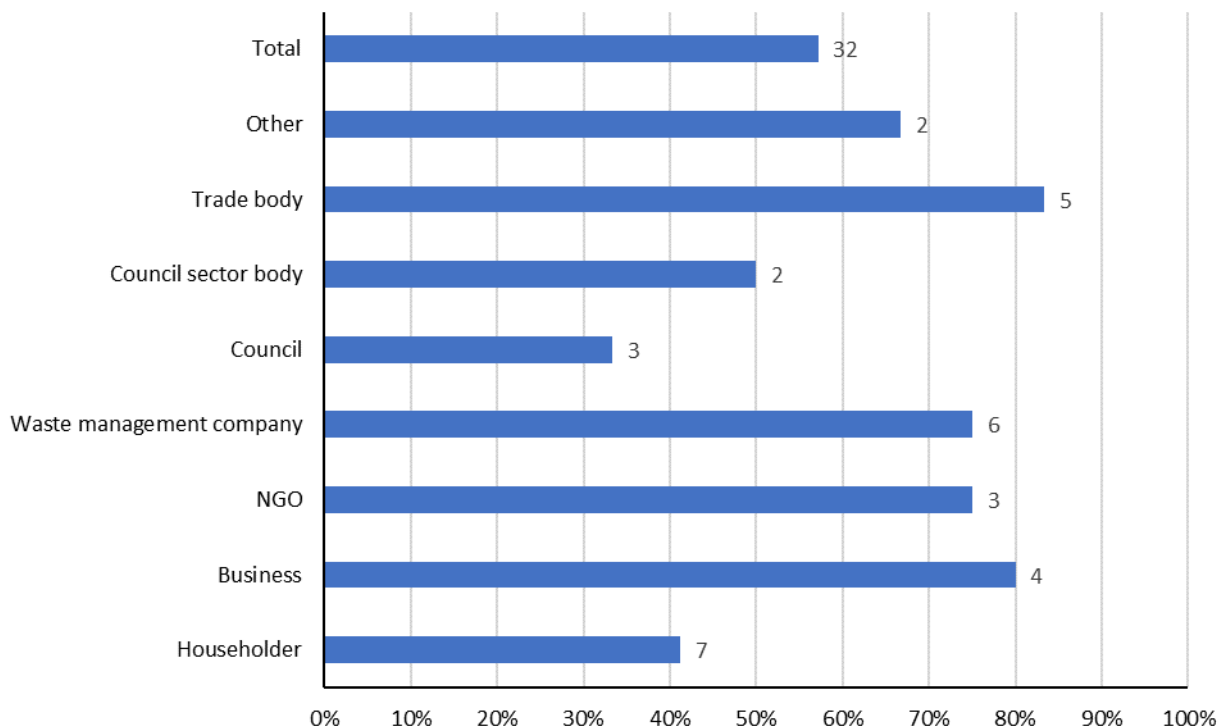


b) Collectors

- Collectors (the respondents responsible for the collection of waste from businesses and other respondents) should bear the responsibility: **32 responses (57%)**

Figure 38 shows the percentage of respondents by respondent category that answered ‘Collectors’ out of the total number of respondents that answered this survey. In total across all respondents 57% of respondents answered ‘Collectors’. There is some variation by respondent category with 83% of trade bodies answering ‘Collectors’ but only 33% of Councils.

Figure 38: Who should bear the responsibility for reporting data on waste from businesses and other organisations? - Collectors

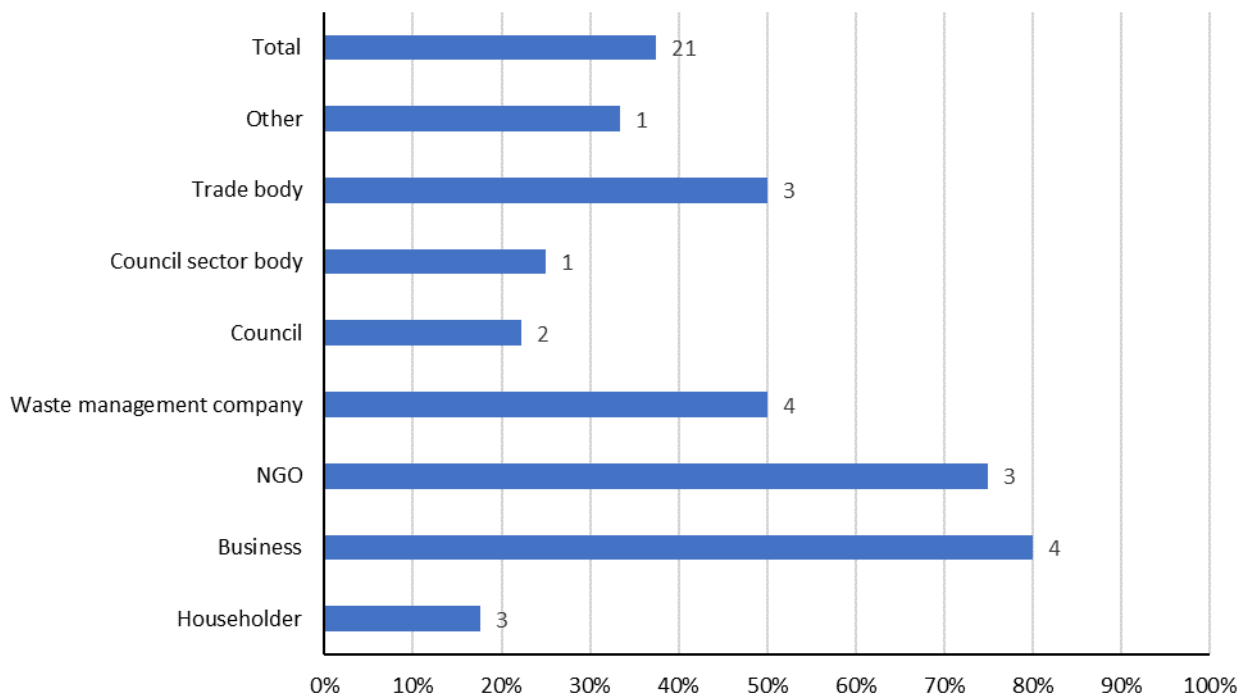


c) Reprocessors

- Re-processors/ treatment facilities (the respondents responsible processing and treatment of waste): **21 responses (38%)**

Figure 39 shows the percentage of respondents by respondent category that answered ‘Reprocessors’ out of the total number of respondents that answered this survey. In total across all respondents 38% of respondents answered ‘Reprocessors’. However, there is some variation by respondent with 80% of businesses answering ‘Reprocessors’ but only 25% and 22% of Council sector bodies and Councils giving this answer respectively.

Figure 39: Who should bear the responsibility for reporting data on waste from businesses and other organisations? - Re-processors/ treatment facilities



Question 15: What specific data sets would your respondent find useful if businesses were required to report under Proposal 5?

This question was answered by 36 respondents.

Performance (13):

If businesses were required to report under proposal 5, they would find recycling performance data useful (13). Quantities of individual materials recycled (11), to be reported monthly, quarterly or annually (2), could be presented:

- As overall data for the non-municipal sector in Northern Ireland (2)
- By Council or location (3)
- At an individual business level (2) or by business category (1)

Councils would find this information beneficial when offering support to businesses (2). Businesses would also like to understand the value of each material they dispose of (3).

End destination and material flow through the supply chain (7):

Businesses also request data on the end destination of recycled materials (5) and the flow of material through the collection, sorting and reprocessing supply chain (2). Currently, there is potential for double counting of materials as it moves location and there is a call for waste tracking to be implemented in Northern Ireland to improve data robustness (2).

Existing data collection systems (10):

There are data collection systems already in place for different sectors. These could be adapted for use in the non-household municipal sector (10). The following suggestions have been made:

- Use a 'streamlined' version of WasteDataFlow (WDF) (9).
- Some businesses already report waste data via the 'Business in the Community Environmental Benchmarking Survey'. This survey could be widened (1).

Reporting methodologies (6):

Reporting methods for household and business waste should be compatible to ensure data can be interrogated on a Northern Ireland basis (2). Reporting could be improved by implementing waste tracking (2).

There was some discussion over who should bear the responsibility for data reporting:

- Business: Reporting does not need to be an onerous task and can be done without revealing commercially sensitive information (1)
- Waste Collector (2): Prevents commercially sensitive information becoming available (1)
- Re-processor: In the best position to report on tonnages by end destination. However, reporting timeframes would need to be considered as the material takes time to reach its end destination (1).

Further consideration and stakeholder involvement (4):

Further consideration must be given to this question (4).

- 2 Councils stated the business sector must be consulted (2)
- 1 Council suggested further discussion will be needed once the premise of data collection has been agreed (1)
- 1 Council suggests current indicators should be reviewed to improve definitions and reflect targets beyond 2020 (1).

Household Waste

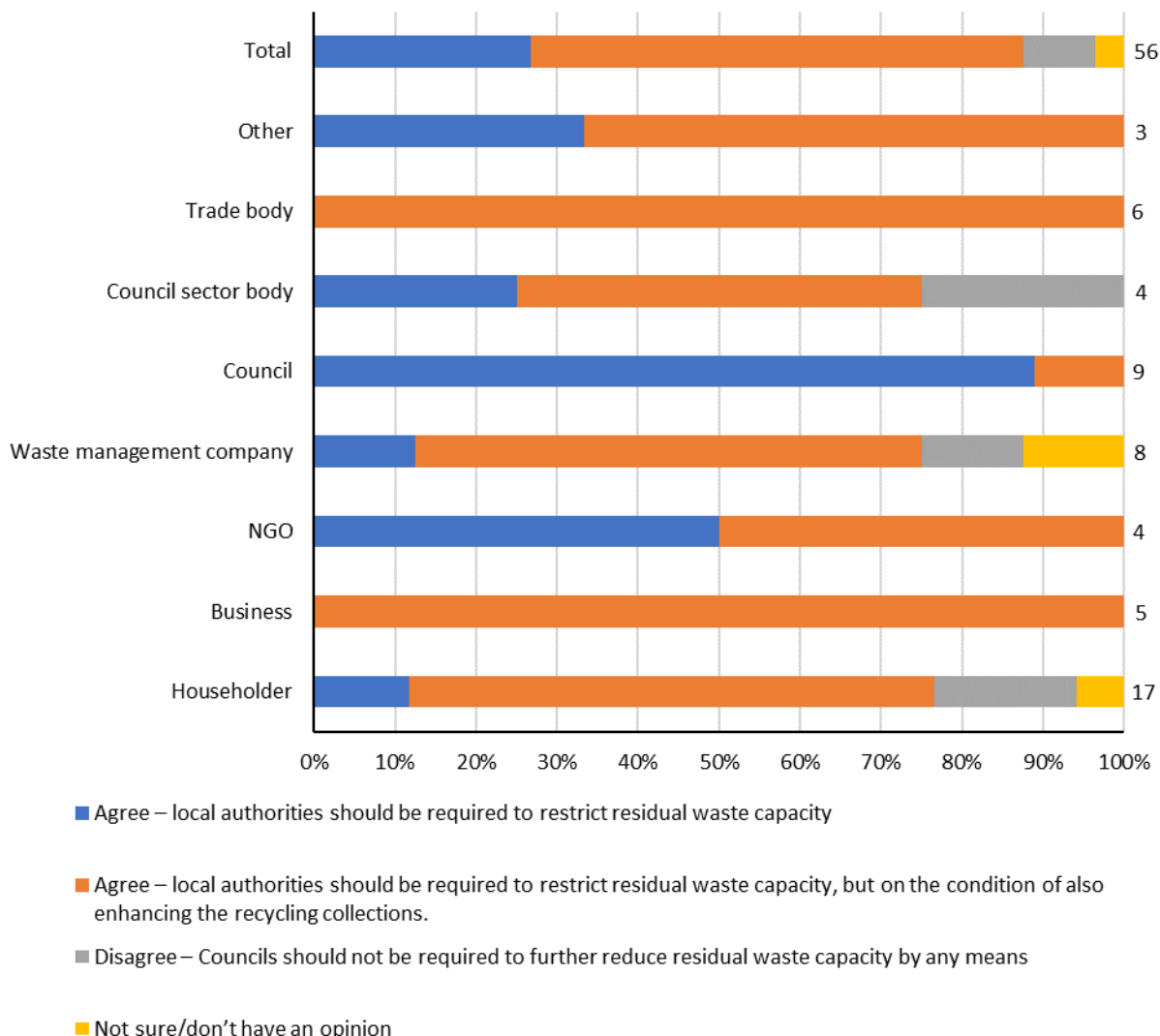
Proposal 6: We propose that all Councils in Northern Ireland should be required to restrict capacity for residual waste from households to help divert more materials into the recycling waste streams.

Question 16: Do you agree or disagree with the proposal that Councils should be required to restrict residual waste capacity (either by frequency or by residual container volume).

- Agree - Councils should be required to restrict residual waste capacity: **15 responses (27%)**
- Agree - Councils should be required to restrict residual waste capacity but on the condition of also enhancing the recycling collections. Enhancements to recycling collections could be made by either increasing the range of materials collected, increasing the frequency of the recycling collections, or increasing the available recycling container capacity: **34 responses (61%)**
- Disagree – Councils should not be required to further reduce the residual waste capacity by any means: **5 responses (9%)**
- Not sure/ don't have an opinion: **2 response (4%)**
- Not answered: **0 response (0%)**

Figure 40 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation in response by respondent category but for each category at least 75% of responses agree that residual waste capacity should be restricted. In total across all respondent categories this figure is 88%. For all categories excluding Councils, at least 50% of respondents agree but with the condition that recycling services are enhanced. This is not the case for the Council category where 100% of respondents agree that residual capacity should be restricted but only 11% agree that this should be accompanied by enhanced recycling services.

Figure 40: Do you agree or disagree with the proposal that Councils should be required to restrict residual waste capacity (either by frequency or by residual container volume)?



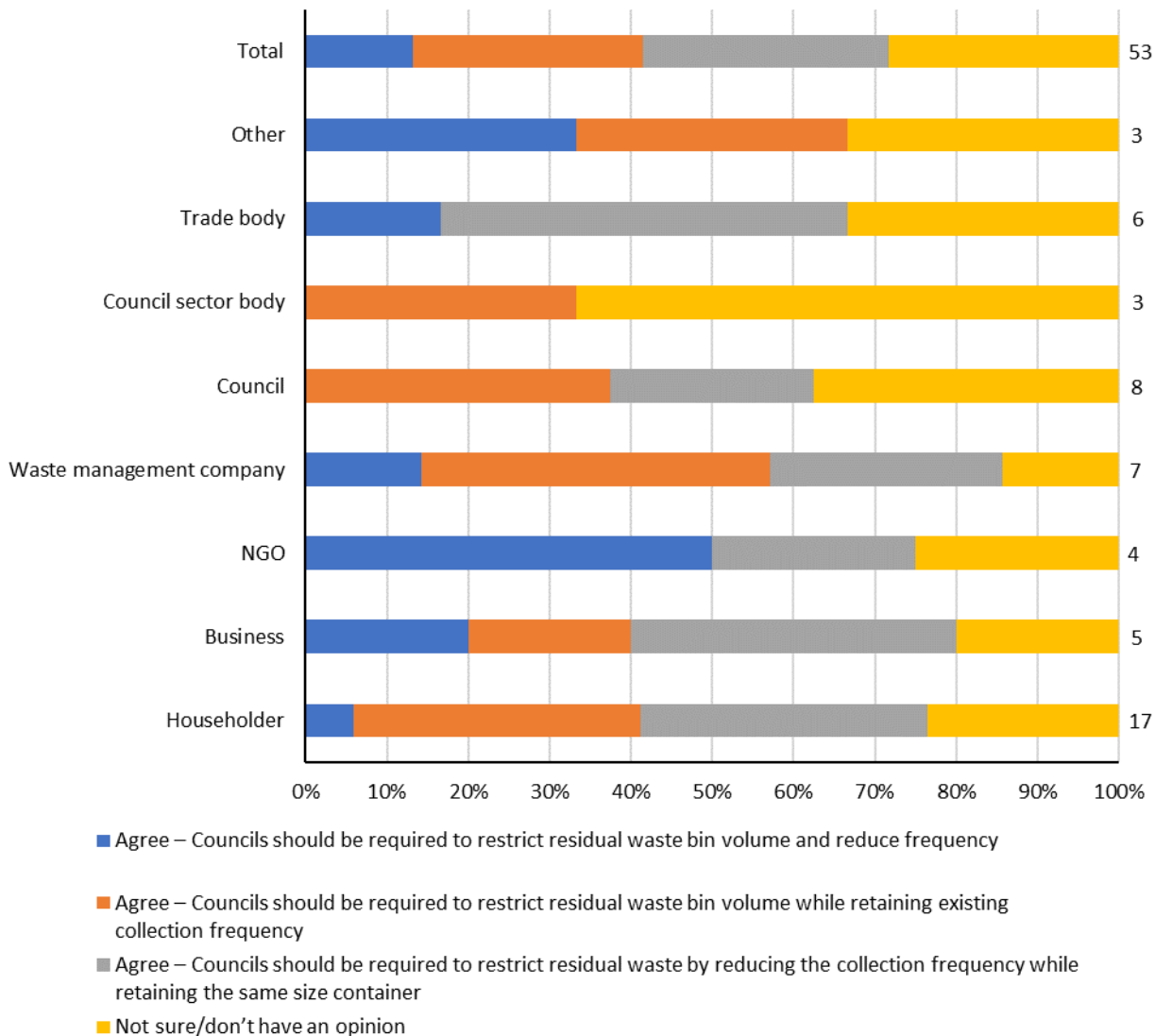
Question 17: Assuming there will be necessary exemptions for key property categories, do you have any preference with the proposals below that Councils should be required to restrict the residual waste in different ways?

- Agree - Councils should be required to restrict residual waste bin volume while retaining existing collection frequency: **7 responses (13%)**
- Agree - Councils should be required to restrict residual waste bin volume while retaining existing collection frequency: **15 responses (27%)**
- Agree - Councils should be required to restrict residual waste by reducing the collection frequency while retaining the same size container: **16 responses (29%)**
- Not sure/ don't know: **15 response (27%)**
- Not answered: **3 response (5%)**

Figure 41 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent category. In total across all respondent categories there is a roughly even split between each category; 13% answer bin volume and frequency should be reduced, 28% answer

only bin volume should be reduced, 30% answer only collection frequency should be reduced and 28% answer 'not sure/ no opinion'.

Figure 41: Assuming there will be necessary exemptions for key property types, do you have any preference with the proposals below that Councils should be required to restrict the residual waste in different ways?



Question 18: If residual restriction was to be implemented which enhancements should be made to the recycling service to help increase performance and ensure consumers are satisfied with the overall services offered? (select all that apply)

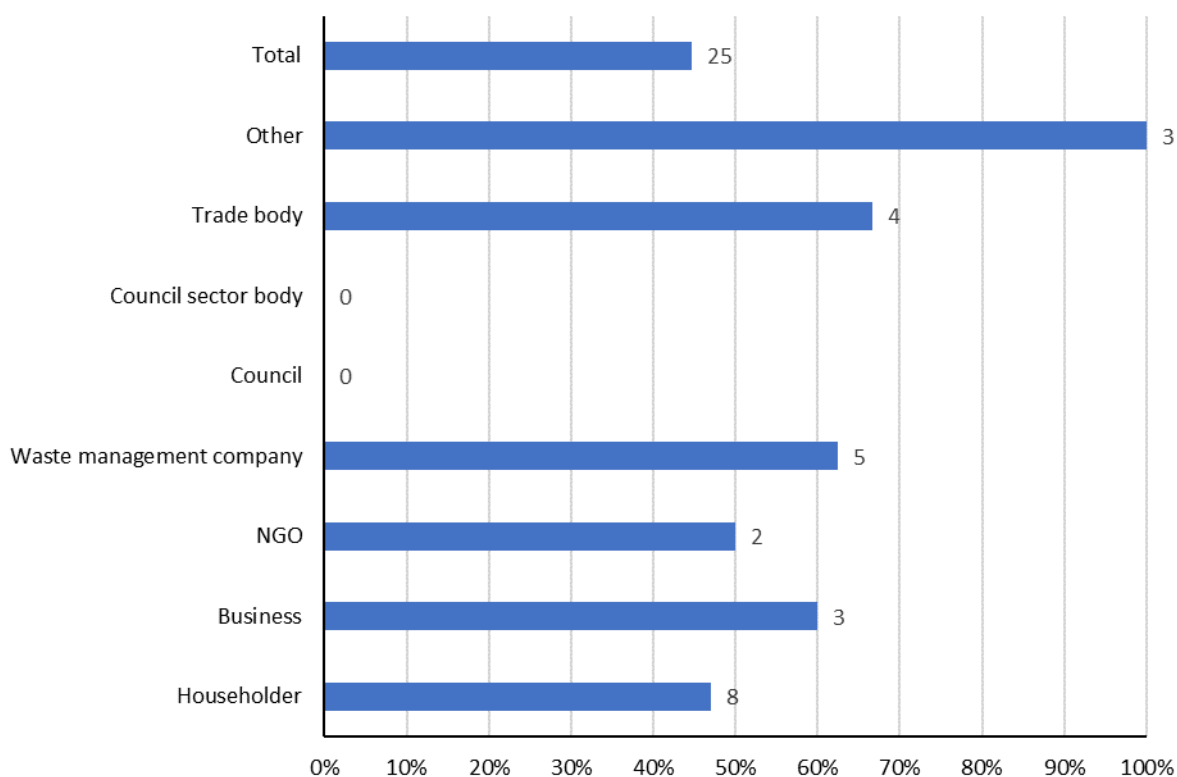
- a) Increased frequency of the dry recyclables collection
- b) Increased frequency of the food recycling collection
- c) A larger container capacity for the dry recyclables collection
- d) A higher frequency sanitary waste collection
- e) A collection of nappies for young families
- f) Other (please specify)
- g) Not sure/ don't have an opinion

a) Increased frequency of the dry recyclables collection

- Increased frequency of the dry recyclables collection: **25 responses (45%)**

Figure 42 shows the percentage of respondents by respondent category that answered ‘Increased frequency of dry recyclables collection’ out of the total number of respondents that answered this survey. In total across all respondent categories 45% answered that dry frequency should be increased. However, there was significant variation by respondent as 0% of Councils or Council sector bodies gave this answer compared to 100% of ‘Other’ respondents.

Figure 42: If residual restriction was to be implemented which enhancements should be made to the recycling service? - Increased frequency of the dry recyclables collection

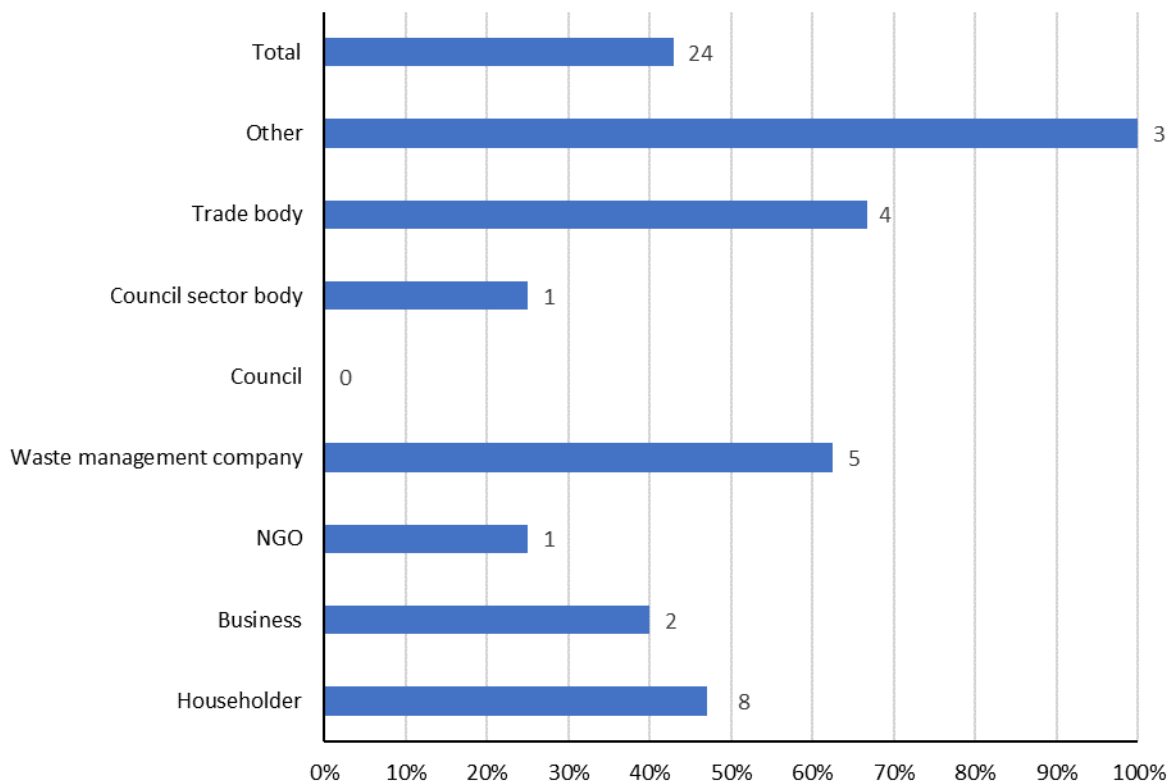


b) Increased frequency of the food recycling collection

- Increased frequency of the food recycling collection: **24 responses (43%)**

Figure 43 shows the percentage of respondents by respondent category that answered ‘Increased frequency of food recycling collection’ out of the total number of respondents that answered this survey. In total across all respondents 43% answered that food recycling frequency should be increased. However, there was significant variation by respondent category with 0% of Councils and 100% of ‘Other’ respondents giving this answer. Overall the response was negative with less than 30% of Councils, Council sector bodies and NGOs answering that food recycling frequency should be increased.

Figure 43: If residual restriction was to be implemented which enhancements should be made to the recycling service? - Increased frequency of the food recycling collection

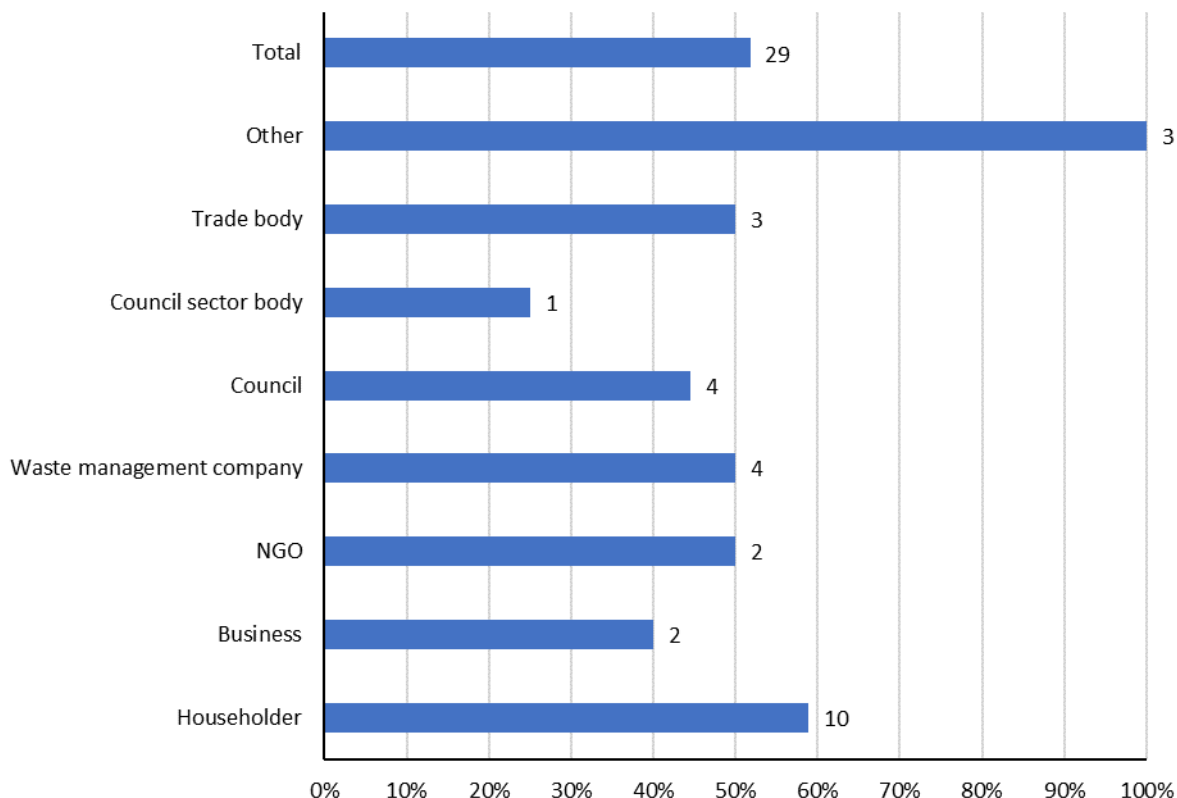


c) A larger container capacity for the dry recyclables collection

- A larger container capacity for the dry recyclables collection: **29 responses (52%)**

Figure 44 shows the percentage of respondents by respondent category that answered ‘A larger container capacity for the dry recyclables collection’ out of the total number of respondents that answered this survey. In total across all respondents 52% answered that container capacity should be increased. 100% of ‘Other’ respondents gave this answer however for the rest of the categories the percentage sat around 50%.

Figure 44: If residual restriction was to be implemented which enhancements should be made to the recycling? - A larger container capacity for the dry recyclables collection

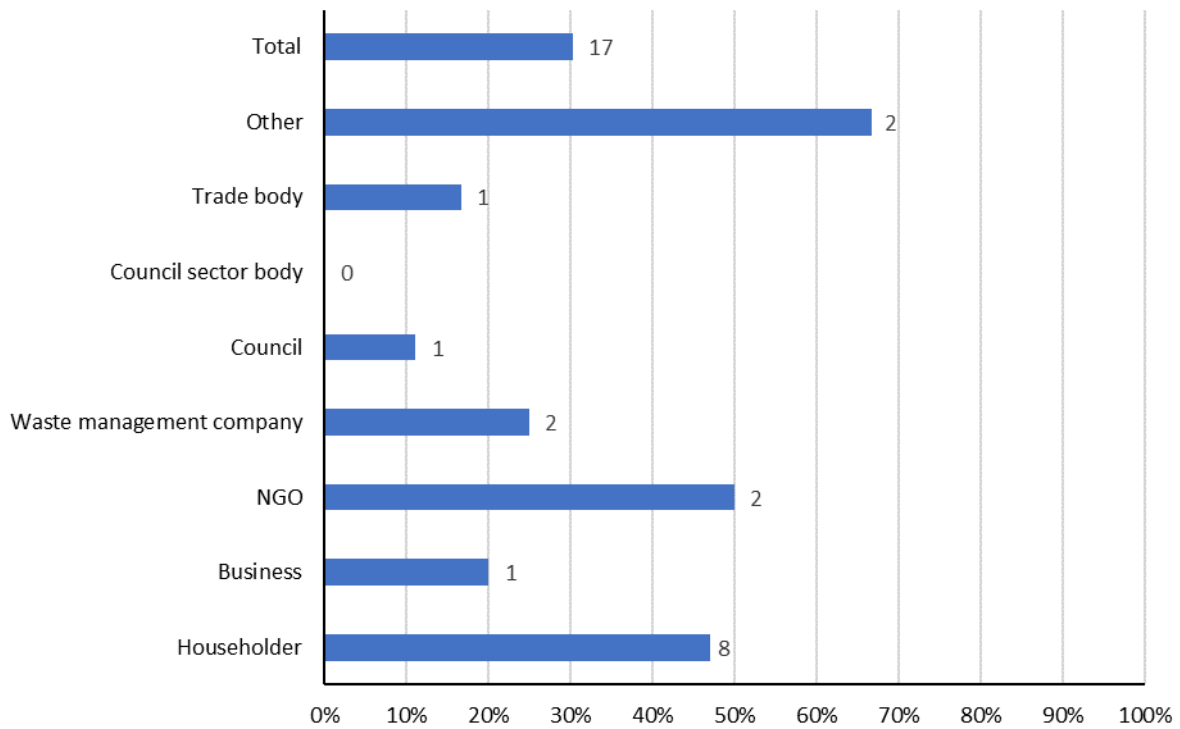


d) A higher frequency sanitary waste collection

- A higher frequency sanitary waste collection: **17 responses (30%)**

Figure 45 shows the percentage of respondents by respondent category that answered ‘A higher frequency sanitary waste collection’ out of the total number of respondents that answered this survey. In total across all respondents 30% answered that sanitary waste collection frequency should be increased. The response was fairly negative across all respondent categories where, excluding the ‘Other’ category and NGOs, less than 50% of respondents answered positively. 0% of Council sector bodies agreed with this suggestion.

Figure 45: If residual restriction was to be implemented which enhancements should be made to the recycling? - A higher frequency sanitary waste collection

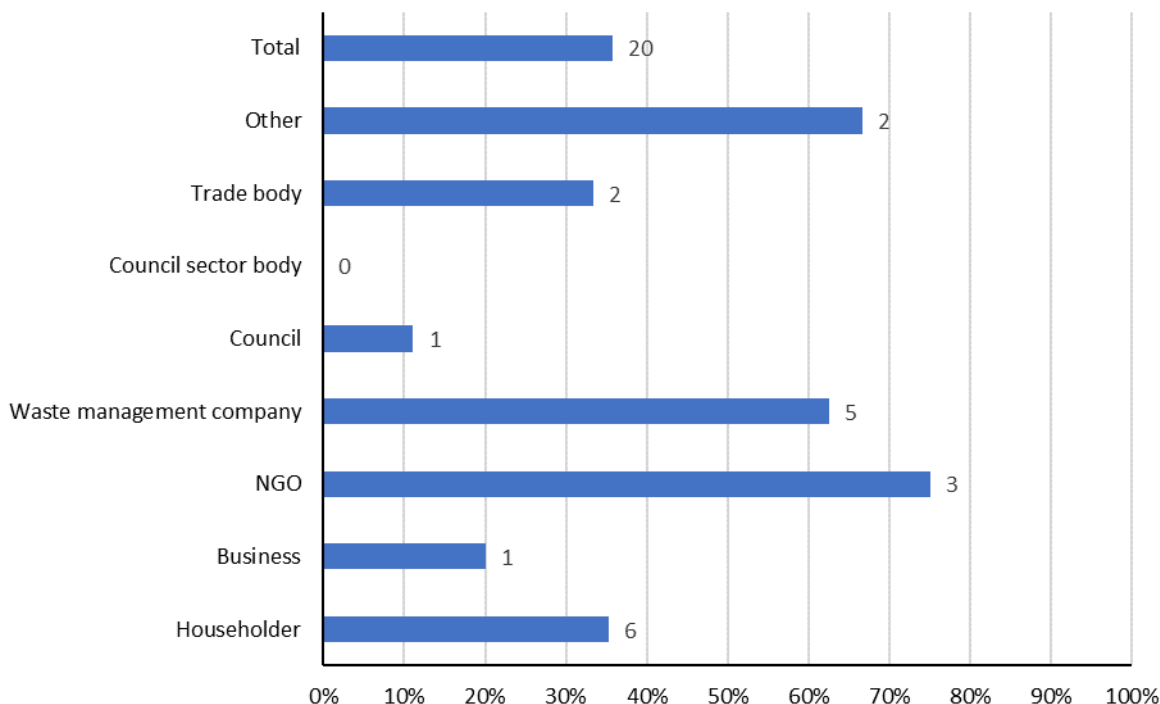


e) A collection of nappies for young families

- A collection of nappies for young families: **20 responses (36%)**

Figure 46 shows the percentage of respondents by respondent category that answered ‘A collection of nappies for young families’ out of the total number of respondents that answered this survey. In total across all respondents 36% of respondents answered in favour of nappy collections. The response varied by respondent category with 75% of NGOs giving a positive response but 0% of Council sector bodies answering in favour of a nappy collection.

Figure 46: If residual restriction was to be implemented which enhancements should be made to the recycling service? - A collection of nappies for young families



f) Other

- Other (please specify): **33 responses (59%)**

This question was answered by 33 respondents.

Councils and Council sector bodies are generally supportive of restricting residual capacity on the condition recycling services are enhanced at the same time. However, the following bullet points have been raised by Councils, Council sector bodies, trade bodies, businesses, an NGO and a business waste collector:

Risks to mandating a reduced residual capacity

- Central government can set targets (3). However, Councils should be able to make their own operational decisions regarding how residual capacity should be restricted to meet these targets. This ensures Councils can provide the service which is most appropriate for their geographic and demographic needs (7).
- Increasing collection frequencies or issuing additional/larger containers is expensive and requires government funding (10). Increased collection frequencies also lead to greater carbon emissions (2). Clarity would be welcomed on the potential financial support generated from EPR (4).
- The public may not welcome a restriction in residual capacity (4). It would be beneficial if all the Councils worked collectively when implementing changes to give a united message to the public (2).
- Reducing residual frequency and/or capacity is likely to lead to increased contamination of dry recycling (6).

Wider range of materials

According to householders and business waste collectors a wider range of materials should be accepted at the kerbside (5) to reduce pressure on the residual collection (3). For example, not all householders can recycle glass at the kerbside (2). Prohibiting glass from household residual waste would reduce the pressure on the residual collection significantly (1). It is suggested a co-mingled dry scheme is the most appropriate dry scheme to accompany a reduction in residual capacity. All dry recycling is in one bin which can adapt to changes in composition. This is not the case where dry recycling is segregated at source into multiple containers (1).

Varied collection needs

Collection needs vary by household (7). Certain areas of the populations may require a larger residual waste capacity such as large families, ageing households, those with medical conditions and children in nappies (2). Consideration also needs to be given to areas where there is a high density of flats or house of multiple occupancy (HMOs) (2). However, some householders state that current recycling services, alongside a once a month residual collection, would still be satisfactory (2).

Nappy and sanitary waste

Nappy and sanitary waste collections were widely discussed (10). Introduction of this service is favoured by 2 NGOs (2). It could remove the need for households with young children or ageing residents to have additional residual capacity and would also prevent this material going to landfill. However Councils and their sector bodies argue these additional collections would be administratively burdensome, increase costs to Councils and could pose both storage and public health concerns (6).

Waste reduction

A focus on waste reduction would reduce pressure on residual collections (4). For example, promotion of re-usable menstrual products and incentives for using re-usable nappies is suggested by an NGO and a householder (2).

Proposal 7: By 2023 we propose to legislate for Councils to provide all kerbside properties and flats with access to at least a weekly collection service for food waste.

Question 19: Which aspects of the above proposal do you agree and disagree with? For any element of the above question where you answered “disagree” please provide explanation of your views in the box below. For any views on the above or preferences to retain the current fortnightly food waste collection service profile please provide evidence to support your statement.

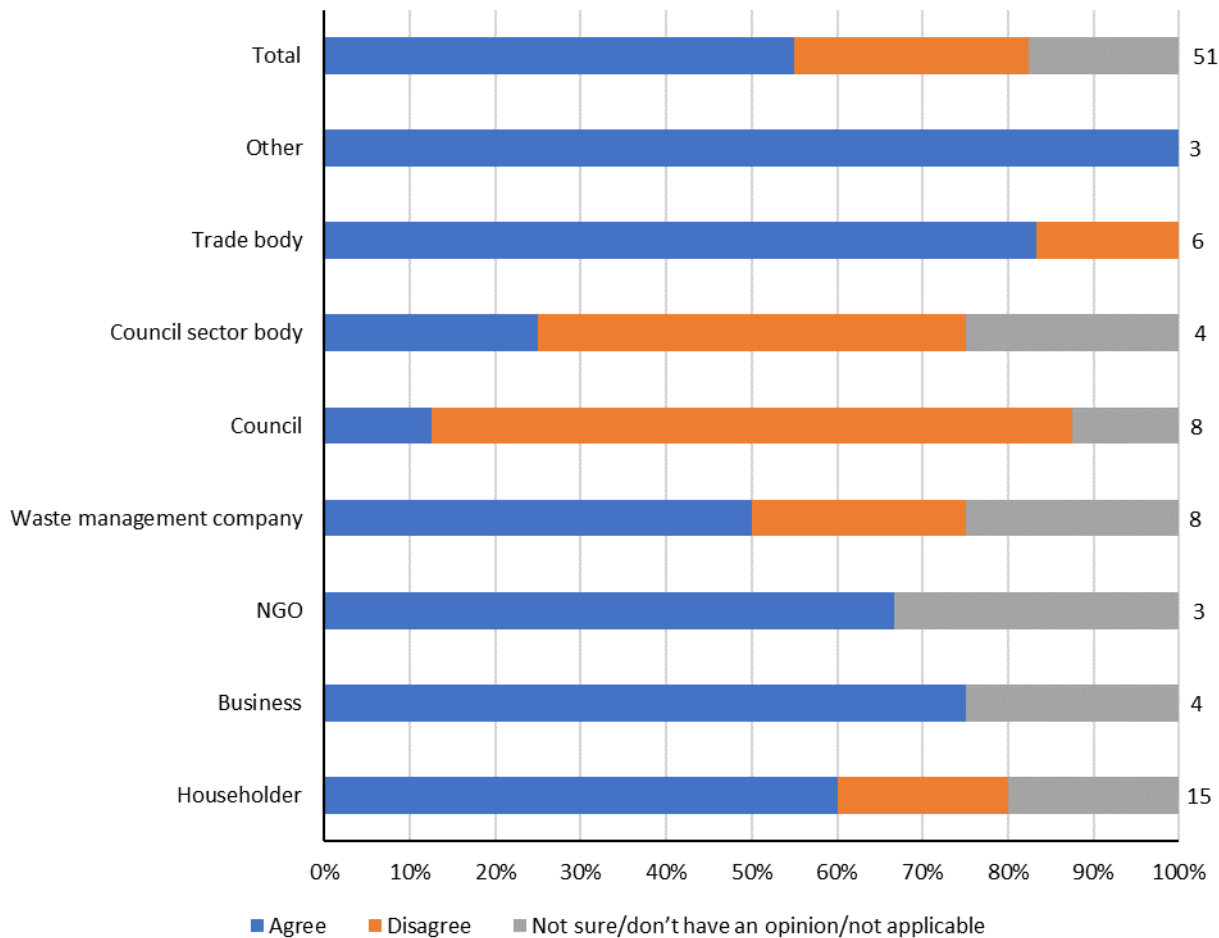
- a) At least a weekly collection of food waste
- b) A separate collection of food waste (i.e. not mixed with garden waste)
- c) A weekly mixed food and garden waste collection
- d) Services to be changed as and when contracts allow
- e) Providing free caddy liners to householders for food waste collections

a) At least a weekly collection of food waste

- Agree: **28 responses (50%)**
- Disagree: **14 responses (25%)**
- Not sure/ don't have an opinion/ not applicable: **9 responses (16%)**
- Not answered: **5 responses (9%)**

Figure 47 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category. Excluding Councils and Council sector bodies, at least 50% of respondents answered 'Agree'. The highest rates of disagreement are seen amongst Councils and Council sector bodies where 75% and 50% respectively answered 'Disagree'. In total across all respondents 55% of respondents answered 'Agree' and 27% answered 'Disagree'.

Figure 47: Which aspects of the above proposal do you agree and disagree with? - (i) at least a weekly collection of food waste

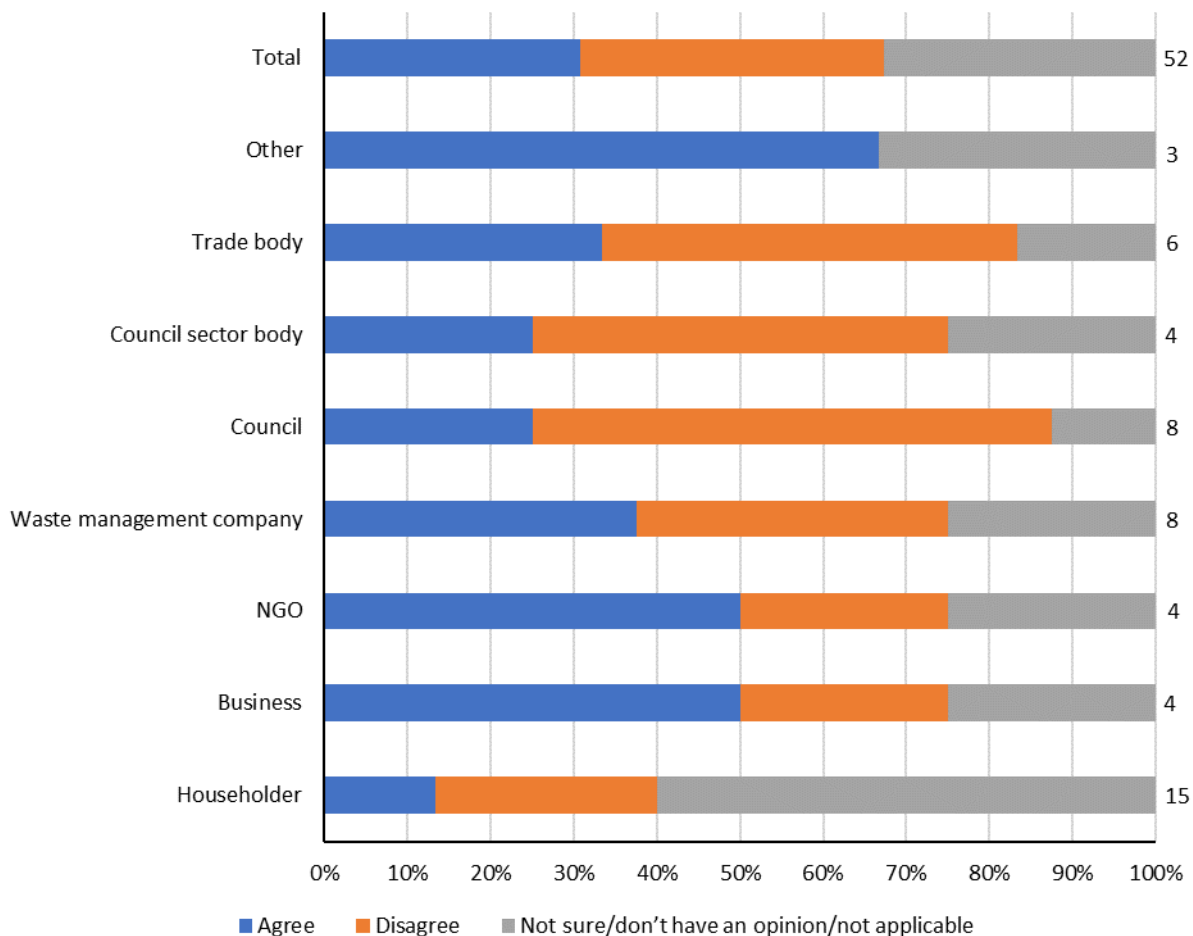


b) A separate collection of food waste (i.e. not mixed with garden waste)

- Agree: **16 responses (29%)**
- Disagree: **19 responses (34%)**
- Not sure/ don't have an opinion/ not applicable: **17 responses (30%)**
- Not answered: **4 responses (7%)**

Figure 48 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent category. In total across all respondents the split is roughly even between all 3 answers; 31% of respondents answered 'Agree', 37% answered 'Disagree' and 33% answered 'Not sure/ no opinion'. The highest rates of agreement are seen for NGOs, 'Other' and businesses where at least 50% of respondents answered 'Agree'. The highest rates of disagreement are seen for Councils, Council sector bodies and trade bodies where at least 50% of respondents answered 'Disagree'. Householders show the highest levels of uncertainty where 60% of respondents answered 'not sure/ no opinion'.

Figure 48: Which aspects of the above proposal do you agree and disagree with? - (ii) a separate collection of food waste (i.e. not mixed with garden waste)

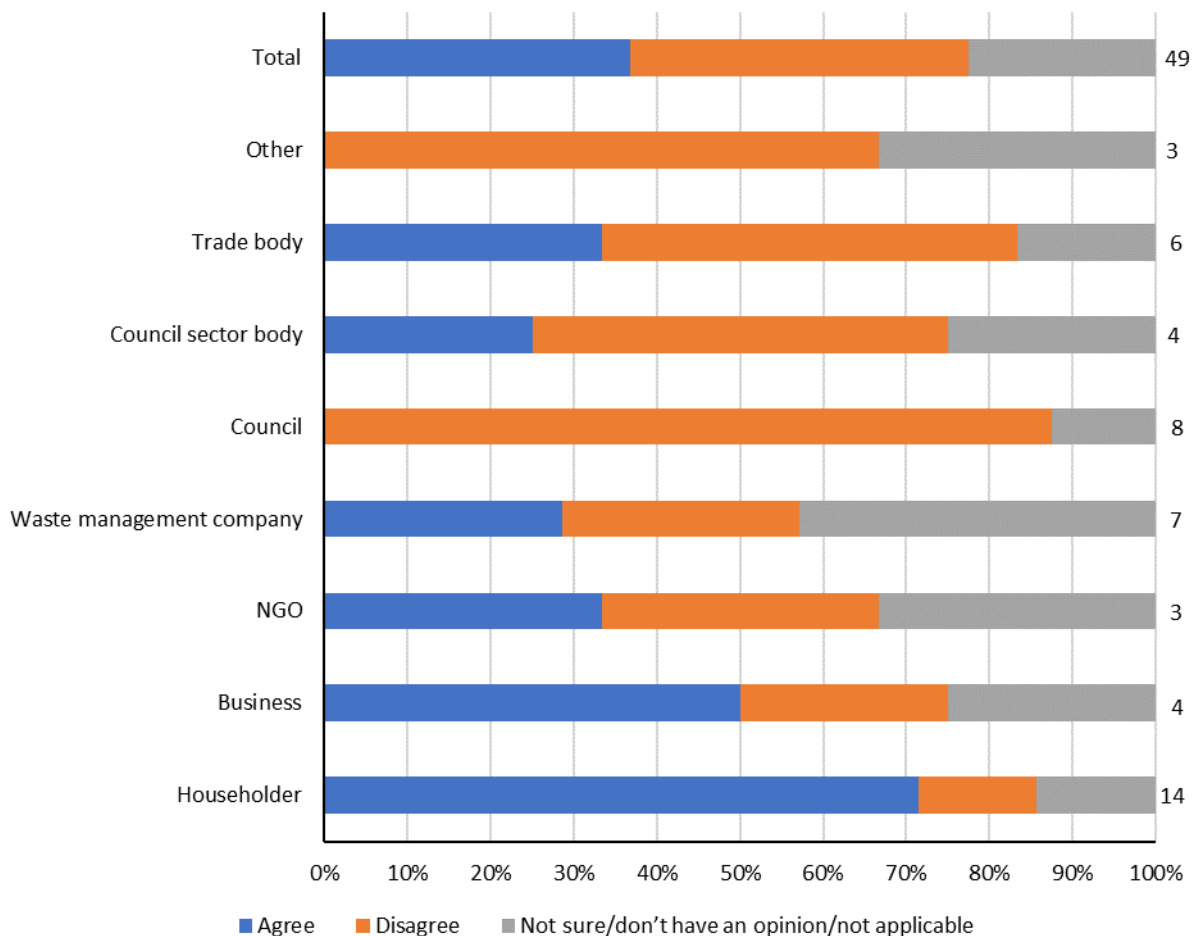


c) A weekly mixed food and garden waste collection

- Agree: **18 responses (32%)**
- Disagree: **20 responses (36%)**
- Not sure/ don't have an opinion/ not applicable: **11 responses (20%)**
- Not answered: **7 responses (13%)**

Figure 49 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent category. In total across all respondents the split is roughly even between all 3 answers; 37% of respondents answered 'Agree', 41% answered 'Disagree' and 22% answered 'Not sure/ no opinion'. The highest rates of agreement are seen for Householders where 71% answered 'Agree'. 50% of businesses also answered 'Agree'. The highest rates of disagreement are seen for Councils, Council sector bodies, trade bodies and 'Other' respondents where at least 50% of respondents answered 'Disagree'. This is particularly striking for Councils where 88% answered 'Disagree'.

Figure 49: Which aspects of the above proposal do you agree and disagree with? - (iii) a weekly mixed food and garden waste collection

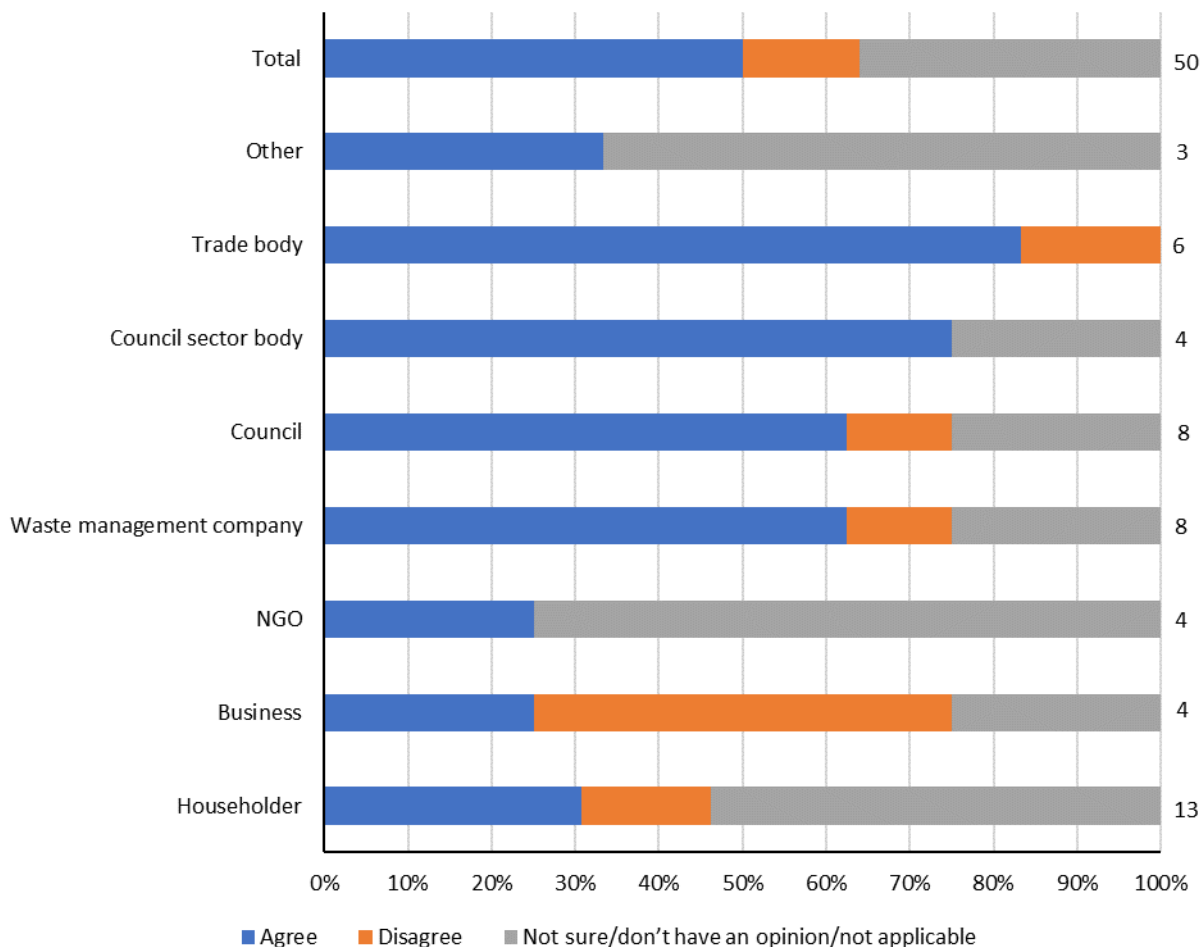


d) Services to be changed as and when contracts allow

- Agree: **25 responses (45%)**
- Disagree: **7 responses (13%)**
- Not sure/ don't have an opinion/ not applicable: **18 responses (32%)**
- Not answered: **6 responses (11%)**

Figure 50 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is an overall positive response to this question. In total across all respondents 50% of respondents answered 'Agree'. Council sector bodies, Councils, trade bodies and waste management companies stand out as having the highest levels of agreement; over 60% of respondents answered 'Agree' for each category. Businesses have the highest level of disagreement; 50% answered 'Disagree'.

Figure 50: Which aspects of the above proposal do you agree and disagree with? - (iv) services to be changed only as and when contracts allow

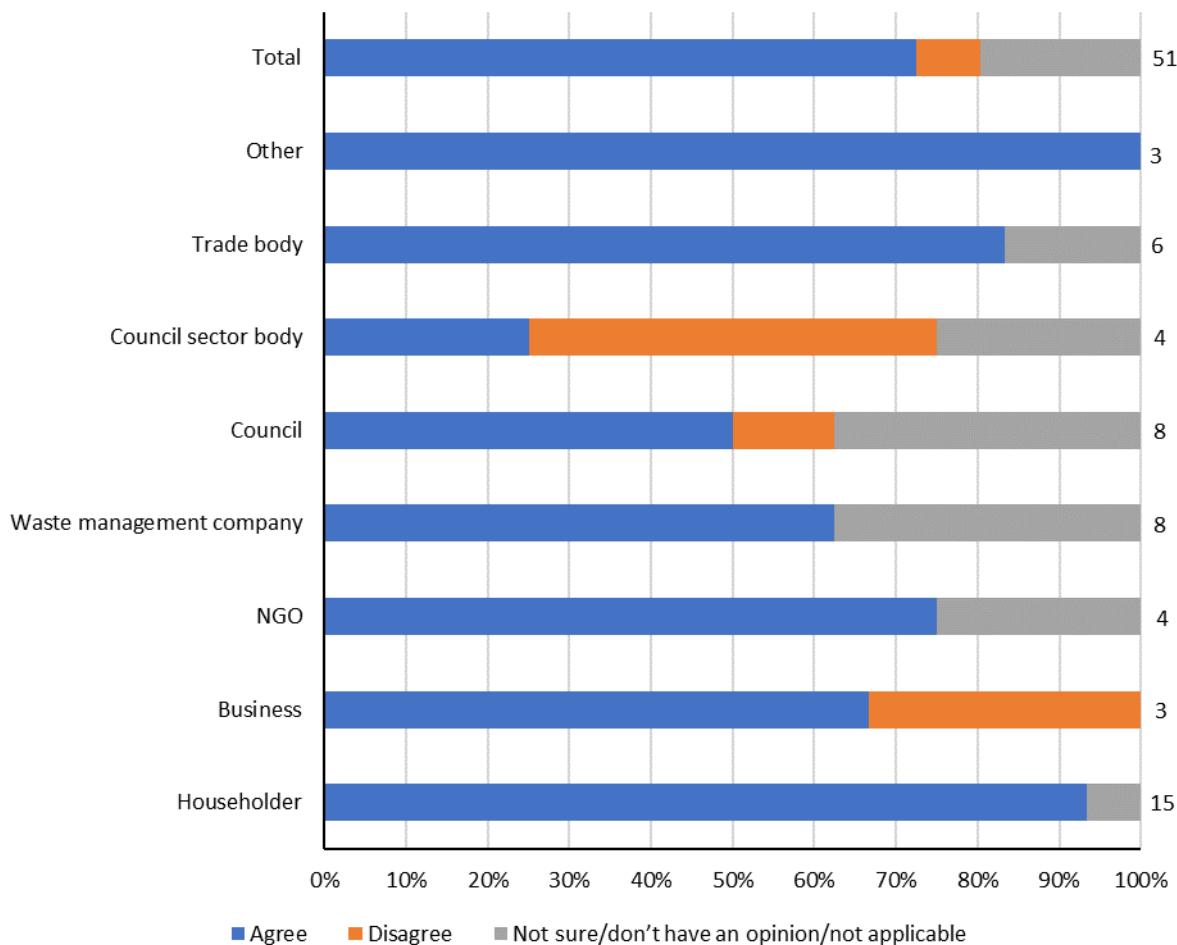


e) Providing free caddy liners to householders for food waste collections

- Agree: **37 responses (66%)**
- Disagree: **4 responses (7%)**
- Not sure/ don't have an opinion/ not applicable: **10 responses (18%)**
- Not answered: **5 responses (9%)**

Figure 51 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question was positive. In total across all respondents 73% of respondents answered 'Agree'. For all respondents categories excluding Council sector bodies, at least 50% of respondents answered 'Agree'. This is not true for the Council sector body category where only 25% of respondents answered 'Agree' and 50% of respondents answered 'Disagree'.

Figure 51: Which aspects of the proposal do you agree and disagree with? - (v) providing free caddy liners to householders for food waste collections



For any element of the above question where you answered “disagree” please provide explanation of your views in the box below.

This question was answered by 32 respondents.

Overall theme: An implementation date of 2023 could be challenging for any changes required (7).

Proposal 7 Q1 - (i) at least a weekly collection of food waste

12 respondents answered ‘Disagree’ and left a comment. For those who disagreed with this proposal, two justifications were given:

- According to 2 Councils it is too expensive to have a weekly food waste collection in rural areas. This may be possible for urban areas which are more densely populated (2).
- Current performance data was not felt to justify the additional cost or emissions generated by a weekly collection of separate food waste. It was felt there is no data to evidence separate and/or a weekly food collection in NI which results in increased capture of food waste compared to a mixed and/or a fortnightly service. There are much more efficient ways of further improving the food capture rate (8).

Where the relevant comments provided data on the above points these will be considered by DAERA for their validity and application to this proposal. Alternatives to increasing food waste capture were not provided in detail.

Proposal 7 Q1 - (ii) a separate collection of food waste (i.e. not mixed with garden waste)

12 respondents answered 'Disagree' and left a comment. For those who disagreed with this proposal, four justifications were given;

- As above it was felt that current performance data does not justify the additional cost or emissions generated by a weekly collection of separate food waste. There is no data to evidence separate and/or a weekly food collection in NI results in increased capture of food waste compared to a mixed and/or a fortnightly service. There are much more efficient ways of further improving the food capture rate (10). Where the relevant comments provided data on the above points these will be considered by DAERA for their validity and application to this proposal. Alternatives to increasing food waste capture were not provided in detail.
- Councils may not consider a separate garden waste collection viable if a separate food waste collection is mandated (2). This could lead to more garden waste in the residual stream and a lower recycling rate. An increase of organic waste in the residual stream could lead to generation of fuel from waste becoming less viable and therefore, an increase in residual waste going to landfill (1).
- The collection method depends on the treatment technology the organic material is destined for. If the organic material will be treated at an IVC plant, there is no point collecting food and garden waste separately as they will be mixed during treatment. IVC is more appropriate than AD in NI. The high and concentrated N levels in AD liquid digestate is often improperly managed and can cause environmental issues when overapplied (1). Currently IVC plants predominate in NI. It would be sensible to design policy around the current infrastructure in NI and planned future infrastructure (1).
- The quality of the final product should be considered and the needs of the local soil. Organic materials play an essential role in improving and maintaining the health of the soil. The needs of the local environment and soil should be considered to ensure that the policies introduced enable the outputs from organics recycling to be properly valued by the end users and ensure that materials collected are suitable for processing (2). Mandating a separate collection of food waste could lead to a reduction in the feedstock for organic soil conditioner that is crucial in improving NI soil health (1).

Policy 7 Q1 - (iii) a weekly mixed food and garden waste collection

7 respondents answered 'Disagree' and left a comment. For those who disagreed with this proposal, three justifications were given:

- For Councils it is too expensive to have a weekly food waste collection in rural areas. This may be possible for urban areas which are more densely populated (1).
- Current performance data does not justify the additional cost or emissions generated by a weekly collection of separate food waste. There is no data to evidence separate and/or a weekly food collection in NI results in increased capture of food waste compared to a mixed and/or a fortnightly service. There are much

more efficient ways of further improving the food capture rate (7). Where the relevant comments provided data on the above points these will be considered by DAERA for their validity and application to this proposal. Alternatives to increasing food waste capture were not provided in detail.

- A separate collection of food waste allows for improved options for final disposal (1) and is suggested by one waste management company to achieve higher capture rates than when food is mixed with garden waste (1). Cost-effective weekly collections of separate food waste can be achieved when collected alongside source-separated recyclables in a Romaquip Kerb Sort collection vehicle (1).

Policy 7 Q1 - (iv) services to be changed only as and when contracts allow

4 respondents answered 'Disagree' and left a comment. For those who disagreed with this proposal, one justification was given by a trade body:

- Councils need to implement changes as soon as possible to ensure a consistent packaging labelling system can be developed. A few Councils should not be allowed to hold up a national change. The government, WMCs and packing companies must work with Councils to overcome obstacles (1).

Policy 7 Q1 - (v) providing free caddy liners to householders for food waste collections

3 respondents answered 'Disagree' and left a comment. For those who disagreed with this proposal, two justifications were given:

- The cost of providing caddy liners will be restrictive unless government funding is provided (2).
- Before caddy liners are mandated it should be established that all AD plants are compatible with receiving food waste bagged in compostable liners (1).

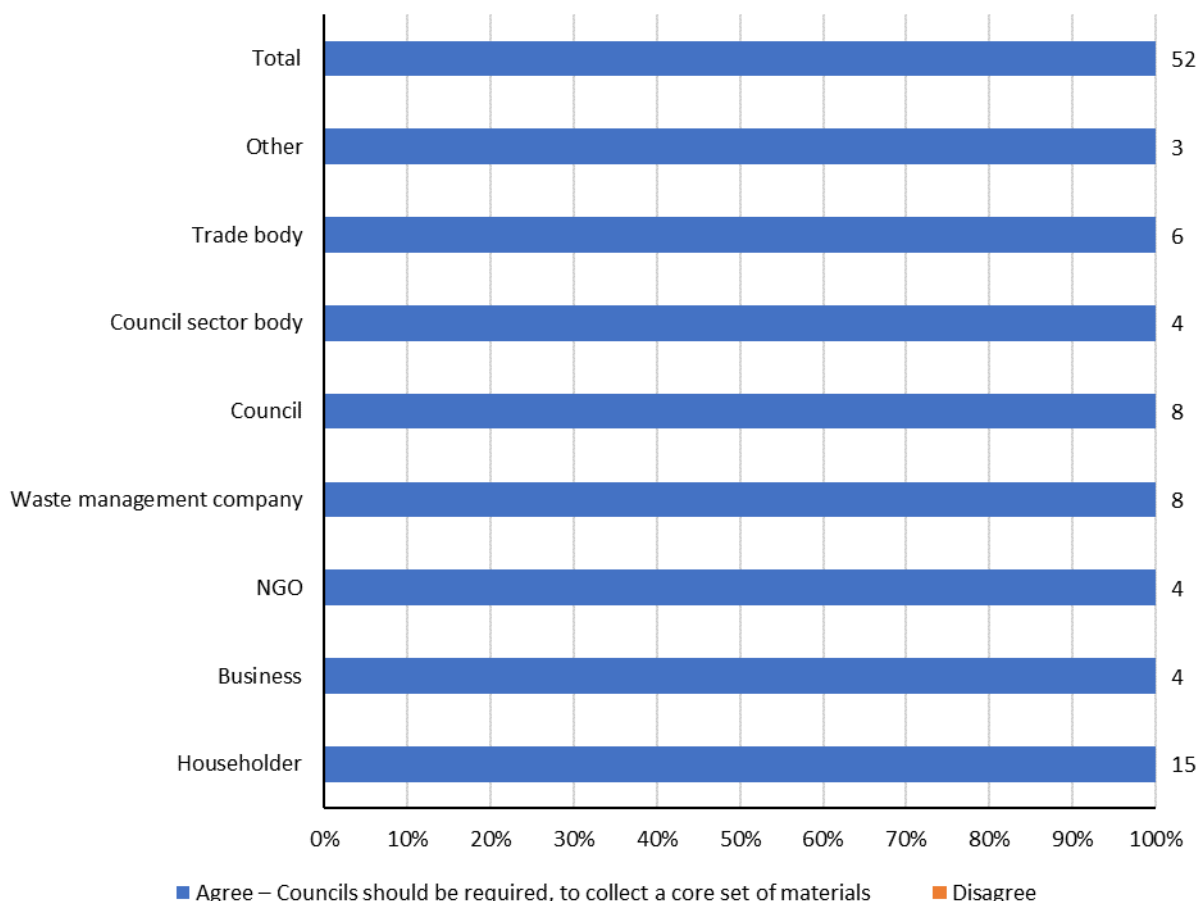
Proposal 8: We propose that all Councils in Northern Ireland should be required to collect a core set of dry recyclable materials at kerbside from houses and flats.

Question 20: Setting aside the details of how it would be achieved, do you agree or disagree with the proposal that Councils should be required to collect a set of core materials for recycling?

- Agree- Councils should be required to collect a core set of materials: **52 responses (93%)**
- Disagree - Councils should not be required to collect a core set of materials: **0 responses (0%)**
- Not sure/ don't have an opinion: **0 responses (0%)**
- Not answered: **4 responses (7%)**

Figure 52 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). 100% of respondents across all respondent categories answered 'Agree'.

Figure 52: Setting aside the details of how it would be achieved, do you agree or disagree with the proposal that Councils should be required to collect a set of core materials for recycling?



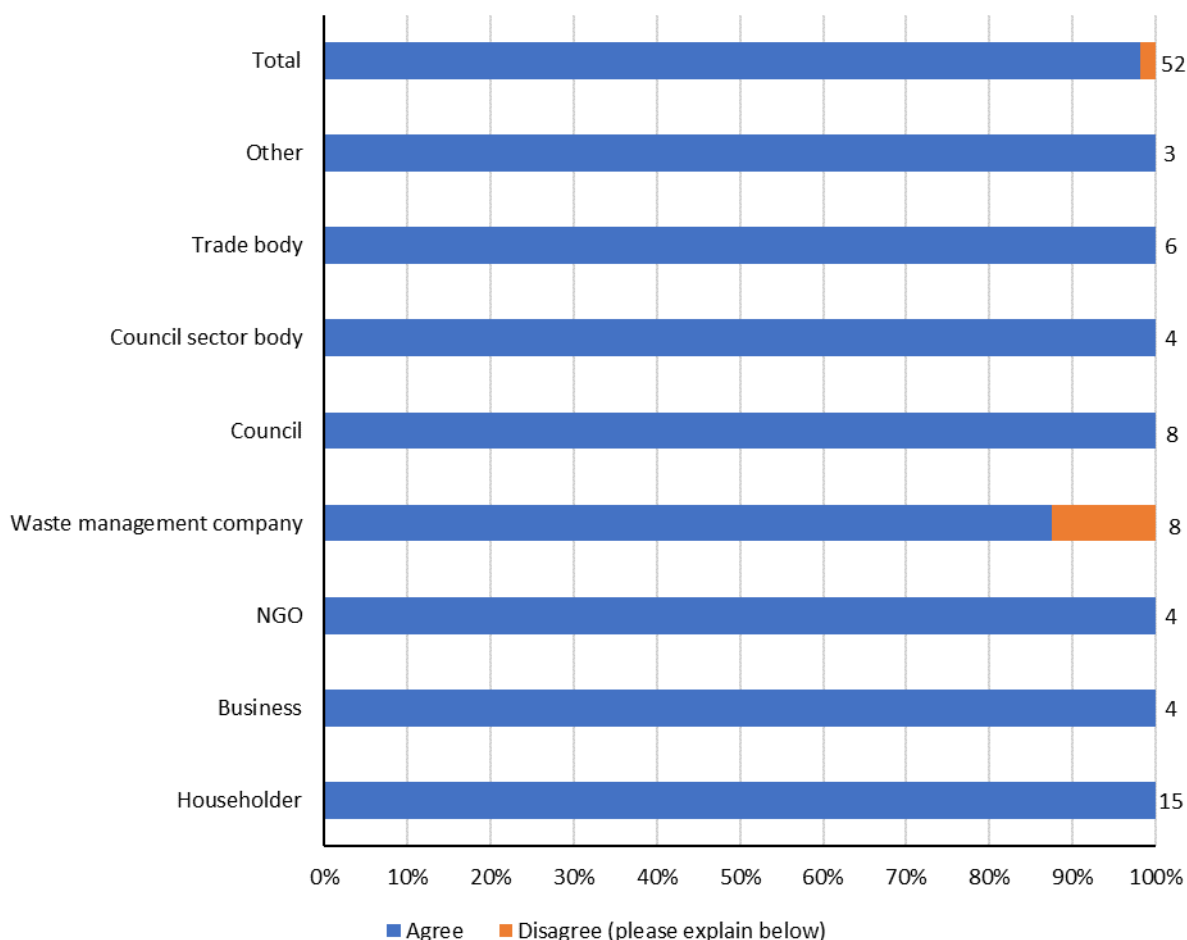
Question 21: We think it should be possible for all Councils to collect the core set of materials. Do you agree with this?

- Agree - It is possible for Councils to collect a core set of materials: **51 responses (91%)**

- Disagree - It is not possible for Councils to collect a core set of materials: **1 response (2%)**
- Not answered: **4 responses (7%)**

Figure 53 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question is overwhelmingly positive. In total across all respondents 98% of respondents answered 'Agree'. Waste management companies is the only category where disagreement is seen; 88% of respondents answered 'Agree' but 13% answered 'Disagree'.

Figure 53: We think it should be possible for all Councils to collect the core set of materials. Do you agree with this?



If you disagree please provide further information and evidence as to what circumstances it is not practicable to collect the full set of materials:

1 respondent answered 'Disagree' and left a comment. This was a waste management company.

- Consideration must be given to 'optimisation vs participation'. Many Councils are focusing on increasing yield without considering loss of quality. Collecting material co-mingled increases contamination and can lower yield overall. Rather than mandating Councils collect a core set of materials at the kerbside, the focus should be on improving quality. The opinion that Councils should collect all materials from the kerbside could be revisited. Councils could promote effective recycling without

running kerbside collections and prohibiting a material from household collections should be successful at driving up recycling (1).

Question 22: What special considerations or challenges might Councils face in implementing this requirement for existing flats and HMOs?

This question was answered by 36 respondents.

Contamination

The majority of respondents commented that contamination is higher for HMOs and flats which rely on communal bins (25);

- Contamination occurs irrespective of the dry scheme category (2).
- It is difficult to police which residents are generating the contamination and therefore impossible to enforce (14). This can result in lower participation rates as residents 'do not see the point' of continuing to recycle correctly (6).
- Where contamination levels are consistently high despite efforts made to improve it, it may be acceptable to remove the recycling services from these properties where TEEP assessments show it's not practicable (1).

Storage

Storage space is a big issue. For existing flats and HMOs, lack of space may limit the number of bins that can be stored (23);

- This can necessitate an increased frequency of collection which poses operational challenges and can create noise issues (2).
- Lack of space for bins can occasionally lead to fire exits being compromised (1).
- Going forwards, planning permission should only be granted where adequate space for bins has been allowed for (6).
- Access to communal recycling areas must also be considered. These areas can be difficult or unpleasant to access (4) resulting in much lower participation rates (3). It could be beneficial to make legislative provision for the management of communal bin areas and to place legal responsibility on the landlords of HMOs to ensure appropriate recycling (3)

Many European countries have successful schemes in place for high-rise properties which could provide some insight (5).

Communication

Communication is necessary to increase participation rates and reduce contamination (6).

- Containers should be clearly and consistently labelled to ensure clear communication to residents (1).
- However, communication can be challenging in flats and HMOs. English may not be the first language (3) and there is a high turnover of residents (2).
- Furthermore, many stakeholders must be reached such as landlords, housing associations and management agencies requiring additional resources (2).

- However, collection of a core set of materials across the 11 Councils will provide a consistent message and make communication campaigns more effective (2).

Question 23: Do you have any other comments to make about Proposal 8? Please use this space to briefly explain your responses to questions above, e.g. why you agree/ disagree with proposals?

Materials

Householders would like to see the core set of materials as wide as possible (5) and cartons should be included in the core set from the start as all Councils in NI collect them at the kerbside (1). Councils should be encouraged to recycle more than the core set to prevent them running a 'minimum' service (1).

Consistency

Greater communication and consistency of collection is needed (8). A core set of materials would help to reduce confusion for residents (6). However, this should be accompanied by clear and consistent labelling (2). Uncertainty and lack of clarity results in disengagement (1).

Cost burden

- Councils, Council sector bodies and an NGO have raised concerns over the cost burden to Councils (4), particularly for Councils with dispersed rural populations (3).
- EPR could provide funding for the collection of the core set of materials (1). However, if the changes from EPR result in processors having more control over the collection system, there is a high possibility of Council re-prioritisation. This would leave 'difficult to access properties' out of the separate collection system with more materials going to refuse derived fuel (3). All costs associated with these changes must be met so Councils can meet the added responsibilities under the principle of New Burdens Legislation (4).
- Clarity on EPR is needed for Councils to plan ahead (1).
- Compliance with the collection of the core recycling materials and weekly food waste collection should be a pre-requisite for Councils to receive funding from the future EPR system (1).
- There is also concern over the cost of including glass on the core set of materials. A kerbside sort collection requires more frequent collections. However, a co-mingled collection including glass results in increased gate fees compared to co-mingled collections that do not include glass. A glass 'pod' requires additional or bespoke collection vehicles with potential collection inefficiencies due to volume of waste categories being incompatible with the planning of efficient collection routes. This all has revenue implications for Councils (1).

Other themes include:

- Clarity is needed on future policies such as EPR and DRS which could remove aluminium, glass and high value plastics from the recycling collection (2).

- HWRCs could be expanded and should be considered as an appropriate collection method for some of the materials on the core list (2).
- Collection mechanism (3):
 - Glass should be collected separately for all property categories from paper and card (1)
 - Comingled collections with glass should be rolled out across the domestic and commercial sector which do not currently operate a source segregated system. This would reduce confusion, lower collection costs, and good quality recyclables can still be produced. It also encourages high capture rates (1).
 - The four materials streams should be collected separate to increase quality (1)
 - Residual waste should not be collected less than fortnightly due to public health concerns (1)
- Some flexibility may be required (2). For example, if collecting the core materials is temporarily not possible due to operational or contractual reasons (1). As long as Councils have flexibility over collection methods then collecting a core set of materials should still be practical and economic (1).
- Changes should be made in conversation with packaging suppliers to ensure their packaging is recyclable (1)
- Enforcement (2) – inspections should be carried out of residual waste (1)

Proposal 9: We propose that the core set of materials will be glass bottles and containers, paper and card, plastic bottles, plastic pots, tubs and trays, and steel and aluminium tins and cans.

Question 24: Do you believe that all of these core materials should be included or any excluded?

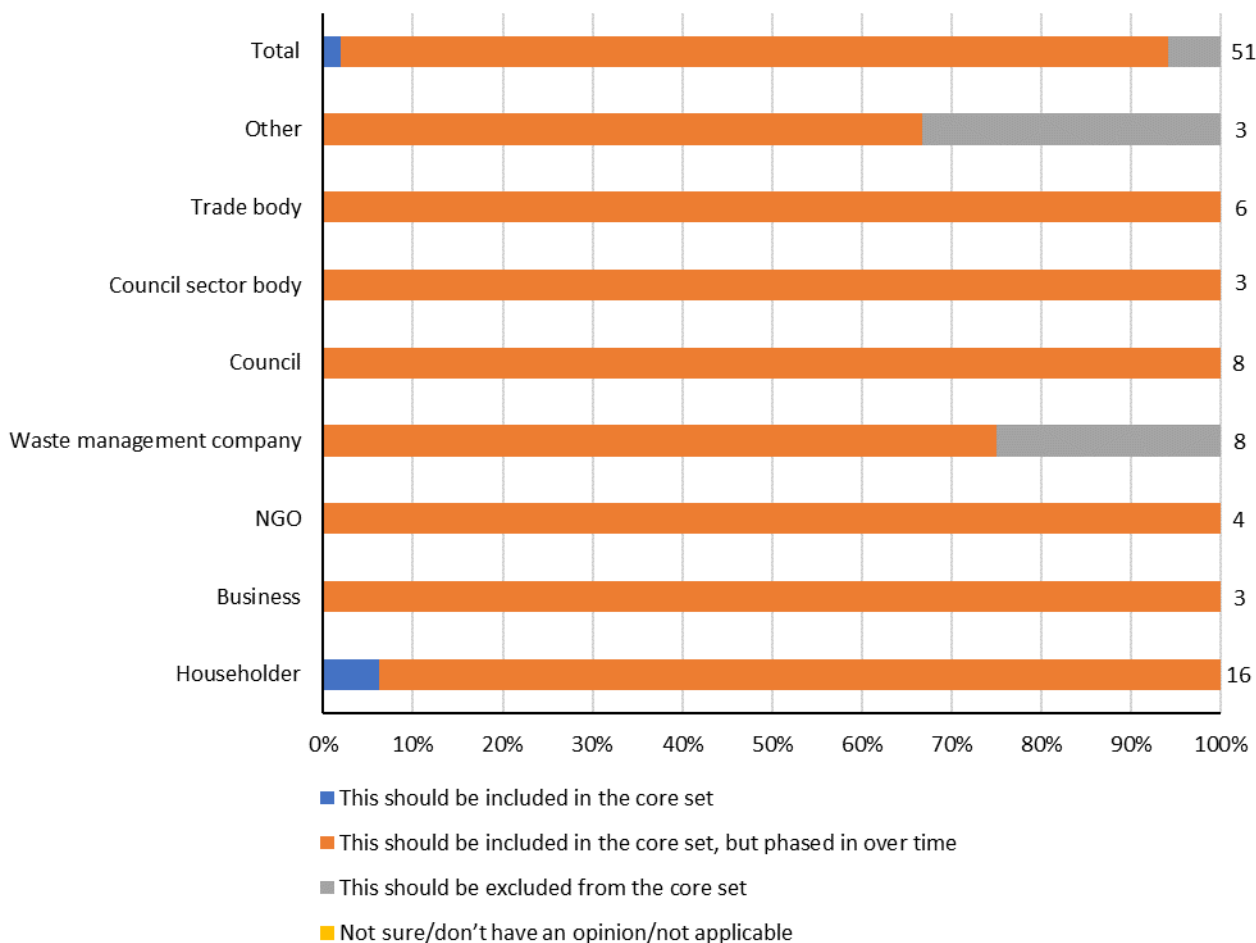
- a) Glass bottles and containers**
- b) Paper and card**
- c) Plastic bottles**
- d) Plastic pots, tubs and trays**
- e) Steel and aluminium tins and cans**

a) Glass bottles and containers

- This should be included in the core set: **1 response (2%)**
- This should be included in the core set, but phased in over time: **48 responses (86%)**
- This should be excluded from the core set: **3 responses (5%)**
- Not sure/ don't have an opinion/ not applicable: **0 responses (0%)**
- Not answered: **4 responses (7%)**

Figure 54 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). For each respondent category over 65% of respondents answered glass should be included in the core set but phased in over time. In total across all respondents 92% of respondents gave this answer.

Figure 54: Do you believe that all of these core materials should be included or any excluded? - Glass bottles and containers

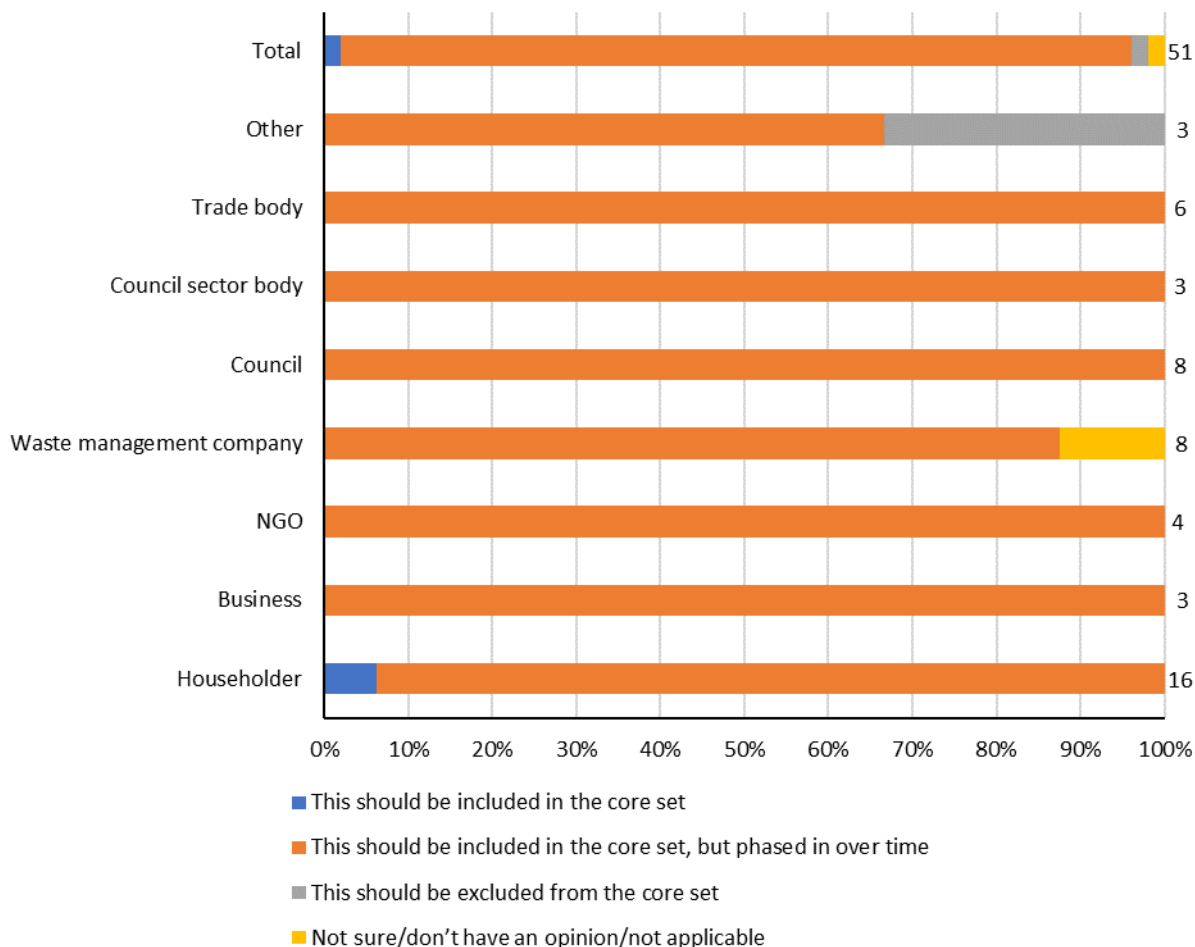


b) Paper and card

- This should be included in the core set: **1 response (2%)**
- This should be included in the core set, but phased in over time: **49 responses (88%)**
- This should be excluded from the core set: **1 response (2%)**
- Not sure/ don't have an opinion/ not applicable: **1 response (2%)**
- Not answered: **4 responses (7%)**

Figure 55 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). For each respondent category over 65% of respondents answered paper and card should be included in the core set but phased in over time. In total across all respondents 94% of respondents gave this answer.

Figure 55: Do you believe that all of these core materials should be included or any excluded? - Paper and card

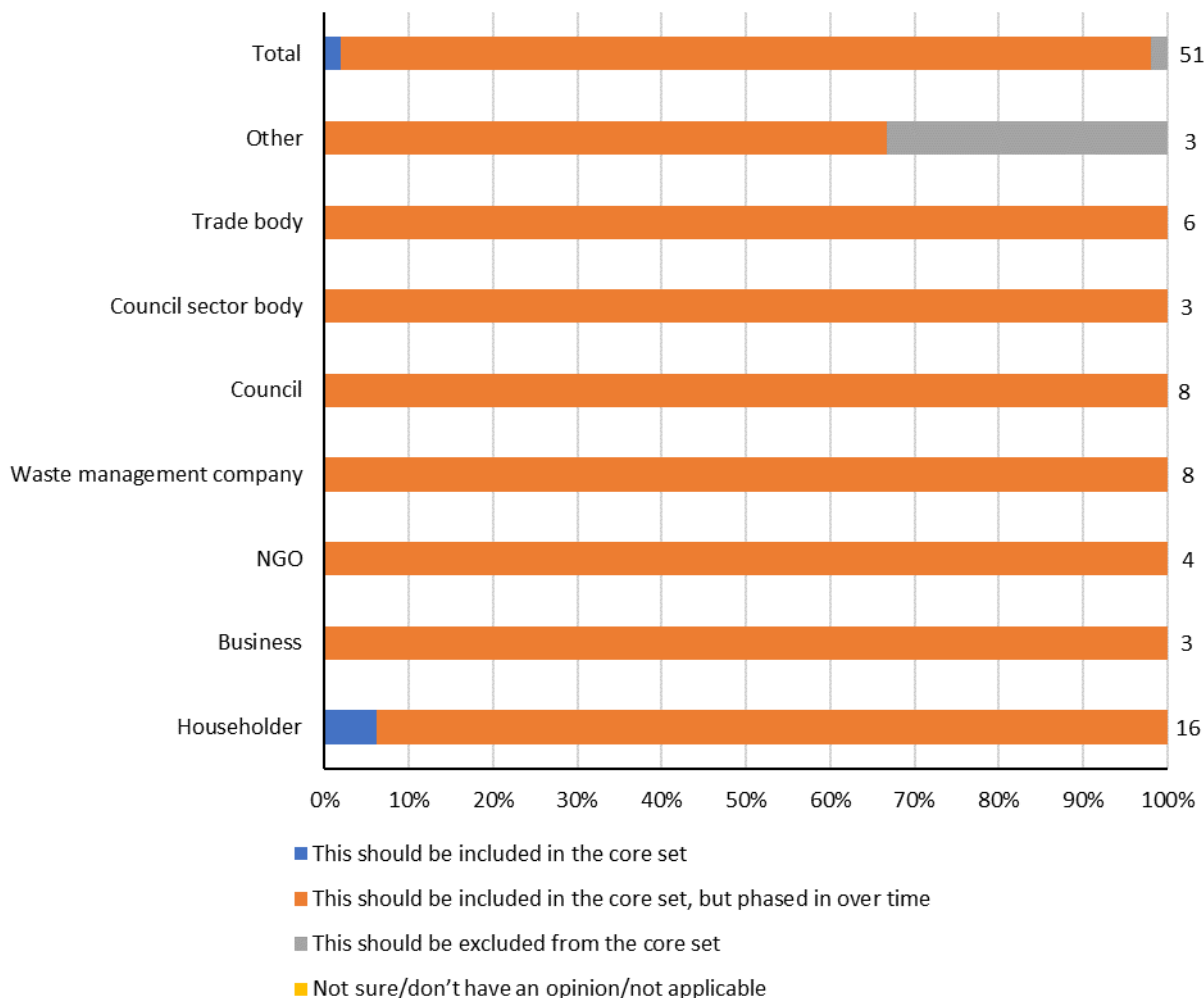


c) Plastic bottles

- This should be included in the core set: **1 response (2%)**
- This should be included in the core set, but phased in over time: **50 responses (89%)**
- This should be excluded from the core set: **1 response (2%)**
- Not sure/ don't have an opinion/ not applicable: **0 responses (0%)**
- Not answered: **4 responses (7%)**

Figure 56 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). For each respondent category over 65% of respondents answered plastic bottles should be included in the core set but phased in over time. In total across all respondents 96% of respondents gave this answer.

Figure 56: Do you believe that all of these core materials should be included or any excluded? - Plastic bottles

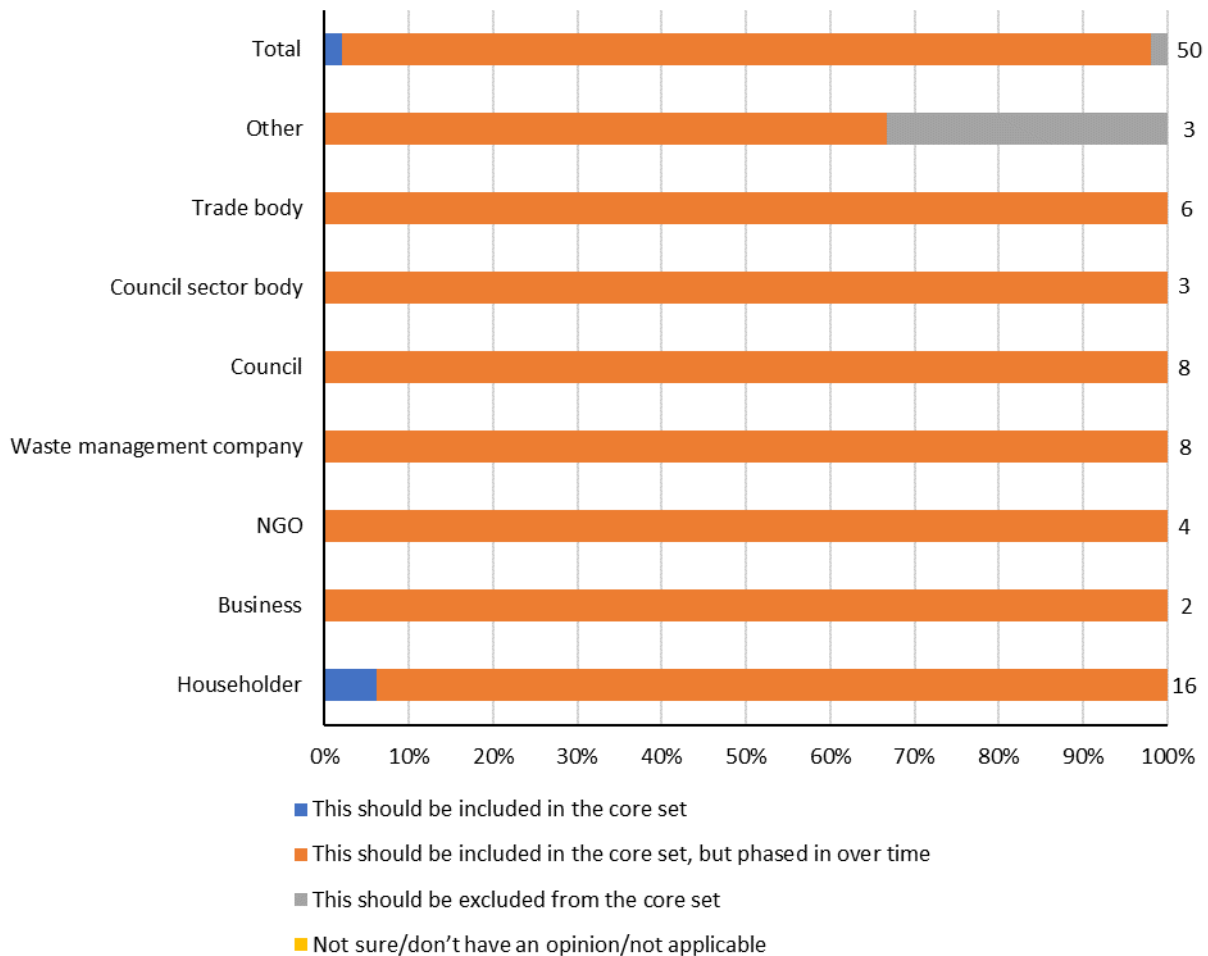


d) **Plastic pots, tubs and trays**

- This should be included in the core set: **1 response (2%)**
- This should be included in the core set, but phased in over time: **49 responses (88%)**
- This should be excluded from the core set: **1 response (2%)**
- Not sure/ don't have an opinion/ not applicable: **0 responses (0%)**
- Not answered: **5 responses (9%)**

Figure 57 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). For each respondent category over 65% of respondents answered plastic pots, tubs and trays should be included in the core set but phased in over time. In total across all respondents 96% of respondents gave this answer.

Figure 57: Do you believe that all of these core materials should be included or any excluded? - Plastic pots tubs and trays

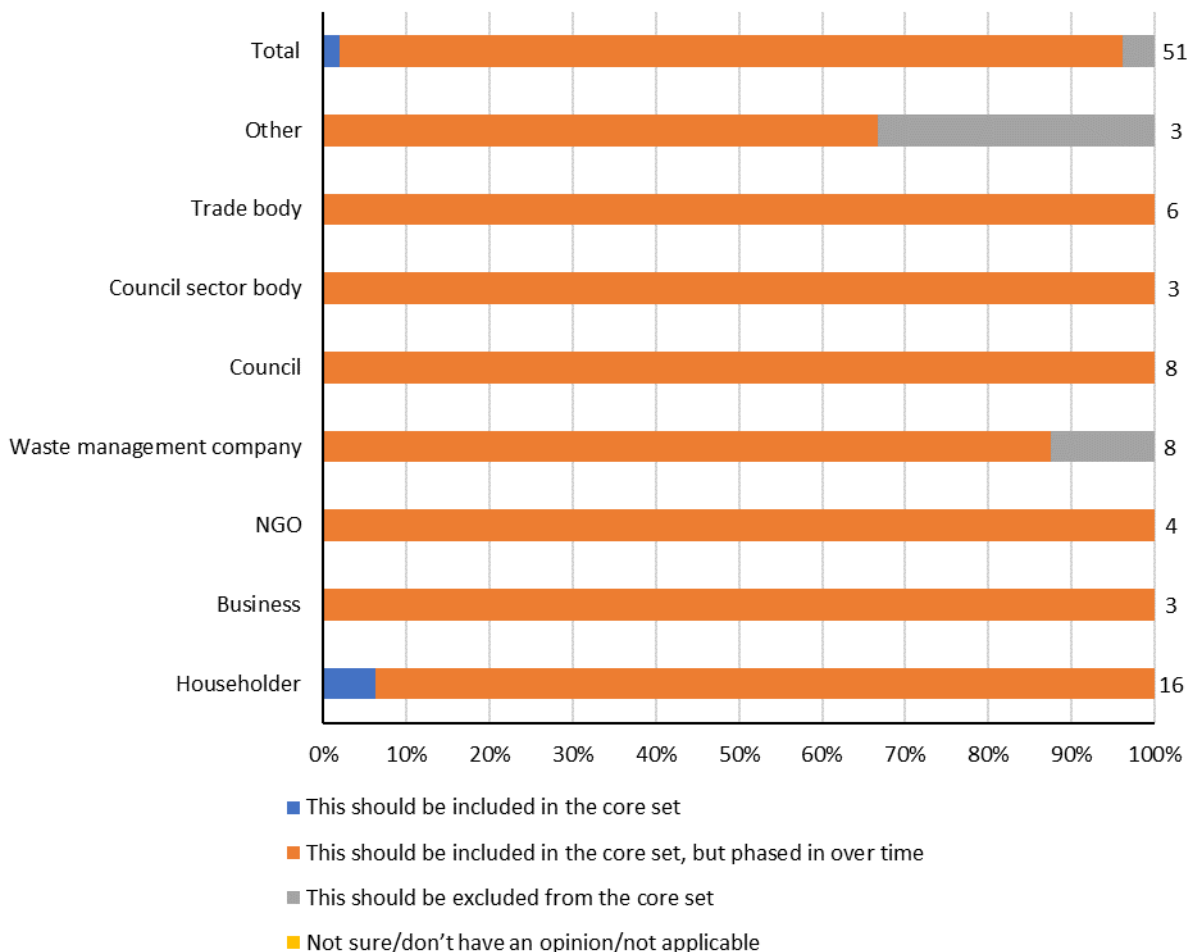


e) Steel and aluminium tins and cans

- This should be included in the core set: **1 response (2%)**
- This should be included in the core set, but phased in over time: **49 responses (88%)**
- This should be excluded from the core set: **2 responses (4%)**
- Not sure/ don't have an opinion/ not applicable: **0 responses (0%)**
- Not answered: **4 responses (7%)**

Figure 58 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). For each respondent category over 65% of respondents answered steel and aluminium tins and cans should be included in the core set but phased in over time. In total across all respondents 94% of respondents gave this answer.

Figure 58: Do you believe that all of these core materials should be included or any excluded? - Steel and aluminium tins and cans



Question 25: What other products or materials do you believe should be included in the core set that all Councils will be required to collect?

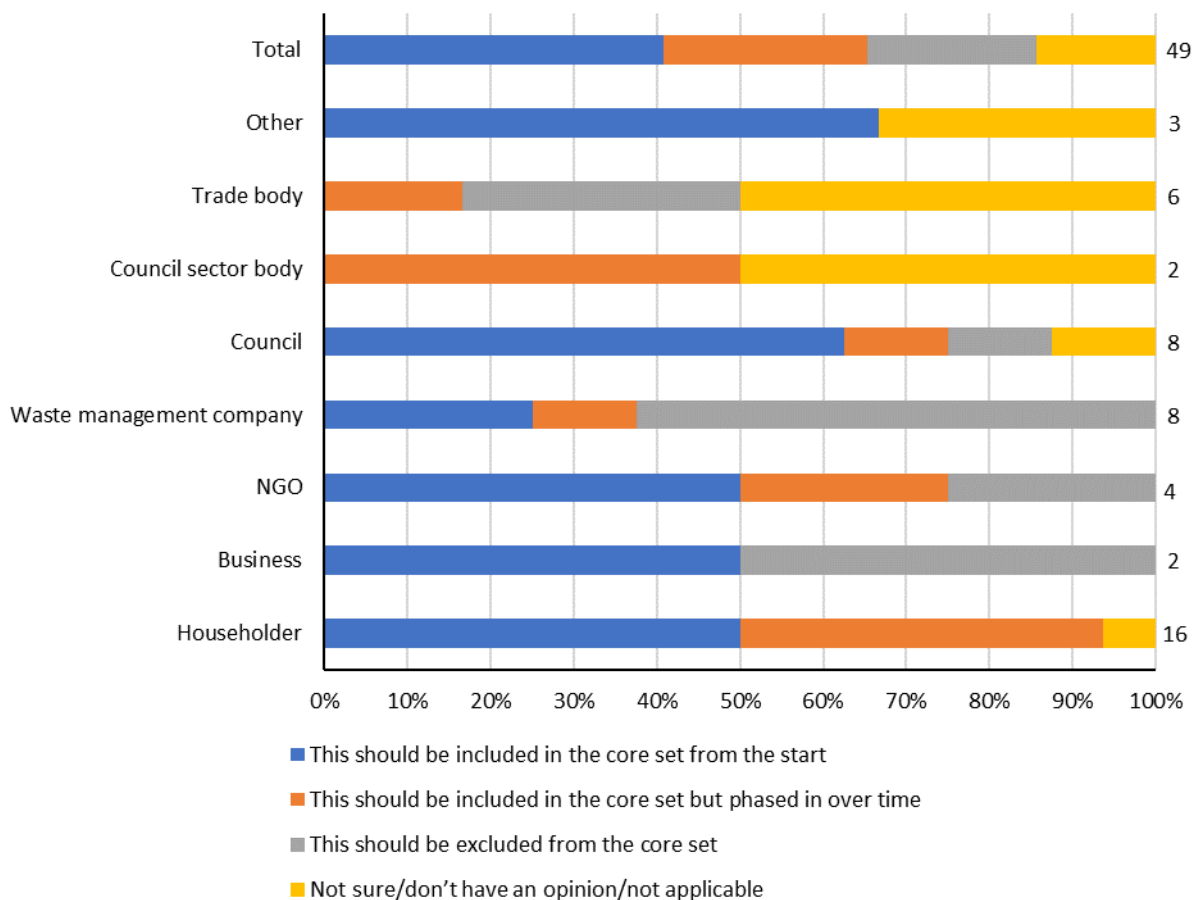
- a) Black plastic food and drink packaging
- b) Plastic bags and film
- c) Other (please specify)

a) Black plastic food and drink packaging

- This should be included in the core set: **20 response (36%)**
- This should be included in the core set, but phased in over time: **12 responses (21%)**
- This should be excluded from the core set: **10 responses (18%)**
- Not sure/ don't have an opinion/ not applicable: **8 responses (14%)**
- Not answered: **6 responses (11%)**

Figure 59 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent category. In total across all respondents 40% answer black plastic should be included, 24% answer it should be phased in over time, 20% answer it should excluded and 16% answer 'not sure/ no opinion'. Waste management companies show the strongest opinion to exclude black plastic from the core set as 63% answer 'Disagree'.

Figure 59: What other products or materials do you believe should be included in the core set that all Councils will be required to collect? - Black plastic food and drink packaging

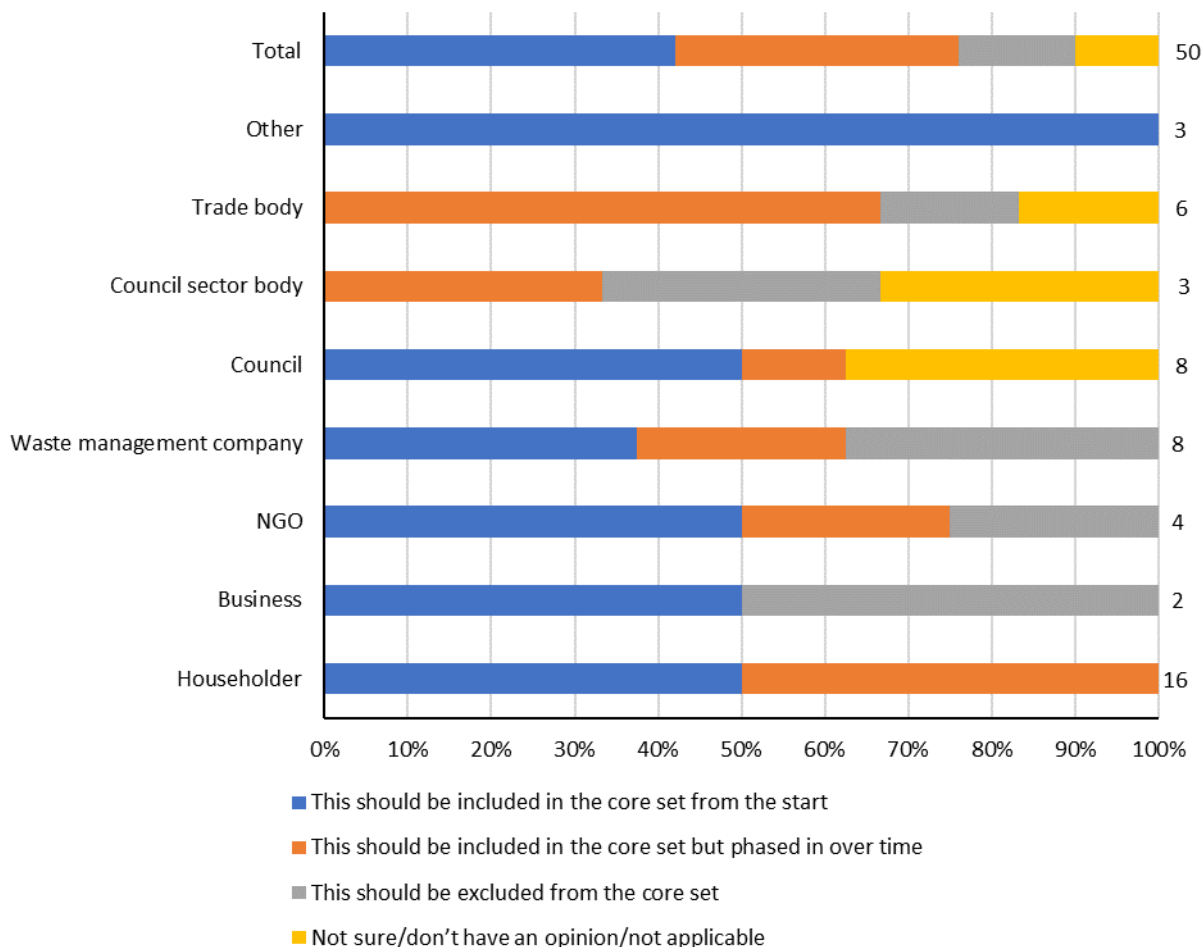


b) Plastic bags and film

- This should be included in the core set: **21 response (38%)**
- This should be included in the core set, but phased in over time: **17 responses (30%)**
- This should be excluded from the core set: **8 responses (14%)**
- Not sure/ don't have an opinion/ not applicable: **5 responses (9%)**
- Not answered: **5 responses (9%)**

Figure 60 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent category. In total across all respondents 41% answer plastic film should be included, 33% answer it should be phased in over time, 16% that it should be excluded and 10% answer 'not sure/ no opinion'. Council sector bodies, businesses and waste management companies show the strongest opinions to exclude plastic film from the core set as 50%, 50% and 38% of respondents respectively answered 'Disagree'.

Figure 60: What other products or materials do you believe should be included in the core set that all Councils will be required to collect? - Plastic film



c) Other (please specify)

This question was answered by 20 respondents:

A material can only be included in the core set if there is a stable end market for the re-processed material (3). The processing capabilities of MRFs also needs to be considered (4) and a cost-benefit analysis must be undertaken (3). If targets are to remain solely weight-based, the costs of collection and processing of lightweight materials may outweigh the benefits (3). Targets should include a carbon metric to avoid this scenario (1). Additional funding may be necessary from central government where a waste stream requires a bespoke collection (1). According to 2 Councils, Councils would benefit from the autonomy to decide which additional materials should be added to collections. This will allow market development and existing contractual arrangements to be considered (2).

Materials to be included:

- Cartons (5) - cartons are collected at the kerbside by all Councils in NI and therefore should be included on the core list from the start (1).
- Textiles (6). One comment quotes the EU waste rules requiring the separate collection of textiles by 2025 (1).
- Household batteries (3)
- Small WEEE (3)

Materials to be excluded:

- Plastic film (4) – plastic film causes problems in re-processing facilities (2) and is difficult to sort into the necessary types to attract a buyer for the reprocessed materials (1). Due to its lightweight nature it also contributes very little towards weight-based targets (3).
- Black plastic (2) – black plastic should be phased out (2). Differentiating between black plastics and other plastics is too confusing a message to communicate to the public (1).

Question 26: If you think these or other items should be considered for inclusion at a later stage, what changes would be needed to support their inclusion?

This question was answered by 29 respondents:

- **Technology and end markets:** Decisions to include materials at a later date must be evidence-based to show that a circular economy could be achieved (1). Materials can only be included once appropriate sorting and reprocessing technology and infrastructure is available (10) and a stable end market is in place (6). Infrastructure and end markets should ideally be available within the UK and ROI to ensure long-term stability (1).
- **Quality:** The material must not reduce the quality of recycling. This occurs when heavily contaminated materials are collected (3).
- **Environmental benefits:** The environmental benefits of including a new 'core' material must be proven. The additional collection, separation, storage, and transportation of these material to end markets must provide an environmental benefit over energy recovery (2).
- **Funding:** Financial support will also be needed to ensure segregation, bulking, transport and reprocessing of these materials is financially viable. This support is expected to come from EPR (4). Once EPR is in place, producers will need to be consulted over collection methods if they are to be responsible for meeting the costs (1).
- **Packaging:** Consideration should be given to a clear labelling system (3) and one householder suggested incentives could be given to producers to encourage use of 'environmentally friendly' packaging (1). Retailers have a big role to play in terms of the provision of recycling facilities on-site at supermarkets (2).
- **Communication:** Good communication and education will also be needed (2).

Materials:

- According to 1 householder corrugated cardboard should be recycled (1).
- According to 1 householder batteries should be recycled (1) and according to one 'other' organisation, WEEE should be recycled (1).
- According to 1 householder glass should be included on the core list (1).
- According to 1 trade body textiles should be included as separate collection of textiles is required by the Waste Framework Directive (1).

- According to one waste management company plastic bags should not be included. They are technically problematic for MRFs, lead to higher contamination and do not have a viable end market (1).
- According to a trade body and waste management company black plastic should not be included. This is being phased out (2). However, detectable black plastic could be phased in (1).
- According to a householder and an NGO, a plastic bottle or can deposit return scheme could be effective (2). Support should also be provided to reduce use of these products in the first place (1).

Question 27: Do you have any other comments to make about Proposal 9?

This question was answered by 31 respondents:

Infrastructure and end markets

- Materials can only be included once appropriate sorting and reprocessing technology and infrastructure is available and a stable end market is in place (4). It could even be damaging to public confidence to include a material on the core list if they cannot be recycled (2).
- Consideration must be given to the infrastructure requirements of NI so waste can be treated locally (1).

Timeframes

- If changes are to be made in core materials this needs to be done through a regional conversation across all Councils in Northern Ireland with recognition of appropriate timeframes (4).
- According to one waste management company, to accommodate these future changes, the waste management and recycling industry may be required to adjust its infrastructure. This would need around 12 months and building a new facility takes around 2 – 3 years excluding any planning issues (1).
- Waste management companies should also be consulted (1).

Funding

- There would need to be adequate resourcing to ensure the collection of additional materials does not come at a disproportionate cost to the rate payer (6), in keeping with the New Burdens approach in England, Scotland and Wales (2). EPR could also provide revenue to offset these additional costs (2).
- The carbon benefit should also be analysed (1).
- Costs recouped through EPR need to take into consideration the additional communication costs Councils will face in educating the public around recycling, especially if new materials are added or if changes to collection systems are required (2). Glass is a particular area of concern; introducing a kerbside glass collection for households that do not already have one will be expensive. Funding will be needed from central government or through EPR (2).

Packaging companies and labelling

- In line with Circular Economy principles and the Plastic Pact [UK Plastics Pact] initiative, producers should have a responsibility to produce packaging which is easily recyclable through conventional systems (2).
- Difficult to recycle materials increase recycling costs and should be phased out (1).
 - Plastic bags could be banned and replaced with compostable, re-usable or recyclable materials (1).
 - There should also be an increased focus on packaging reduction (2).
 - A national binary labelling system should also be introduced to reduce public confusion (1).
 - According to one waste management company, the outcome of the consistency consultation, combined with the packaging EPR reform and the plastic packaging tax, will lead to more harmonisation in the materials and polymers used at the design stage. Simplification of materials would be beneficial (1).

Collection mechanisms

- A Council raises the concern that expanding the core materials list could mean recycling containers do not hold enough capacity for a significant number of households (1).
- One householder suggests the number of bins should not be increased as this will discourage compliance. Instead, sorting facilities should be improved (1).
- According to a business and a waste management company there is a need for source segregation (2). Glass must be collected as a separate stream to maintain recyclate quality (1).
- However, according to another waste management company, a co-mingled collection is the only system that offers enough flexibility to achieve high recycling rates (1)

Materials

Materials should be included in the core set if they can be technically recyclable with viable end markets.

- According to a trade body, food and drink cartons should be included from the start as all Councils in NI currently collect them at the kerbside (1).
- Currently black plastic should not be included in the core set however, it could be phased in over time (1). One waste management company states it can currently recycle black plastic (1).
- According to one waste management company the immediate inclusion of PTT in the core set of material could be a short-term difficulty for recyclers as there isn't a viable end market for them (1).
- Currently the sorting and end markets for plastic film and black plastic is insufficient to include these materials in the core set in NI (2). However, one householder suggests plastic bags should be banned (1) and a waste management company states it can currently recycle plastic film (1).
- Currently small WEEE and textiles are counted as contamination despite being recycled. Contracts should be modified to include these materials and reduce the reported contamination rates for co-mingled collections, according to one waste management company (1).

Proposal 10: We propose that this core set of materials should be regularly reviewed by government and, if appropriate, expanded over time provided that:

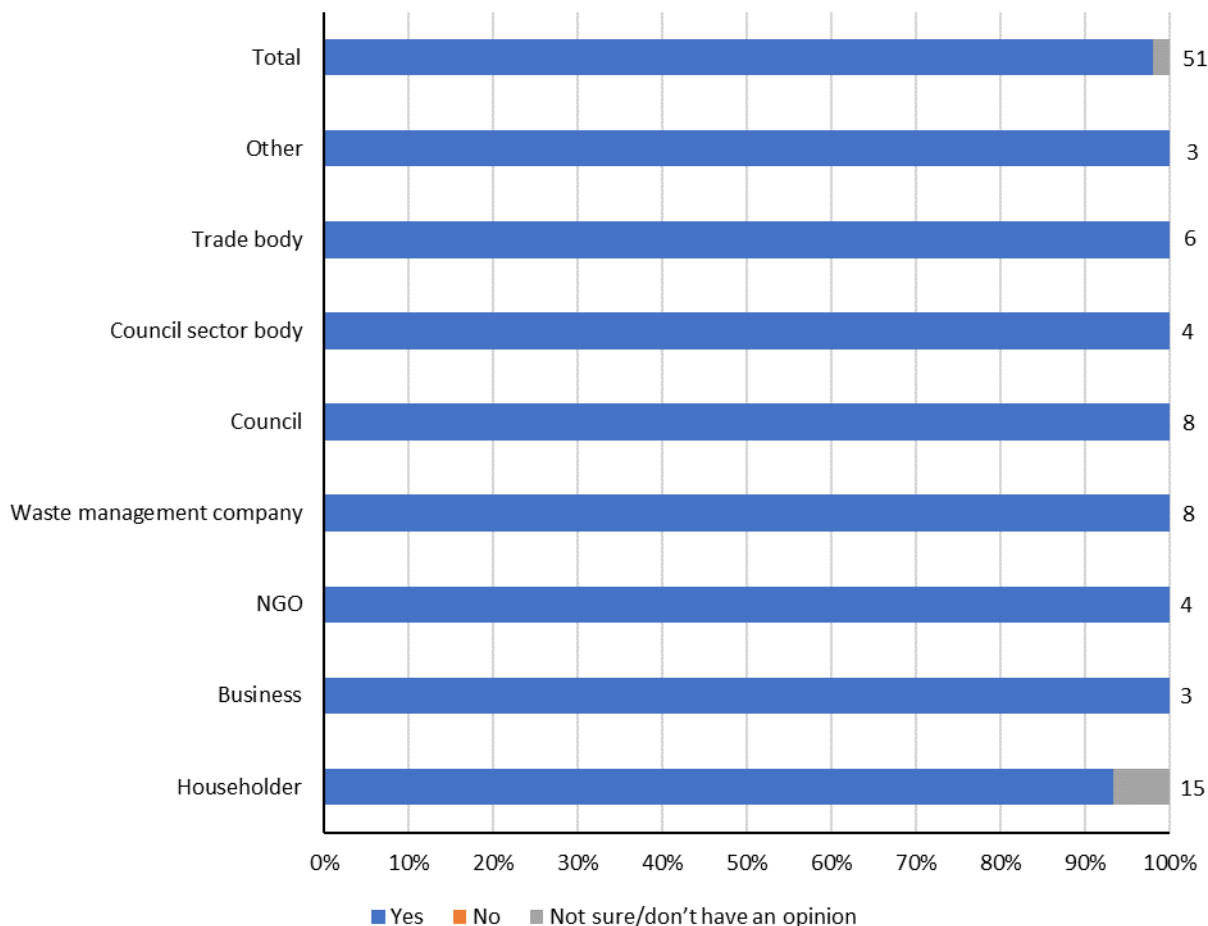
- a) evidence supports the benefits
- b) there are viable processing technologies for proposed materials
- c) there are sustainable end markets
- d) Councils would not be adversely affected, including financially.

Question 28: Do you agree that the core set should be regularly reviewed and, provided certain conditions are met, expanded?

- Yes - the core set should be regularly reviewed and, provided certain conditions are met, expanded: **50 responses (89%)**
- No - the core set should not be regularly reviewed and, provided certain conditions are met, expanded: **0 responses (0%)**
- Not sure/ don't have an opinion: **1 response (2%)**
- Not answered: **5 responses (9%)**

Figure 61 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question is overwhelmingly positive across each respondent category equal to or greater than 93% of respondents answered 'Yes'. In total across all respondents 98% of respondents answered 'Yes'.

Figure 61: Do you agree that the core set should be regularly reviewed and, provided certain conditions are met, expanded?

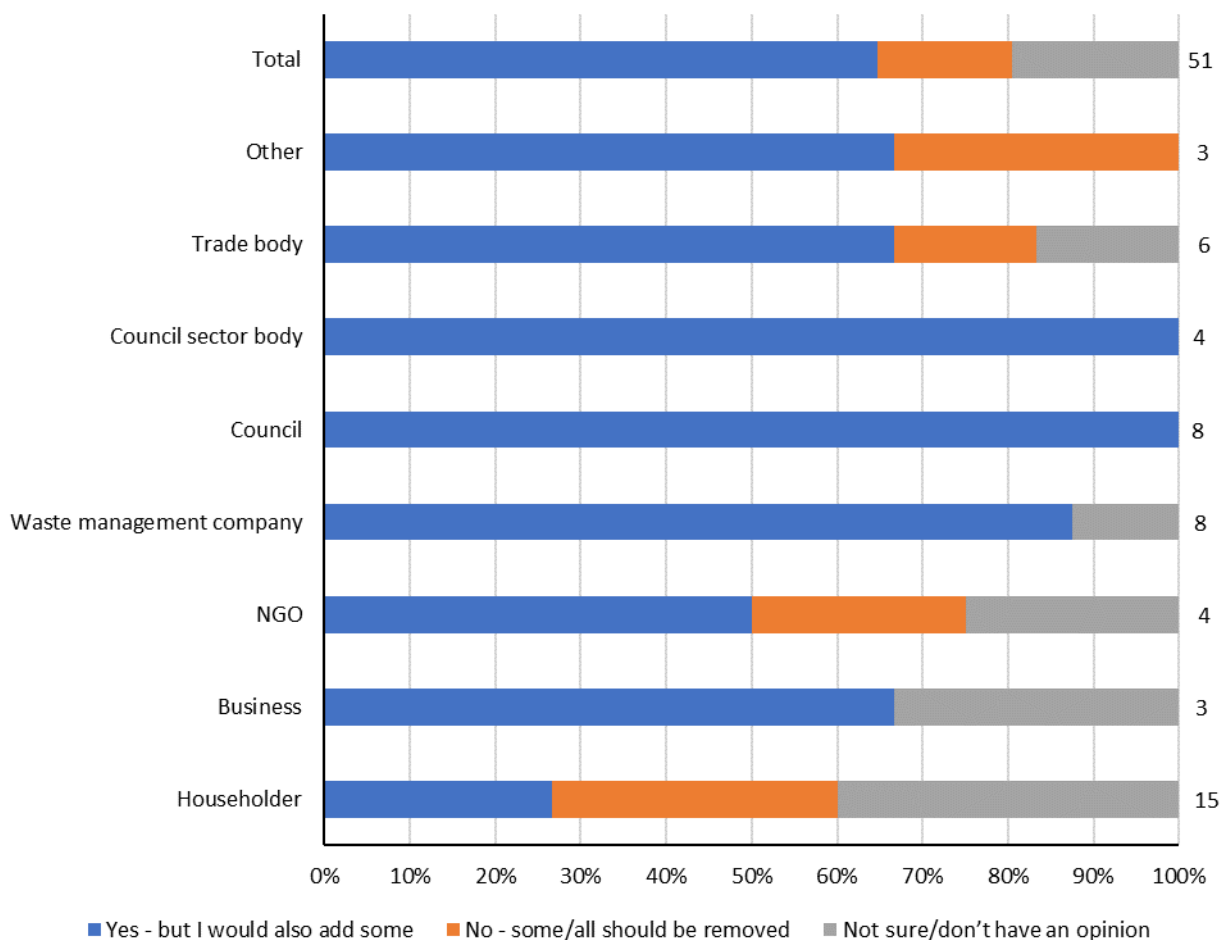


Question 29: Do you believe that the proposed conditions a) b) c) and d) above are needed in order to add a core material?

- Yes - but I would also add some: **33 responses (59%)**
- No – some/ all should be removed: **8 responses (14%)**
- Not sure/ don't have an opinion: **10 responses (18%)**
- Not answered: **5 responses (9%)**

Figure 62 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category. Overall, the response is positive; in total across all respondents 65% of respondents answered 'Yes – but I would also add some'. For each respondent category excluding householders at least 50% of respondents gave this answer. For householders only 27% of respondents answered 'Yes' and 33% of respondents answered 'No – some/ all should be removed'. Interestingly, 100% of Councils and Council sector bodies answered 'Yes – but I would also add some' as did 88% of waste management companies.

Figure 62: Do you believe that the proposed conditions a) b) c) and d) above are needed in order to add a core material?



Please specify which conditions you believe should be added.

27 respondents answered 'Yes' and left a comment. The following additional conditions were suggested:

- **Proximity principle:** The location of sorting and re-processing infrastructure, as well as viable end markets, should be considered (6). There should be criteria to assess the local availability of each of these factors (1) and, government intervention may be needed to promote end market stability and the development of the appropriate processing technologies where necessary (6). It is important end markets exist within the UK or ROI to ensure the materials can be recycled long term and to maintain public confidence (1).
- **Communication:** The change should be easy to communicate to the public (3).
- **Environment:** There must be an environmental argument for adding a material to the core set (3).
- **Contracts:** The addition of any new core materials should align with contract renewals (2).
- **Container capacity:** Sufficient container capacity should be provided to each household (1).
- **Collections:** 'Consideration of all alternatives' should be added onto the conditions; Council collections should not automatically be considered the best option (1).
- **Waste hierarchy:** The decision should consider a materials potential for energy recovery (1).
- **Safety:** The materials should be safe to recycle, for example, the recycling of batteries needs to be carefully considered (1).
- **Contamination:** the contamination level of the material (e.g. plastic film) must be considered (1).

The core set of materials should align with new and existing policies (3):

- The producers will need to be consulted once EPR is in place (1).
- Proposals for these materials will need to be aligned with the set of obligated materials that will fall under EPR, the in-scope materials for DRS and any plans for new EPR schemes such as for batteries, small WEEE and textiles (2).
- Decisions on plastic films should be taken in line with the UK Plastics Pact (2).

Question 30: Do you have any other comments to make about Proposal 10?

This question was answered by 14 respondents. The responses have been summarised into the bullet points below:

- **Communication (4):** Any changes to the core set of materials should be widely communicated to the public (4). A clear and binary labelling system would help householder understanding (2).
- **Packaging manufacturers (2):** 2 householders discussed the obligations of packaging manufacturers. They should only produce recyclable packaging (1) and fines should be placed on companies using excess packaging (1).
- **Consultation of stakeholders (5):** The government should consult the recycling industry, packaging manufacturers and Councils when reviewing the core set of materials (4). In the future, the role of updating the core list could be fulfilled by the body established to oversee the new EPR system (1).

- **EPR and DRS (1):** Implementation of EPR and DRS will impact Council collections. Any decision to add or remove materials from the core set would need to consider the economic viability of running a kerbside collection once the impact of EPR and DRS are understood (1).
- **Contracts and infrastructure (1):** It can be contractually difficult to add new materials especially if investment is needed to sort the material. DAERA will need to consider how the infrastructure gap can be overcome and, in the case of single processing facilities, how proximity could be bridged with supplementary transfer stations or delivery points (1).
- **End markets and technologies (1):** End markets and technologies must be available and secure (1).
- **Materials:** Glass must be separate (1).

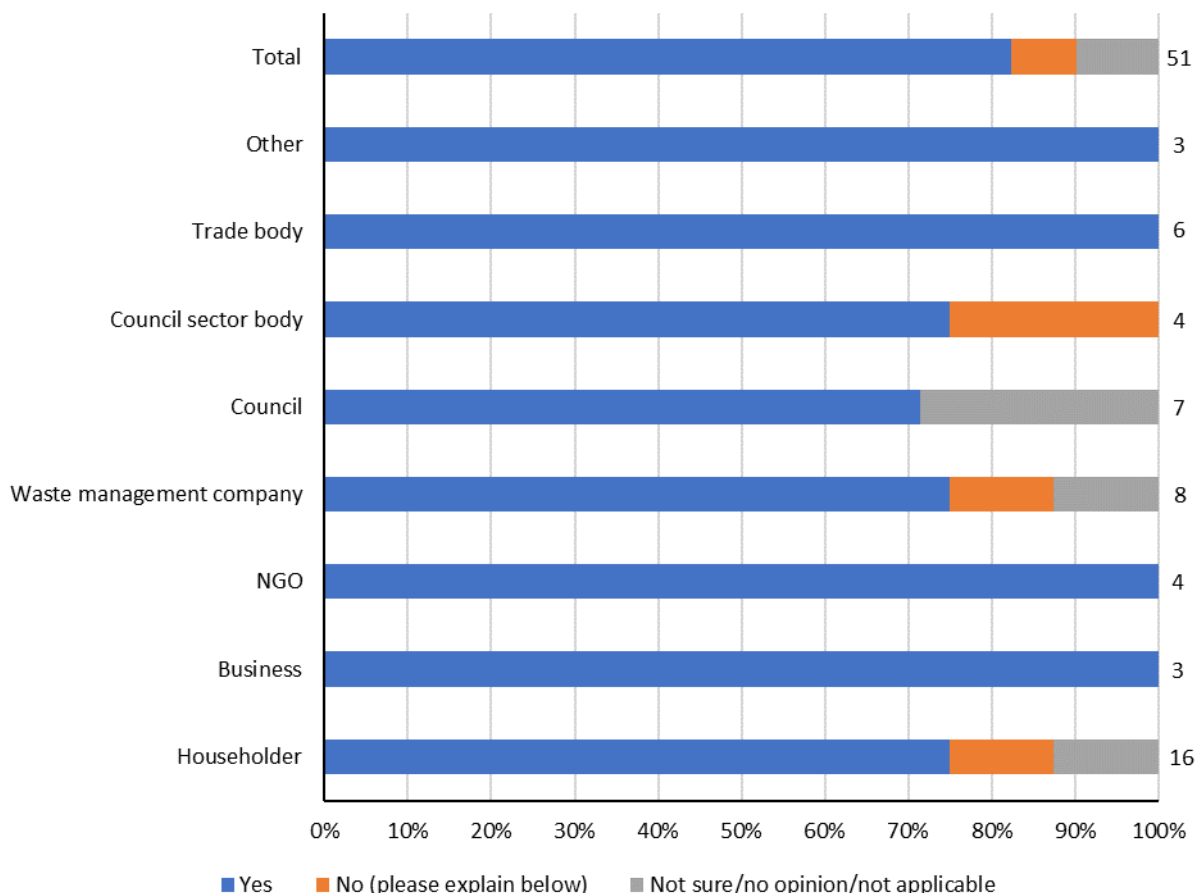
Proposal 11: We propose to review the separate collection of materials in Northern Ireland and supporting guidance to help clarify the position on current and future collections to help Councils and waste operators in decision making on separate collection.

Question 31: Do you agree that a review of separate collection requirements is required for Northern Ireland to inform municipal collections in light of proposals for core sets of recyclable materials and new producer obligations under EPR?

- Yes: **42 responses (75%)**
- No: **4 responses (7%)**
- Not sure/ no opinion/ not applicable: **5 responses (9%)**
- Not answered: **5 responses (9%)**

Figure 63 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but overall this question has received a positive response. For each respondent category over 70% of respondents have answered 'Yes'. The highest levels of disagreement are seen for Council sector bodies where 25% of respondents answered 'No'. However, in total across all respondent categories 82% of respondents answered 'Yes' and only 8% answered 'No'.

Figure 63: Do you agree that a review of separate collection requirements is required for Northern Ireland to inform municipal collections in light of proposals for core sets of recyclable materials and new producer obligations under Extended Producer Res



4 respondents answered 'No' and left a comment. The responses have been summarised into the bullet points below.

- According to 1 business and 1 Council sector body co-mingled systems have several benefits:
 - A higher participation rate leading to higher tonnages being collected efficiently.
 - A lower carbon impact and reduced air pollution. This is because each vehicle can wait until full to tip unlike stillage vehicles where tipping is dictated by one material stream filling before the vehicle is full.
 - High quality recyclates. Some UK MRFs already sort material well and produce good quality recyclate. As technologies improve, so should the recyclate quality.
- Other reasons cited for answering 'No' are:
 - According to one Council sector body it is not appropriate to mandate for one collection system as this does not allow Councils flexibility for local situations (1).
 - According to the Council sector body there also needs to be an understanding of how this will impact on contracts and how the costs of contracts changes are dealt with if changes in materials must be delivered within certain timescales (1).
 - According to one householder collections must be clear and consistent and accompanied by communication and education campaigns (1)

Question 32: What circumstances may prevent separate collection of paper, card, glass, metals and plastics? Please be as specific as possible. Additional supporting evidence for your statements may be emailed to recyclingdiscussion@daera-ni.gov.uk

33 respondents provided the following comments:

Storage and containment (12)

- Mandating separate collections will require households to have additional containers. Many households may not have the space for storage of these containers (11).
- Storage will be a particular problem for flats and HMOs (4).
- Boxes are also less robust than bins and therefore will have a higher associated replacement rate (1).

Rural collections (8)

- Separate collections would not be practical or financially viable in rural areas due to a lower population density (8).

Participation and contamination (16)

- Householders view co-mingled recycling bins as more convenient. This leads to higher participation rates for co-mingled systems compared to source segregated systems leading to higher tonnages of material collected (12).
- The contamination risk of a source segregated system is high, especially for flats and HMOs (2). However, there is a current lack of analysis to fully understand contamination levels (2).
- Householders also find it easier to recycle correctly with a co-mingled system and there are less cases of misuse, which results in re-classification of source segregated waste as 'mixed recycling' or as 'residual waste' (1).
- Sanctions such as refusal to collect bins would reduce contamination significantly (1).

Funding (17)

- There would be a large financial impact to mandating separate collections (17).
- The initial change would be expensive and require funding (12).
 - New vehicles would need to be purchased in many cases, potentially despite current vehicles still being within the accepted 7-year lifespan (1).
 - Stillage vehicles also have smaller payloads (1) and are more susceptible to changes in waste composition and tonnages (2). Therefore, additional vehicles may need to be kept in reserve for peak seasons leading to increased expense (1).
 - Longer manual handling times for source-segregated systems can also lead to congestion on the roads (1).
- The ongoing costs would be higher than for a co-mingled collection; a kerbside sort collection is more labour intensive and is run on a weekly rather than a fortnightly basis (16).
- The carbon emissions from a source segregated system are also higher than for a co-mingled system (3).

Technology and infrastructure (5)

- A high standard for end markets can be met through a co-mingled system using an efficient, quality-oriented sorting facilities (3). Therefore, Councils should be permitted to run a co-mingled system where there is access to a well performing MRF (1).
- As technology improves, so will the sorting capabilities of the MRF (1).
- Councils need to invest in transfer category infrastructure (2). This allows a wider range of reprocessors to be accessed (1) and is necessary due to the increased frequency of tipping needed for a source segregated collection system (1).

DRS/ HWRCs (6)

- DRS could alter the profile of recyclables presented at the kerbside for collection. This could leave Councils with only harder to manage, low value materials (4). There may even be a break point beyond which it is no longer viable to collect a material (1).
- One solution would be to expand the bring bank network and place more emphasis on HWRCs. Both have less of a cost burden on Councils and are more efficient in terms of tonnage versus collection cost (3).

Flexibility (4)

- Councils should retain the flexibility to choose which collection system they use to collect the core set of dry materials and food (4). This is likely to ensure the most efficient collection system is used in the local circumstances (2).
- It is important to clarify the application of TEEP for Councils and waste collectors to understand what is required of them (1).

4 respondents stated there is no valid reason to prevent the separate collection of paper, card, plastic, metal and glass (4).

Proposal 12: Based on the preceding summary of the key issues, we therefore propose to provide national guidance for Northern Ireland to help establish greater consistency in recycling and waste collection services and reduce confusion for households.

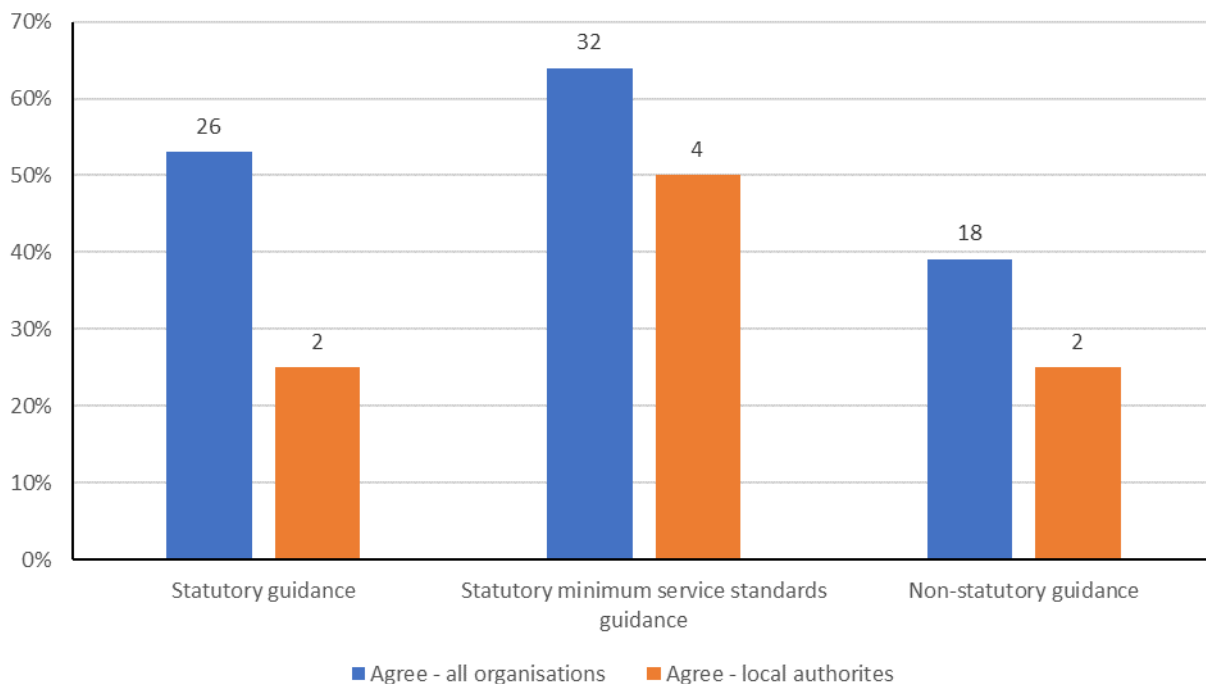
Question 33: What would be your preferred approach to Government encouraging greater national consistency in collection services?

- a) Publish Statutory recycling service guidance to detail service requirements
- b) Publish Statutory minimum service standards guidance
- c) Publish non-statutory guidance

Question 33 summary graph:

Figure 64 shows the percentage of respondents who answered ‘Agree’ to the each of the 3 options in question 33 out of the total number of respondents that answered the question (i.e. excludes ‘Not answered’). This is also shown specifically for Councils. The highest percentage of respondents (64%) agree that statutory minimum service standards guidance should be introduced. This is also true for Councils where 50% (4 out of 8) have a preference for statutory minimum service standards guidance over either statutory guidance (25%) or non-statutory guidance (25%).

Figure 64: An overview of the responses to the preferred approach for Government to encourage national consistency in collection services



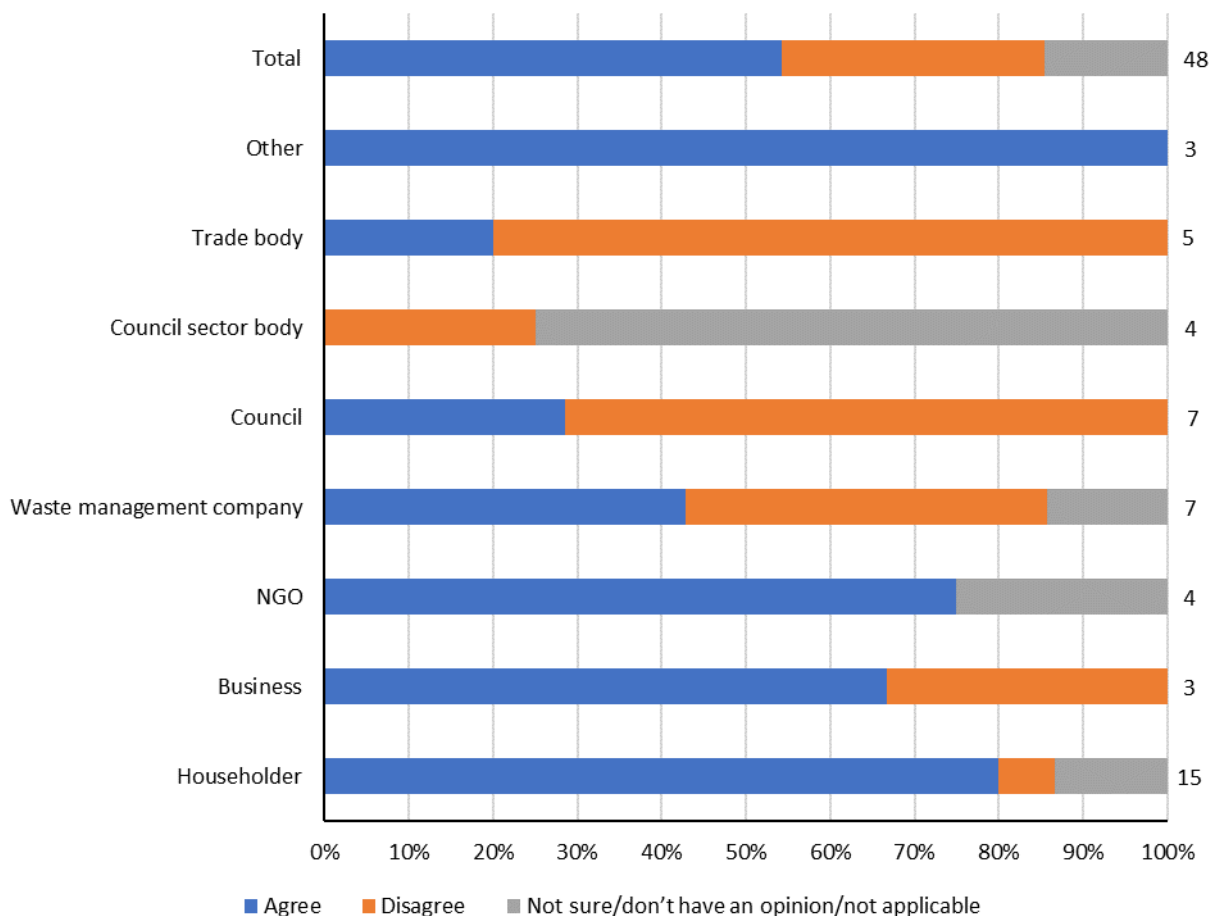
a) Publish Statutory recycling service guidance to detail service requirements

- Agree – **26 responses (46%)**
- Disagree – **15 responses (27%)**
- Not sure/ don’t have an opinion/ not applicable – **8 responses (14%)**
- Not answered – **7 responses (13%)**

Figure 65 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes ‘Not Answered’). There is significant variation by respondent

category. High levels of agreement are seen for householders (80%), businesses (67%), NGOs (75%) and 'Other' respondents (100%). However, far lower levels of agreement are seen for trade bodies (20%), Councils (25%), Council sector bodies (0%) and waste management companies (43%). Trade bodies and Councils show the highest levels of disagreement with 80% and 63% of respondents answering 'Disagree' respectively. In total across all respondents the response is positive with 53% of respondents answering 'Agree' and 31% answering 'Disagree'.

Figure 65: What would be your preferred approach to Government encouraging greater national consistency in collection services? - Publish Statutory recycling service guidance to detail service requirements?



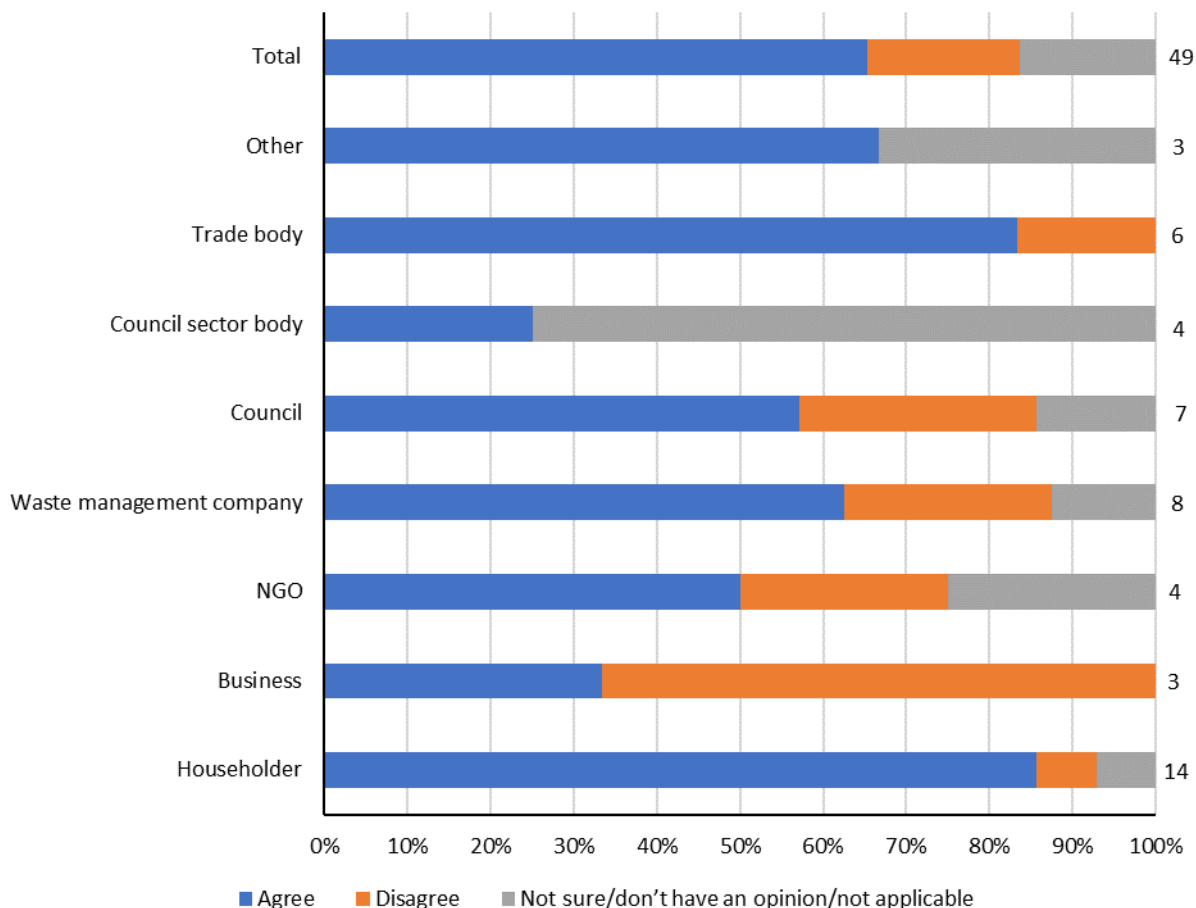
b) Publish Statutory minimum service standards guidance

- Agree: **32 responses (57%)**
- Disagree: **9 responses (16%)**
- Not sure/ don't have an opinion/ not applicable: **9 responses (16%)**
- Not answered: **6 responses (11%)**

Figure 66 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is a slightly more positive response to statutory minimum service standard over statutory guidance. In total across all respondents 64% of respondents answered 'Agree' and only 18% answered 'Disagree'. For each respondent category excluding businesses and Council sector bodies 50% or more of respondents answered 'Agree'. For Council sector bodies only 25% of respondents answered 'Agree' and 75% answered 'not sure/ no opinion'. For businesses

33% answered agree and 67% answered 'Disagree' showing the highest rates of disagreement.

Figure 66: What would be your preferred approach to Government encouraging greater national consistency in collection services? - Publish Statutory minimum service standards guidance?

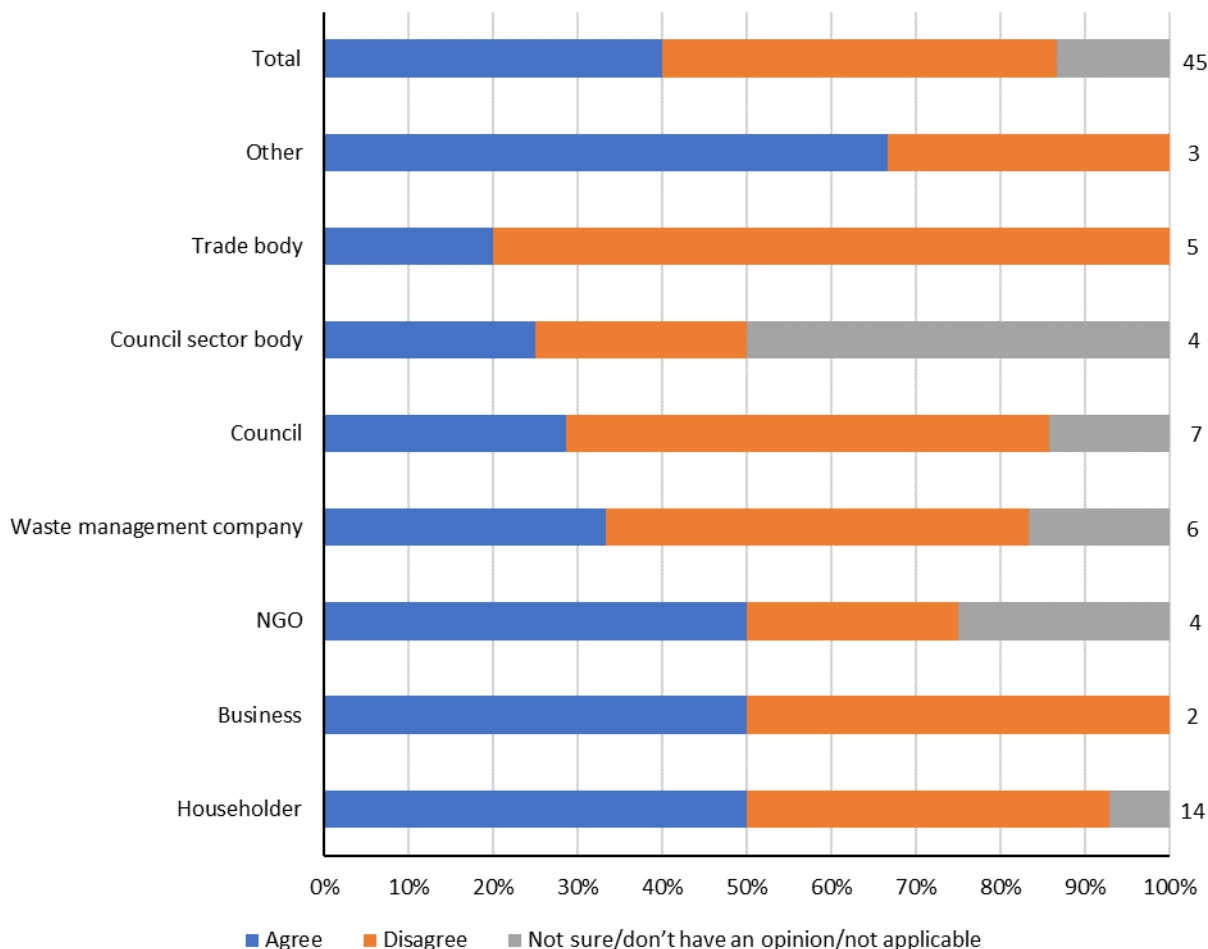


c) Publish non-statutory guidance

- Agree: **18 responses (32%)**
- Disagree: **21 responses (38%)**
- Not sure/ don't have an opinion/ not applicable: **7 responses (13%)**
- Not answered: **10 responses (18%)**

Figure 67 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). Overall, there is a negative response to this question. In total across all respondents only 39% of respondents answered 'Agree', 46% answered 'Disagree' and 15% answered 'not sure/ no opinion'. For Councils, waste management companies, businesses and trade bodies at least half of respondents answered 'Disagree'

Figure 67: What would be your preferred approach to Government encouraging greater national consistency in collection services? - Publish non-statutory guidance?



Question 34: Do you have any further comments to make about the Proposals outlined above?

This question was answered by 32 respondents. The consensus was that introducing statutory minimum service guidance would ensure improved recycling service whilst allowing for local flexibility. As there were two forms of Statutory Guidance varying in degree of prescription the comments are reported in one section below.

Statutory guidance:

Respondents noted there are a number of advantages to publishing statutory guidance:

- Could have the largest impact to fulfil NI’s ambition to maximise the economic potential of recycling, develop a local circular economy and meet future climate change commitments (1).
- Could ensure source segregation is fully adopted across NI which would increase recycling rates, lower contamination rates, and create jobs (1).
- Could ensure greater consistency across NI which would provide clarity and reduce householder confusion and increase participation (6). Nationwide communication

campaigns can be carried out for greatest impact (1). The guidance must be clear and specific for Councils (2).

- Protects the Councils from public criticism (4). If central government mandate source segregated collection, Councils can focus on maximising environmental and economic benefits (1).
- Statutory guidance has been proven to be effective in driving up recycling rates, for example in Wales, where the blueprint of the source separated collections has achieved the second highest recycling rate in the world (1).
- Several comments highlight that capital and revenue financial support will be needed if Councils are required to implement changes (3), although an additional trade body stated EPR could provide this support (1).

The main concern raised is the lack of flexibility this would offer Councils to design services fit for their local area. Given the differences in geography, demography, and performance across NI, a 'one size fits all approach' should be avoided (18). Government could set targets but allow Councils to design the services to meet these targets (8). Alternately, minimum statutory guidance could be put in place to protect Councils but still allow for local flexibility (8). Guidance should be supported with monitoring and enforcement to ensure compliance (3).

Councils must be consulted with as guidance is developed (7).

Non-statutory service guidance

This is thought to be ineffective at implementing change (2).

DAERA would need to accept that a "one size fits all" approach is unlikely to be achievable and therefore non-statutory guidance would be appropriate by providing local flexibility (1).

Alternatively, interest has been shown in the Charter for Household Recycling recently developed in Scotland, which is supported by COSLA. This kind of approach may be of value in NI and could be explored as a collaborative exercise (1).

Other areas discussed are:

- Any changes would need to be implemented with a realistic timeline (2).
- There is uncertainty around what will be required from Councils in relation to EPR (5). While the principle is clear there is less certainty as to the level of service standards Councils must provide to prove efficiency of collection (3). This proposal will be significantly affected by the outcomes of the forthcoming EPR policy and legislation (2).

Proposal 13: We will continue the support by the Department for Recycle Now and the tools produced by WRAP to help Councils and other campaign partners to communicate effectively on recycling.

Question 35: Do you have any comments to make about Proposal 13?

This question was answered by 40 respondents.

The response to proposal 13 was overwhelmingly positive. Half of all comments directly agreed with the proposal or discussed the valuable resources and tools produced by WRAP and Recycle Now (20). According to Councils and Council sector bodies these have been particularly helpful for Councils (4).

Over half of all comments stressed the importance of effective communication with householders on a local or national level (30). The following suggestions were made to improve the communication campaign reach:

- Work with schools and the wider community (3). More work should be done with the Green Flag eco schools programme (1) and teaching should focus on the importance of working towards a sustainable environment (1). Recycling could be built into the national curriculum (1). Environmental education officers should work within the community (2) as according to one NGO WRAP is not known to any working-class communities (1).
- Messaging should be well supported by senior political leaders (3).
- The campaign should extend to non-household waste producers as well (1).
- More work needs to be done with producers on packaging design and labelling to make it clear for the public and reduce contamination. Currently recycling and compositing symbols are being used on composite packaging that cannot be recycled (2).
- Where it is possible campaigns should be carried out at a national level for greatest impact (6). Greater consistency across Northern Ireland would make this far more successful (3). Two further comments noted that WRAP national campaigns usually require tailoring for local circumstances (2).

Additional suggestions were made on the content of a future communication campaign:

- Campaigns should cover waste reduction (6), in particular the reduction of single use plastics (2). It is recommended communication campaigns place recycling in context of climate change and carbon reduction (3).
- Campaigns should also focus on improving the quality of recyclates (4).

There is a call for appropriate funding to be given to Councils to cover the cost of communication campaigns especially in light of Covid-19 and upcoming policy changes (7).

Other areas discussed:

- Enforcement will be needed alongside communication campaigns (1).
- DAERA should promote the needs of the reprocessing sector if NI is to become a circular economy (1).

- Recycling needs to be as easy as possible for the householder (1)

Question 36: What information do householders and members of the public need to help them recycle better?

This question was answered by 45 respondents. The following themes were identified:

- Practical information on what can be recycled and the appropriate container for each material (21). Where appropriate guidance should also be given on how to obtain food caddy liners and how to order a new container (1). Operational information should also be communicated to include frequency of services and collection days (4).
- Information about common contaminants, how to avoid contamination and the impact contamination has (6). As part of this, campaigns should also focus on 'how to recycle' in terms of washing the materials and leaving bottle tops on etc. (1).
- Improved labelling on packaging would make it easier to communicate correct recycling behaviours to the householders and would both increase recycling and reduce contamination (5).
- Information on the end destinations of recycled materials should be shared. There is a lack of public confidence in recycling and many people believe materials collected for recycling are landfilled or incinerated. Communication campaigns should seek to dispel this fear and keep motivation high (16).
- The financial and environmental benefits of recycling should be broadcasted (22). Recycling should be put in context of the circular economy to highlight to the public how recycling contributes to the local economy and creates jobs (6). The comparative costs of landfill versus recycling should also be highlighted (6). The environmental benefits of recycling food and garden waste should be discussed in terms of reducing climate change (2).
- The importance for the waste hierarchy: reduce, re-use, before recycling (4)
- Consistency of materials, containers and services will make communication more impactful (5)
- Better access to recycling bins in public spaces and clear labelling on street bins to promote 'on the go' recycling and instil recycling as a 'way of life' (3).
- How the public are performing and where they should be improving (2)
- Re-iterate that correct segregation of waste is the householder's responsibility and not the Council's responsibility (2)
- Other themes discussed are:
 - It would be useful for WRAP to promote the OPRL logos in Northern Ireland (1)
 - National recycling targets could be promoted (1)
 - Producers should be made aware of their responsibilities – particularly for SMEs (1)
 - Binovate app could be useful (1)
 - Work with supermarkets to inform their clients how their packaging should be recycled (1)
 - Enforcement will also be needed (1)

- Highlight to the householder it is their job to correctly sort their waste correctly, not the Council's job (1)

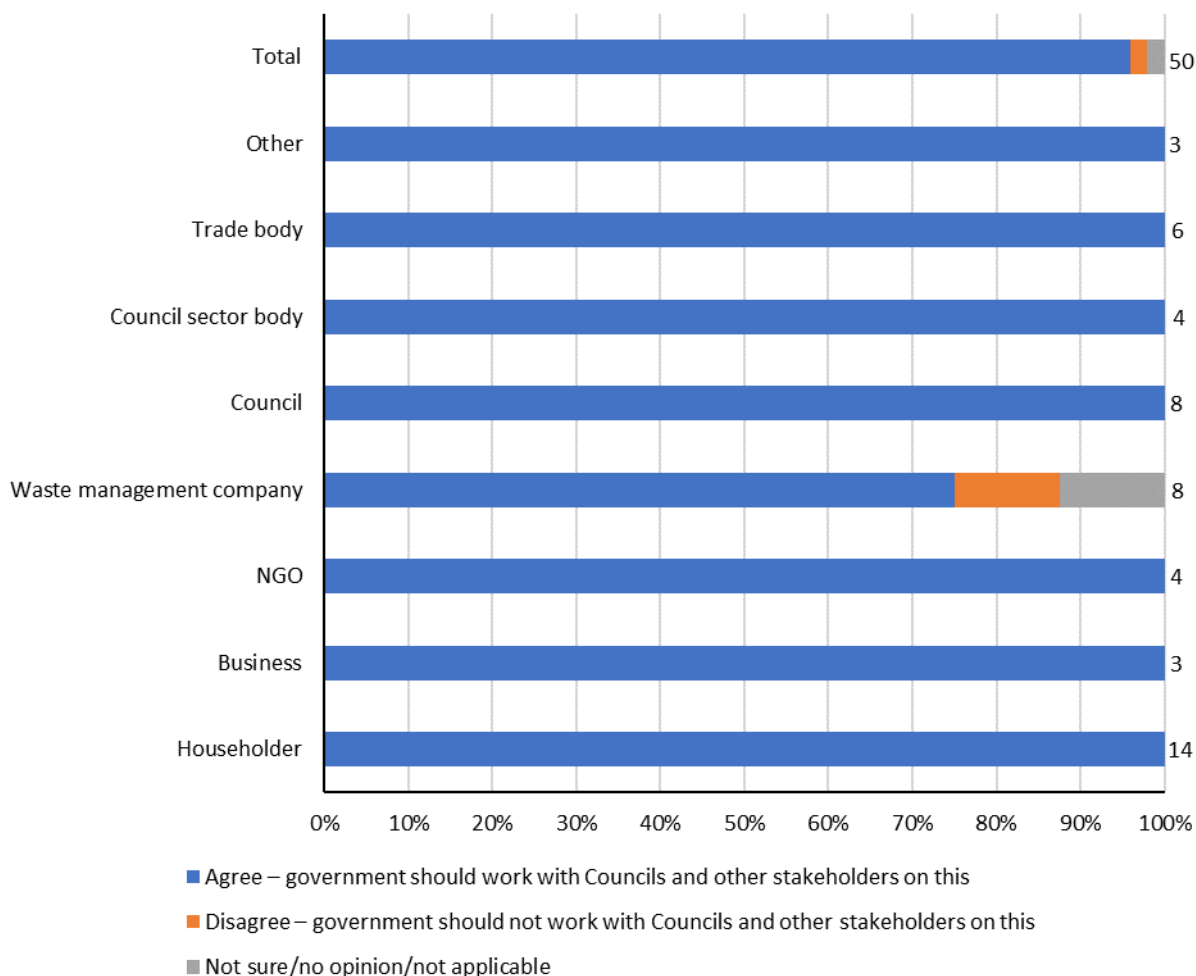
Proposal 14: We will work with Councils and others to improve transparency of information available to householders on the end destination for household recycling.

Question 37: Do you agree or disagree with this proposal?

- Agree - government should work with Councils and other stakeholders: **48 responses (86%)**
- Disagree - government should not work with Councils and other stakeholders on this: **1 response (2%)**
- Not sure/ no opinion/ not applicable: **1 response (2%)**
- Not answered: **6 responses (11%)**

Figure 68 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is an overwhelmingly positive response to this question. Excluding waste management companies, across each respondent categories 100% of respondents answered 'Agree'. However, only 75% of waste management companies answered 'Agree'. In total across all respondents 96% of respondents answered 'Agree'.

Figure 68: Do you agree or disagree with this proposal?



Question 38: Do you have any other comments to make about Proposal 14?

This question was answered by 34 respondents. Particular responses covered the following themes:

Public confidence

Almost half of all comments discussed the need for improved transparency in end destinations to maintain and boost public confidence in recycling (16).

- Improving public confidence and understanding is likely to increase participation (1) and reduce waste crime (1).
- The illegal landfill site discovered at Mobuoy has specifically dented public confidence in Northern Ireland (2).
- Awareness needs to be raised about Duty of Care requirements. Many Councils use overseas re-processors where local reprocessing is not a viable option to prevent waste being diverted to the residual stream. However, the public may not understand this, and it could lead to poor media coverage (1).
- Decision makers (Council members) must also be made aware of the end destinations of the material and the full environmental impact of the channels they have chosen (1).

Communication

Any information for householders must be provided in a user-friendly format that is easy to understand (3).

Technical difficulties

Several concerns have been raised about the technical difficulties of reporting end destination information (6).

- Due to the volatility of recycling markets the end destination for materials can change frequently over a short period of time (3).
- Contracts also change over time and therefore end destination information will need to be regularly reviewed (2).
- One material may go to multiple end destinations or pass through multiple brokers or handling agents. This makes tracking end destinations difficult and is a matter for verification between the contractors and the licensing authorities; Councils should not be required to verify information (2).
- End destination capacity is limited within the UK and much of the information will need to come from overseas. This is more complicated to obtain and there is less confidence in this information (2).

Additional concerns raised

- The additional administration burden this would place on Councils (3). Councils already spend time and resource providing information for Waste Data Flow. Any additional requirement for Councils to chase waste management companies for end destination information will be very time consuming (2).
- This information could be commercially sensitive and therefore further thought is needed over sharing of the information and in what format it could be published (6).

However, the requirement to share certain information could be built into the contracts (3).

- Engagement will be required across the supply chain to deliver increased transparency. However, this is expected to be driven by the introduction of new policies such as EPR which will necessitate the provision of accurate data (2).

Data collection and reporting

There was a call for the onus to be on the contractors to provide end destination information. Penalties and enforcement should be considered for inaccurate reporting as it is important the data reported to householders is robust and accurate (4).

Several suggestions have been put forward for monitoring end destinations:

- The waste transfer note system could be used to find information on end destinations (3).
- The waste tracking system under development should provide this information (1).
- Each facility should have a mass balance in the reported input and output tonnages. Reviewing this is important to ensure the robustness of the information provided and to avoid double counting where the material goes through a number of facilities before reaching a final destination (3).

NHM Waste

This proposal should be extended to the reporting of end destination of NHM waste and could require a review of the 'Duty of Care' regulation for processors (2).

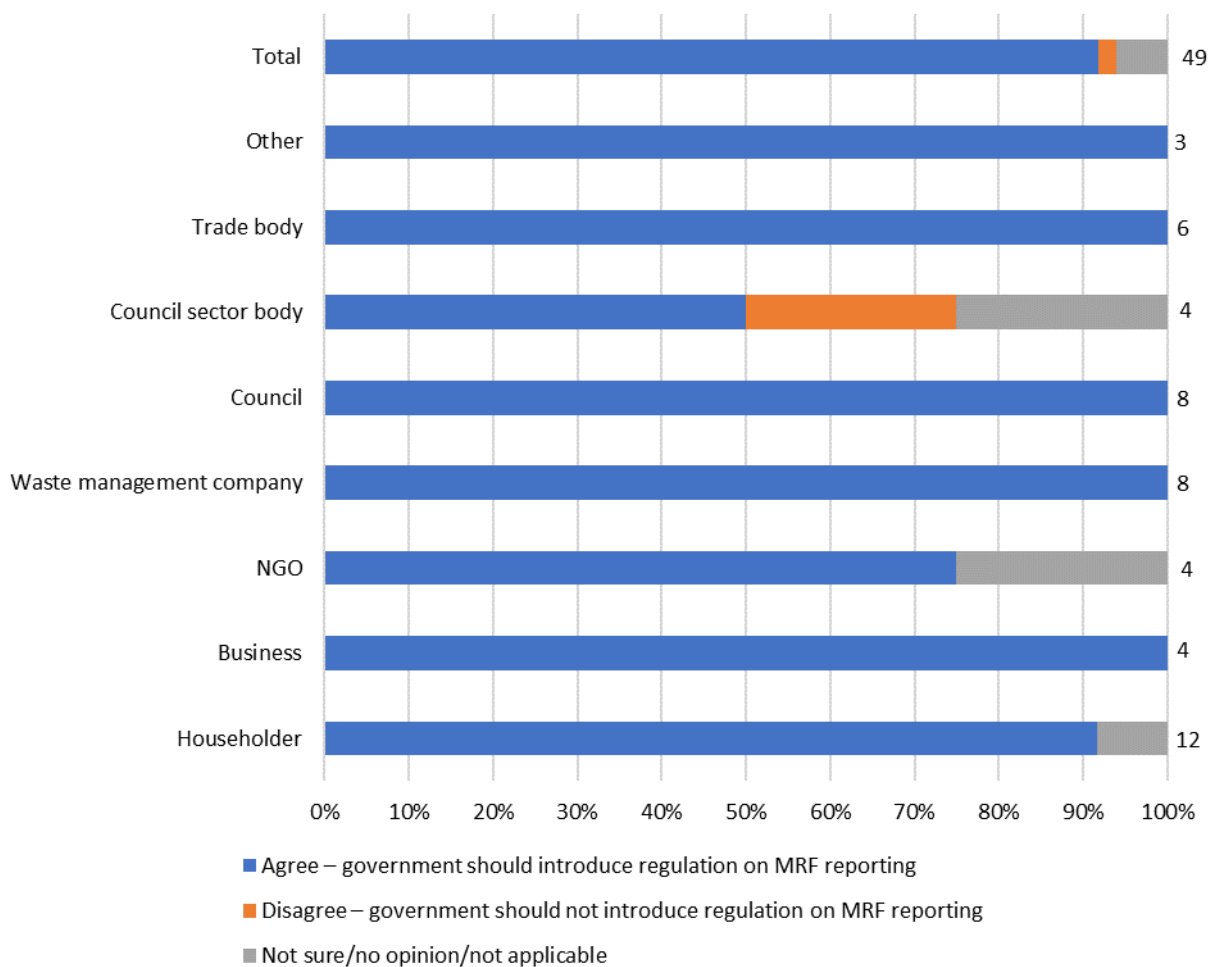
Proposal 15: We will introduce statutory regulation in line with the other three UK nations requiring MRFs to report on input and output materials by weight to determine the average percentage of target, non-target and non-recyclable material.

Question 39: Do you agree or disagree with this proposal?

- Agree - government should introduce regulation on MRF reporting: **45 responses (80%)**
- Disagree - government should not introduce regulation on MRF reporting: **1 response (2%)**
- Not sure/ no opinion/ not applicable: **3 responses (5%)**
- Not answered: **7 responses (13%)**

Figure 69 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question is positive. In total across all respondents 92% of respondents answered 'Agree'. The only disagreement is seen in the Council sector body category where 25% of respondents answered 'Disagree'. Excluding this category, across each respondent category, 75% or more of respondents answered 'Agree'.

Figure 69: Do you agree or disagree with this proposal?



Question 40: Do you have any comments or ideas for improving reporting on MRF contamination rates?

This question was answered by 30 respondents. Key responses covered the following themes:

- **Cost:** Placing additional reporting requirements on MRF operators is likely to increase costs for the Councils. The additional requirements need to be well considered, clear, and should not be time consuming to reduce any increase in costs for Councils (10).
- **Material quality:** A quality measure would be useful to assess if the MRF outputs meet the required quality of the re-processors (2). This should not only be based on the percentage weight of rejects (1).
- **Data quality:** Data reported should be validated externally (2). 2 suggestions have been made:
 - An independent external audit could be used to validate quality measures to ensure they are accurate (1)
 - Each MRF could have its own reporting procedure but be backed up by an independent accreditation body to ensure compliance (1).
- **Increased granularity:** Often contamination rate reporting is for the whole facility rather than individual MRF customers. It would be useful to introduce an obligation on MRFs to provide a contamination rate report for individual customers who supply over a minimum threshold of material. This includes data on material streams at a Council level (2).
- **Communication:** Regulations must be accompanied by clear guidance on how contamination should be measured and reported. Example photographs, sample results and completed reports would all be useful (1).
- **Reporting consistency:** The information collected must be consistent across all facilities and must be reported in a consistent format (4). The following points were raised by a Council sector body and an NGO:
 - Currently consistency between facilities and contracts is limited and variable information is published. It is also noted that if a MRF is operating as part of a wider set of facilities the information provided may be less accurate (2).
 - Councils regularly struggle to obtain the necessary information and would be keen for the reporting process to be made easier for facilities, for example, through the provision of standard forms. Payments to the MRFs could also be linked to data reporting to ensure MRFs report data to the Councils (2).
 - Local government is keen to improve consistency in contamination reporting which is useful for informing bin crews and residents (2).
 - Addressing this issue could form part of a WDF review (2).
- **Transparency of end destination:** Greater transparency is needed over end destinations. A full mass balance (input streams by tonnage and percentage matched to the output streams by tonnage and percentage) should be reported on to include end destination information (3). This will give full visibility to the environmental impact of the output streams (1).
- **Sampling:** Cost and data accuracy concerns have been raised in regards to sampling (4).

- The current sampling regime provides a snapshot of activity, and the samples do not match the overall contamination risk, despite many of the MRFs in NI following UK guidelines (2).
- A wider sampling regime would provide more accurate data but would be expensive. Therefore, a cost benefit analysis should be undertaken, and additional resource may be required (4).
- Greater scrutiny of rejects throughout the system would also be helpful (2).
- **Non-target materials:** The distinction between non-target and non-recyclable material should be clearly defined. Currently, a large proportion of material classed as contamination is non-target material but can be recovered by the MRF. Council contracts should be reviewed to set contract materials in line with the capabilities of the MRF to truly reflect contamination (3).
- **Technology:** Improving MRF reporting on contamination will help to drive technological improvements in the local MRF industry and to ensure better quality recyclates (2).
- **Infrastructure:** NI recycling infrastructure requires further development (2).
 - High quality infrastructure needs be developed locally to drive the circular economy (1).
 - A full strategic solution is needed for NI to include energy from waste solutions similar to in other of the UK and Ireland (1)

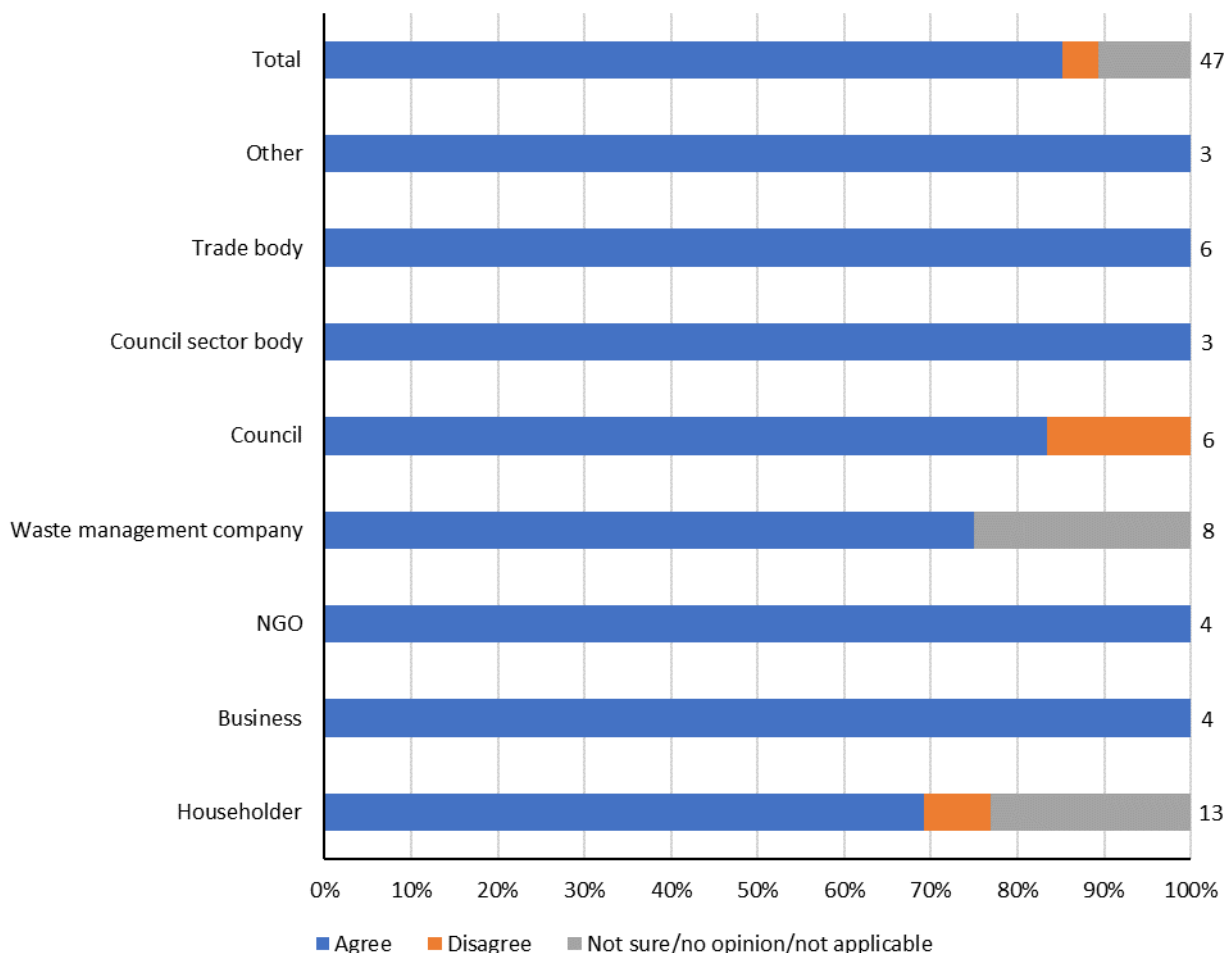
Proposal 16: We propose developing an updated set of recycling and waste indicators to monitor performance and cost efficiency and to highlight where services may be improved. We will work with Councils to develop these and other indicators to reflect areas such as quality or contamination levels and service delivery.

Question 41: Do you agree or disagree that a new set of recycling and waste indicators is required?

- Agree: **42 responses (75%)**
- Disagree: **2 responses (4%)**
- Not sure/ no opinion/ not applicable: **6 responses (11%)**
- Not answered: **6 responses (11%)**

Figure 70 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is some variation by respondent category but overall the response to this question is positive. In total across all respondent categories 75% of respondents answer 'Agree'. Councils and householders are the only categories where disagreement is seen with 13% and 8% of respondents respectively answering 'Disagree'.

Figure 70: Do you agree or disagree that a new set of recycling and waste indicators is required?



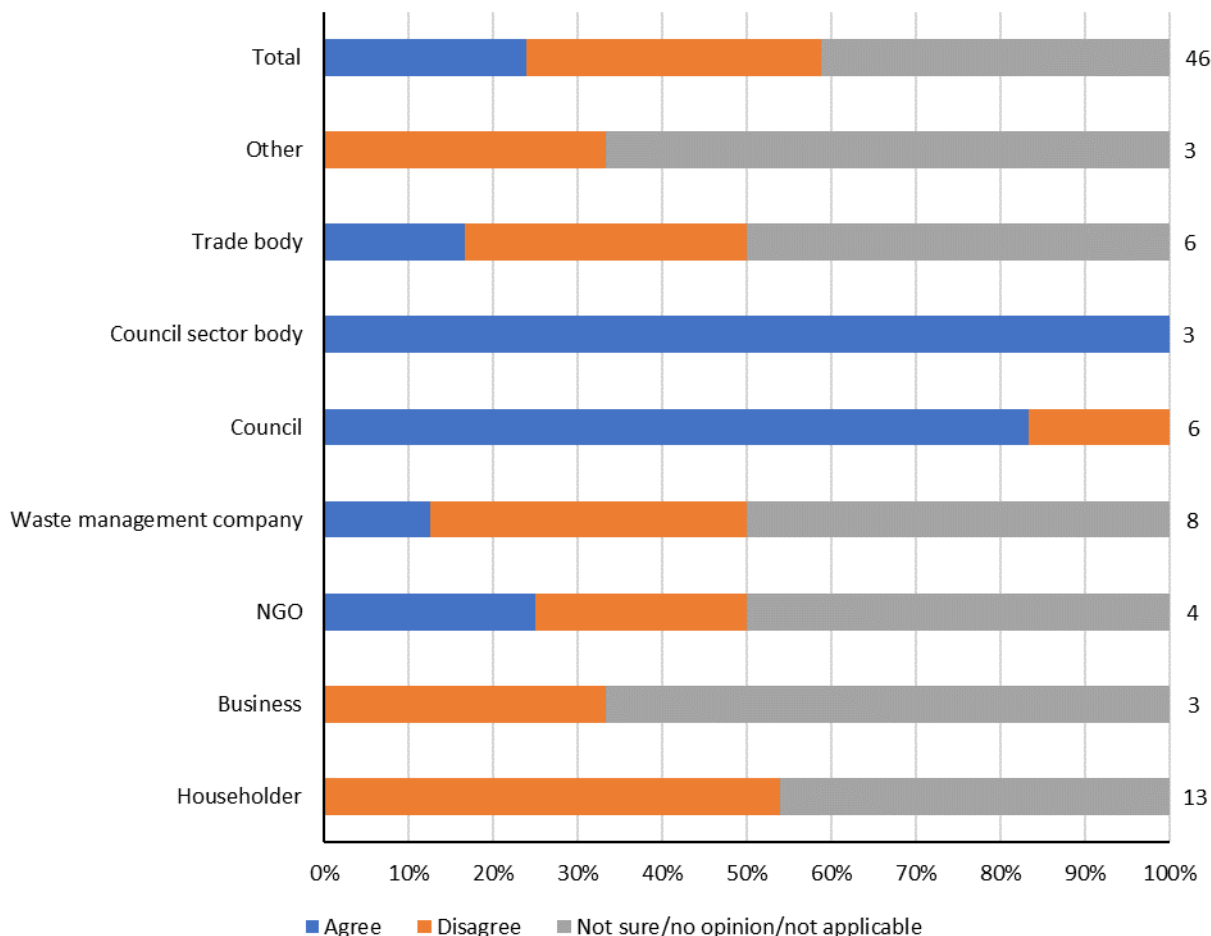
Question 42: Do you consider that any of the current set of 15 indicators should be removed?

Which indicators should be removed?

- Agree: **11 responses (20%)**
- Disagree: **18 responses (32%)**
- Not sure/ no opinion/ not applicable: **20 responses (36%)**
- Not answered: **7 responses (13%)**

Figure 71 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). There is significant variation by respondent and in total across all respondents there is a roughly even split between the 3 answers with 22% of respondents answering 'Agree', 37% answering 'Disagree' and 41% answering 'Not sure/ no opinion'. Therefore, in total the most common answer is not sure/ no opinion. However, it is worth noting there is strong agreement seen in the Council and Council sector body categories with 63% and 75% of respondents answering 'Agree' respectively.

Figure 71: Do you consider that any of the current set of 15 indicators should be removed?



Question 43: Are there any specific recycling and waste indicators for household waste which you think should be included?

This question was answered by 33 respondents. The following suggestions were made for household waste indicators:

- **Carbon:** Given the need to deliver a decarbonisation agenda by 2050, a KPI measuring the overall carbon savings achieved from waste and resource management operations is urgently needed (10).
- **Residual waste:** Residual waste per household or per head (9).
 - The percentage of Council collected municipal waste landfilled can be misleading (1).
 - Residual waste per household or per head would be a more accurate performance indicator and would provide a good measure of progress towards zero waste and the circular economy goals (4).
 - Another suggestion put forward is residual waste per capita (2).
 - The existing KPI structure does not distinguish between residual waste sent directly to landfill and residual waste which is treated first. This difference should be clearly illustrated in any new KPIs developed (1).
- **End destination:** There is a call for a KPI around end destinations (4).
 - A KPI on the end destination of a material; landfill, EfW, reprocessing etc. would be useful (3).
 - Recycling waste indicators currently report waste sent for recycling but there is no indicator to show how much of this is actually recycled and how much is discarded as contamination (1).
 - It could be useful to have a KPI showing the proportion of materials recycled in Northern Ireland without the need for onward transportation and the proportion of materials that are recycled in the United Kingdom, Republic of Ireland, rest of Europe and the rest of the world (2).
 - The ability to recycle all core materials can deviate due to fluctuations in end markets. Obtaining good data on these deviations should be looked at within the overall waste performance flow (1)
- **Material quality:** More specific data on material quality would be useful (3).
 - It is currently difficult to determine what material is suitable for a re-processor based on such high level KPIs (1).
 - Levels of contamination and rejects should also be reported (1).
 - KPIs should have a focus on open-loop recycling. For example, glass should have its own KPI in terms of the percentage that achieves closed loop recovery (1).
 - The KPIs should include and measure the 'better' preparation methods - either directly or via the % of open-loop / multiple recycle material generated (1).
- **Waste from households (3):** The listed KPIs do not include the new 'waste from households' recycling rate which has been introduced for statistical purposes to provide a harmonised UK indicator and uses a different definition to household waste (3).
- **Re-use:** In addition to total waste generated per capita, the reusability of materials needs to be considered (3).
- **Packaging:** Packing KPIs were discussed by a Council, a Council sector body and a trade body (3).

- New KPIs should be developed to understand the complexity of packaging being placed into the waste supply chain. The reusability/ recyclability and recoverability of these items should then be considered and used to inform financial levies to discourage their use. This method could also be used to monitor the sale of single-use items (2).
- Packaging related KPIs could also be used to assess packaging quantity and quality for recycling with a suggestion to include a target specifically for beverage cartons. Packaging KPIs should ensure collection requirements placed on Councils are aligned with packaging recycling obligations placed on businesses (1).
- **Resident population:** There is 1 call for a KPI focusing on the resident population only and excluding the impact of seasonal population changes caused by students and tourists (1).
- **Organic waste:** There is a suggestion for a KPI that indicates the tonnes of organics collected and how much of this is sent for composting or anaerobic digestion (2). This could be reported in kilograms per annum per capita (1).
- **Dry recycling:** Dry recycling indicators are discussed by 2 respondents; an NGO and a Council (2).
 - It would be useful to move further towards separating out the measurements of the dry recycling such as amounts of paper/ card, glass, metal, hard plastic etc. (1).
 - Dry recycling could be reported as kg per annum per capita (1)

Additional indicators should not create more burdens (2)

According to 2 Councils, if any additional indicators are to be developed this should be done alongside a review of the waste data flow system. The system should be made more user friendly and only request data that is necessary to inform useful KPIs that deliver performance improvement. The time it takes Councils to capture, verify and input the data for any new indicators should be considered as waste data flow already places a significant administrative burden on Councils. For example, additional information such as participation rate would be useful but at this time studies would be too expensive and labour intensive (2).

Indicators should allow comparisons (4)

It would be useful to publish waste indicators with additional information to place them in context (2). This could include information on the number of households, the urban/ rural makeup of the area and scheme details (2). This would be useful information for comparing performance across different Councils (1). Reports using existing data that help Councils benchmark against others could help drive improvements, for example, a report that enables Household Waste recycling Centre performance to be benchmarked against other Councils. However, these reports must be user-friendly way as according to 2 Councils the current system is not intuitive to use (2).

Lessons can be taken from best practice examples in other countries (1)

We should learn from best practice examples in other countries. The public will engage more with the publication of live and concise data. Making it accessible through apps could be useful (1).

Question 44: Do you have any general comments to make about performance indicators?

This question was answered by 26 respondents. The responses were grouped into the following themes:

Performance indicators must be relevant and useful:

- Performance indicators are essential for monitoring progress (1). However, they must be relevant and useful (3).
- Councils already invest time in reporting through Waste Data Flow; amendments to indicators should not add to this burden (2).
- Information should not be collected in duplicate either e.g. KNIB litter surveys, and it must be meaningful (2).
- All parties reporting on the indicator must use the same inputs to allow comparison (1) and it is important to note that the indicator will only be as accurate as the data it is based on (1).
- It would be helpful if they are aligned to the ROI and the UK to allow for benchmarking (1).
- Some of the current KPIs need to be reviewed to ensure they are more specific (2). For example, 'waste arisings per household' does not consider the number of people in a household (1) and current KPIs are too general to identify what percentage of a material collected is suitable for reprocessing (1).
- Cost efficiency comparisons may be difficult due to Councils accounting for operational costs in different way. Urban versus rural costs will also impact efficiency comparisons (4).

Performance indicators must not encourage bad practice:

- Indicators must only encourage genuinely beneficial behaviour. For example, they should not encourage Councils to boost their 'recycling' rates by shipping recyclable materials to other countries where it will not be recycled and will actively harm the environment (2).
- There is also concern Councils may relax their standards in procurement to send their materials to the lowest cost solutions even when these facilities are unable to effectively deal with large volumes of municipal waste streams. Minimum standards around experience, financial viability, safety and environmental quality protocols that are capable of independent external audit should form part of procurement practices from Councils in the future (2).

Performance indicators should be agreed with Councils in advance:

- Any proposed performance indicators in terms of LA service efficiency, cost or customer satisfaction should be agreed with Councils in advance (6).
 - Previously indicators have been problematic due to variations in service delivery models within urban and rural areas and differences in how Councils account for costs (3).
 - This will prevent information being collected in duplicate (2)
 - Consultation with the waste sector (all businesses involved in the supply chain) and Councils will facilitate the streamlining of data collection (1)

- The difficulty in achieving a valid set of performance indicators should not be underestimated as currently only a limited number of Councils participate in the existing ASPE performance networks/ benchmarking process (2).

Performance indicators do not currently account for short-term population changes:

- It should also be noted that performance indicators do not accurately reflect, or account for, the additional waste which may be generated in a Council due to seasonal population spikes such as the influx students or tourists (1).

Data capture for new indicators will require resource:

- Capturing data for new indicators will require additional resource and a clear mandate across the supply chain to ensure the necessary data is made available (1).
- Due to EPR, the streamlining of data and performance systems related to the flow of packaging is particularly important and there will be an even greater need for transparency once EPR is implemented to prevent cross-subsidisation to other areas of Council activity (2).
- Additional reporting burdens could be costly, potentially prohibitive for small businesses and detailed methodologies should form part of any subsequent consultation (1).
- At least some of the costs of data collection for compliance and monitoring purposes are covered by EPR proposals (1).

Additional themes:

- Non-binding performance indicators are useful (2) and will drive competition between Councils to improve recycling performance (1).
- DAERA may wish to follow the Welsh government lead on benchmarking (1)
- For some indicators, Councils are reliant on the private sector. Often the reporting is based on facility averages and does not match the composition of the input material. This can distort the performance reported (1).
- There is the opportunity to make the software that captures the data more flexible. Whilst a lot of data is captured it is not always easy to pull out useful information as a significant amount of information is captured in the comments box and is not readily retrievable. These should be reviewed on a rolling basis within the context of the regional Waste Plan, developed by DAERA (1).
- Single performance standards are not appropriate for all indicators. Some need to be tailored to reflect regional differences for example, geographical, housing categories and social difference should be considered (1).
- A fly tipping KPI would be useful. Councils would welcome national guidelines around how they are measured and calculated for consistency (1).
- A standardise way to measure re-use would be useful (1)
- Indicators that are significantly influence by factors outside of Council control would not be encouraged. For example, green waste targets, which are influenced by the weather, would not be appropriate. There is concern over how government might use these. They should not be used as a means for withholding funding (1).

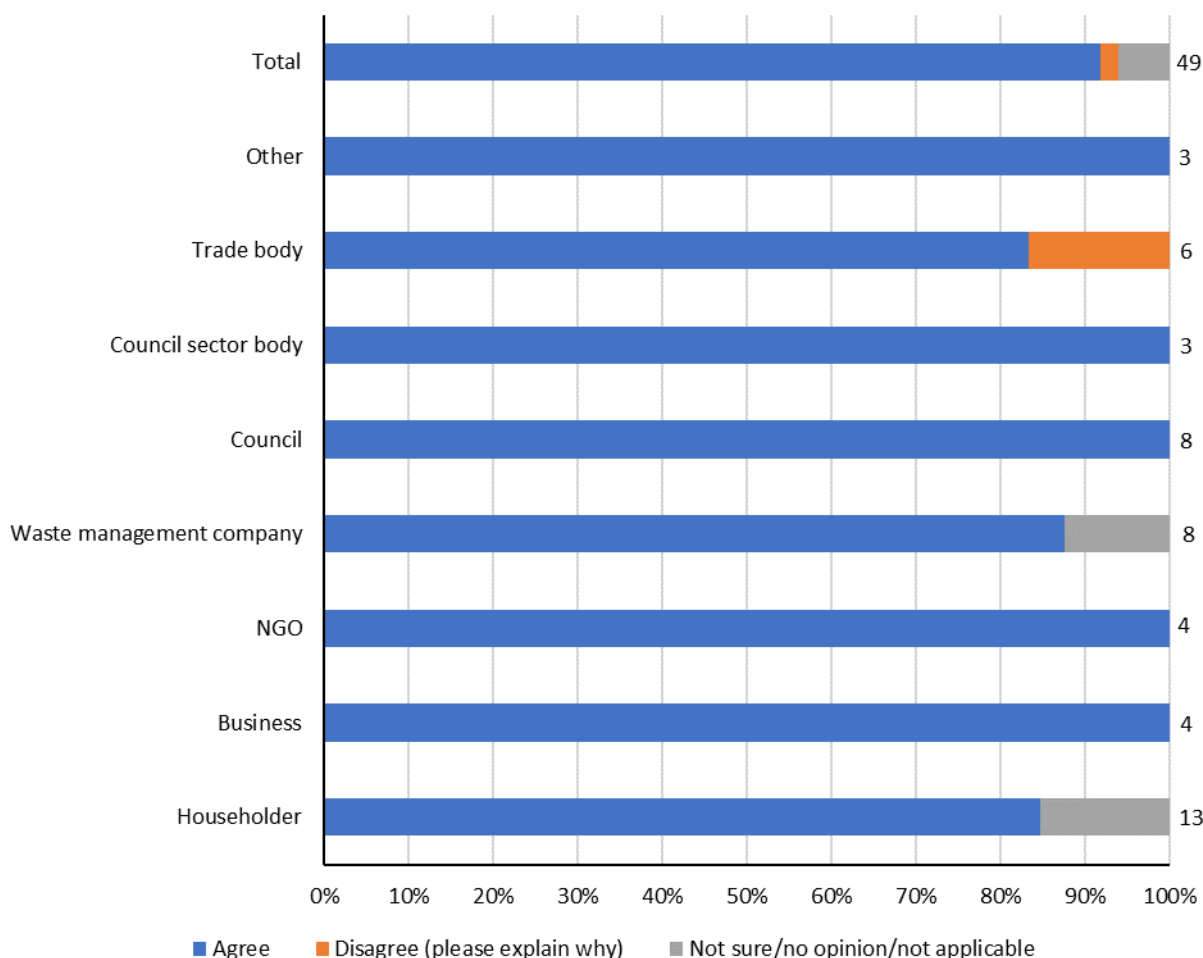
Proposal 17: We will look at metrics that can sit alongside weight-based metrics and will work with stakeholders to develop these to better measure reductions of carbon emissions associated with waste in Northern Ireland.

Question 45: Do you agree that alternatives to weight-based metrics should be developed to understand recycling performance?

- Agree: **46 responses (82%)**
- Disagree: **1 response (2%)**
- Not sure/ no opinion/ not applicable: **3 responses (5%)**
- Not answered: **6 responses (11%)**

Figure 72 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question is overwhelmingly positive. For each respondent category over 80% of respondents answered 'Agree'. In total across all respondents 92% of respondents answered 'Agree'.

Figure 72: Do you agree that alternatives to weight-based metrics should be developed to understand recycling performance?



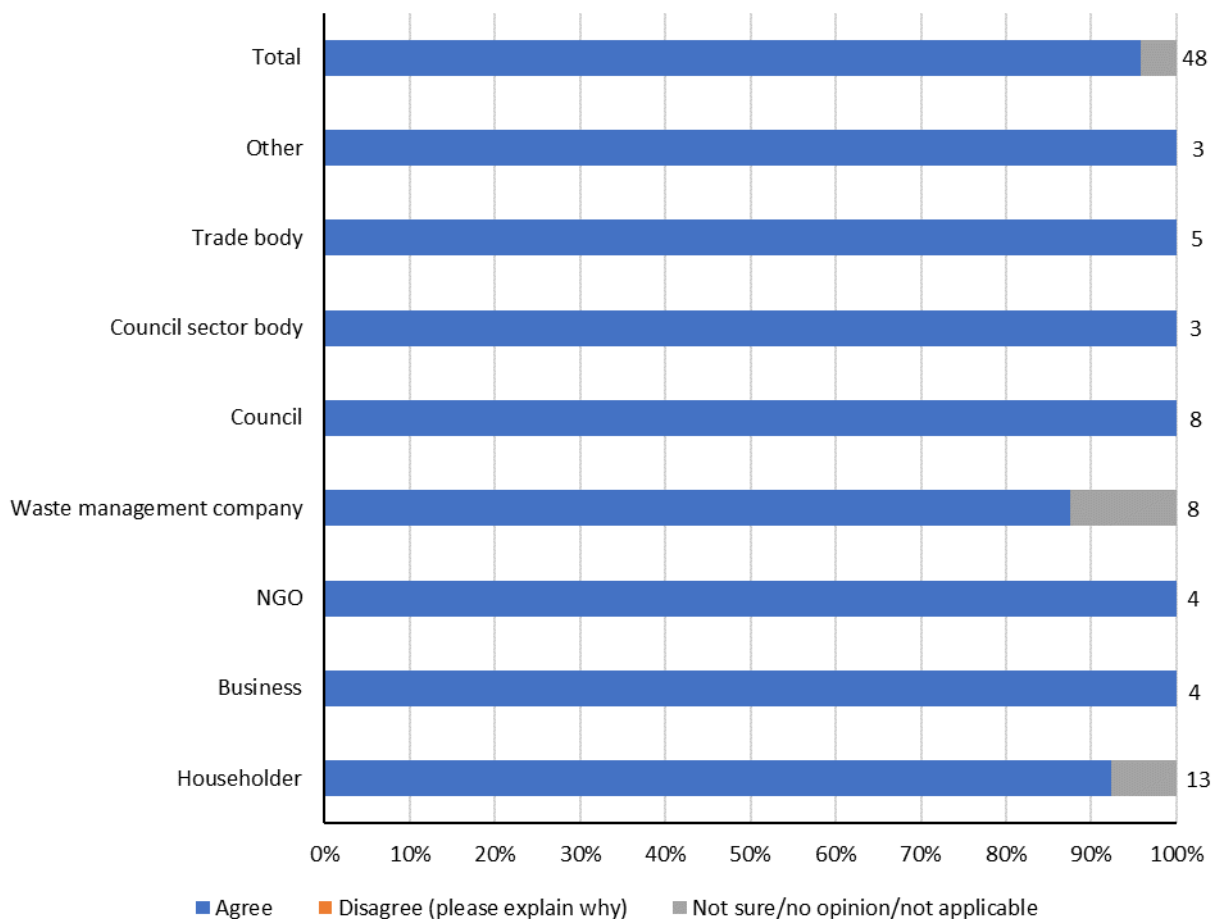
1 respondent who answered 'disagree' left a comment. The trade body stated that weight-based metrics will still be an important measurement of the volume of material diverted from residual waste (1).

Question 46: Do you agree that these alternatives should sit alongside current weight-based metrics?

- Agree: **47 responses (84%)**
- Disagree: **0 responses (0%)**
- Not sure/ no opinion/ not applicable: **2 responses (4%)**
- Not answered: **7 responses (13%)**

Figure 73 shows the split of responses by respondent category and is based only on those who answered (i.e. excludes 'Not Answered'). The response to this question is overwhelmingly positive. For each respondent category over 85% of respondents answered 'Agree'. In total across all respondents 96% of respondents answered 'Agree'.

Figure 73: Do you agree that these alternatives should sit alongside current weight-based metrics?



No respondents who answered 'disagree' left a comment for this question.

Question 47: What environmental, economic or social metrics should we consider developing as alternatives to weight-based metrics?

This question was answered by 38 respondents.

Weight based metrics

- It may be difficult to develop robust environmental, social, or economic metrics (1).

- Weight based metrics are comparable and potentially the most accurate indicators (2).
- However, introducing additional indicators alongside these could help to create a more complete picture (10).
- The Circular Economy Package targets remain weight based and therefore it is important we continue to use this metric (3).

Environmental

Over half of all responses discussed the need for an environmental metric (29).

- All but one of these responses discussed the need for a carbon or greenhouse gas metric. This metric should measure the carbon impact of recycling, composting and re-use versus disposal for different materials allowing respondents to focus on generating the largest carbon savings (28). This includes measuring the carbon emission from transport and energy needed to reprocess materials (1).
- The metric should also consider the offset carbon emissions from creating new products from recycled materials instead of raw material (1). There is a call for a 'whole-life-carbon' metric which would account for sourcing of the raw materials, manufacturing and use phases as well as the end-of-life treatment (7).
- Several suggestions have been made as to how this could be measured and how data could be collected:
 - WRATE calculates the carbon footprint of a waste management process (rather than the outputs). Councils could use this to calculate and reduce their environmental impact. For example, WRATE uses emission data for specific vehicle categories when evaluating a process's overall carbon footprint. This information could be used to inform Councils when procuring vehicles and would allow comparisons between Councils in terms of environmental impact (1).
 - Waste Data Flow could be pre-populated to calculate the environmental impact of the services provided by Councils. This could be modelled alongside the current statutory quarterly submissions to develop the evidence base. (1).
 - Eunomia's Recycling Carbon Index could be used. This takes Council recycling performance data from Waste Data Flow and multiplies it by Zero Waste Scotland's carbon factors to produce a carbon metric. This process converts tonnage data for each recyclable material into carbon dioxide equivalents and measures the total carbon the Councils are diverting from disposal to recycling. It also takes account of the emission impact of source segregated and co-mingled collections (3).
- Comprehensive research is still needed to improve our understanding of carbon impacts (1), but lessons could be learned from Scotland's experience following the successful introduction of a carbon metric (2).

Other environmental metrics suggested are:

- Natural capital accounting (2)
- Land use (1)
- Soil quality (4): A metric considering the levels of organic matter that is being returned to the soil over time (2). For NI it would be useful to identify where this replaces peat-based fertilisers in horticulture (1).
- Air and water quality (2)

- Resource security and resource productivity (2)

Economy

Economic metrics have also been put forward (10).

- It would be useful to have a measure of the economic benefit to the NI economy. This could be calculated as:
 - gross value added due to waste management (1)
 - a measure of jobs created and retained within the sector (5).
- It would also be useful to measure the value of materials sold and the income generated from them (2).

Geographical end destination

A metric on the geographical end destination of materials would be useful to understand how much materials is recycled in NI compared to in the UK, ROI, the rest of Europe and the rest of the world. Local recycling both boosts the local economy and reduces carbon emissions due to transport (6).

Quality

Weight based metric do not capture information on the quality of recyclates and therefore do not always equate to good resource management (5). A quality related metric would be useful. For example:

- contamination rate by output (1)
- Overall MRF/ Transfer Station contamination rate (1)
- % of material that is single use recycling (1)
- % of material that is multi-use recycling (1)

Agreeing a quality standard with the reprocessing sector in advance will allow alignment with their incoming raw material specifications. This in turn will maximise the potential growth of the reprocessing sector and provide a secure, sustainable, and future proof destination for recyclate (1).

Social

Several social metrics have been suggested including mental health and wellbeing metrics (4).

Appendix

Respondent categorisation:

Householder: **17**

Trade body: **6**

- Environmental Services Association
- Alliance for Beverage Cartons and the Environment (ACE UK)
- The Association for Renewable Energy and Clean Technology
- Collaborative Circular Economy Network
- Recycle NI
- Chartered Institute of Waste Management (CIWM)

Council: **9**

- Causeway Coast and Glens Borough Council
- Newry, Mourne and Down District Council
- Ards and North Down BC
- Lisburn & Castlereagh City Council
- Antrim and Newtownabbey Borough Council
- Belfast City Council
- Fermanagh & Omagh District Council
- Mid and East Antrim Borough Council
- Mid Ulster District Council

Council sector body **4**

- arc21
- LARAC
- SOLACE NI
- Northern Ireland Local Government Association (NILGA)

Waste management company **8**

- Veolia
- RecyCo
- McQuillan Environmental
- RiverRidge
- Enva
- Bryson Recycling
- Biffa
- Re-Gen

NGO **4**

- Enagh Youth Forum
- Greenspaces Bangor
- Zero Waste North West
- Sustainable NI

Business 5

- Translink
- Linen Quarter BID
- Encirc
- Natural World Products Ltd
- Huhtamaki Lurgan Ltd

Other 3

- Belfast Met
- Ulster University
- Southern Health and Social Care Trust