



Flexible Plastic Fund FlexCollect Project

Interim report

Executive summary

Produced on
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Flexible
Plastic
Fund



The Flexible Plastic Fund FlexCollect Project is funded by:



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Executive summary

Flexible plastic packaging – from bread bags to crisp packets, confectionery wrapping and food pouches – is currently not commonly collected by local authorities in the UK. However, the revised UK Packaging Extended Producer Responsibility (pEPR), Simpler Recycling for England and similar proposals for the Devolved Authorities require the collection of these packaging types by March 2027.

Current estimates show that over 215 billion items of flexible plastic packaging, equalling 895 thousand tonnes, is placed on the market each year in the UK. Less than 15% of all waste collection authorities **collect flexible plastic packaging**¹ (FPP) and those who do predominantly offer a limited service.

A project consortium, including SUEZ recycling and recovery UK, WRAP, RECOUP and Ecosurety, have joined forces to trial the kerbside collection of flexible plastic packaging across nine waste collection authorities over three years.

This innovative project will help industry and government understand how a flexible plastic packaging collection service can be implemented across a range of collection systems, population densities and socio-demographics.

This project is funded by both industry and government, with contributions from the Flexible Plastic Fund, Defra, UK Research and Innovation's Smart Sustainable Plastic Packaging Challenge delivered by Innovate UK, and Zero Waste Scotland.

The Fund was established in May 2021 by five founding partners: Mars UK, Mondelēz International, Nestlé, PepsiCo and Unilever. Partners of the Fund now include Abel and Cole, Eat Real, Ella's Kitchen, Kiddylicious, Koninklijke Douwe Egberts, KP Snacks, Lotus Bakeries, McCain Foods, Natural Balance Foods, Ocado Retail, pladis, Proper Snacks, The Collective, Vitaflo and Yeo Valley Organic.

This report shares the project findings at the midpoint of the trial. At the time of writing, seven waste collection authorities have launched the trial collection service for flexible plastic packaging across a subset of houses.

¹ <https://www.recoup.org/research-and-reports/uk-household-plastic-packaging-collection-survey-2022>

Figure one • Summary of waste collection authority pilots

Pilot and launch date	Area type	Pilot size (households)	Service type	Material collected	Collection method
Cheltenham October 2022	Urban, low deprivation	3,154	Fortnightly source segregated	All flex	Clear/blue printed collection bags in with rigid plastic and cans / any container
South Gloucestershire October 2022	Suburban, mixed low deprivation	1,955	Weekly source segregated	PE and PP only	Clear/blue printed collection bags in with rigid plastic and cans
Maldon January 2023	Rural, low deprivation	7,719	Fortnightly twin stream, glass separate	All flex	Purple printed collection bags, collected on separate vehicle
Somerset May 2023	Rural, medium deprivation	3,641	Weekly source segregated	PE and PP only	Blue printed collection bags collected alongside cans and plastic
Newcastle City June 2023	Urban, high deprivation	7,232	Fortnightly twin stream (240l wheeled bin with insert for glass)	PE and PP only	Blue printed bags collected alongside plastics, cans and fibre in blue wheeled bin via split back refuse collection vehicle (RCV)
Re3 – Reading September 2023	Urban, low deprivation	4,100	Fortnightly comingled (240l wheeled bin), bring bank glass	PE and PP only	Blue printed bags collected alongside plastics, cans and fibre in red wheeled bin via single compartment refuse collection vehicle (RCV)
North Herts November 2023	Suburban, low deprivation	2,174	Fortnightly twin stream with paper separate in a box	PE and PP only	Blue collection bags presented in, on top of or next to their paper box

Key findings

A consistent set of data and method of collection has been implemented across all pilot authorities. In all instances, the trial has provided participating households with a bag to collect the flexible plastic packaging. The bag enables granularity of data and facilitates the separation and consolidation once collected.

In all cases, flexible plastic packaging collections have been added seamlessly to existing collection services.

Although flexible plastic packaging is voluminous, the collection bags are able to withstand significant compaction and there have been no reported capacity issues in refuse collection vehicles or resource recovery vehicles.

A key point to explore in the second half of the trial is whether collections can be moved away from bags in some collection systems.

Figure two • Operational data key findings

Parameter	Data
Average weight presented by participating households per collection bag across all pilots	291g
Average weight collected per household per week across all pilots ²	84g
Bags collected per household per week across all pilots	0.29
Bags collected per household per week for weekly collections	0.46
Bags collected per household per week for fortnightly collections	0.17
Industry standard participation across monitored pilots	60%
Industry standard participation across weekly collection pilots	64%
Industry standard participation across fortnightly collection pilots	47%

² Average weight collected per household per week across all pilots is a measure including all households within the trial area who are eligible to participate, not just those who are participating.

Doorstep research

Doorstep research was conducted to understand resident awareness of and satisfaction with the trial service and associated communications.

A combination of effective communications and availability of collection bags are essential to achieving and maintaining good participation and performance levels. The distribution of both communications and collection bags has to be comprehensive for services to achieve good performance levels. The availability of bags and the ease of obtaining more are also key determinants of good long-term performance.

Further work into the frequency of communications and bag replenishment is required to make further conclusions.

The findings of the doorstep research are summarised here.

Figure three • Doorstep research key findings (%)

	South Gloucestershire	Newcastle	Cheltenham	Maldon
Aware of pilot	95	89	76	68
Received comms	93	77	73	56
Received bags	95	91	43	75
Received comms and bags	91	76	41	54
Recycling 1+ item in pilot (all households)	81	65	42	42
Recycling 1+ item in pilot (received comms and bags)	85	74	93	71
Very / fairly satisfied with pilot (those participating)	96	95	96	89
Service very / fairly well communicated (those receiving all comms)	91	89	98	85

Composition and end markets

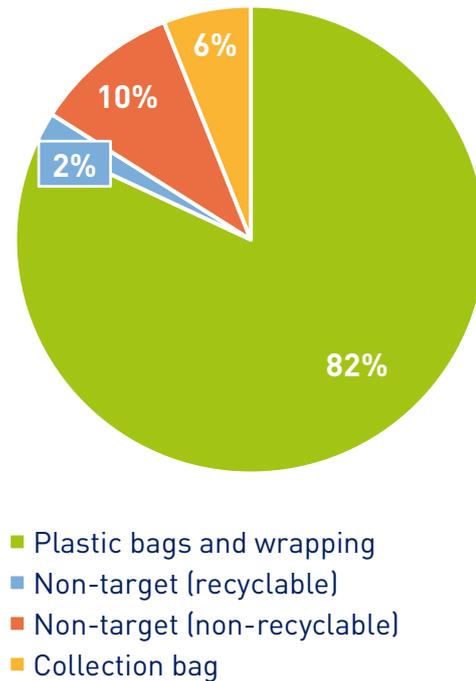
Material composition was analysed across each pilot authority collection area. The overriding observation across all analyses is that the flexible plastic packaging material collected is largely target material and is predominantly clean. The overall composition of the flexible plastic packaging is shown here in figure four.

The availability of effective sorting infrastructure is currently a barrier to widespread collection and reprocessing of flexible plastic packaging. This is a known challenge related to the current lack of collections and reprocessing infrastructure

Reprocessing trials have started with encouraging results but have been limited by the amount of material collected. The pace of this project will increase with the expansion of the pilots and more material being collected enabling more expansive sorting and recycling trials.

As collections, sorting and recycling trials are still being undertaken and the process 'industrialised', we have chosen not to include costs in this report at this time. Costs for different collection and sorting options are a key area of work for the second half of the project.

Figure four • Flexible plastic packaging composition (%)



Next steps

A further two pilot authorities are set to join the project in early 2024. Following these, the focus will be on expanding the trials within each pilot authority to representative communities. As it stands, all pilots are set to expand from a few thousand households to tens of thousands, bringing collections and sorting learning at scale.

Additional rounds of data collection will commence across the expanded trials and further composition work will be undertaken.

As more material is collected, further end market options will be tested and the project will begin to establish the framework for understanding cost per tonne of collections, sorting and reprocessing.



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