Public/Confidential(Part2)*
Key Decision - Yes
* Delete as applicable

HUNTINGDONSHIRE DISTRICT COUNCIL

Title/Subject Matter: **Waste Minimisation Strategy**

Meeting/Date: Senior Leadership Team – 27 October
Informal Cabinet – 17 November
Overview and Scrutiny Panel (Customers and Partnerships) – 3 December
Cabinet – 10 December

Executive Portfolio: **Executive Councillor for Operations and Environment, Councillor Marge Beuttell**

Report by: Andrew Rogan, Operations Manager for Waste and Recycling

Ward(s) affected: All

Executive Summary:

The Waste Minimisation Strategy responds to the main challenges faced by the Council Waste and Recycling Collection service. The Vision for the Waste services is set out in the Councils own vision and ambition of achieving 60% re-use and recycling rate as well as our commitment to good environmental stewardship and long-term sustainability.

We must also respond to the challenges presented by Huntingdonshire being an area that is growing quickly, and where the waste service must grow or adapt to absorb this growth

This strategy lays out the principles for where we intend to take waste minimisation over the next three years and appendix 1 provides an overview of the strategy highlighting the key themes we will be working on. These include maximising recycling, being innovative and leading by example. The action plan (Appendix 2) explores the projects we will be focusing on to support our key objectives and themes.

Our Vision

Huntingdonshire District Council is committed to managing waste in accordance with the waste hierarchy and controlling the growth of waste collected at the kerbside by promoting waste minimisation through re-use, recycling and composting with our main focus being on these key objectives.

- Reduce the amount of waste that is collected from household through our kerbside collections.
- Achieve a greater than 60% diversion of waste from landfill in line with the council's manifesto pledge.

- Improve the quality of the recycling material we collect by maintaining the contamination levels below 7%

Recommendation(s):
To endorse the council's new Waste Minimisation Strategy and Waste Minimisation Action Plan.

RECOMMENDED

To endorse the council's new Waste Minimisation Strategy and Waste Minimisation Action Plan.

1. PURPOSE OF THE REPORT

1.1 To seek the endorsement of the council's new Waste Minimisation Strategy and Waste Minimisation Action Plan.

2. BACKGROUND

2.1 Rising demand for local government services, the growth of our district, and continued pressure on the resources available, ensure that efficiency and productivity must be cornerstones of our waste service.

2.2 In addition, over recent years, climate change has been increasingly identified as a major global threat. Good management of waste - preventing or minimising the amount of waste generated and maximising the repair, re-use and recycling of waste materials, are some of the most immediate things that we can do as individuals to contribute to a reduction in carbon emissions.

2.3 Waste is both a global and local issue and communities need to become more responsible about the waste they generate. We all have a part to play - as individuals, employers or employees, governments, and consumers.

2.4 In future, we must prevent waste from being generated. Where we cannot prevent, we must reduce, repair, re-use, recycle and compost more. We must think of waste as being a resource from which as much value as possible should be recovered.

2.5 Huntingdonshire residents has already achieved recycling more than 50% of the waste that is generated but we cannot become complacent. The recycling rate has plateaued, and we know from a recent waste analysis that there is more material that can be captured through both the kerbside and organic kerbside collections.

2.6 Through working with residents and monitoring our dry recycling contract we have been able to sustain the contamination rate below 7%. Further work is underway to ensure this level is met and only through continued resident engagement can this be achieved

2.7 As it stands, over the last 3 years the service has seen a significant improvement in performance and value for money. Over this time period the Council has delivered a reduction on cost per household, marking us amongst the best of our comparable local government group (APSE Benchmarking) despite diesel hitting an all-time high during parts of this period and increased housing of around 1500 new properties per year.

2.8 At the same time, we have seen the number of missed bins reduce, staff sickness fall by over 35%, and attaining a customer satisfaction rating of 97% (either satisfied/very satisfied with the service) in addition we have also managed to keep the full waste collection service running throughout the 2020 Covid-19 pandemic

2.9 However, we are not complacent or content. This strategy lays out the principles for where we intend to take waste minimisation over coming years.

2.10 **Where we are now**

All households in Huntingdonshire are provided with a collection for residual and dry recycling waste. 90% of residents have access to an organic waste collection service.

Residents have access to a network of 23 textile recycling banks and three household waste recycling centres

Waste audits undertaken by Resource Futures have given us an insight into the type of waste our residents are producing. This data will assist in future campaigns to encourage waste minimisation (Appendix 4)

2.10.1 **Household waste 2016/17 to 2019/20**

Household waste is waste collected by the council from homes in the district.

The table below shows the amount of waste, in tonnes, collected from domestic properties since 2016/17. These figures have remained constant over the last four years even with growth in housing within the area

Year	No of properties	Dry Recycling (Tonnes)	Organic Waste (Tonnes)	Residual Waste (Tonnes)	Total Waste (Tonnes)
16/17	75,888	16,974	21,618	27,848	66,440
17/18	76,549	16,406	20,264	27,784	64,454
18/19	77,315	17,503	19,743	26,595	63,841
19/20	78,489	17,636	21,413	26,584	65,633

Greater than 50% of the waste we have collected has been sent for recycling or composting over the past four years

Huntingdonshire is 43rd in the national league table for recycling rates out of 345 local authorities (figures provided by Lets Recycle)

Year	Collected
16/17	59%
17/18	58%
18/19	61%
19/20	59%

2.10.2 **Contamination of dry recycling**

Contamination of dry recycling is one of the biggest financial risks to the council. The council's rejection rate is set at less than 7% of dry recycling material. Every 1% over this limit costs the council in the region of £45k in additional cost.

The Councils current contamination level is within the 7% limit and this has been achieved by a proactive, ongoing programme of bin inspections and rejections, information campaigns, both local and national, and close working with individual residents. We currently reject over 600 dry recycling bins every month.
Having a third member of the team approved by cabinet in 2019 has also played a key role in achieving our current low contamination rate. As a comparison the national average for contamination is 12.7%

The Recycle for Cambridgeshire and Peterborough waste partnership (RECAP) have appointed a material recycling facility contracts compliance officer who closely monitors the material inputs and outputs from the MRF. The work which is undertaken provides vital information for the council to support communications and the education of our residents.

This table shows our annual contamination rate over the past four years.

Year	Contamination Rate
16/17	7.27%
17/18	7.97%
18/19	6.86%
19/20	6.86%

2.10.3 **Cost of the waste and recycling service**

Despite an increase in the number of properties the cost per household has decreased through tight service and budget management. We continue to benchmark the service through APSE Benchmarking

	Cost of service	Cost per household	No of properties
16/17	£ 2,531,153.70	£33.35	75,888
17/18	£ 2,741,274.68	£35.81	76,549
18/19	£ 2,441,220.35	£31.57	77,315
19/20	£ 2,356,816.69	£30.02	78,489

*Cost per household does not include Central Establishment Cost

2.10.4 **Satisfaction Survey (Appendix 5)**
The latest customer satisfaction survey took place in June 2020 and gave us an opportunity to gather residents' opinions on communication methods as well as more insight in to how they dispose of their waste

- **Overall, 97% were satisfied or very satisfied with the refuse/recycling service an improvement from 89% in 2019**
- When asked how they usually dispose of clothing, the most popular answers were charity shop (72%) and local clothes recycling banks (59%)
- When asked how they usually dispose of small electrical items, the most popular answer was household recycling centre (86%, an increase of 8% from 2019).
- 90% of respondents were satisfied/very satisfied with public recycling banks
- The most popular way to receive information about waste collection services was through leaflets (52%), followed by email (49%) and Facebook (41%). There was a noted increase in respondents who chose Facebook as one of their answers compared to last year (up by just over 16%). 15% preferred information from local media.
- The most popular other ways that respondents prefer to receive information about waste collection services is via bin hangars, community leaflets and in the post.
- 90% of those answering said they felt either very well or fairly well informed about waste collection services, with 9% feeling not very well informed or not well informed at all. Less than 1% did not know how well informed they felt

3. COMMENTS OF OVERVIEW & SCRUTINY

3.1 The comments of the relevant Overview and Scrutiny Panel will be included in this section prior to its consideration by the Cabinet.

4. KEY IMPACTS / RISKS

4.1 **Population/housing growth**
This will increase waste production therefore there will be a need for more resources to service the areas of growth.
In its current format, the service will continue to grow as the District does, this will continue to increase the revenue budget of the service by around £250K for every additional new round that goes into service.

Continued efficiency finding does have its limits with the current collection method resulting in 51% of our working time driving material around the district as reported by the 2018 productivity study undertaken by APSE.

Although the proposed Waste Minimisation Strategy does not require or suggest any changes to the current collection model, we will need to be open minded and examine all possible service delivery options moving forward if we are to mitigate

the growing financial pressures of operating the service. These could include – underground bin systems and working double shifts. We have already started to model a number of scenarios with Local Partnerships (Appendix 6)

4.2 Financial environment

We are working in an environment of continued and sustained financial pressure which may result in difficult decisions having to be made on what we prioritise, including reduced budgets and less resource.

Contamination of dry recycling is one of the biggest financial risks to the council. The council's rejection rate is set at less than 7% of dry recycling material. Every 1% over this limit costs the council in the region of £45k in additional cost.

The full financial impact of the waste and resources strategy will depend on government decision on new burdens associated with any mandated changes e.g. weekly food collection, impact of Deposit Return Scheme and where the Extended Producers Responsibility tax receipts are paid either to Districts or County, which is still under consideration by government in the proposals. What we do know is the go live date is being suggested for 2023 but what we don't know is if this is an immediate or a phased implementation.

4.3 Waste and Resources strategy

The proposals laid out in this strategy have the potential to transform the landscape for the way we manage resources and waste, and how we deliver our services in the future.

- Development of **circular economy** is a new concept. Success will be dependent on there being a business case for the organisations
- **Consistent collections – driving up recycling -** proposals for all local authorities to collect a consistent range of materials to a standard. This will play an important role in reducing confusion for householders, increasing recycling rates and improving material quality.
- **Food Waste -** Separate weekly food waste collections for every household. This will require an additional new service involving specialist collection vehicles and extra resources.
- **Deposit Return Scheme** - adding a surcharge to a bottle of drink which would be reimbursed if the item is returned for recycling. If people choose to recycle in this way rather than through council waste services, the recycling rate could reduce by as much as 5%, along with a loss of income from the material being diverted from the MRF
- **Extended Producer Responsibility** could mean we start to see less packaging along with different types of materials being used. However, we could also see the full net cost of collection and processing of material being met by the packaging producers which may help reduce some of the financial burden of operating the service.

4.4 **National Pandemic** – We have seen more waste being produced from households due to changing habits and working arrangements. Over the first four months (April to July 2020) we have seen on average an additional 200 tonnes of waste (refuse and dry recycling) being collected.

4.5 **Recycling markets** have continued to be an extremely volatile environment with no long-term certainties and guarantees for prices of and demand for materials

5. LINK TO THE CORPORATE PLAN, STRATEGIC PRIORITIES AND/OR CORPORATE OBJECTIVES

5.1 Local Framework

5.1.1 Corporate Plan 2018-2022

The corporate plan sets out a programme identifying areas which working together to meet the council's vision:

We want to support a safe and healthy environment, deliver economic growth, provide value for money services, and create opportunities for the people of Huntingdonshire

We want Huntingdonshire to be a good place and we work to Create, protect, and enhance our safe and clean built and green environment

Ruling administration manifesto - Increase recycling rates in the district so that 60% of waste is recycled and not send to be landfilled

5.1.2 The council is working on a revised and co-ordinated **Climate Change Strategy** to be delivered in Autumn 2021. The Waste Minimisation Strategy is a key element of this overall approach to ensure that the Council has a financially sustainable approach to enhancing the natural environment within which we live and work. This includes continuing to reduce the impact of the council's own activities on the environment whilst promoting activities within our business and residential communities that deliver pride of place, with reduced impact on this highly valued environment.

5.2 National Framework

5.2.1 Waste Minimisation Act 1998

A relevant authority may do, or arrange for the doing of, or contribute towards the expenses of the doing of, anything which in its opinion is necessary or expedient for the purpose of minimising the quantities of controlled waste, or controlled waste of any description, generated in its area

5.2.2 Waste Framework Directive

By 2020, the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50 % by weight

5.2.3 **Waste and Resources Strategy 2018**
This strategy sets out how we will preserve our stock of material resources by minimising waste, promoting resource efficiency, and moving towards a circular economy. At the same time, we will minimise the damage caused to our natural environment by reducing and managing waste safely and carefully, and by tackling waste crime. It combines actions we will take now with firm commitments for the coming years and gives a clear longer-term policy direction in line with the government's 25 Year Environment Plan. This is our blueprint for eliminating avoidable plastic waste over the lifetime of the 25 Year Plan, doubling resource productivity, and eliminating avoidable waste of all kinds by 2050.

5.2.4 **The Environmental Protection Act 1990** relates to how waste is managed and how emissions into the environment should be controlled.

6. REASONS FOR THE RECOMMENDED DECISIONS

6.1 The Council set a high target for reuse and recycling of materials at 60% in 2018 which we are working towards achieving. This reflects the importance of Waste Minimisation and its activities.

Minimising waste is a key component of the Council's commitment to Climate Change ensuring Huntingdonshire reuses and recycles as much as it possibly can.

Waste minimisation and low contamination also makes financial sense, minimising costs to re-processing for the Council.

This strategy continues to re-affirm our commitment to the environment, the impact of Huntingdonshire's waste on our climate and focus to strive further whilst accommodating the challenges of COVID19 and Housing Growth

7. LIST OF APPENDICES INCLUDED

Appendix 1 – Waste Minimisation Strategy at a glance
Appendix 2 – Waste Minimisation Action Plan
Appendix 3 – Annual Communications Plan
Appendix 4 - Waste analysis
Appendix 5 - Customer Satisfaction Survey
Appendix 6 – Waste Collection Modelling

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Waste Minimisation Strategy

Introduction

The Waste Minimisation Strategy is designed to respond to the main challenges faced by the Council Waste and Recycling Collection service, most notably there is a manifesto requirement to reach the 60% re-use and recycling rate. We want to provide a high-quality service for the increasing population of Huntingdonshire and to make the service more cost efficient.

Our Vision

Huntingdonshire District Council is committed to controlling the growth of waste collected at the kerbside by promoting waste minimisation through re-use, recycling and composting with the aim of meeting the following key objectives.

- Reduce the amount of waste that is collected from household through our kerbside collections
- Achieve a greater than 60% diversion of waste from landfill in line with the council's manifesto pledge.
- Improve the quality of the recycling material we collect by maintaining the contamination levels below 7%

Reduce Waste

Promote repair, reuse, and upcycling where possible.

– Policy changes
o Reducing grey bin capacity for new properties
o Ensuring all properties have correct facilities for their requirements such as HMO's
o Enforcing the rejection policy

Maximise recycling

o Increasing access to our recycling service for communal areas
o Increase the understanding and engagement in waste and recycling for the local community and key stakeholders.
o Continue to work with residents through our contamination reduction project
o Introduction of organic waste collections from communal areas.

Reduce our environmental impact

o To develop a long-term sustainable approach that limits the environmental impact of collection services we deliver. Reducing the 'carbon footprint' of collection services, wherever feasible and practicable.
o Maintaining a high performing service an example is to maintain a low number of missed bins.

Maximise the use of local waste sites

o Promote and increase the provision of Textile bankso Look at additional recycling facilities (WEEE)
o Support and promote bring sites for hard to recycle materials

Being innovative

o To improve both waste minimisation and service delivery at a local level and to encourage Neighbourhoods and communities to manage their waste more sustainably
o Active volunteer programme working with the DWP
o Local ambassadors promoting waste minimisation and recycling in their communities.
o Promote local zero waste groups
o Investigate community projects to minimise food waste (community fridges?)
o Partnership working- including Recycling for Cambridgeshire and Peterborough (RECAP), and national bodies including APSE, WRAP, Larac,
o Use of in-cab data to map / target specific areas of high contamination or participation
o Enforcement to take appropriate and swift action (possible FPN) when residents refuse to comply

Leading by example

o Reducing council waste and increasing recycling.
o Increasing material streams collected for recycling or reuse
o Getting our house in order – cross working with internal services

Communications

o Maximising the use of Social media
o Communications planning
o Linking to local and national campaigns, including Recycling Week

Adapting and aligning the waste and recycling service delivery with the Councils Climate Strategy and Environmental agenda, corporate plan and the Waste and Resources Strategy as they develop.

Huntingdonshire DISTRICT COUNCIL

Huntingdonshire recycles

Measuring our success

We will also be measuring our progress against the following:

♻ The percentage of household waste recycled/composted against that sent to landfill to ensure we are working towards meeting the manifesto pledge of 60% recycled ♻

♻ Measuring the cost of waste collection services and processing contract ♻

♻ Ensuring contamination is below 7% to minimises the financia risk ♻ to the organisation

♻ Improving the quality of materials from householders will potentially increase ♻ the income giving better route to market and a higher value

♻ APSE benchmarking against other local authorities ♻

♻ Collaborative working between litter minimisation and enforcement will ensure the ♻ same messages and policies are being followed throughout the district

♻ Community engagement to spread the message will be measured from social media ♻ insights and feedback from presentations

♻ Listening to the voice of residents through annual Customer satisfaction survey ♻

♻ Carbon modelling of service – working with the Energy Saving Trust ♻ and other consultants

Contamination rate at the Materials Recovery Facility averaged at 6.72% between October 2019 - September 2020

Rejection policy - 8,464 bins were rejected between October 2019 - September 2020 due to contamination an average of 707 per month

Social Media between October 2019 - September 2020

Facebook followers increased by 120% from 1,094 to 2,439

Instagram followers increased by 98% from 206 to 406

Twitter followers increased by 11% from 308 to 343

Rejection policy - 5,647 residents were contacted between October 2019 - September 2020 regarding contamination of their recycling bins 189 residents engaged and respondin

Rejection policy - Between October 2019 - September 2020 1,026 properties reached staged 2 304 properties reached staged 3 114 properties reached staged 4

722 properties did not contaminate their recycling bin following correspondence.

Rejection policy - 39 bins were removed between October 2019 - September 2020

4 bins were reinstated following full engagement from residents and phased reintroduction.

Appendix 2 - Waste Minimisation Action Plan

Objective	Theme	Project	How	Measure	Review	RAG
Reduce the amount of waste that is collected from household through our kerbside collections.	Reduce Waste	Promote repair, reuse, and upcycling where possible	Working with local groups and individuals Raising awareness Working with HOPE and the Man Cave in Sawtry who upcycle furniture from the bulky waste collections	Feedback from groups Tonnages	Annual	
		Policy Changes > Reducing grey bin capacity for new properties > Ensuring all properties have correct facilities for their requirements > Enforcing the rejection policy	Updating our collection policies to ensure they work with our current service	Review and monitor	Annual	
Improve the quality of the recycling material we collect by maintaining the contamination levels below 7%	Maximise Recycling	Increasing access to our recycling service for communal areas	Working with management companies Increased engagement with residents Better communications	Waste Tonnages Rejections Management company engagements	Quarterly	
		Increase the understanding and engagement in waste and recycling for the local community and key stakeholders.	Working with already established community groups and Parish Councils	Number of groups engaged	To start in 2021/22	
		Continue to work with residents through our contamination reduction project	Communication Targeted engagement	Monthly contract reports Monitoring of the rejection policy	Monthly	
		Introduction of organic waste collections from communal areas.	Working with management companies	Monitoring of trial areas	To start in 2021/22	

Objective	Theme	Project	How	Measure	Review	RAG
Achieve a greater than 60% diversion of waste from landfill in line with the council's manifest pledge	Maximise the use of local waste sites	Promote and increase the provision of Textile banks	Communication Working with our current provider to seek further locations for banks	Waste Tonnages	Monthly	
		Look at additional recycling facilities (WEEE)	Undertake a feasibility study	Outcome of the study	To start in 2021/22	
		Support and promote bring sites for hard to recycle material	Working with Terracycle to offer more sites and linking with Enval – based at Alconbury weald who recycling complex packaging	Number of drop off Points Tonnages	To start in 2021/22	
	Leading by Example	Reducing council waste and increasing recycling	Ensuring all buildings have access to recycle Clear signage and communications	Waste tonnages Waste Audits	To start in 2021/22	
		Increasing material streams collected for recycling or reuse	Undertake a feasibility study	Outcome of the study		
		Getting our house in order – cross working with internal services	Offering advice to other department who want to look at options for reducing their waste	Waste Tonnages		

Objective	Theme	Project	How	Measure	Review	RAG
Supports all objectives	**Being Innovative**	Active volunteer programme working with the DWP	Recruit volunteers to assist with projects. Provides skills and assists with confidence building to support them getting back into the workplace	Number of volunteers recruited	To start in 2021/22	
		Local ambassadors promoting waste minimisation and recycling in their communities	Recruit ambassadors, provide training and resources for individuals to spread messages and encourage community to reduce their waste and recycle correctly	Number of ambassadors Communications	To start in 2021/22	
		Promote local zero waste groups	Link with local groups who are providing zero waste options – promote via social media and support any new initiatives	Feedback from zero waste groups	Quarterly	
		Investigate community projects to minimise food waste	Linking communities and key groups to reduce food waste Run campaigns and provide resources	Waste analysis Tonnages	To start in 2021/22	
		Partnership working- including Recycling for Cambridgeshire and Peterborough (RECAP), and national bodies including APSE, WRAP, LARAC,	Sharing ideas and learning from others	Number of partnership projects	Monthly	
		Use of in-cab data to map and target specific areas of high contamination or participation	In-cab allows us to map where contamination is occurring allowing for targeted communications	Reports from Alloy	Monthly	
		Enforcement to take appropriate and swift action (possible FPN) when residents refuse to comply	We currently remove recycling bins where contamination continues. Being able to use enforcement with residents will hopefully encourage residents to compile	Rejection policy FPN's issued	To Start 2022/2023	
	Communications	Communications planning	Ensure a clear and concise annual plan is in place (Appendix 3)	Planned communications that have been actioned	Annual	

			Using the data from the waste analysis to provide direction			
		Linking to local and national campaigns – including Recycling Week	Working with the Recycling for Cambridgeshire and Peterborough waste partnership Attending webinars to keep up to date with upcoming campaigns and awareness of resources available	Social Media Insights	Annual	
		Maximising the use of social media	Encouraging parish council and other groups to share our messages Targeting promotions	Social Media Insights	Monthly	
	Reduce our environmental footprint	To develop a long-term sustainable approach that limits the environmental impact of the collection services we deliver. Reducing the 'carbon footprint' of our collection services, wherever feasible and practicable. Currently looking a range of alternative fuels including hydrotreated vegetable oil (HVO), electric and hydrogen powered vehicles	Undertake a feasibility study Working with the Carbon Trust	Outcome of the study	To start in 2021/22	
		Maintaining a high performing service an example is to maintain a low number of missed bins	Working with collection crews	Number of missed bins per 1000 collections by service and by round	Monthly	
		To align waste and recycling service delivery with the Councils Climate Strategy and Environmental agenda and corporate plan	TBC	TBC	TBC	

Appendix 3 - Annual Communications Plan

Communication	Theme	Key Message	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Waste Minimisation Campaigns	Contamination	General Messages												
		Material Focus - Textiles												
		Material Focus - Batteries												
		Material Focus - Black sacks												
	Recycling	General Advice												
		Christmas												
		Recycle Week												
		Material Focused												
	Organic Waste	Home composting												
		Organic collections												
	Food Waste	Avoidable												
		Unavoidable												
	HRC/Bulky collections													
	Waste Minimisation	Waste Hierarchy												
		Repair												
		Reduce				Plastic free July		Zero Waste Week						
		Reuse												
	Internal Waste													
	Green News Page													
Operational Comms	Operational Comms	Bank Holidays												
		Christmas Arrangements												
		Vehicle Naming Competition												

4.3 Huntingdonshire waste analysis results

4.3.1 Huntingdonshire sample

Over the course of the project the residual waste from 150 kerbside households was analysed in Huntingdonshire.

The number of households of kerbside waste included for each OAC group in Huntingdonshire is shown in Table 29 below.

Table 29 Huntingdonshire sample

OAC Demographic Group	Name of Demographic Group	Total kerbside households included	Sample profile
1	Rural Residents	33	22.0%
2	Cosmopolitans	0	0.0%
3	Ethnicity Central	0	0.0%
4	Multicultural Metropolitans	0	0.0%
5	Urbanites	50	33.3%
6	Suburbanites	42	28.0%
7	Constricted City Dwellers	0	0.0%
8	Hard-Pressed Living	25	16.7%
Total		150	100%

4.3.2 Average composition and arising of kerbside residual waste

The average composition and arising of kerbside residual waste in Huntingdonshire is shown in Table 30 and Figure 19 below.

The results from each demographic group have been weighted to produce an average which is representative of Huntingdonshire as a whole. Please refer to paragraph 2.3.1 for weighting formula.

Table 30 Composition and arisings of kerbside residual waste in Huntingdonshire

Primary Category	Composition (%)	Arising (kg/household/week)
Paper	9.4%	0.41
Card	3.0%	0.13
Plastic film	8.5%	0.37
Dense plastics	6.7%	0.29
Textiles	4.9%	0.22
Sanitary inc nappies	5.2%	0.23
Combustibles	6.4%	0.28
Non combustibles	6.0%	0.26
Glass	2.7%	0.12
Ferrous	2.1%	0.09
Non-ferrous	1.4%	0.06
Food	34.9%	1.52
Garden and other organic	5.2%	0.23
WEEE	1.0%	0.04
HHW	0.7%	0.03
Fines	2.0%	0.09
Total	**100.0%**	**4.35**

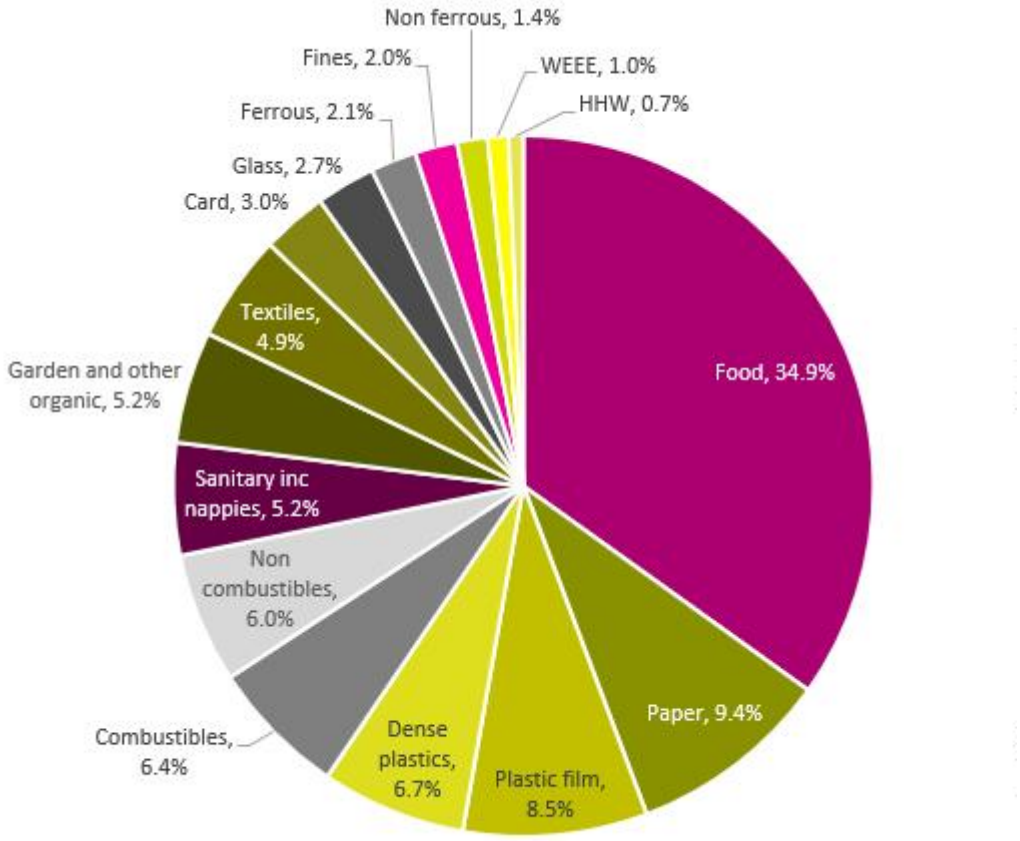


Figure 19 Composition of kerbside residual waste in Huntingdonshire (%)

Food waste made up the highest proportion of the residual waste in Huntingdonshire, making up 34.9% of the residual waste analysed; this composed of 22.0% avoidable food waste, 9.1% unavoidable food waste and 2.7% possible avoidable food waste. Paper made up 9.4% of the overall composition followed by plastic film (8.5%), dense plastics (6.7%), combustibles (6.4%) and non-combustibles (6.0%) and sanitary waste (5.2%).

Overall, 17.8% of the residual waste analysed was recyclable at the kerbside under current arrangements[8] and 52.7% including food, could have been recycled at the kerbside.

The most common kerbside recyclable material found in the residual waste was food, as mentioned above. Plastic pots, tubs and trays, accounted for 3.2% of the residual waste, followed by recyclable paper (2.4%), recyclable card (2.2%) and recyclable glass (2.0%).

65.9% of the residual waste analysed was 'widely recyclable'; at the kerbside and at local HRCs or bring banks.

[8] Calculated as a sum of recyclable sub-categories, see category list in Appendix B for detail of sub-categories

4.3.3 Average composition and arising of kerbside organic waste

The average composition and arising of kerbside organic waste in Huntingdonshire is shown in Table 31 and Figure 20 below.

The results from each demographic group have been weighted to produce an average which is representative of Huntingdonshire as a whole, please refer to paragraph 2.3.1 for weighting formula.

Table 31 Composition and arisings of kerbside organic waste in Huntingdonshire

Primary Category	Composition (%)	Arising (kg/household/week)
Paper	1.4%	0.14
Card	0.0%	0.00
Plastic film	0.0%	0.00
Dense plastics	0.0%	0.00
Textiles	0.0%	0.00
Sanitary incl. nappies	0.0%	0.00
Combustibles	1.1%	0.10
Non combustibles	0.6%	0.05
Glass	0.0%	0.00
Ferrous	0.0%	0.00
Non-ferrous	0.0%	0.00
Food	6.4%	0.63
Garden and other organic	89.3%	8.71
WEEE	0.0%	0.00
HHW	0.0%	0.00
Fines	1.2%	0.12
Total	**100.0%**	**9.76**

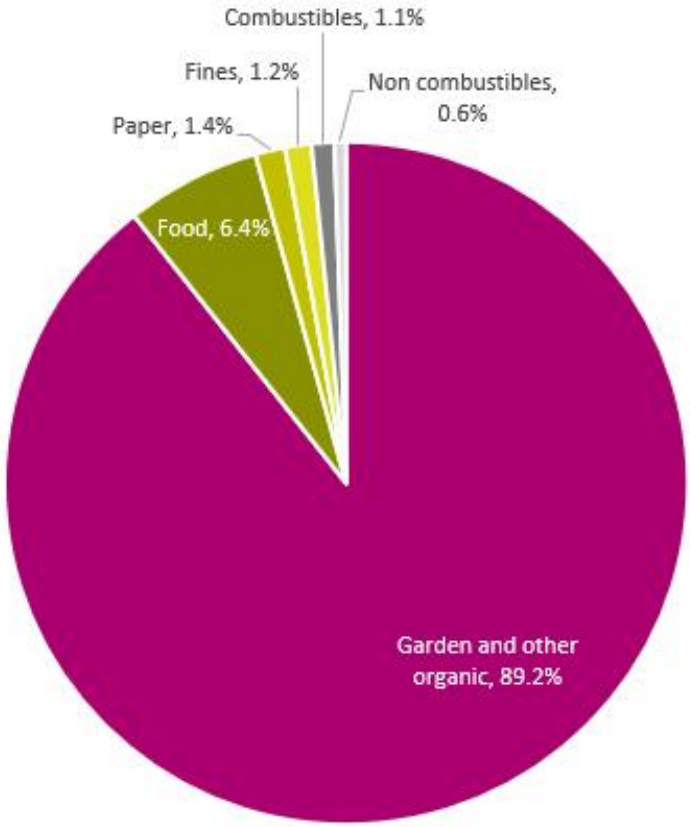


Figure 20 Composition of kerbside organic waste in Huntingdonshire (%)

Garden and other organic was the most prominent category at 89.2% of the total composition, including predominantly grass cuttings and leafy garden waste at 81.7%, 5.4% of soil and 1.1% of woody garden waste. Food made up 6.4%. This included 4.0% of unavoidable food, 1.7% of avoidable food and 0.7% of possible avoidable food. Paper contributed a further 1.4% of the composition, followed by fines (1.2%) and combustibles (1.1%).

Overall, 97.6% of the organic waste analysed, including food, was targeted in the kerbside collections under current arrangements. Contamination was 2.4%. The most common contaminant was other wood such as wood packaging or fencing at 1.0%, followed by rubble, ceramics, plaster and bricks at 0.5%.

4.3.4 Average arising of kerbside dry mixed recycling at the MRF and capture rates

The data in this section is based on information provided by the RECAP Partnership and is calculated from the period July 2018 to June 2019. Further details on the methodology are included in section 2.3.3 above.

The yearly arising of comingled mixed dry recycling at the MRF, yearly arising of recyclate within the residual waste stream[9] and the capture rates in Huntingdonshire are shown in Table 32 and Figure 21 below. The indicative capture rates are based on the data collected during the analysis of residual waste combined with the data provided by the RECAP Partnership.

Table 32 Yearly recycling arisings (tonnes), yearly arisings within residual (tonnes) and the capture rate (%) in Huntingdonshire

Primary Category	Yearly recycling arisings at MRF (tonnes)	Yearly arisings within residual (tonnes)	Capture rate (%)
Mixed Glass	4,650	522	90%
Cans	921	589	61%
Paper	6,487	644	91%
Cardboard	1,619	590	73%
Plastics	2,293	1,241	65%
Tetrapak	77	29	73%
Total	**16,047**	**3,614**	**82%**

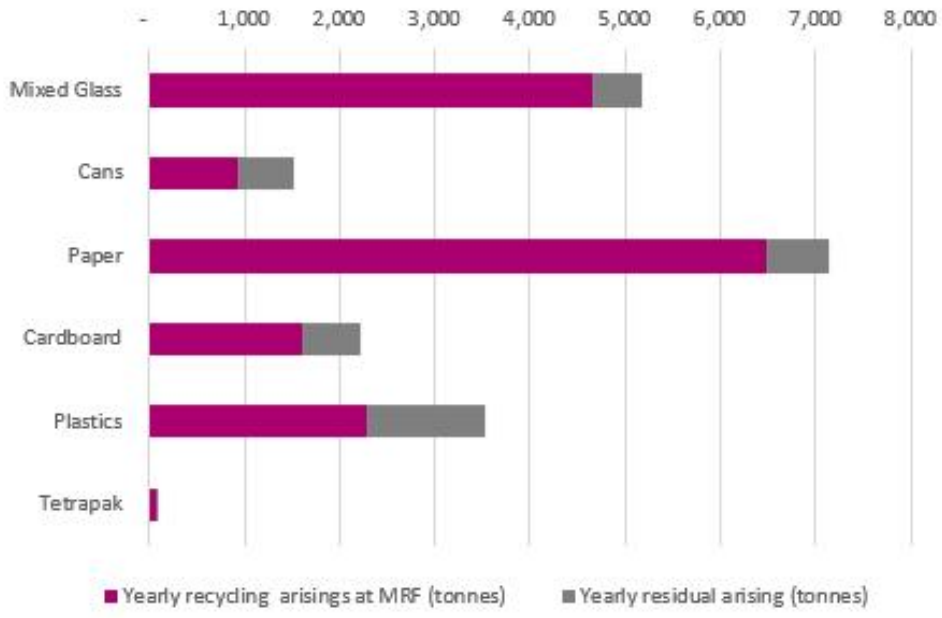


Figure 21 Yearly recycling arisings (tonnes) and yearly arisings within residual (tonnes) in Huntingdonshire

[9] According to waste composition analysis

The overall capture rate for the recycling service was 84% in Huntingdonshire.

The best captured materials were glass bottles and jars (90%) and paper (91%).

Overall 19,661 tonnes of kerbside recyclable material arose in the area over a year, of which 16,047 was captured for recycling.

4.3.5 Average composition of household residual waste at St Neots HRC in Huntingdonshire

The average composition of household residual waste at St Neots HRC is shown in Table 33 and Figure 22 below. An average of two sampled skips was taken to calculate this composition.

Table 33 Composition of household residual waste at St Neots HRC in Huntingdonshire (%)

Category	Huntingdonshire
	St Neots HRC
Paper	6.3%
Card	3.4%
Plastic film	3.2%
Dense plastics	6.3%
Textiles	6.9%
Sanitary	0.6%
Combustibles	55.1%
Non combustibles	0.7%
Glass	1.8%
Ferrous	0.6%
Non-ferrous	0.8%
Food	11.4%
Garden and other organic	1.0%
WEEE	0.8%
HHW	0.3%
Fines	0.6%
Total	**100.0%**

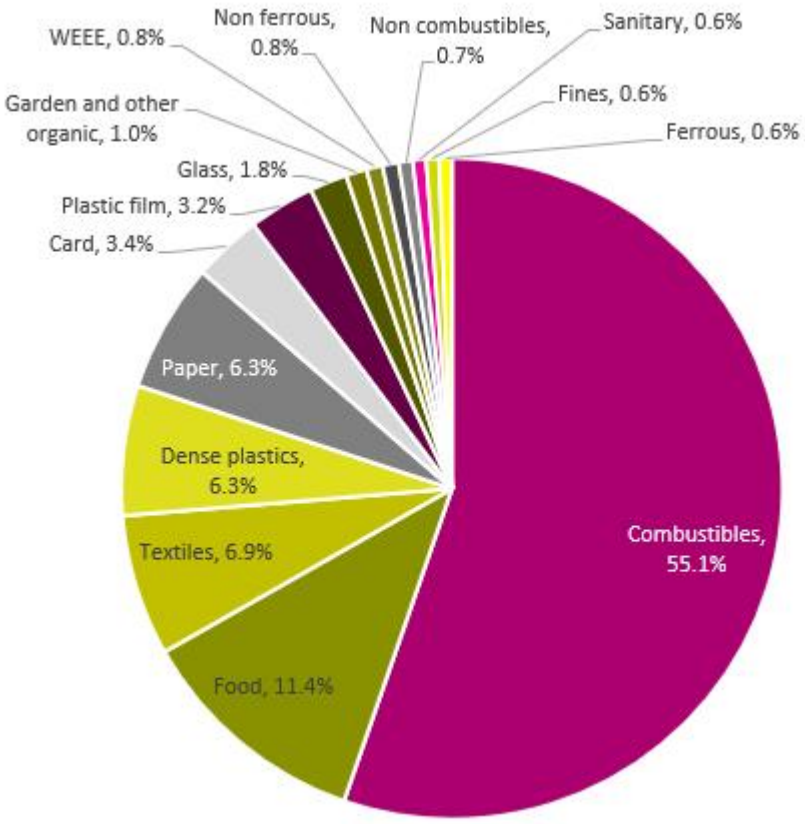


Figure 22 Composition of household residual waste at St Neots HRC in Huntingdonshire (%)

The waste included within the HRC sample was bulky, bagged and loose household residual HRC waste.

Combustibles were the most commonly found category within the HRC residual waste (55.1%), which included 23.8% of carpet and underlay, 14.8% of soft furniture, 8.6% of mattresses, 6.2% of other combustibles and 1.1% of other wood.

Organic was the second most common category of the total composition (12.5%), including 11.4% of food and 0.5% of other organic waste. Textiles were the next most common category at 6.9%, followed by dense plastics (6.3%), paper (6.3%), card (3.4%) and plastic film (3.2%).

Overall, 12.0% of the residual waste analysed was recyclable at the kerbside under current arrangements, and 60.1% would have been recyclable at the HRC if placed in the right container. Soft furniture (14.8%), mattresses (7.2%), reusable textiles and non-reusable textiles, including shoes and accessories (4.7%) and recyclable paper (4.7%) were the most prominent materials that could have been recycled at the HRC

4.3.6 Yearly tonnage of household residual and indicative recycling capture at St Neots HRC

The RECAP partnership provided yearly tonnage figures for St Neots HRC. The findings from the composition analysis of two skips was applied to annual tonnage data to provide an extrapolation of potential capture rates within recycling compared to the residual skips, as such this should be treated indicative. The capture rates do not take bulky waste skips into consideration.

Table 34 below shows the yearly tonnage of recycling skips, yearly tonnage of residual skips and the capture rates in St Neots HRC.

Table 34 Yearly tonnage of recycling skips, yearly tonnage of residual skips and capture rates (%) at St Neots HRC

Category	Yearly tonnage recycling skips	Yearly tonnage residual skips	Capture rates
Cardboard	335.0	9.2	97%
Ferrous Metals	717.5	2.3	100%
Glass	101.6	4.8	95%
Organic	1,269.8	0.9	100%
Hardcore	1,801.4	1.9	100%
Non-Ferrous Metals	32.3	2.8	92%
Paper	66.0	11.1	86%
Plastics	1.7	10.6	14%
Rigid Plastics	170.1	12.2	93%
Textiles	93.7	12.0	89%
Wood	1,995.9	4.4	100%
Car Batteries	10.8	0.1	99%
Cooking Oil	3.0	-	0%
Monitors (incl. CRTRE)	42.6	-	100%
Household Batteries	3.4	-	100%
Large Electrical	94.5	-	100%
Mattresses	-	31.0	0%
Plasterboard	128.2	-	100%
Small Electrical (incl. WEEE)	230.1	2.9	99%

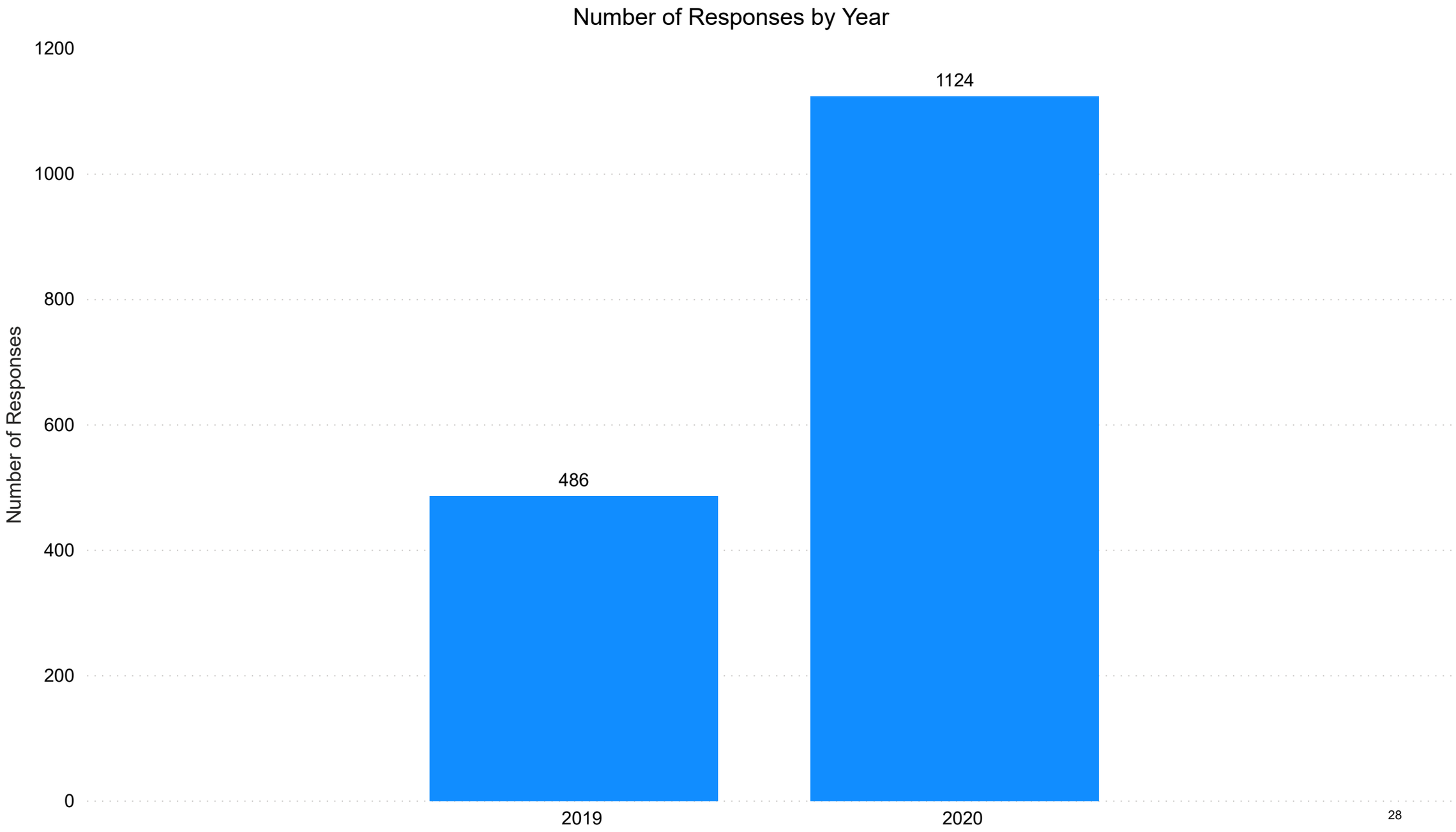
Waste Collection Satisfaction Survey

29 April 2020 – 30 June 2020

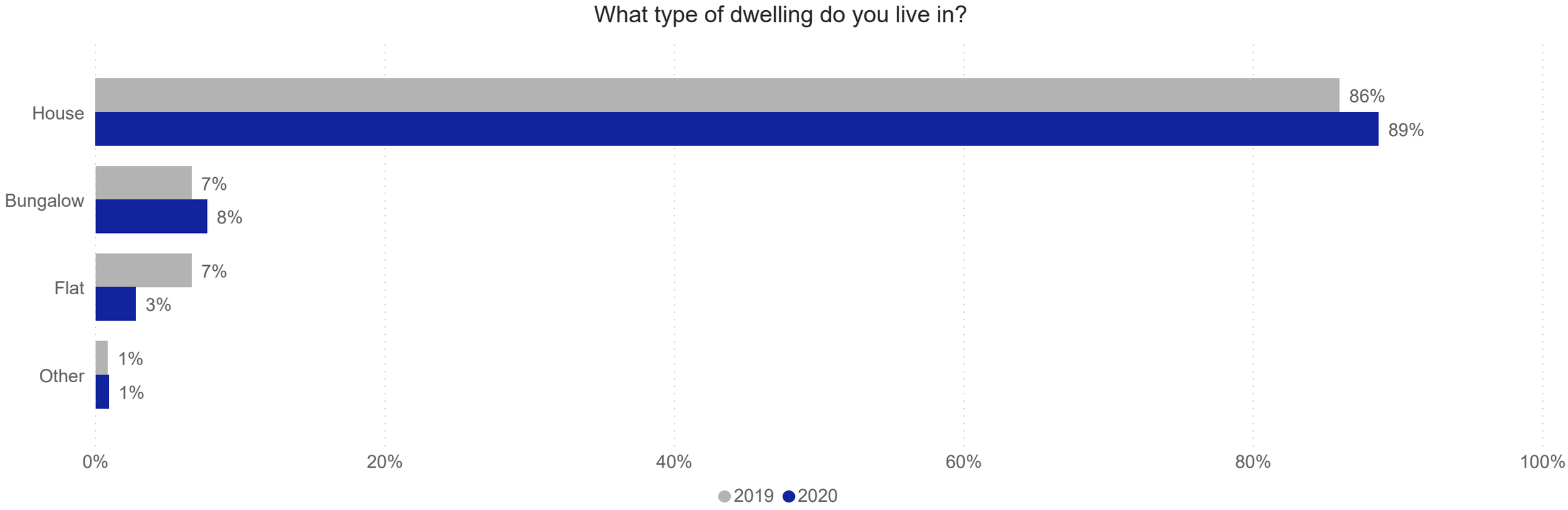
Methodology

- The survey opened for staff to complete via the HDC intranet on 29th April 2020, after this the external campaign was launched to residents in Huntingdonshire and the survey closed to all respondents on 30 June 2020.
- The survey was promoted via HDC intranet, the HDC website (advert on homepage) and social media posts.
- Questions were based on a survey ran by the Greater Cambridge Shared Waste Service (GCSWS) in 2018/19, with a few questions not relevant to HDC removed and some additional questions added to provide information which HDC was interested in finding out.
- The survey (featuring the same questions) was previously run by HDC during May and June 2019.
- Results in this report have been compared (where appropriate) to those collected by HDC in 2019, but no comparison has been made to the results from the GCSWS.

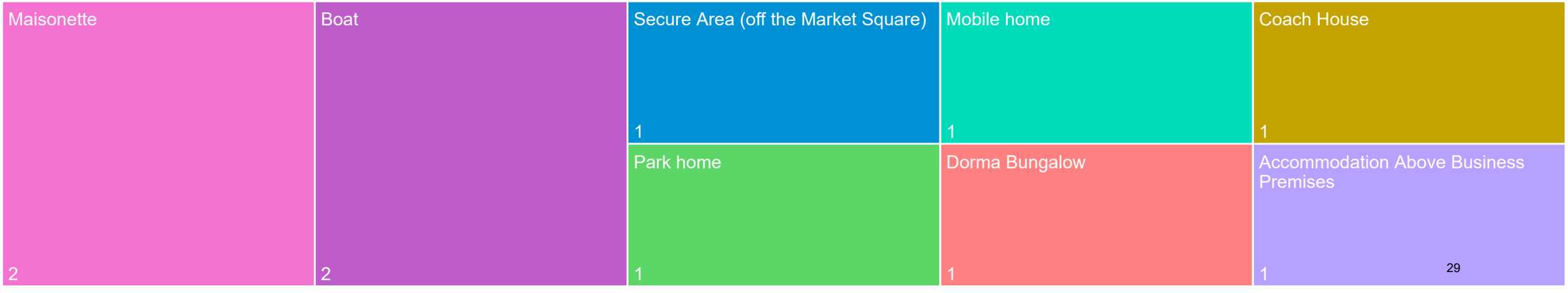
- Figures are rounded, so differences in graphs to figures quoted in summaries may vary slightly and may not sum to 100%.
- 1,124 responses were collected in 2020 during the survey period, compared to 486 in 2019, an increase of 131%.


Number of Responses by Year
1200
1000
800
600
400
200
0
Number of Responses
486
1124
2019
2020
28

About the type of dwelling respondents live in



Other types of dwellings specified and the number for each in 2020



Summary: About the grey bin or general rubbish collection

- 94% of respondents had at least one grey bin
- 95% were satisfied or very satisfied with their general rubbish collection service, which is an improvement from 88% of respondents when asked in 2019.
- Satisfaction rates varied depending on which waste collection method the respondents had. While 95% of respondents with a grey bin collection service were satisfied/very satisfied, only 59% of respondents with a shared communal waste collection were satisfied/very satisfied (although this has improved from 53% in 2019). All respondents with a blue sack collection were satisfied/very satisfied (up from only 50% in 2019) *
- There was a noticeable drop in the number of respondents who were very satisfied with the shared communal bin service compared to 2019. 17.6% in 2020 versus 31.6% in 2019. However overall (when combining total responses) more were satisfied/very satisfied with the service and fewer were dissatisfied/very dissatisfied compared to the previous year.
- The percentage of respondents who said they were very satisfied with the blue sack service more than doubled in 2020 (83% compared to 40% in 2019), more were satisfied and no respondents stated they were either very dissatisfied or dissatisfied with the service in 2020.
- 68% said their bin(s) were at least three-quarters full on collection day compared to 65% in 2019.
- 33% said they could manage if their general rubbish bin was smaller compared to 36% in 2019.

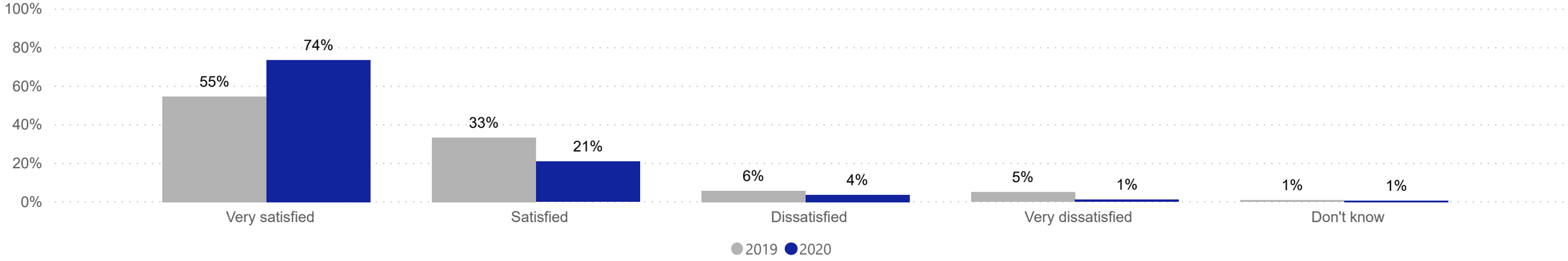
*It should be noted that numbers of respondents with shared communal waste or blue sack collections were low - 20 respondents in both years had a shared communal collection, with 7 receiving a blue sack collection in 2020 compared to 10 in 2019.

Household Waste : About the grey bin or general rubbish collection overall

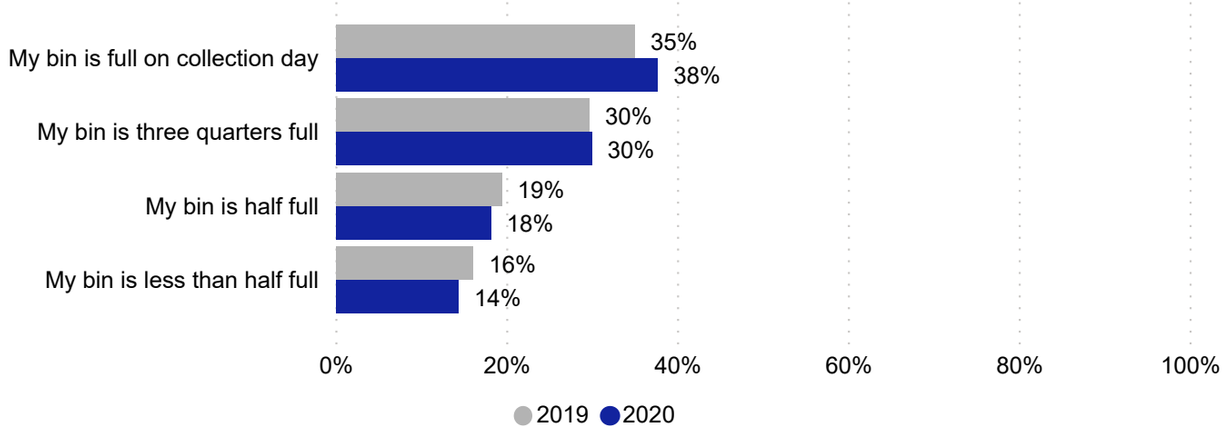
Please select which applies to your household (grey bin or general rubbish collection)

Answer	2019	2020
I have a grey bin	89%	94%
I have more than one grey bin	4%	4%
I use a communal shared bin	4%	2%
I use blue sacks	2%	1%

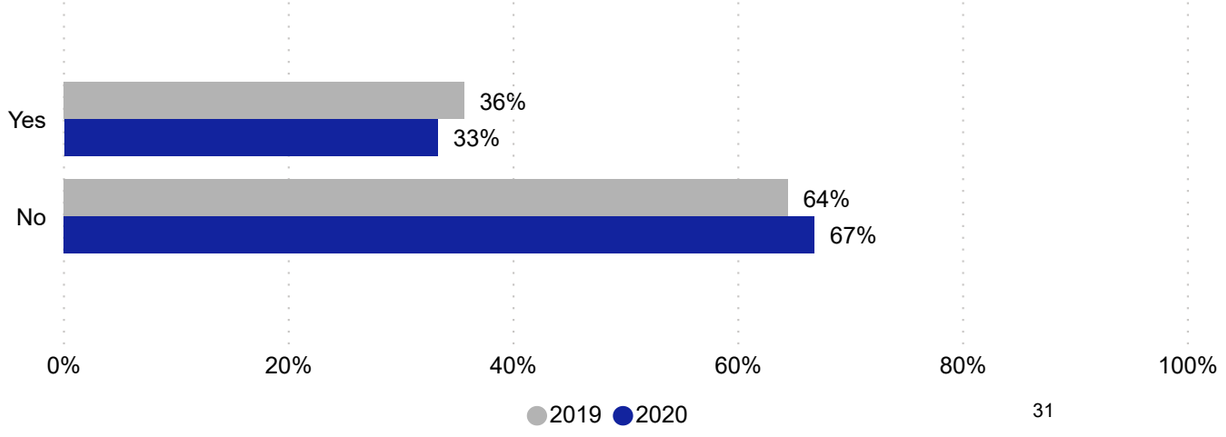
How satisfied are you with the grey bin or general rubbish collection ? (All Respondents)



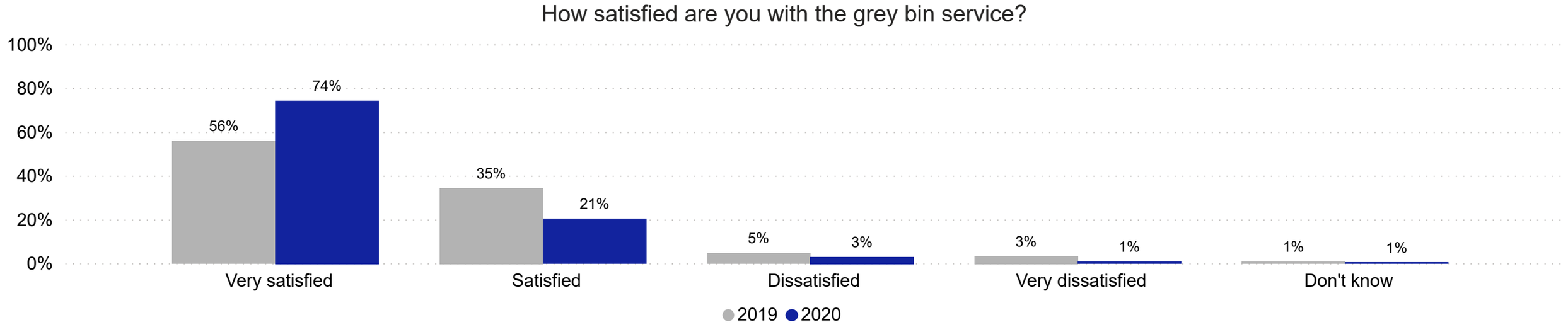
Which if the following statements do you agree with? (All Respondents)

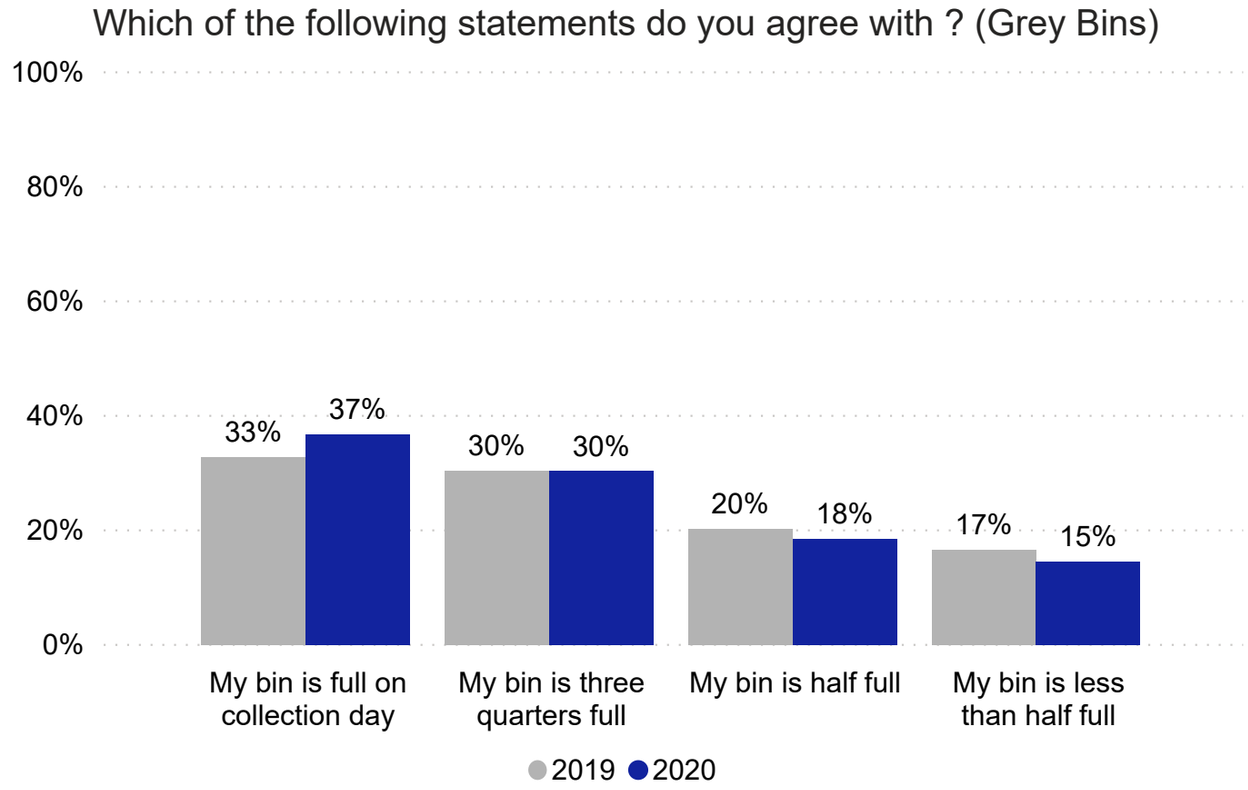


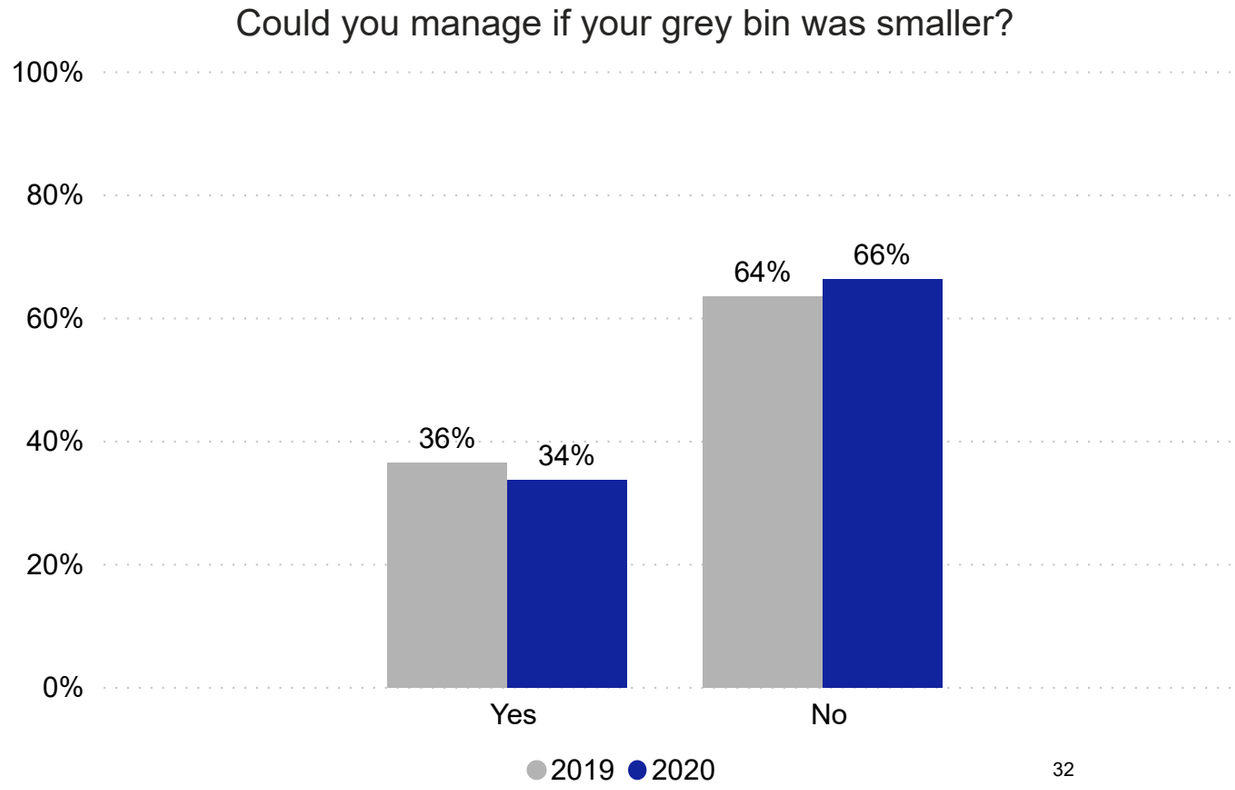
Could you manage if your bin was smaller? (All Respondents)



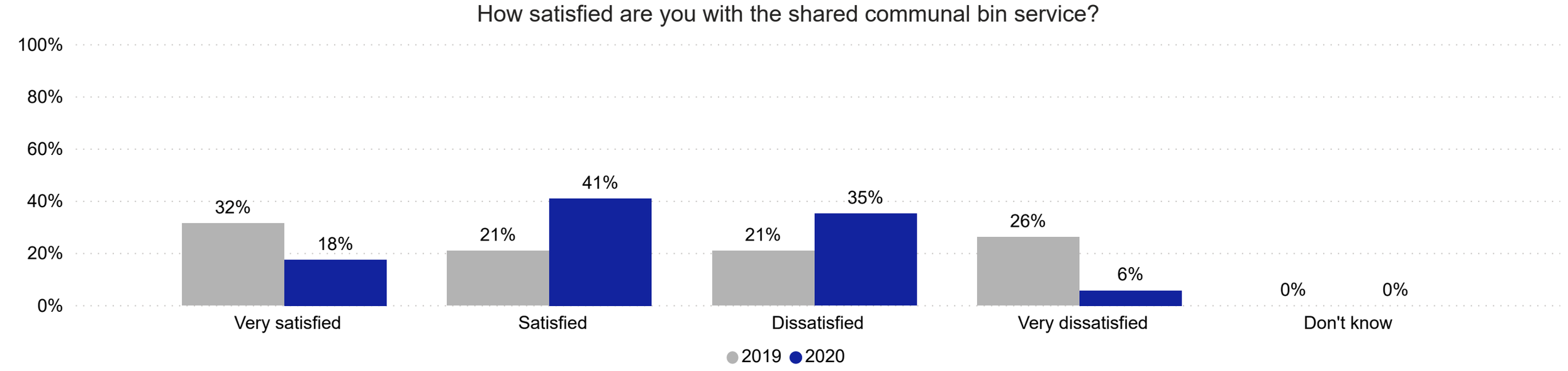
Household Waste : About the grey bin collection service

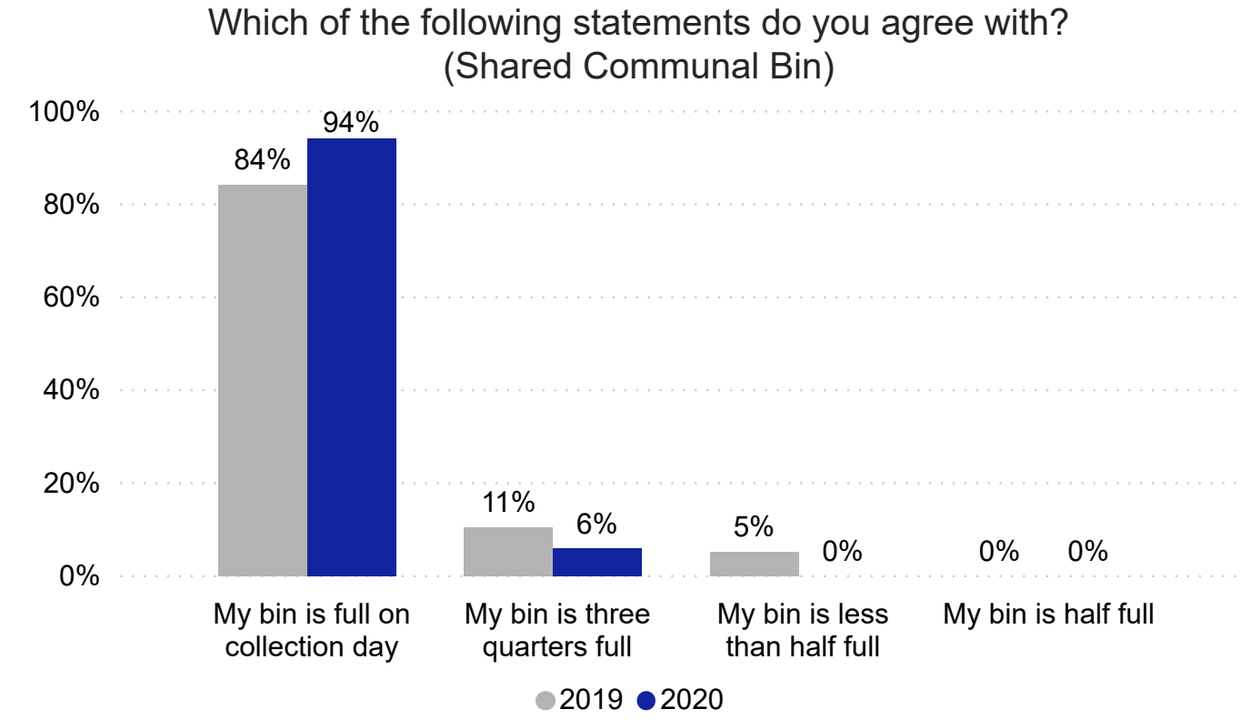


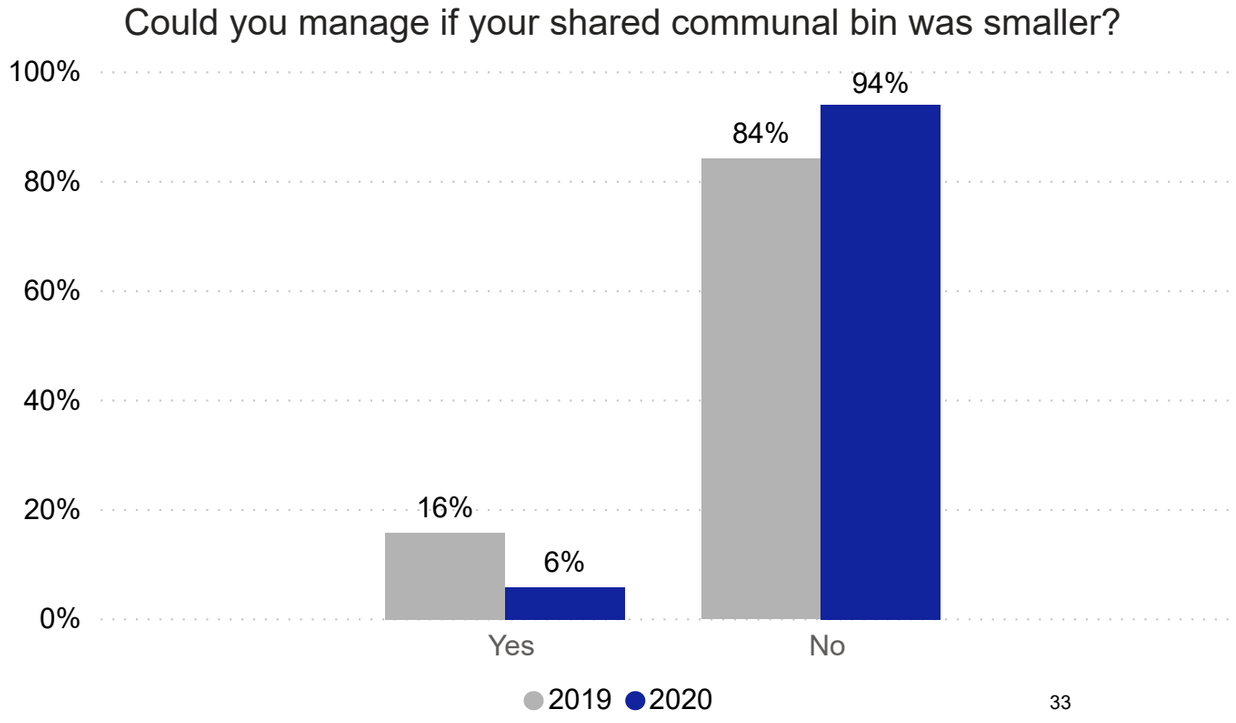




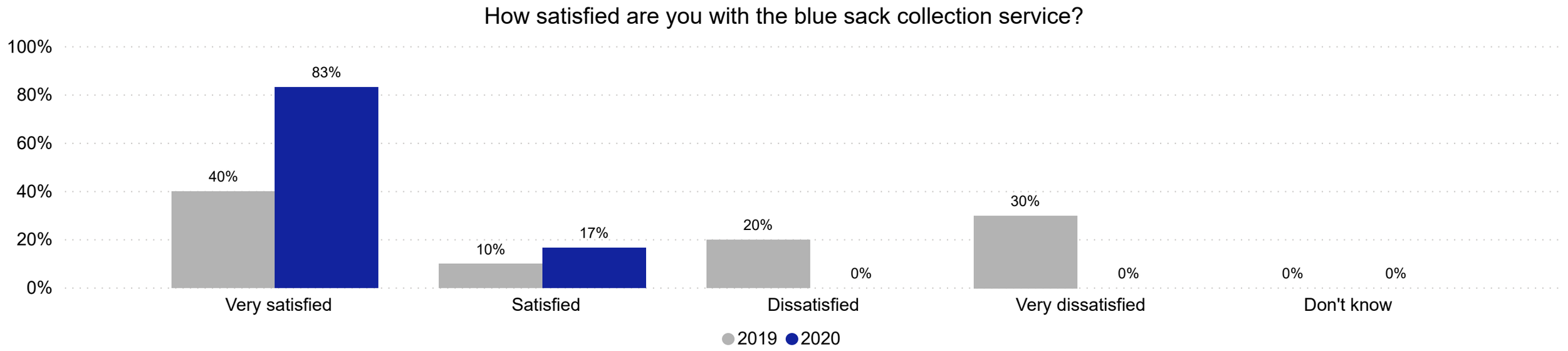
Household Waste : About the shared communal waste collection







Household Waste : About the blue sack collection



Summary: About the green bin (garden and food waste) service

- 86% of respondents had one green bin, 10% has more than one green bin and 4% do not receive a garden waste collection service.
- 95% were satisfied or very satisfied with their green bin collection service overall, a larger proportion of those paying to have more than one green bin were satisfied/very satisfied (99%)
- 81% said their bin(s) were at least three-quarters full on collection day, although this increased to 97% for those paying to have more than one bin.
- 60% said they used no wrappings when putting food waste into their green bin.

  31% used newspaper to wrap food waste.

  7% used paper liners for this purpose.

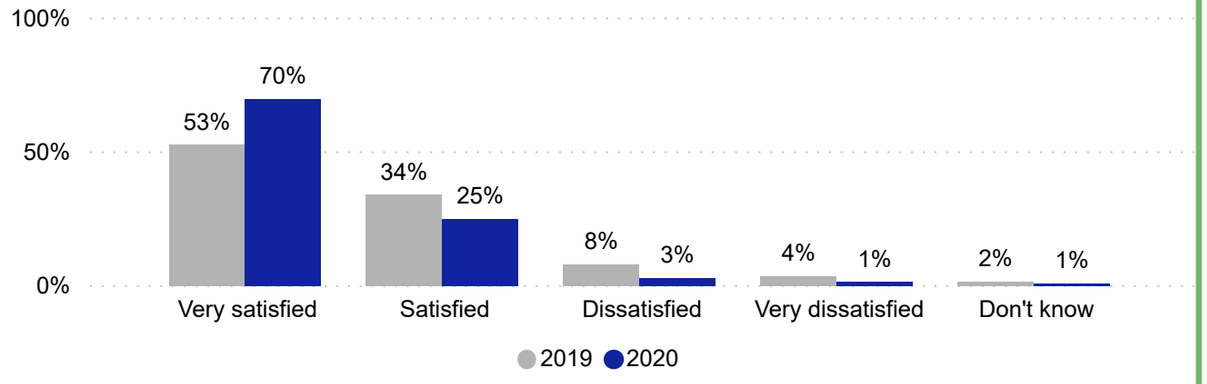
  8% said they wrapped food in cornstarch liners or plastic bags that are not allowed by HDC.
- The most common ‘other’ way respondents stated they wrap their food waste was by using other types of bag, for example a brown paper bag, a recycling bag, a paper bag or a biodegradable bag.
- 40% of respondents that said they used something other than the options listed, stated they do not put food waste into their green bin.

Garden and Food Waste : About the green bin collection

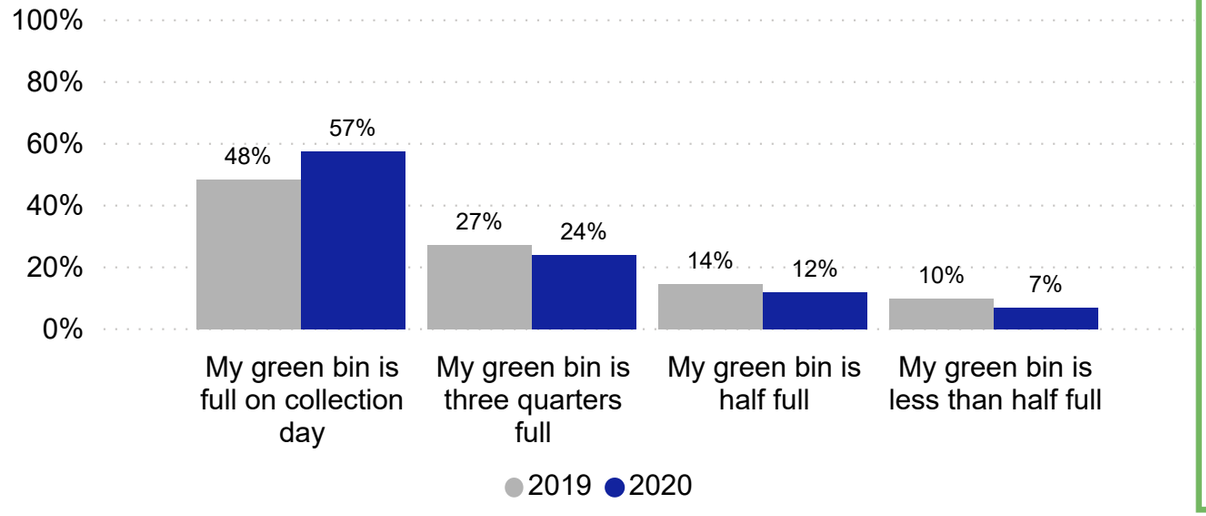
Please select which applies to your household (green bin)

Answer	2019	2020
I have one green bin	84%	86%
I have more than one green bin	8%	10%
I don't have a garden waste collection service	8%	4%

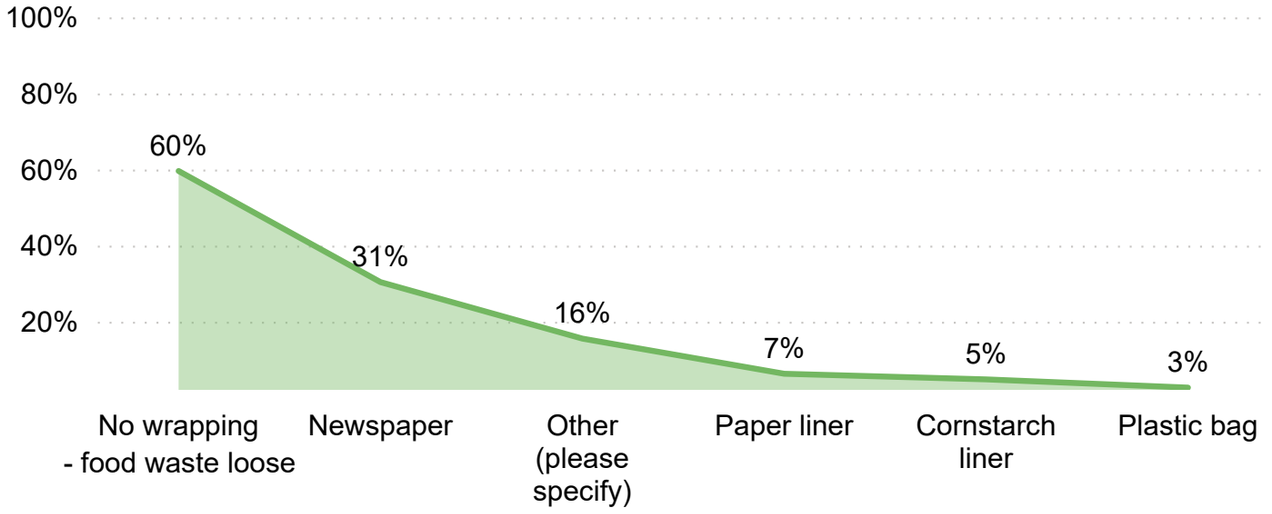
How satisfied are you with the green bin service?



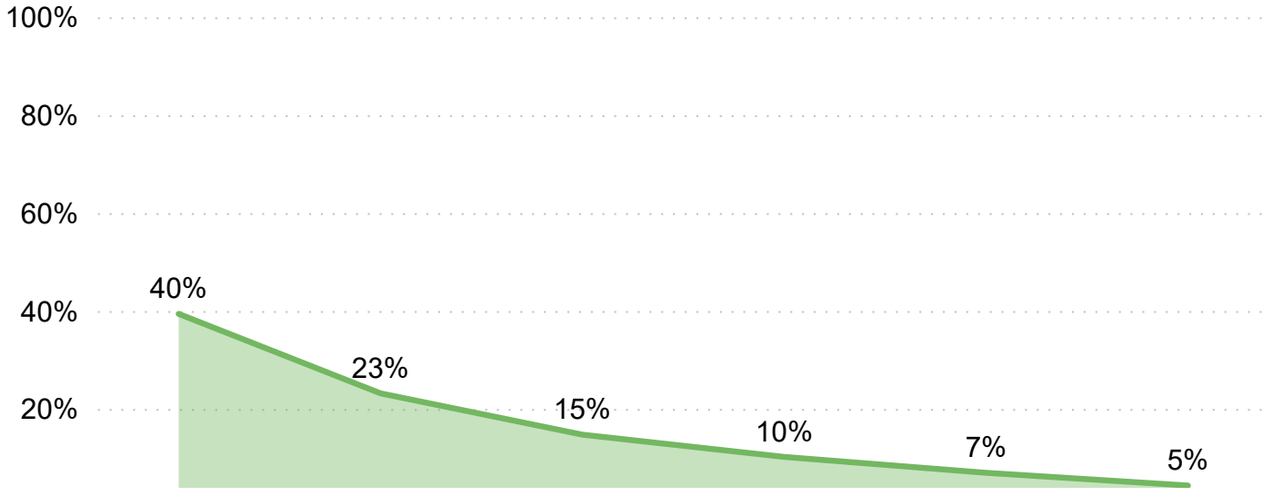
Which of the following statements do you agree with?



How do you wrap up food waste before putting it into the green bin? (tick all that apply)



If you selected other, please specify how you wrap your food waste



Summary: About the recycling service

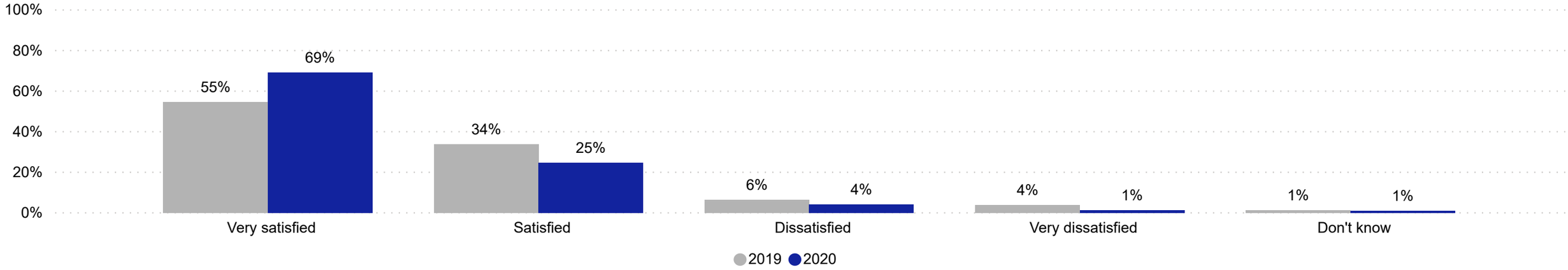
- 97% of respondents have at least one blue bin, with 2% having a shared communal recycling bin and 1% using clear sacks. Less than 1% of respondents have no recycling service.
- 94% said they were satisfied/very satisfied which is an improvement from 89% of respondents when asked in 2019. Only 53% of those using shared communal bins were satisfied/very satisfied, however this has improved by 3 percentage points compared to last year. However, 47% of respondents with a shared communal bin are dissatisfied, an increase from 25% in 2019. There was a noticeable improvement in results to this question from those with a clear sack collection, 82% said they were satisfied/very satisfied this year compared to 50% in 2019.
- 98% said their recycling bins were at least three-quarters full on collection day (up from 96% in 2019), with 100% of shared communal recycling bin users saying they were full.
- 86% of all respondents, regardless of which recycling service they have, were happy with the range of items that can be recycled through the kerbside recycling service.
- The most common other items that respondents would like to recycle in their blue bins are food packaging (for example crisp packets, food trays - including black plastics, pet food pouches), general plastics (e.g. hard plastics), other forms of packaging including polystyrene, bubble wrap etc and textiles

Recycling : About the recycling service overall

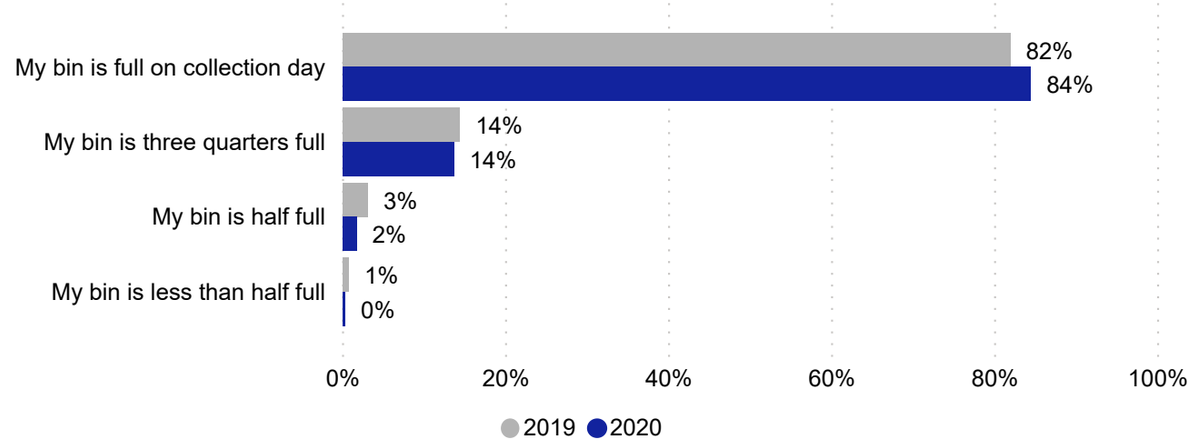
Please select which applies to your household (Recycling Service)

Answer	2019	2020
I have a blue bin bin	80%	82%
I have more than one blue bin	14%	15%
I use a communal shared recycling bin	3%	2%
I use a clear sack instead of a bin	2%	1%
I don't have a recycling collection service	1%	0%

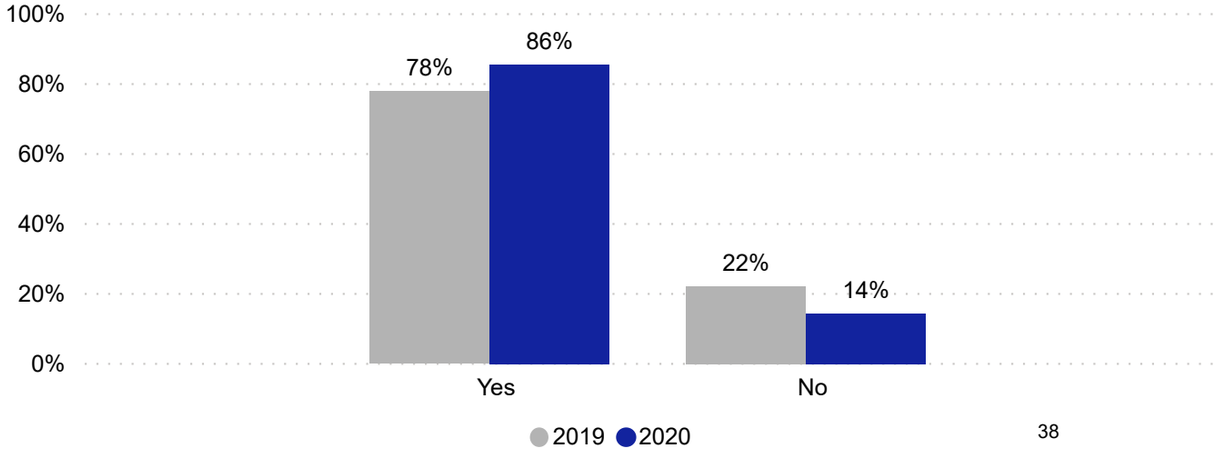
How satisfied are you with the recycling service? (All Respondents)



Which of the following statements do you agree with? (All Respondents)

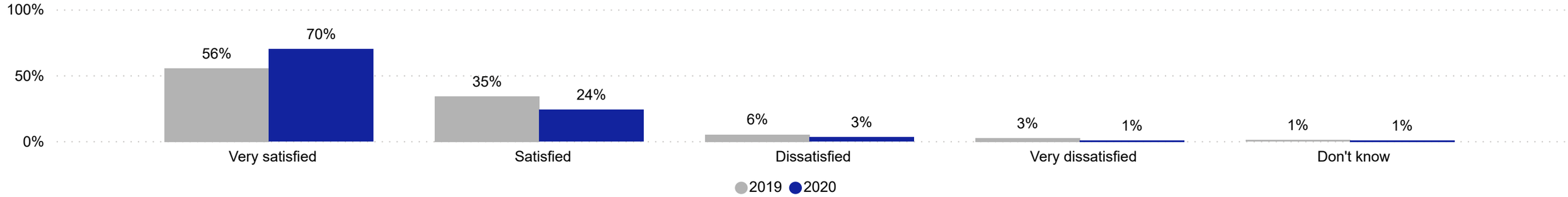


Are you happy with the range of items you can recycle? (All Respondents)



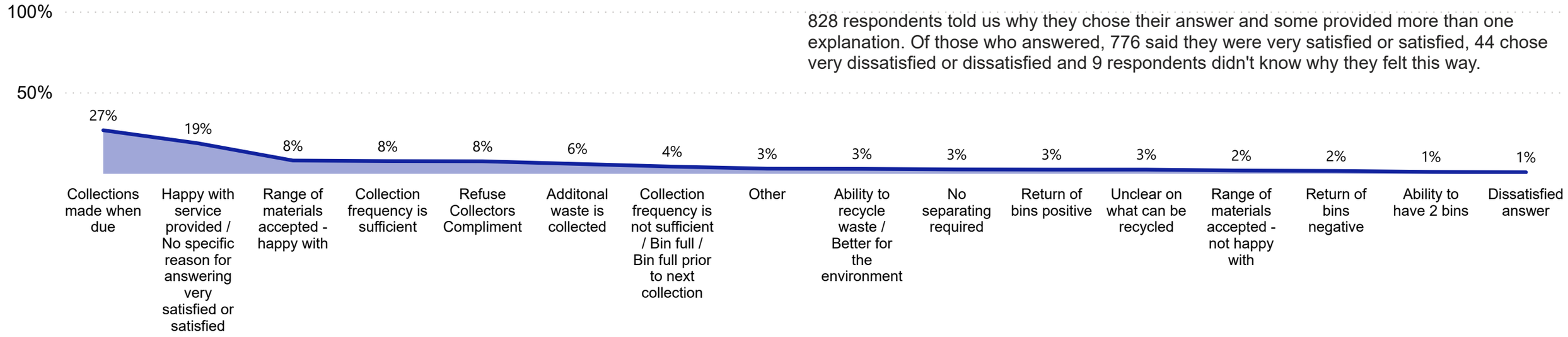
Recycling : About the blue bin recycling collection service

How satisfied are you with the recycling service ?

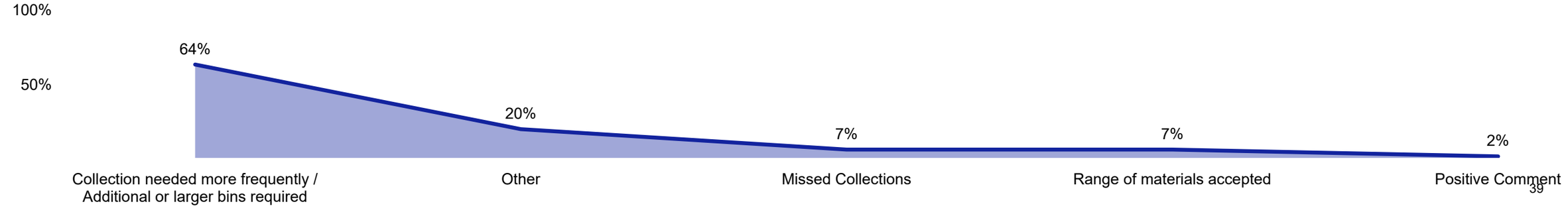


Please tell us the reason you chose either very satisfied or satisfied as your answer

828 respondents told us why they chose their answer and some provided more than one explanation. Of those who answered, 776 said they were very satisfied or satisfied, 44 chose very dissatisfied or dissatisfied and 9 respondents didn't know why they felt this way.

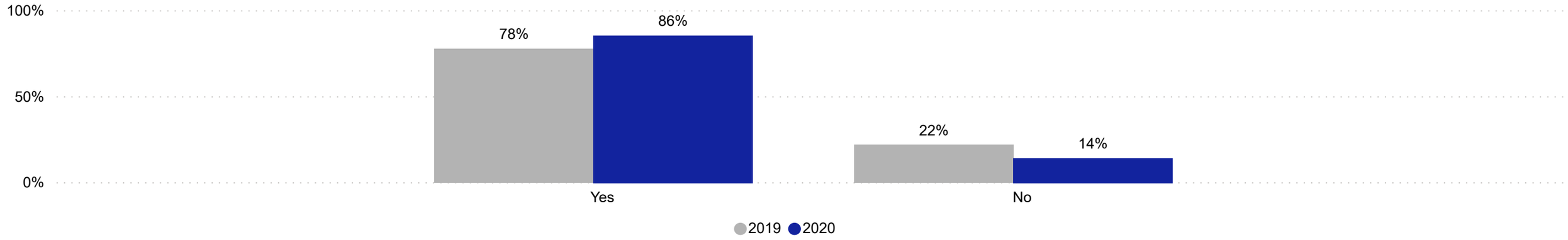


Please tell us the reason you chose either very dissatisfied or dissatisfied as your answer

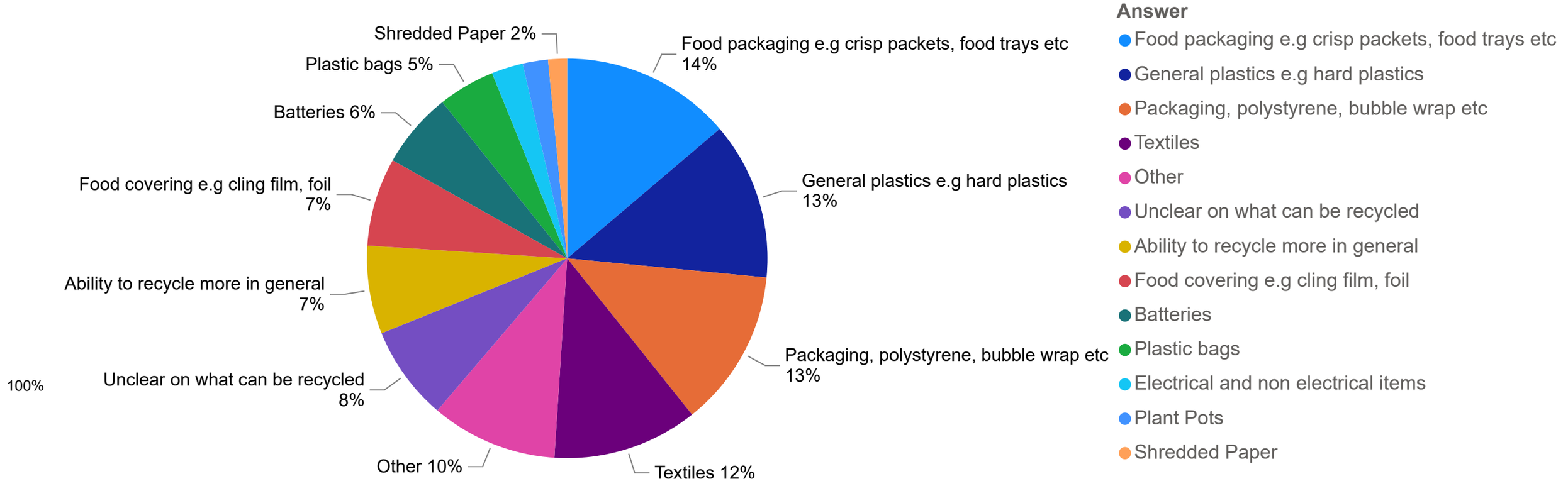


Recycling : About the blue bin recycling collection service

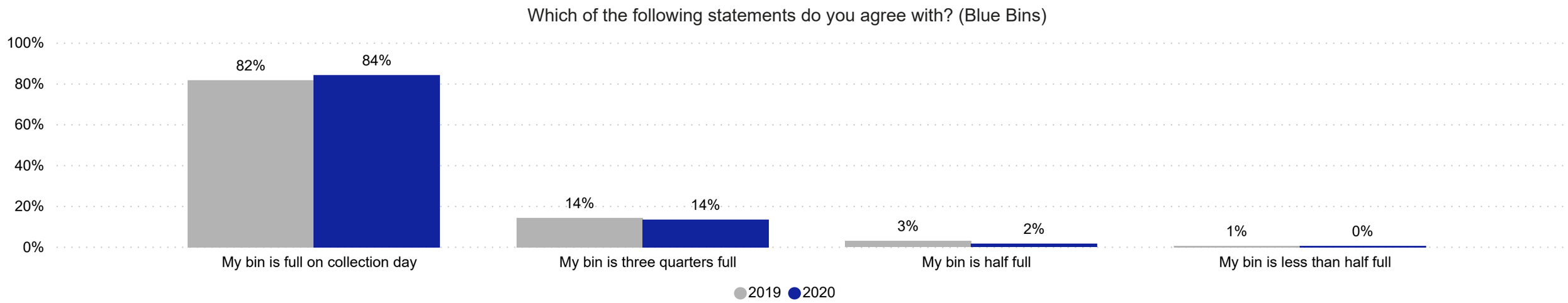
Are you happy with the range of items you can recycle in your blue bin?



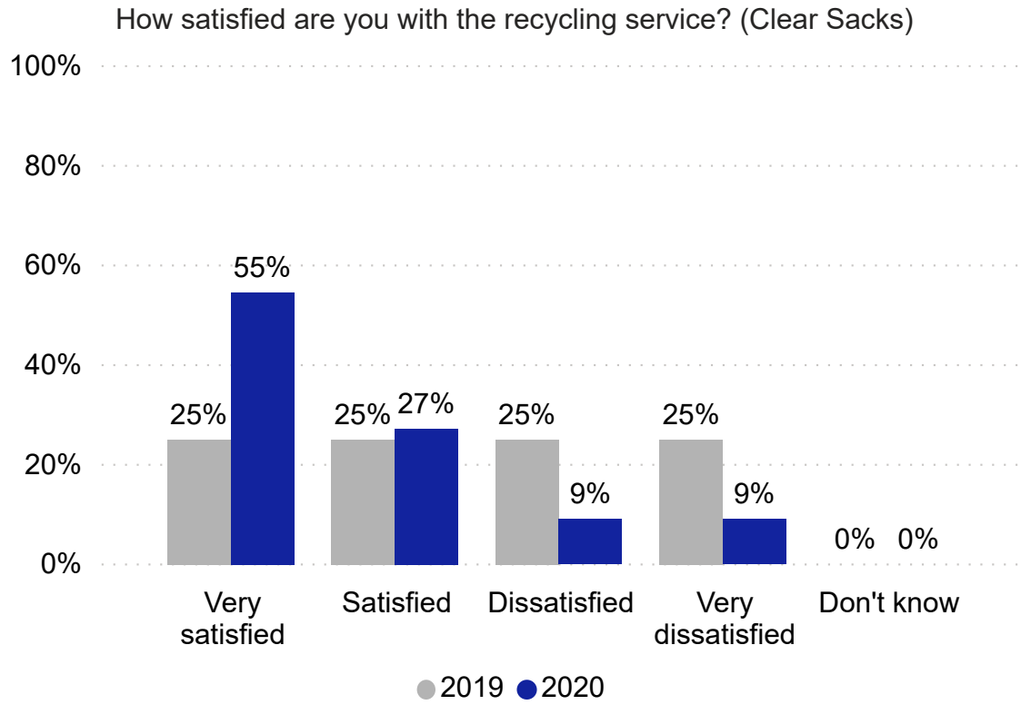
If you answered no, please state what else you would like to recycle



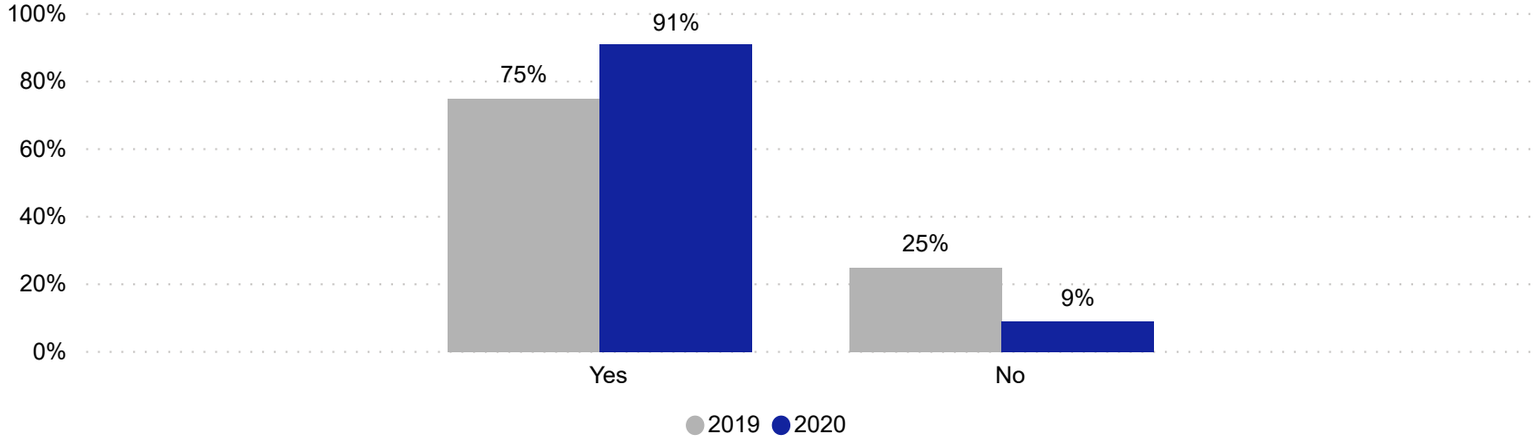
Recycling : About the blue bin recycling collection service



Recycling : About the clear sack collection



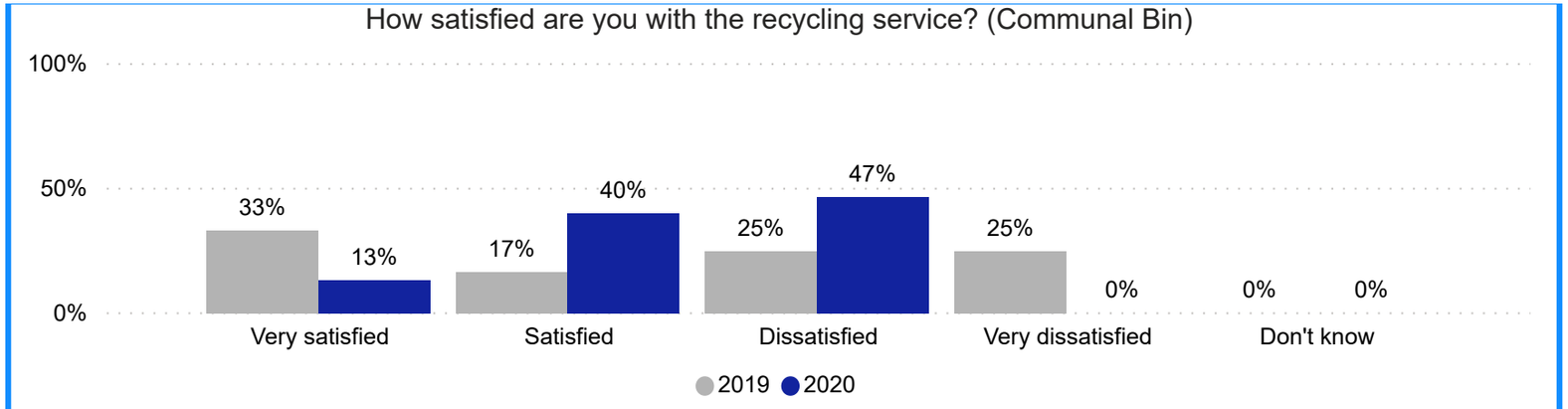
10 respondents explained the reason for their answer
Bags arrive as stated and full ones taken each fortnight even though I am the only resident in my block of flats who recycles - makes me feel my effort matters.
Got no problem with service.
Ideally it would be a weekly collection.
In March I put my bin out. It wasnt returned to where I leave it for collection and never saw it again. I ordered a blue bin 8 weeks ago but it hasnt been delivered. Now I cannot recycle as Ive run out of clear bags and in self isolation.
Many things collected and always on time.
Never had any problems with the collection of waste or recycling.
Service is reliable and adequate, weekly would be better if that were financially viable.
They do a good job.
We've never had a late collection, have always been very satisfied with the service.
Works well.



If respondents answered no to this question, we asked them to state what else they would like to recycle, only one respondent provided an answer:

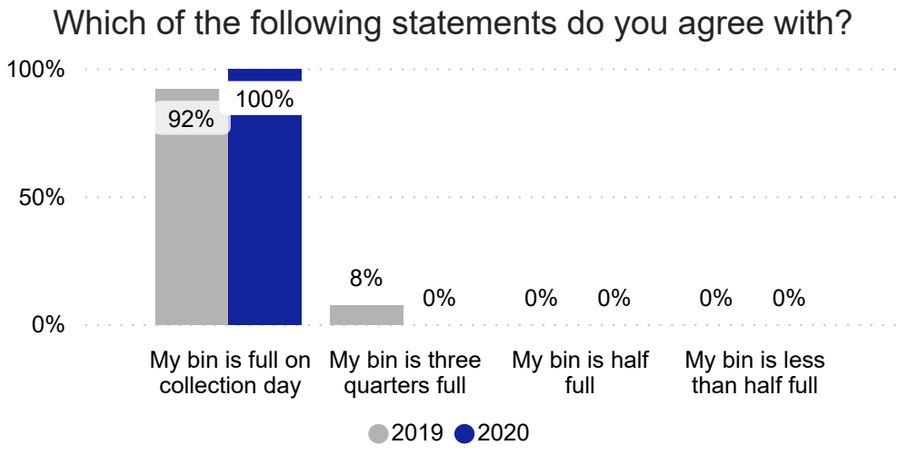
"I dont have guidance on how to recycle in clear bags. I need a blue bin like all my neighbours"

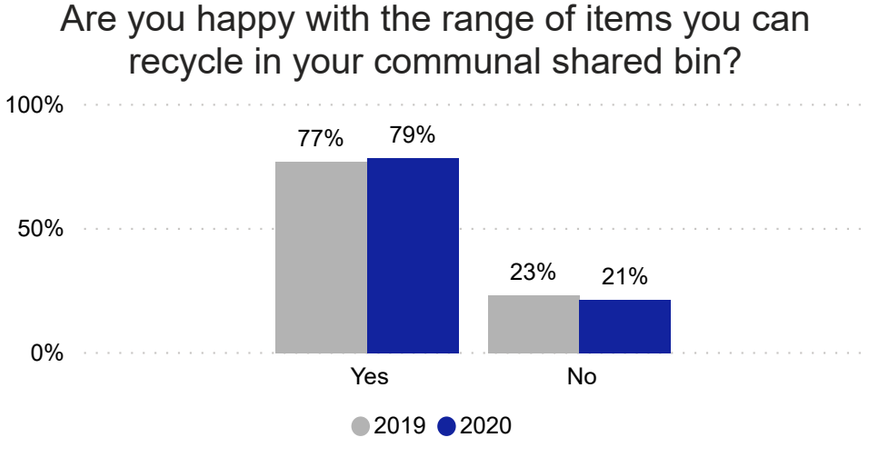
Recycling : About the communal bin collection service



12 respondents explained the reason for their answer

With 26 households on the estate would prefer weekly service as not everyone adheres to rules ie not breaking boxes down
We have communal bins and anyone, even if they are not from our block of flats, can access them and put waste in them. They are often rejected due to contamination and then when I want to put rubbish in, they are full.
There's never been a problem as far as I'm aware
People from the other flats put stuff in all our bins and there's no room for anyone else's stuff, I'm left with 3 or so black bin bags in my hallway and it's gross
Our recycling bins are overflowing every fortnight.
It's more of certain residents not recycling properly nor breaking down their boxes, so it fills up a lot quicker than it should. Also I don't see why us residents are charged by our company who runs the estate just to put bins in and out, when the last 2 months they have been left in the centre edge of the car park, this works. Also I personally have been told by chamonix who run the estate that they have been told by the council that the council.lorries cannot come into the car park to collect bins from.the bin store as I have witnessed this since I have lived here so if they could do this then we wouldn't be charged unecessarily for this
It's a communal bin with unrestricted access and people do not put the correct recycling waste in the bin. It's always full of black bags and other items not intended to be recycled. It's hard to manage as anyone can use the bin, not just the residents it is intended for.
Issues with contamination of recycling bin and request for increased signage to make residents follow the rules better. Also issues with bin placement within the communal storage area following collection.
I have no complaints
Have had problem with contamination from neighbours, HDC arranged new stickers and lid to make it super clear what goes where.
Communal recycling always contaminated. We make efforts to separate and wash our waste for recycling only for efforts to be ruined by neighbours. Recycling bins should not be communal for this reason or more effort made to identify who is contaminating it
Because although I have no control over what others put it, I am expected to pay when the "wrong stuff" is put in it. And it is always full to overflowing within a week, but only collected once a fortnight.

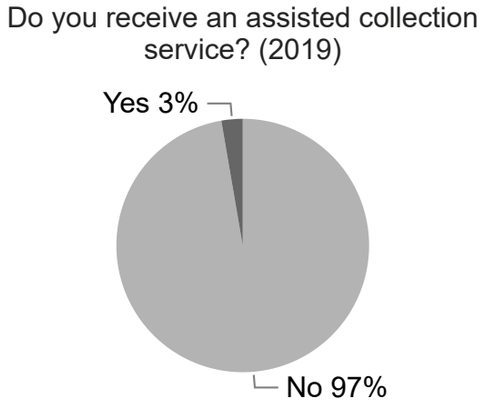


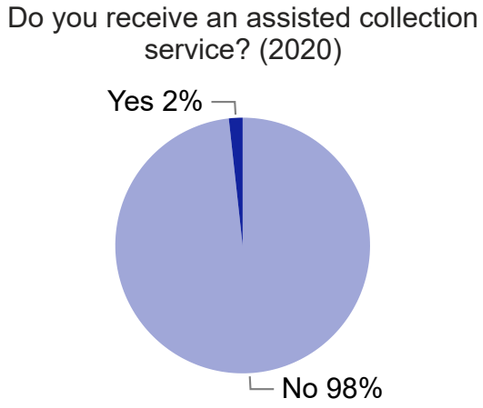


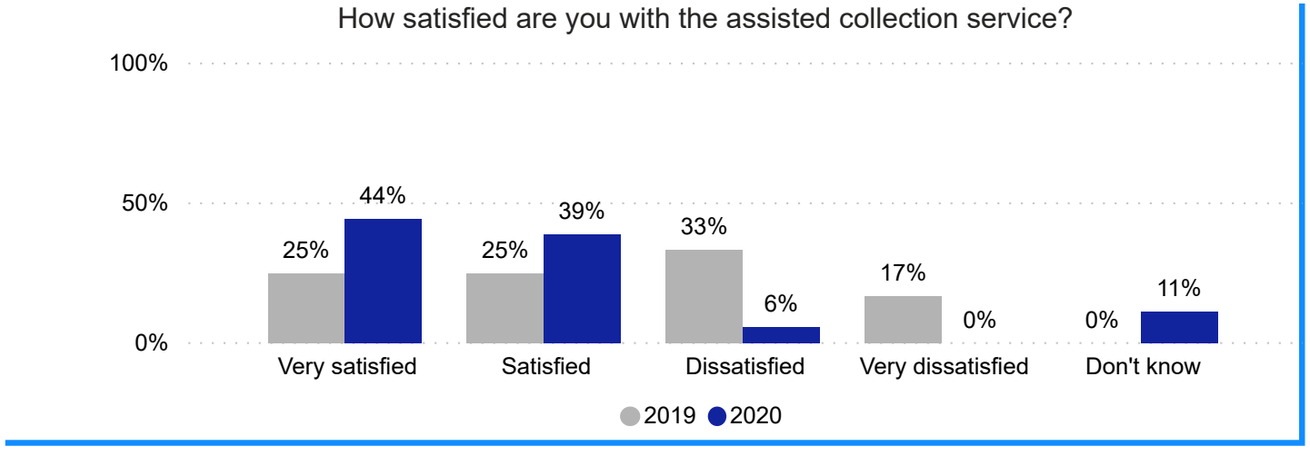
Three respondents told us what else they would like to recycle in their shared communal bins:

More types of plastic
Shreddings
Textiles, clothes, pillows, linens, duvets

Recycling : About the assisted bin collection service







Summary: About the assisted collection service

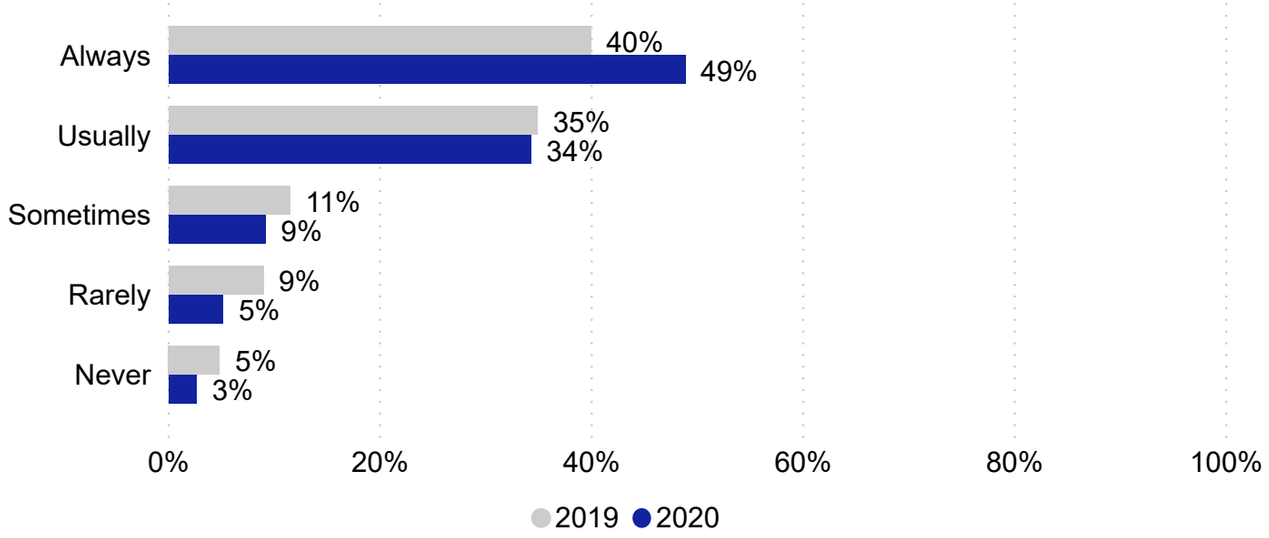
- 18 respondents stated that they receive an assisted collection service (2%).
- Over 80% said they were satisfied/very satisfied with the service they receive, one respondent stated they were dissatisfied with the assisted collection service.
- In 2019, only 50% of respondents stated they were satisfied/very satisfied with the assisted collection service and one in 3 people were dissatisfied.

Summary: About refuse/recycling collections generally

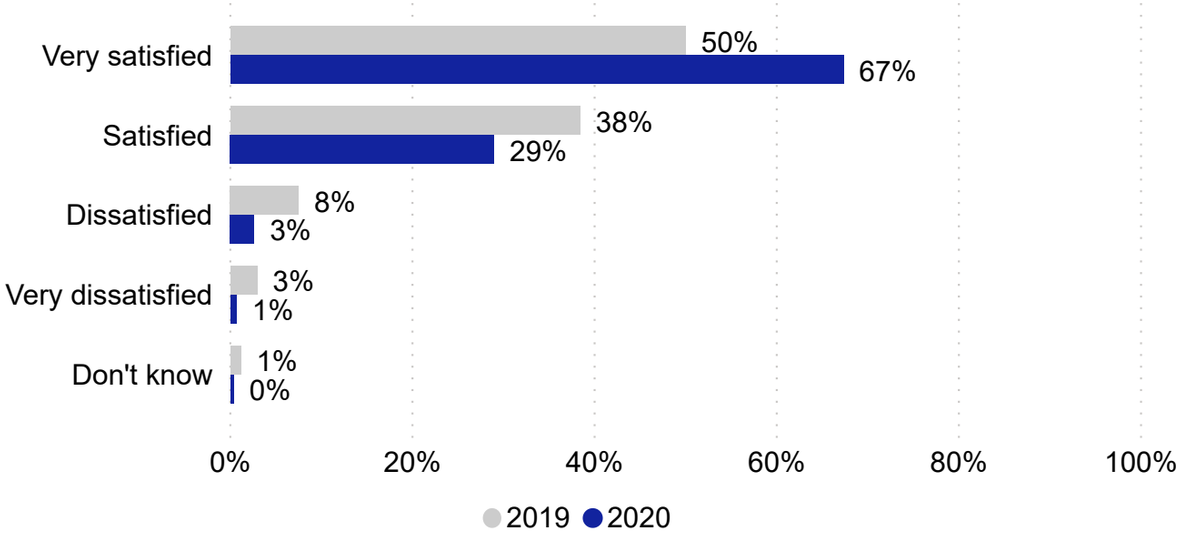
- 83% of those answering said their bins were ‘always’ or ‘usually’ returned correctly after collection, an improvement from 75% in 2019. 8% said they were ‘rarely’ or ‘never’ returned correctly in 2020 compared with 14% in 2019.
- 94% were satisfied or very satisfied with the condition of the street after collections, an increase of 9% percentage points when compared with results from the previous year.
- Overall, 97% were satisfied or very satisfied with the refuse/recycling service (excluding those whose answer was don’t know) an improvement from 89% in 2019.

About refuse and recycling collections generally

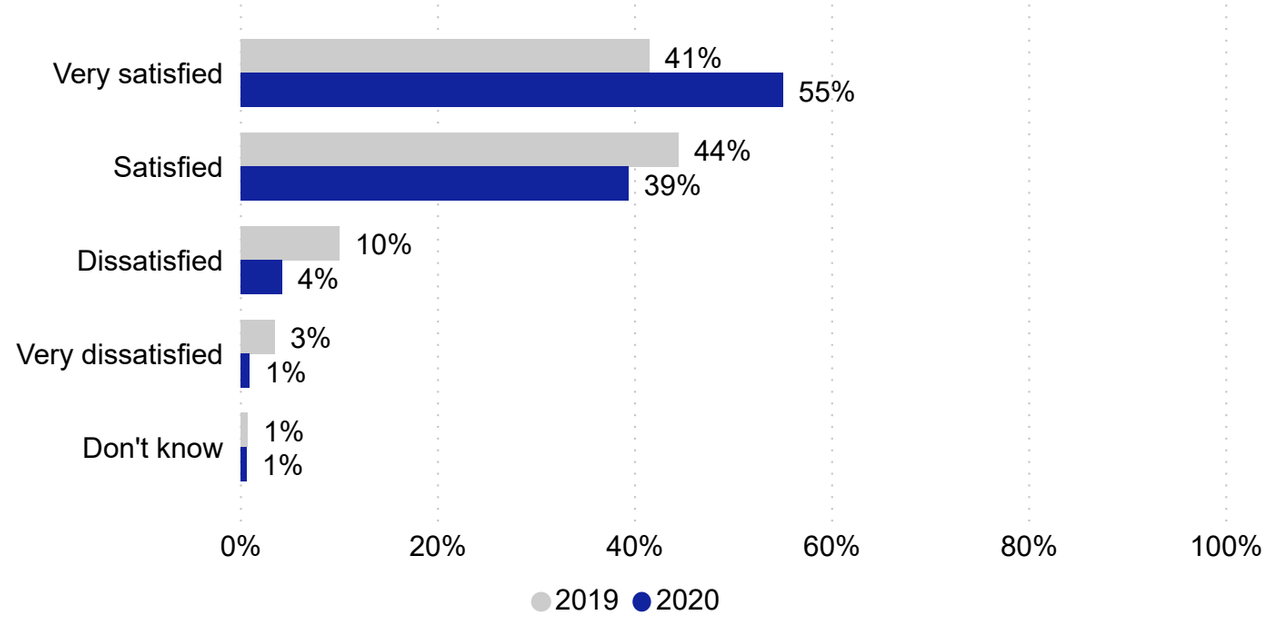
How frequently are your bins returned correctly after collection?



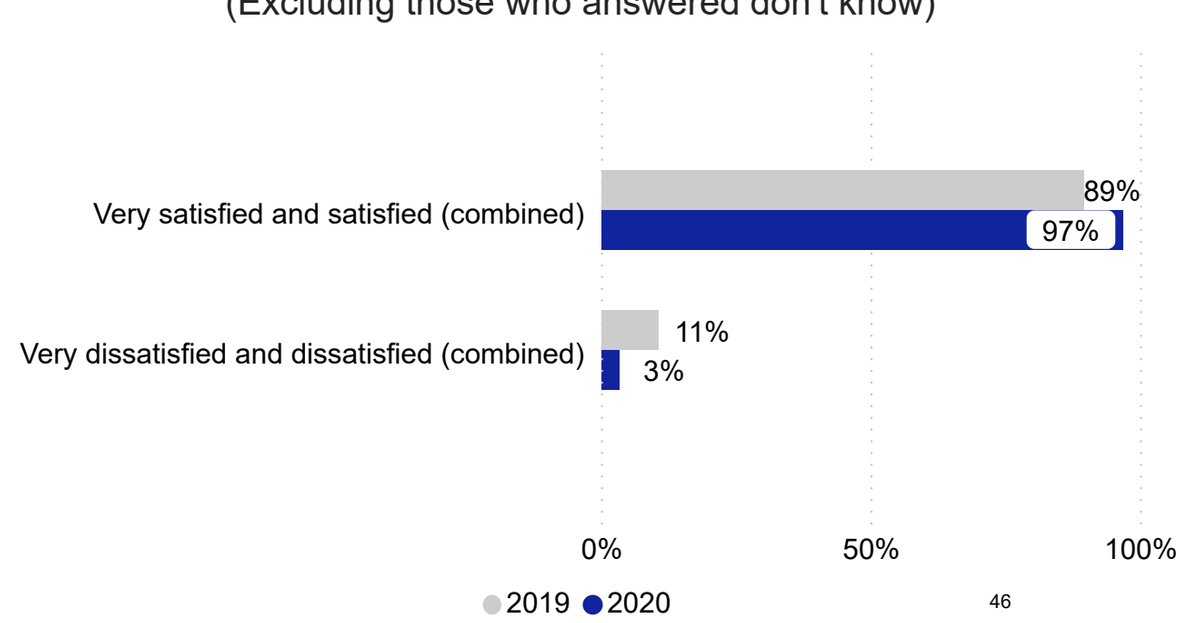
How satisfied are you with the refuse/recycling service overall?



How satisfied are you with the condition of the street after waste collections?



How satisfied are you with the refuse/recycling service overall? (Excluding those who answered don't know)

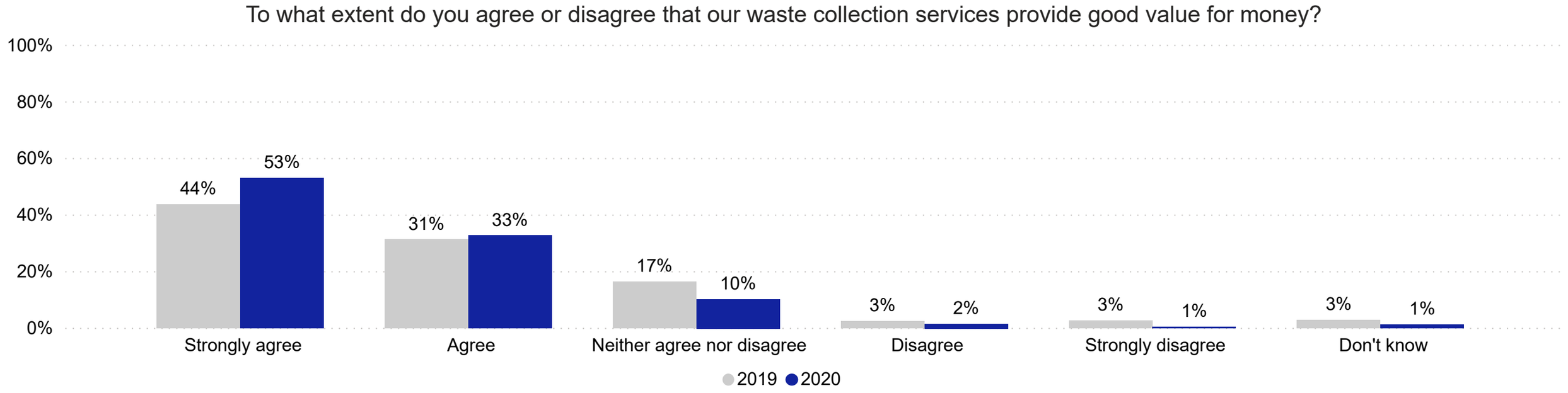


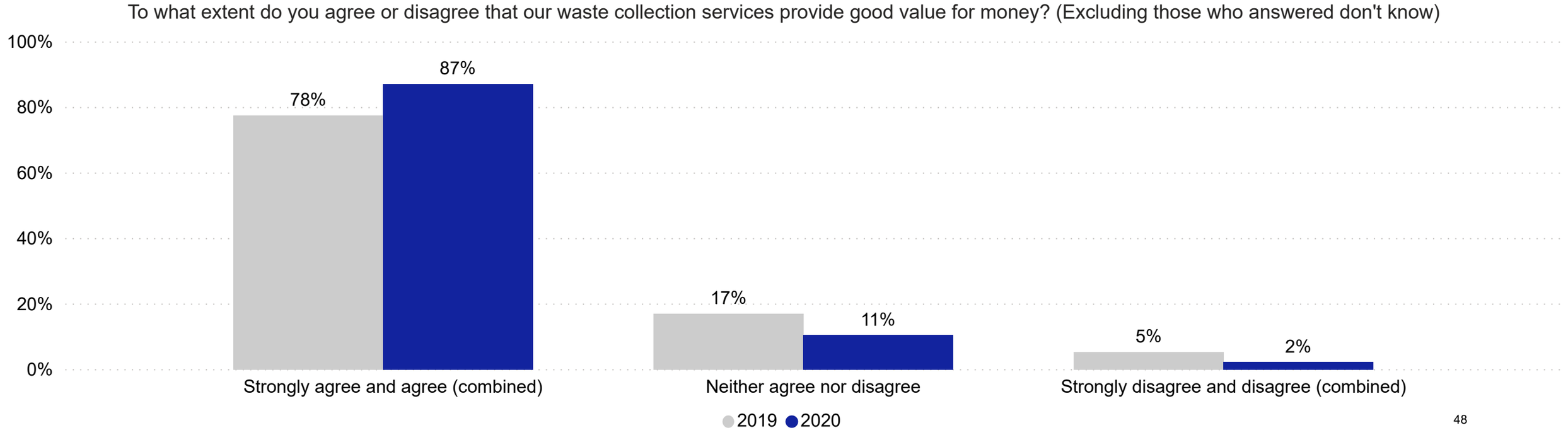
Summary: About value for money

Respondents were advised that HDC collects waste/recycling from just over 78,000 properties at an average cost per household of 61 pence per week.

- When asked to what extent they agreed or disagreed that our waste collection services provide good value for money,86% agreed or strongly agreed when answering in 2020 compared to 75% in 2019.
- 10% neither agreed nor disagreed in 2020 compared to 17% in 2019.
- 2% disagreed or strongly disagreed in 2020 compared to 5% in 2019.

About value for money

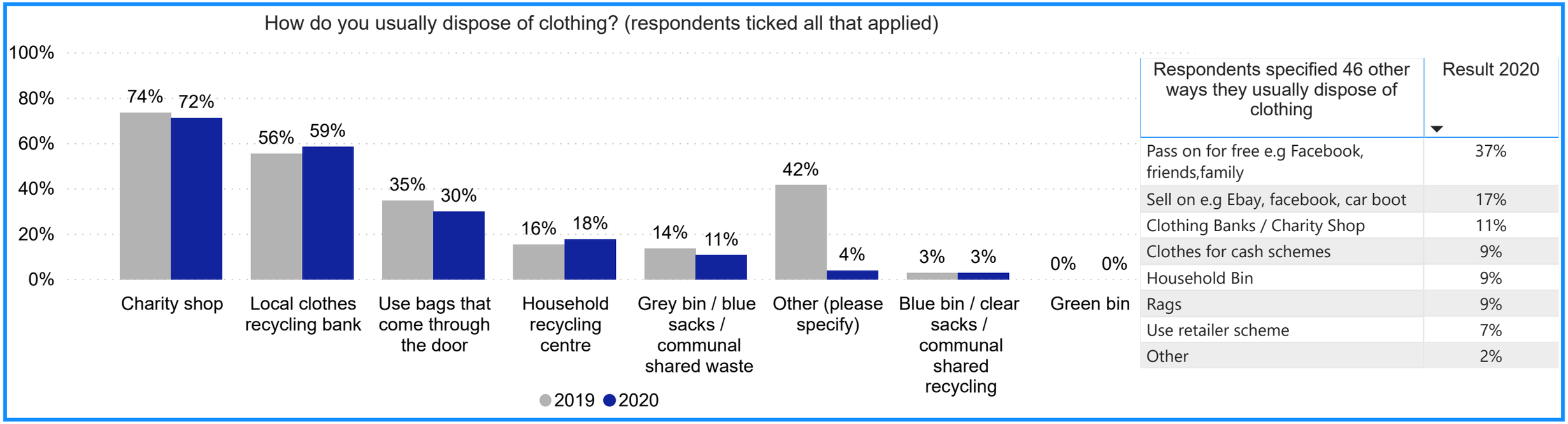




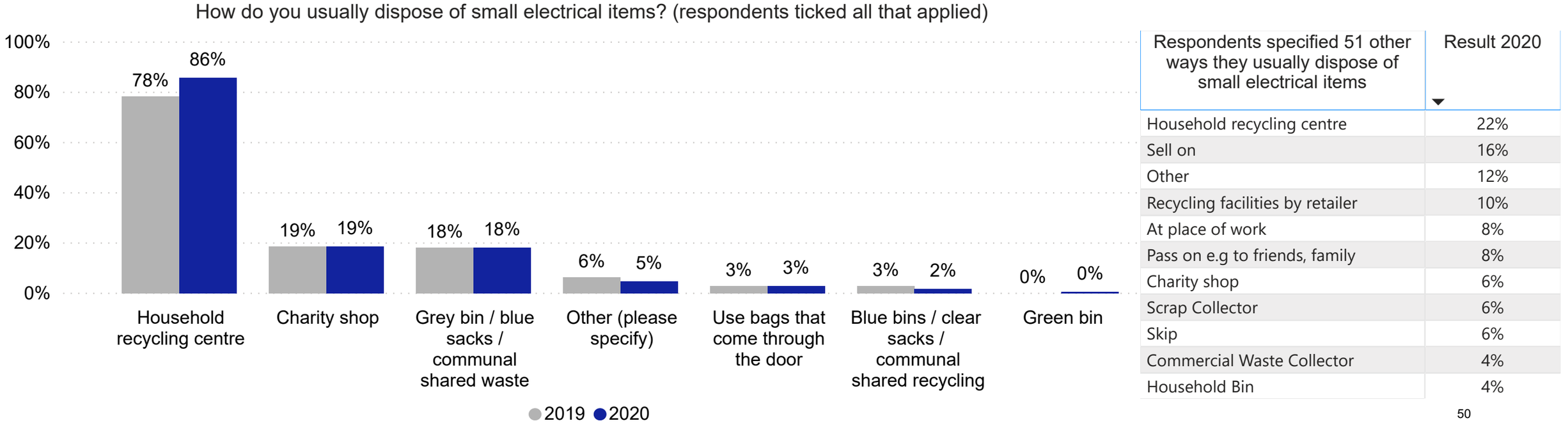
Summary: About disposing of other materials

- When asked how they usually dispose of clothing, the most popular answers were charity shop (72% of those answering) and local clothes recycling banks (59%)
- The most common ‘other’ way to dispose of clothing was to pass on for free (using social media platforms, friends or family) or to sell on using places like ebay, car boots and facebook.
- When asked how they usually dispose of small electrical items, the most popular answer was household recycling centre (86% of those answering in 2020, an increase of 8 percentage points from 2019).
- The most common types of other ways to dispose of small electrical items included selling on and using recycling facilities offered by retailers.

About disposing of other materials



Respondents specified 46 other ways they usually dispose of clothing	Result 2020
Pass on for free e.g Facebook, friends,family	37%
Sell on e.g Ebay, facebook, car boot	17%
Clothing Banks / Charity Shop	11%
Clothes for cash schemes	9%
Household Bin	9%
Rags	9%
Use retailer scheme	7%
Other	2%



Respondents specified 51 other ways they usually dispose of small electrical items	Result 2020
Household recycling centre	22%
Sell on	16%
Other	12%
Recycling facilities by retailer	10%
At place of work	8%
Pass on e.g to friends, family	8%
Charity shop	6%
Scrap Collector	6%
Skip	6%
Commercial Waste Collector	4%
Household Bin	4%

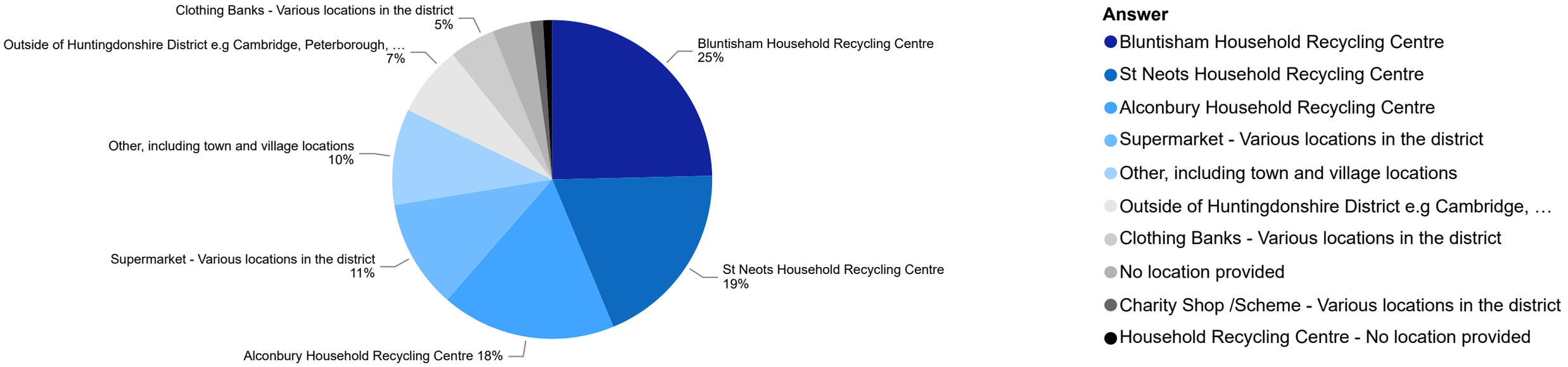
Summary: About recycling points

- 51% of those answering said they used public recycling bank sites, a decrease from 55% in 2019.
- The most popular public recycling banks that respondents used were (Top 4 in rank order) Bluntisham (25%), St Neots (19%), Alconbury (18%) Household Recycling Centres and 11% of those who answered this question used supermarket facilities at various locations around the district.
- 90% of respondents were satisfied/very satisfied with public recycling banks, 7% dissatisfied/very dissatisfied and 3% did not know.

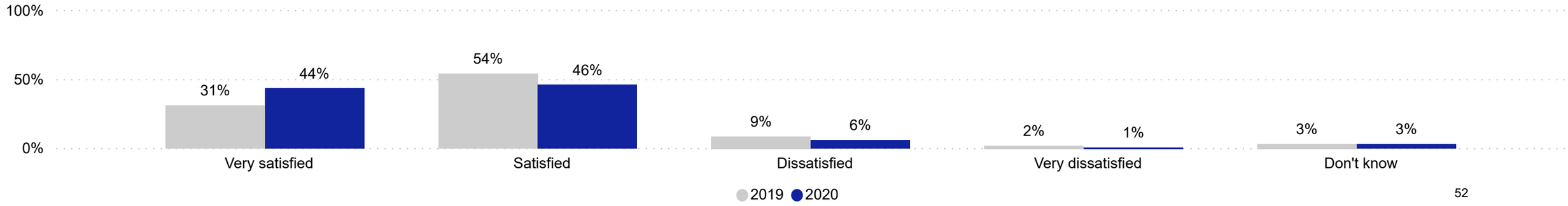
About recycling points

Do you ever use public recycling bank sites?

If you answered yes, please state which one(s)



How satisfied are you with public recycling banks?

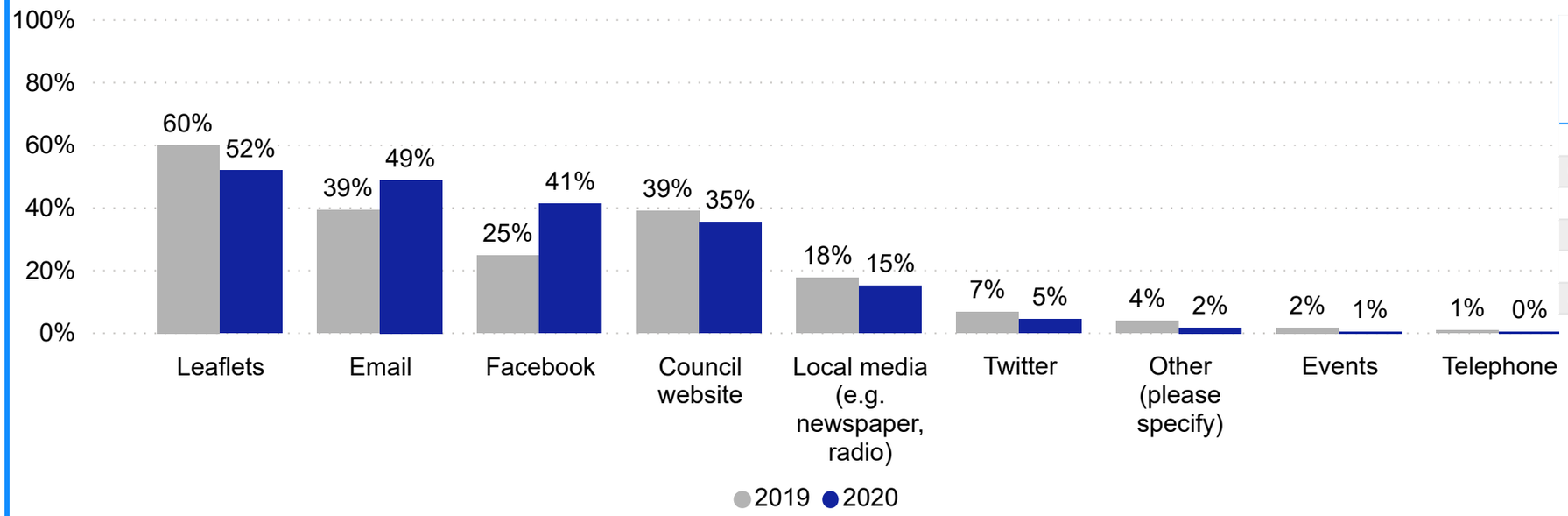


Summary: About communications

- The most popular way to receive information about waste collection services was through leaflets (52% of those answering), followed by email (49%) and Facebook (41%). There was a noted increase in respondents who chose Facebook as one of their answers compared to last year (up by just over 16 percentage points). 15% preferred information from local media.
- The most popular other ways that respondents prefer to receive information about waste collection services is via bin hangars, community leaflets and in the post.
- 90% of those answering said they felt either very well or fairly well informed about waste collection services, with 9% feeling not very well informed or not well informed at all. Less than 1% did not know how well informed they felt.

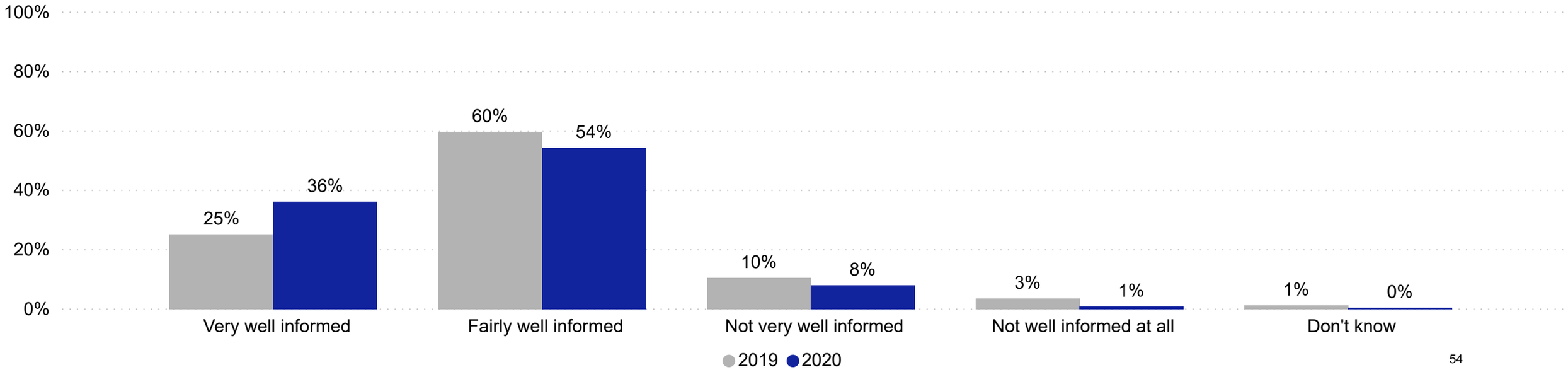
About communications

How do you prefer to receive information about waste collection services? (tick all that apply)



Respondents specified 16 other ways they prefer to receive information about the service	Result 2020
Bin Hangers	44%
Community Leaflets	13%
Other	13%
Post	13%
Calendar	6%
Social Media	6%
Text	6%

How well informed do you feel about waste collection services?



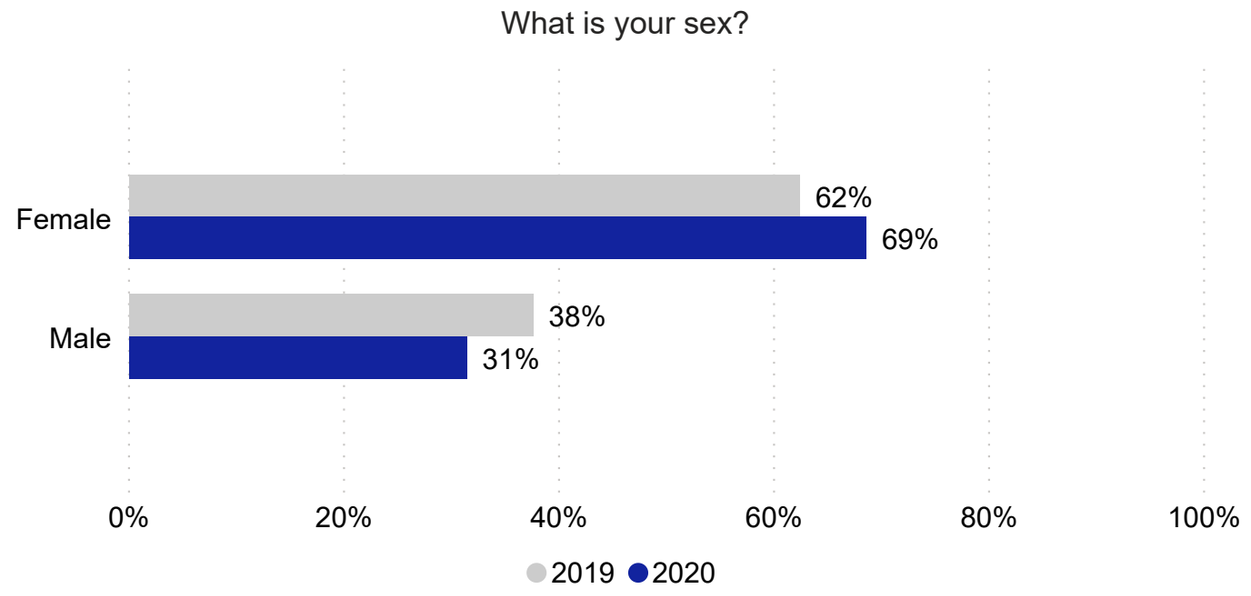
Summary: About You

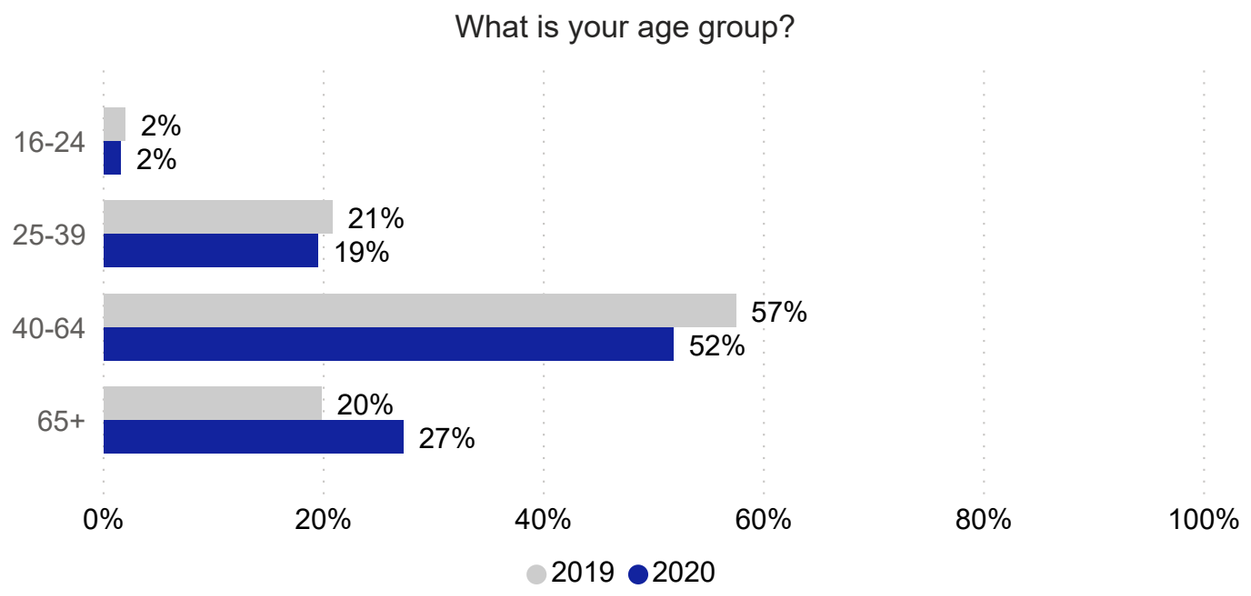
- 69% of those answering said they were female, 31% male.
- The majority (52%) were aged 40-64, with 19% aged between 25 and 39 years old and 27% aged 65 or over.
- 18% of those answering said they had a long-standing illness, disability or infirmity.
- 99% of respondents answering said their ethnicity was White British or White Other.
- 968 respondents stated which town or village within Huntingdonshire they live in.

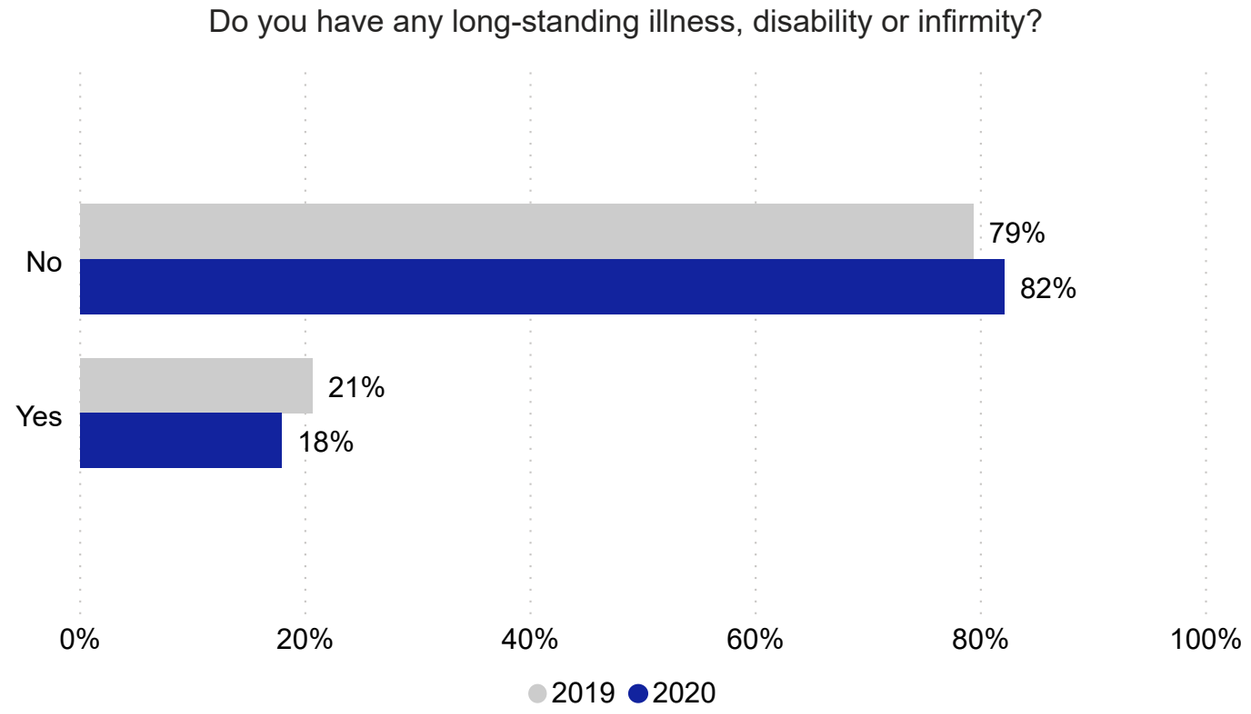
  The top 5 towns or villages by number of responses are shown below

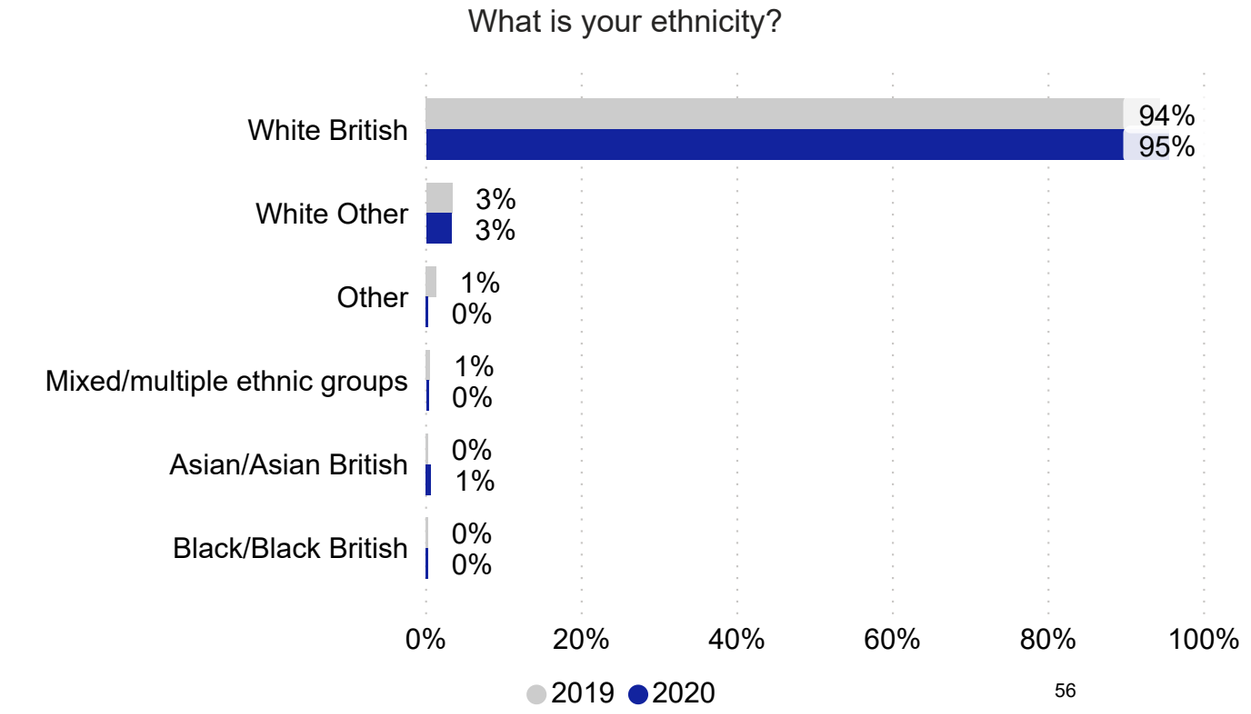
Location	Number of Respondents Per Town or Village
St Ives	97
Yaxley	93
St Neots	90
Huntingdon	63
Ramsey	54

About you


What is your sex?
Female
62%
69%
Male
38%
31%
0%
20%
40%
60%
80%
100%
2019
2020


What is your age group?
16-24
2%
2%
25-39
21%
19%
40-64
57%
52%
65+
20%
27%
0%
20%
40%
60%
80%
100%
2019
2020


Do you have any long-standing illness, disability or infirmity?
No
79%
82%
Yes
21%
18%
0%
20%
40%
60%
80%
100%
2019
2020


What is your ethnicity?
White British
94%
95%
White Other
3%
3%
Other
1%
0%
Mixed/multiple ethnic groups
1%
0%
Asian/Asian British
0%
1%
Black/Black British
0%
0%
0%
20%
40%
60%
80%
100%
2019
2020

To provide information on the geographical spread of responses, please state which town or village you live in:

Location	Number of Respondents Per Town or Village	Location	Number of Respondents Per Town or Village	Location	Number of Respondents Per Town or Village
St Ives	97	Pidley	11	Old Hurst	3
Yaxley	93	Fenstanton	10	Waresley	2
St Neots	90	Wyton	9	Southoe	2
Huntingdon	63	Alconbury	9	Woodhurst	2
Ramsey	54	Kimbolton	9	Ellington	2
Godmanchester	40	The Offords	7	Tilbrook	2
Warboys	40	Somersham	7	Catworth	2
Hemingford	30	Upwood	7	Diddington	2
Buckden	28	Hail Weston	6	Ramsey Heights	2
Farcet	28	Holme	6	Wistow	2
Little Paxton	23	Hilton	6	Keyston	2
Folksworth	22	Bluntisham	6	Holywell	2
Eynesbury	21	Colne	5	Stonely	2
Wyton On The Hill	19	Stukeley Meadows	4	Woodwalton	2
Eaton Socon	19	Earith	4	Toseland	1
Brampton	19	Great Stukeley	4	Little Ravely	1
Sawtry	17	Alconbury Weston	3	Abbotsley	1
Bury	13	Stibbington	3	Kings Ripton	1
Eaton Ford	13	Spaldwick	3	Perry	1
Ramsey Mereside	11	Great Staughton	3	Location out of district	2
Hartford	11	Grafham	3	**Total Responses**	**968**
Alconbury Weald	11	Little Stukeley	3		
Ramsey St Mary's	11	Ramsey Forty Foot	3		
Stilton	11	Houghton	3		
Needingworth	11	Great Paxton	3		

Appendix 6- Collection Modelling Results for Huntingdonshire District Council

This appendix provides the cost, operational and performance implications of each scenario for Huntingdonshire District Council. Table 1 illustrates the current collection service operated across the District.

Table 52: Current collection service (baseline)

	Collection	*Frequency*	*Container*	*Vehicle*
Residual	Residual	Fortnightly	240l Wheeled Bin	RCV 20m³
Dry Recycling	Co-mingled	Fortnightly	240l Wheeled Bin	RCV 20m³
Organics	Co-mingled food and garden waste	Fortnightly	240l Wheeled Bin	RCV 20m³

The description of each scenario (1-5) is in section 3 *'Collection Modelling'* of the main report. Any sensitivity analysis, in the form of an additional scenario is also described in section 4 within the relevant scenario results.

Annualised collection costs

Table 53: Annualised collection costs for current service and scenarios 1-5

	Baseline	*Scenario 1*	*Scenario 2*	*Scenario 3a*	*Scenario 4*	*Scenario 5*
	Current service	*Separate food waste*	*Separate food waste + restricted residual*	*Twin stream recycling, 3WC with residual, separate food, garden as is*	*Twin stream recycling, fortnightly collection, separate food, garden as is*	*Kerbside Sort recycling with food, monthly residual, charged garden*
Annualised dry recycling collection cost	£1,908,780	£1,908,780	£1,908,780	£3,420,704	£3,518,386	£6,638,083
Annualised garden waste collection cost	£1,760,012[51]	£1,760,012	£1,760,012	£1,760,012	£1,760,012	£1,607,672
Annualised food waste collection cost	-	£2,269,745	£2,375,182	Co-collected with DMR and residual	£2,375,182	Co-collected with DMR
Annualised residual waste collection cost	£2,125,389	£1,833,100	£1,840,064	£1,777,896	£1,845,092	£1,302,999
Total gross collection cost	**£5,794,182**	**£7,771,638**	**£7,884,038**	**£6,958,613**	**£9,498,673**	**£9,548,754**
Difference from Baseline	**-**	*£1,977,456*	*£2,089,856*	*£1,164,431*	*£3,704,491*	*£3,754,572*

[51] Commingled organics

Vehicle and container requirements

Table 54: Vehicle and container requirements for current service and scenarios 1-5

	Dry recycling			Garden waste			Food waste			Residual		
	Vehicle type	No. vehicles	Container type	Vehicle type	No. vehicles	Container type	Vehicle type	No. vehicles	Container type	Vehicle type	No. vehicles	Container type
Baseline	RCV 20m³	8	240L	RCV 20m³	8	240L	N/A	0	N/A	RCV 20m³	9	240L
Scenario 1	RCV 20m³	8	240L	RCV 20m³	8	240L	Dedicated 7.5t	20	Kitchen caddy + 23L	RCV 20m³	8	240L
Scenario 2	RCV 20m³	8	240L	RCV 20m³	8	240L	Dedicated 7.5t	21	Kitchen caddy + 23L	RCV 20m³	8	180L
Scenario 3	REL + front pod (75%/25%)	10	240L&180L	RCV 20m³	8	240L	Collected with DMR	0	Kitchen caddy + 23L	RCV 20m³	6	240L
Scenario 4	REL 65%/35%	12	240L & 180L	RCV 20m³	8	240L	Dedicated 7.5t	21	Kitchen caddy + 23L	RCV 20m³	8	180L
Scenario 5	Side loading 21m³	34	50L box (x3)	RCV 20m³	7	240L	Collected with DMR	0	Kitchen caddy + 23L	RCV 20m³	5	240L

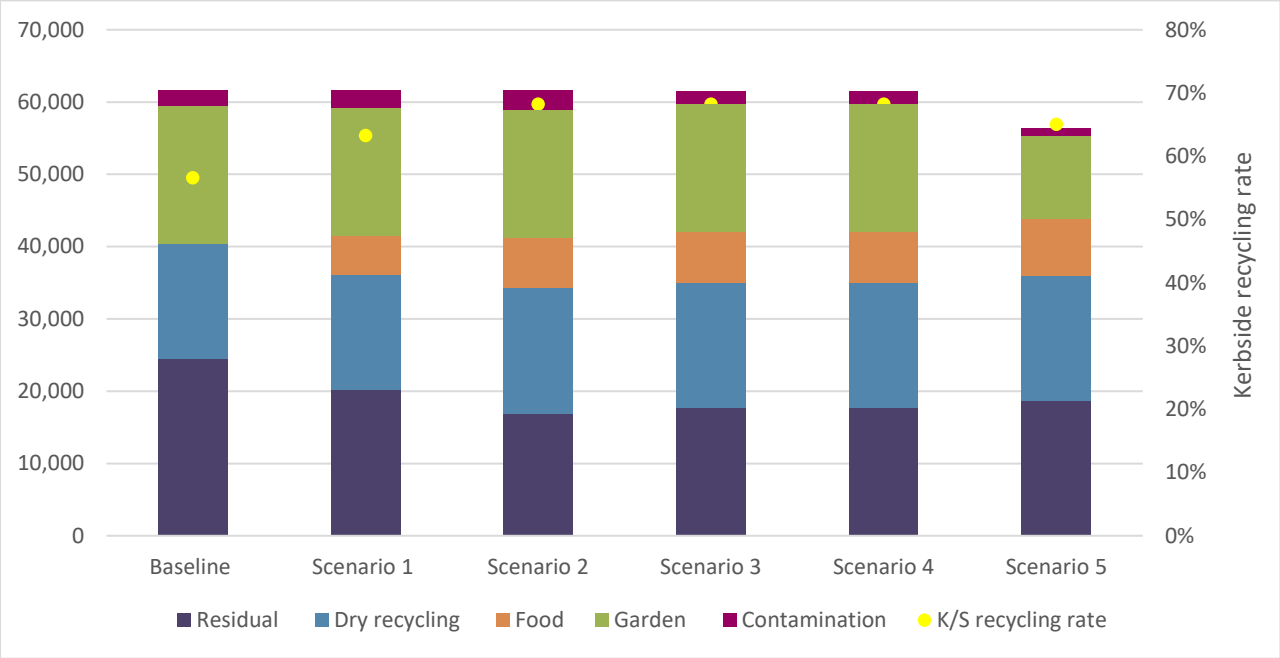
Tonnes collected and kerbside recycling rate

Table 55: Tonnes collected and kerbside recycling rate[52] for current service and scenarios 1-5

	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Residual	24,506	20,186	16,914	17,668	17,670	18,666
Dry recycling	15,921	15,921	17,379	17,379	17,379	17,379
Food	0	5,373	6,980	6,981	6,980	7,784
Garden	18,929	17,663	17,663	17,663	17,663	11,481
Contamination	2,218	2,431	2,638	1,882	1,882	1,008
K/S recycling rate	57%	63%	68%	68%	68%	65%
Total	**61,574**	**61,574**	**61,574**	**61,574**	**61,574**	**56,318**
Difference between kerbside recycling tonnage	*0*	*4,107*	*7,172*	*7,174*	*7,172*	*1,794*

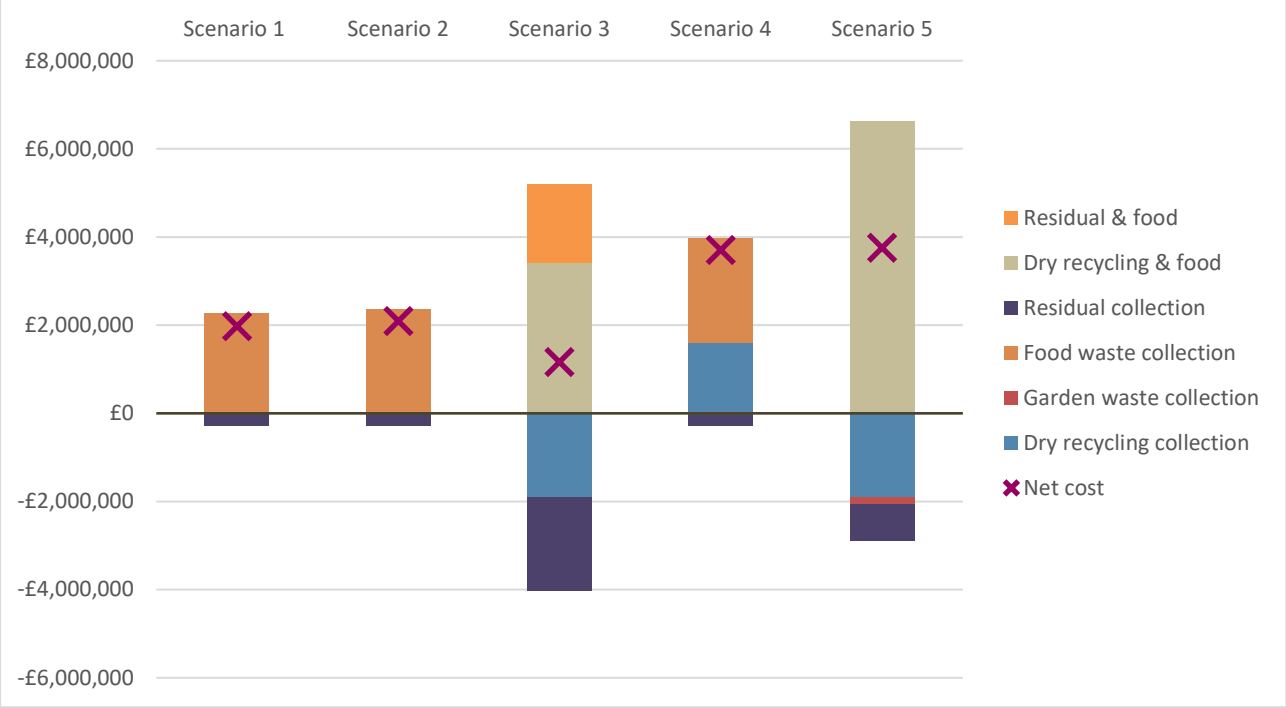
[52] Note that kerbside recycling rate will differ from local authority recycling rate, which will be influenced by other waste collected and recycled / disposed by the local authority

Figure 1: Tonnes collected and kerbside recycling rate



Annual gross collection cost comparison to current service

Figure 2: Annual gross collection cost comparison to current service (baseline)



Please note, that in Scenario 3 food waste is collected on an RCV with a pod, and in scenario 5, food waste is collected in a dedicated compartment of a sideloading kerbsider vehicle. Therefore, the cost of food waste collection cannot directly be extracted from the costings as the tonnage is split proportionality.

Cost of change (additional CAPEX)

Operating cost savings are shown in the annualised KAT model results however no account has been taken of the residual value of any redundant vehicles. We have only accounted for the cost of new containers and vehicles not previously used in the Council. Any movement of bins or vehicles between different collection types has also not been accounted for.

Table 56: Additional CAPEX required to operate the service for scenarios 1-5[53]

Scenario 1	No. additional vehicles	Vehicle type	Cost per vehicle	Total cost (vehicles)	No. additional containers	Container type	Cost per container	Total cost (containers)	Total additional CAPEX cost
Dry	0	n/a	n/a	**£0.00**	0	n/a	n/a	**£0.00**	**£1,522,336.83**
Garden waste	0	n/a	n/a	**£0.00**	0	n/a	n/a	**£0.00**	
Food waste	20	Dedicated food	£60,000.00	**£1,200,000.00**	77299	Kitchen caddy	£4.17	**£322,336.83**	
Residual	0	n/a	£0.00	**£0.00**	0	n/a	n/a	**£0.00**	

Scenario 2	No. additional vehicles	Vehicle type	Cost per vehicle	Total cost (vehicles)	No. additional containers	Container type	Cost per container	Total cost (containers)	Total additional CAPEX cost
Dry	0	n/a	n/a	**£0.00**	0	n/a	n/a	**£0.00**	**£2,977,583.78**
Garden waste	0	n/a	n/a	**£0.00**	0	n/a	n/a	**£0.00**	
Food waste	21	Dedicated food	£60,000.00	**£1,260,000.00**	77299	Kitchen caddy	£4.17	**£322,336.83**	
Residual	0	n/a	£0.00	**£0.00**	77299	180l bin	£18.05	**£1,395,246.95**	

[53] Note that this includes the Capex for new vehicles and containers only. It does not include any other costs associated with a change of service, for example take back of redundant containers, procurement, communications, enforcement or other infrastructure requirements such as additional depot space. However if the overall costs of the service have increased, the annualised costs will have more overheads included within them (as this is a percentage applied on top of the total annual service costs), which may account for some of these elements.

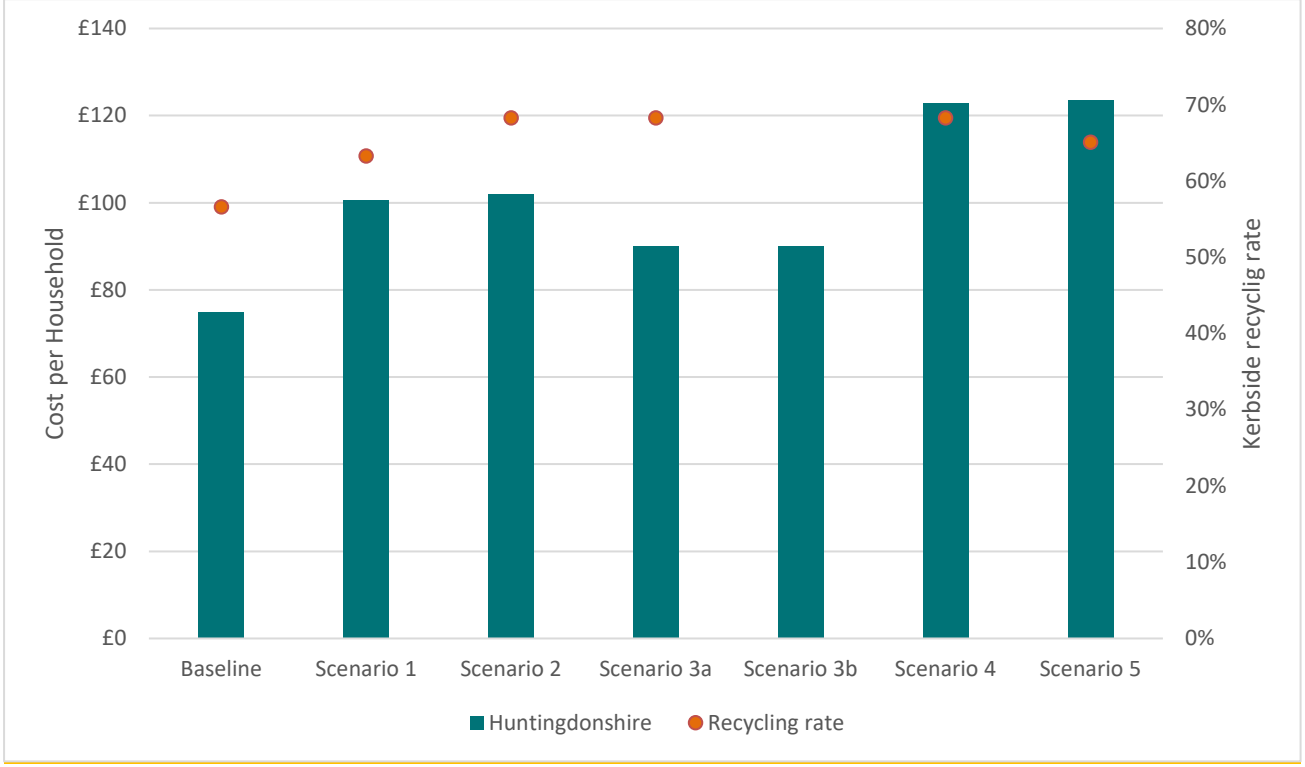
Scenario 3	No. additional vehicles	Vehicle type	Cost per vehicle	Total cost (vehicles)	No. additional containers	Container type	Cost per container	Total cost (containers)	Total additional CAPEX cost
Dry	10	REL + pod	£215,000.00	**£2,150,000.00**	77299	180l bin	£18.05	**£1,395,246.95**	**£3,867,583.78**
Garden waste	0	n/a	n/a	**£0.00**	0	n/a	n/a	**£0.00**	
Food waste	0	n/a	n/a	**£0.00**	77299	Kitchen caddy	£4.17	**£322,336.83**	
Residual	0	n/a	£0.00	**£0.00**	0	n/a	n/a	**£0.00**	

Scenario 4	No. additional vehicles	Vehicle type	Cost per vehicle	Total cost (vehicles)	No. additional containers	Container type	Cost per container	Total cost (containers)	Total additional CAPEX cost
Dry	12	REL 65/35%	£250,000.00	**£3,000,000.00**	77299	180l bin	£18.05	**£1,395,246.95**	**£7,372,830.73**
Garden waste	0	n/a	n/a	**£0.00**	0	n/a	n/a	**£0.00**	
Food waste	21	Dedicated food	£60,000.00	**£1,260,000.00**	77299	Kitchen caddy	£4.17	**£322,336.83**	
Residual	0	n/a	£0.00	**£0.00**	77299	180l bin	£18.05	**£1,395,246.95**	

Scenario 5	No. additional vehicles	Vehicle type	Cost per vehicle	Total cost (vehicles)	No. additional containers	Container type	Cost per container	Total cost (containers)	Total additional CAPEX cost
Dry	34	Sideloading	£150,000.00	**£5,100,000.00**	231897	50l (x3)	£2.98	**£691,053.06**	**£6,113,389.89**
Garden waste	0	n/a	£0.00	**£0.00**	0	n/a	n/a	**£0.00**	
Food waste	0	n/a	n/a	**£0.00**	77299	Kitchen caddy	£4.17	**£322,336.83**	
Residual	0	n/a	£0.00	**£0.00**	0	n/a	n/a	**£0.00**	

Collection cost per household vs recycling performance

Figure 3: Collection cost per household vs recycling performance



Quantitative assessment

Table 57: Quantitative scored assessment of scenarios 1-5 based on a 50:50 weighting of cost (annual) and tonnes recycled

Huntingdonshire					*Separate food (weekly)*	*Separate food plus restricted residual (180l fortnightly)*	*Two stream (fibres separate), 3W rolling basis with residual, separate food & free garden*	*Two stream (fibres separate), separate food, garden 'as is', restricted residual (180l fortnightly)*	*Kerbside sort (including food) plus monthly residual and charged garden*
Category	**Weighting**	**Considerations**	**Guide**	**Baseline**	**Scenario 1**	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**
Financial	50%	Annual cost	Annual cost in addition to Baseline. Score as deviation from the baseline	*£0*	*£1,977,456*	*£2,089,856*	*£1,164,431*	*£3,704,491*	*£3,754,572*
				10.0	***4.7***	***4.4***	***6.9***	***0.1***	***0.0***
Recycling performance	50%	Tonnes recycled per annum	Tonnes recycled (dry recycling, food and garden excluding contamination) in addition to baseline	*0*	*4107*	*7172*	*7174*	*7172*	*1794*
				0.0	***5.7***	***10.0***	***10.0***	***10.0***	***2.5***
			Total score unweighted	**10.0**	**10.5**	**14.4**	**16.9**	**10.1**	**2.5**
			Weighted score	**5.0**	**5.2**	**7.2**	**8.4**	**5.1**	**1.3**
			Rank	5	3	2	1	4	6

RAG (Red, Amber, Green) assessment

	Meets 1 or less of the requirements set out within the National Resources and Waste Strategy
	Meets less than half of the requirements set out within the National Resources and Waste Strategy
	Meets at least half of the requirements set out within the National Resources and Waste Strategy
	Meets the majority of the requirements set out within the National Resources and Waste Strategy

Table 58: RAG assessment of the scenarios compared to the requirements within the national Resources and Waste Strategy

Resources and Waste Strategy proposal	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Collection of a core set of materials	PTT and cartons are collected at the kerbside					
Effective collection system to preserve material quality	All materials collected co-mingled. Risk associated with collecting glass with fibres (paper and card)	All materials collected co-mingled. Risk associated with collecting glass with fibres (paper and card)	All materials collected co-mingled. Risk associated with collecting glass with fibres (paper and card)	Fibres (paper and card) collected separately to glass and other containers (metals and plastics)	Fibres (paper and card) collected separately to glass and other containers (metals and plastics)	All materials collected separately
Weekly separate food waste collection	No but could be added to the service profile as a separate collection at additional cost	Yes				

Free garden waste collection to all households with a garden	Yes to all households with a garden					Charged garden waste service
Resources and Waste Strategy assessment						

Key assumptions

Garden waste

The following assumption was applied in order to calculate the potential tonnage that could be collected through a charged garden collection scheme. The number of subscribers is based on benchmarking/rurality and that approximately 65% of the 'free tonnage' would be collected through the free garden waste service. Of the remaining 35% tonnage (not collected) we assume 15% is diverted into the residual collection and of the remaining 85%, 50% lost within the system to home composting, 35% to HWRC green waste composting.

Assume 50% take up of service, tonnage as follow:		**Huntingdonshire**
Free tonnage collected as garden	65%	**11481**
15% of the difference in tonnage (35%) moves to residual	15%	927
85% of the difference in tonnage is lost (i.e. home composting, HWRC)	85%	5255

WRAP ready reckoner

The model uses the percentage of households in Social Groups D and E in a local authority area (derived from the 2011 Census) as a measure of deprivation and applies it to the following formulas:

- For areas with fortnightly residual waste collection (i.e. alternate weekly collection): = 2.1614 – (% Social Groups D and E 2.2009) ± 0.40 kg/hh/week

WRAP ready reckoner

LA	Social Grade D & E 2011 (%)			kg/hh/week Medium	High	Low
Huntingdonshire	19.3%	2.1614	0.4247737	1.73663	2.1366263	1.33663

	Number of households	Tonnage/year Medium	High	Low	Medium	High
Huntingdonshire	77,299	6980	8588	5373	7784	

KAT outputs

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
	Scenario Name	Baseline	Separate food waste	Restricted residual	3 weekly	2 stream, restricted residual	Kerbside sort	Vehicle capacity sensitivity	Vehicle utilisation sensitivity
Type of collection	Dry recycling	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Co-collected dry recyclables and compost	Co-collected 2 dry recyclable streams	Kerbside sorted (more than 2 streams)	Kerbside sorted (more than 2 streams)	Kerbside sorted (more than 2 streams)
	Garden waste	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream
	Food waste	select from list	Kerbside co-mingled or single stream	Kerbside co-mingled or single stream	Co-collected dry recyclables and compost	Kerbside co-mingled or single stream	select from list	select from list	select from list
	Dry recycling	select from list	select from list	select from list	Kerbside co-mingled or single stream	select from list	select from list	select from list	select from list
	Refuse	Refuse collection	Refuse collection	Refuse collection	Refuse collection	Refuse collection	Refuse collection	Refuse collection	Refuse collection
Collection frequency	Dry recycling	every fortnight	every fortnight	every fortnight	every 3 weeks	every fortnight	once a week	once a week	once a week
	Garden waste	every fortnight	every fortnight	every fortnight	every fortnight	every fortnight	every fortnight	every fortnight	every fortnight
	Food waste	select from list	once a week	once a week	every 3 weeks	once a week	select from list	select from list	select from list

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
	Dry recycling	select from list	select from list	select from list	once a week	select from list	select from list	select from list	select from list
	Refuse	every fortnight	every fortnight	every fortnight	every 3 weeks	every fortnight	monthly	monthly	monthly
Collection Vehicle	Dry recycling	RCV, 20m3	RCV, 20m3	RCV, 20m3	REL + front pod 75%/25% 22m3 total	REL 65%/35%, 21 m3 total	side loading, lift, 21m3	side loading, lift, 28m3	side loading, lift, 21m3
	Garden waste	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 20m3
	Food waste	select from list	Dedicated food 7.5T GVW	Dedicated food 7.5T GVW	REL + front pod 75%/25% 22m3 total	Dedicated food 7.5T GVW	select from list	select from list	select from list
	Dry recycling	select from list	select from list	select from list	Dedicated food 7.5T GVW	select from list	select from list	select from list	select from list
	Refuse	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 18m3	RCV, 20m3	RCV, 20m3	RCV, 20m3	RCV, 20m3
Collection crew size including driver	Dry recycling	3	3	3	4	3	3	3	3
	Garden waste	3	3	3	3	3	3	3	3
	Food waste	#DIV/0!	2	2	4	2	#DIV/0!	#DIV/0!	#DIV/0!
	Dry recycling	#DIV/0!	#DIV/0!	#DIV/0!	2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Refuse	3	3	3	4	3	3	3	3
Number of households served	Dry recycling	77,299	77,299	77,299	77,299	77,299	77,299	77,299	77,299
	Garden waste	68,368	68,368	68,368	68,368	68,368	77,299	77,299	77,299
	Food waste	0	77,299	77,299	77,299	77,299	0	0	0
	Dry recycling	0	0	0	77,299	0	0	0	0
	Refuse	77,299	77,299	77,299	77,299	77,299	77,299	77,299	77,299
Percentage set out	Dry recycling	75%	75%	75%	75%	75%	75%	75%	75%
	Garden waste	75%	75%	75%	75%	75%	40%	40%	40%
	Food waste	select from list	45%	55%	75%	55%	55%	55%	55%
	Dry recycling	select from list	select from list	select from list	55%	select from list	select from list	select from list	select from list
	Refuse	80%	80%	85%	90%	85%	90%	90%	90%

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
Percentage set out (2nd stream)	Dry recycling	select from list	select from list	select from list	55%	75%	75%	75%	75%
	Garden waste	select from list	select from list	select from list	select from list	select from list	select from list	select from list	select from list
	Food waste	select from list	select from list	select from list	55%	select from list	select from list	select from list	select from list
	Dry recycling	select from list	select from list	select from list	select from list	select from list	select from list	select from list	select from list
Average participation	Dry recycling	85%	85%	87%	87%	87%	87%	87%	87%
	Garden waste	82%	82%	82%	82%	82%	44%	44%	44%
	Food waste	100%	55%	65%	87%	65%	65%	65%	65%
	Dry recycling	100%	100%	100%	65%	100%	100%	100%	100%
Average capture	Dry recycling	75%	75%	80%	50%	80%	76%	76%	76%
	Garden waste	114%	256%	256%	256%	256%	273%	273%	273%
	Food waste	100%	73%	80%	48%	80%	0%	0%	0%
	Dry recycling	100%	100%	100%	27%	100%	100%	100%	100%
Tonnes collected excluding contamination	Dry recycling	15,921	15,921	17,379	11,855	17,379	25,163	25,163	25,163
	Garden waste	18,929	17,663	17,663	17,663	17,663	11,481	11,481	11,481
	Food waste	0	5,373	6,980	10,179	6,980	0	0	0
	Dry recycling	0	0	0	2,327	0	0	0	0
	Refuse	24,506	20,186	16,914	17,668	17,670	18,666	18,666	18,666
	Dry recycling	0	0	0	0	0	0	0	0
	Garden waste	0	0	0	0	0	0	0	0
	Food waste	0	0	0	0	0	0	0	0
	Dry recycling	0	0	0	0	0	0	0	0
Tonnes of contamination collected	Dry recycling	1,385	1,385	1,512	531	756	503	503	503
	Garden waste	833	777	777	777	777	505	505	505
	Food waste	0	269	349	458	349	0	0	0
	Dry recycling	0	0	0	116	0	0	0	0
Utilisation of each	Dry recycling (small)	N/A	N/A	N/A	74%	95%	N/A	N/A	N/A

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
compartment in 2 stream	Dry recycling (large)	N/A	N/A	N/A	100%	100%	N/A	N/A	N/A
	Garden waste (small)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Garden waste (large)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Food waste (small)	N/A	N/A	N/A	39%	N/A	N/A	N/A	N/A
	Food waste (large)	N/A	N/A	N/A	100%	N/A	N/A	N/A	N/A
	Dry recycling (small)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Dry recycling (large)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tonnes of biodegradable material collected	Dry recycling	8,727	8,727	9,528	11,855	9,528	17,311	17,311	17,311
	Garden waste	18,929	17,663	17,663	17,663	17,663	11,481	11,481	11,481
	Food waste	0	5,373	6,980	2,327	6,980	0	0	0
	Dry recycling	0	0	0	2,327	0	0	0	0
Number of collection vehicles required	Dry recycling	7.9	7.9	7.9	4.7	11.7	33.2	33.2	34.9
	Garden waste	7.5	7.5	7.5	7.5	7.5	6.8	6.8	6.8
	Food waste	0.0	19.7	20.6	4.8	20.6	0.0	0.0	0.0
	Dry recycling	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0
	Refuse	8.3	7.4	7.1	5.8	7.1	4.1	4.1	4.1
Collection limited by weight or volume	Dry recycling	volume	volume	volume	weight	volume	volume	volume	volume
	Garden waste	volume	volume	volume	volume	volume	volume	volume	volume
	Food waste	volume	weight	weight	volume	weight	volume	volume	volume
	Dry recycling	volume	volume	volume	weight	volume	volume	volume	volume
	Refuse	weight	weight	weight	weight	weight	weight	weight	weight
Number of loads collected per vehicle per day	Dry recycling	1.4	1.4	1.6	1.1	1.0	1.4	1.0	1.9
	Garden waste	1.5	1.4	1.4	1.4	1.4	1.0	1.0	1.0
	Food waste	1.0	0.4	0.5	2.0	0.5	0.5	0.5	0.5
	Dry recycling	1.0	1.0	1.0	0.2	1.0	1.0	1.0	1.0
	Refuse	1.1	1.0	0.9	1.2	0.9	1.7	1.7	1.7

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
Number of households passed per vehicle per day	Dry recycling	980	980	980	1,101	660	465	465	443
	Garden waste	916	916	916	916	916	1,129	1,129	1,129
	Food waste	0	785	751	1,063	751	0	0	0
	Dry recycling	0	0	0	751	0	0	0	0
	Refuse	932	1,045	1,085	889	1,085	889	889	889
Number of households collected from per vehicle per day	Dry recycling	735	735	735	825	495	349	349	332
	Garden waste	687	687	687	687	687	451	451	451
	Food waste	0	353	413	798	413	0	0	0
	Dry recycling	0	0	0	413	0	0	0	0
	Refuse	746	836	922	800	922	800	800	800
Pass rate	Dry recycling	203	203	203	236	141	103	103	98
	Garden waste	183	183	183	183	183	226	226	226
	Food waste	0	135	129	228	129	0	0	0
	Dry recycling	0	0	0	129	0	0	0	0
	Refuse	189	178	184	180	184	180	180	180
Productive time	Dry recycling	290	290	290	280	280	270	270	270
	Garden waste	300	300	300	300	300	300	300	300
	Food waste	340	350	350	280	350	340	340	340
	Dry recycling	340	340	340	350	340	340	340	340
	Refuse	296	353	353	296	353	296	296	296
Non productive time	Dry recycling	130	130	130	140	140	150	150	150
	Garden waste	120	120	120	120	120	120	120	120
	Food waste	80	70	70	140	70	80	80	80
	Dry recycling	80	80	80	70	80	80	80	80
	Refuse	124	67	67	124	67	124	124	124
Percentage of targeted materials collected	Dry recycling	64%	64%	70%	44%	70%	66%	66%	66%
	Garden waste	94%	210%	210%	210%	210%	121%	121%	121%
	Food waste	0%	40%	52%	41%	52%	0%	0%	0%
	Dry recycling	0%	0%	0%	17%	0%	0%	0%	0%
Annual cost for containers	Dry recycling	£221,691	£221,691	£221,691	£311,106	£439,166	£299,432	£299,432	£802,258
	Garden waste	£196,077	£196,077	£196,077	£196,077	£196,077	£221,691	£221,691	£221,691
	Food waste	£0	£89,415	£89,415	£217,474	£89,415	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
	Refuse	£264,360	£264,360	£259,332	£264,360	£264,360	£264,360	£264,360	£264,360
Total capital cost of containers	Dry recycling	£1,422,302	£1,422,302	£1,422,302	£1,744,638	£2,817,549	£690,667	£690,667	£2,318,970
	Garden waste	£1,257,971	£1,257,971	£1,257,971	£1,257,971	£1,257,971	£1,422,302	£1,422,302	£1,422,302
	Food waste	£0	£322,337	£322,337	£1,395,247	£322,337	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£1,422,302	£1,422,302	£1,395,247	£1,422,302	£1,422,302	£1,422,302	£1,422,302	£1,422,302
Annual capital cost of collection vehicles	Dry recycling	£281,013	£281,013	£281,013	£192,570	£537,405	£913,589	£974,494	£940,459
	Garden waste	£281,013	£281,013	£281,013	£281,013	£281,013	£245,886	£245,886	£245,886
	Food waste	£0	£214,962	£225,710	£192,570	£225,710	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£316,139	£281,013	£281,013	£210,760	£281,013	£175,633	£175,633	£175,633
Are vehicles used for more than one collection	Dry recycling	No	No	No	No	No	No	No	No
	Garden waste	No	No	No	No	No	No	No	No
	Food waste	select from list	No	No	No	No	No	No	No
	Dry recycling	select from list	select from list	select from list	No	select from list	select from list	select from list	select from list
	Refuse	No	No	No	No	No	No	No	No
Total capital cost of vehicles	Dry recycling	£1,568,720	£1,568,720	£1,568,720	£1,075,000	£3,000,000	£5,100,000	£5,440,000	£5,250,000
	Garden waste	£1,568,720	£1,568,720	£1,568,720	£1,568,720	£1,568,720	£1,372,630	£1,372,630	£1,372,630
	Food waste	£0	£1,200,000	£1,260,000	£1,075,000	£1,260,000	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£1,764,810	£1,568,720	£1,568,720	£1,176,540	£1,568,720	£980,450	£980,450	£980,450
Annual vehicle operating costs	Dry recycling	£1,081,597	£1,081,597	£1,081,597	£965,890	£1,955,243	£4,173,125	£4,173,125	£4,289,764
	Garden waste	£986,863	£986,863	£986,863	£986,863	£986,863	£876,996	£876,996	£876,996
	Food waste	£0	£1,511,822	£1,584,659	£962,559	£1,584,659	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£1,188,377	£990,559	£999,784	£1,002,135	£999,784	£663,850	£663,850	£663,850
Annual overheads	Dry recycling	£324,479	£324,479	£324,479	£289,767	£586,573	£1,251,938	£1,251,938	£1,286,929
	Garden waste	£296,059	£296,059	£296,059	£296,059	£296,059	£263,099	£263,099	£263,099
	Food waste	£0	£453,546	£475,398	£288,768	£475,398	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£356,513	£297,168	£299,935	£300,641	£299,935	£199,155	£199,155	£199,155

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
Annual gross collection cost	Dry recycling	£1,908,780	£1,908,780	£1,908,780	£1,759,333	£3,518,386	£6,638,083	£6,698,989	£7,319,410
	Garden waste	£1,760,012	£1,760,012	£1,760,012	£1,760,012	£1,760,012	£1,607,672	£1,607,672	£1,607,672
	Food waste	£0	£2,269,745	£2,375,182	£1,661,372	£2,375,182	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£2,125,389	£1,833,100	£1,840,064	£1,777,896	£1,845,092	£1,302,999	£1,302,999	£1,302,999
Annual gross collection cost per tonnes collected	Dry recycling	£110	£110	£101	£142	£194	£259	£261	£285
	Garden waste	£89	£95	£95	£95	£95	£134	£134	£134
	Food waste	£0	£402	£324	£156	£324	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£87	£91	£109	£101	£104	£70	£70	£70
Annual gross collection cost per household served	Dry recycling	£25	£25	£25	£23	£46	£86	£87	£95
	Garden waste	£26	£26	£26	£26	£26	£21	£21	£21
	Food waste	£0	£29	£31	£21	£31	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
	Refuse	£27	£24	£24	£23	£24	£17	£17	£17
Annual gross collection cost per targeted tonne collected	Dry recycling	£120	£120	£110	N/A	N/A	£264	£266	£291
	Garden waste	£93	£100	£100	£100	£100	£140	£140	£140
	Food waste	£0	£422	£340	N/A	£340	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
Annual gross collection cost per household participating	Dry recycling	£29	£29	£28	N/A	N/A	£99	£100	£109
	Garden waste	£31	£31	£31	£31	£31	£47	£47	£47
	Food waste	£0	£53	£47	N/A	£47	£0	£0	£0
	Dry recycling	£0	£0	£0	£0	£0	£0	£0	£0
Annual tonnes of material collected Collection A	Newspaper and magazines	3,784	3,784	4,131	4,131	4,131	4,131	4,131	4,131
	Other paper	*3,395*	*3,395*	*3,680*	*3,680*	*3,680*	*3,680*	*3,680*	*3,680*
	Corrugated card	1,467	1,467	1,552	1,552	1,552	1,552	1,552	1,552
	Non corrugated card	*81*	*81*	*164*	*164*	*164*	*164*	*164*	*164*
	Plastic film	398	398	529	0	529	529	529	529
	Plastic bottles	*713*	*713*	*788*	*0*	*788*	*788*	*788*	*788*

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
	Plastic other dense	1,009	1,009	1,116	0	1,116	1,116	1,116	1,116
	Glass flint	*1,383*	*1,383*	*1,524*	*0*	*1,524*	*1,524*	*1,524*	*1,524*
	Glass brown	1,384	1,384	1,433	0	1,433	1,433	1,433	1,433
	Glass green	*1,384*	*1,384*	*1,471*	*0*	*1,471*	*1,471*	*1,471*	*1,471*
	Steel cans	628	628	681	0	681	681	681	681
	Aluminium cans	*295*	*295*	*310*	*0*	*310*	*310*	*310*	*310*
	Foil containers	0	0	0	0	0	0	0	0
	Textiles	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Soil and other organic	0	0	0	0	0	0	0	0
	Non compostable kitchen waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Food waste	0	0	0	2,327	0	7,784	7,784	7,784
	Compostable garden waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Collection B	Newspaper and magazines	0	0	0	0	0	0	0	0
	Other paper	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Corrugated card	0	0	0	0	0	0	0	0
	Non corrugated card	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Plastic film	0	0	0	0	0	0	0	0
	Plastic bottles	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Plastic other dense	0	0	0	0	0	0	0	0
	Glass flint	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Glass brown	0	0	0	0	0	0	0	0
	Glass green	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Steel cans	0	0	0	0	0	0	0	0
	Aluminium cans	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Foil containers	0	0	0	0	0	0	0	0
	Textiles	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
	Soil and other organic	0	0	0	0	0	0	0	0
	Non compostable kitchen waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Food waste	1,266	0	0	0	0	0	0	0
	Compostable garden waste	*17,663*	*17,663*	*17,663*	*17,663*	*17,663*	*11,481*	*11,481*	*11,481*
Collection C	Newspaper and magazines	0	0	0	0	0	0	0	0
	Other paper	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Corrugated card	0	0	0	0	0	0	0	0
	Non corrugated card	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Plastic film	0	0	0	529	0	0	0	0
	Plastic bottles	*0*	*0*	*0*	*788*	*0*	*0*	*0*	*0*
	Plastic other dense	0	0	0	1,116	0	0	0	0
	Glass flint	*0*	*0*	*0*	*1,524*	*0*	*0*	*0*	*0*
	Glass brown	0	0	0	1,433	0	0	0	0
	Glass green	*0*	*0*	*0*	*1,471*	*0*	*0*	*0*	*0*
	Steel cans	0	0	0	681	0	0	0	0
	Aluminium cans	*0*	*0*	*0*	*310*	*0*	*0*	*0*	*0*
	Foil containers	0	0	0	0	0	0	0	0
	Textiles	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Soil and other organic	0	0	0	0	0	0	0	0
	Non compostable kitchen waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Food waste	0	5,373	6,980	2,327	6,980	0	0	0
	Compostable garden waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Collection D	Newspaper and magazines	0	0	0	0	0	0	0	0
	Other paper	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

		Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5a	Scenario 5b	Scenario 5c
	Corrugated card	0	0	0	0	0	0	0	0
	Non corrugated card	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Plastic film	0	0	0	0	0	0	0	0
	Plastic bottles	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Plastic other dense	0	0	0	0	0	0	0	0
	Glass flint	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Glass brown	0	0	0	0	0	0	0	0
	Glass green	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Steel cans	0	0	0	0	0	0	0	0
	Aluminium cans	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Foil containers	0	0	0	0	0	0	0	0
	Textiles	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Soil and other organic	0	0	0	0	0	0	0	0
	Non compostable kitchen waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Food waste	0	0	0	2,327	0	0	0	0
	Compostable garden waste	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*