

FPF FLEXCOLLECT

The future of kerbside collections of flexible plastic packaging

28/09/2023





PROJECT OVERVIEW

FPF FLEXCOLLECT

THREE YEAR, £2.9M INNOVATIVE PROJECT TO PROVIDE EVIDENCE TO SUPPORT KERBSIDE COLLECTION OF FLEXIBLE PLASTIC PACKAGING

- Piloting kerbside collections and recycling for flexible plastic packaging
- Nine individual local authority pilots covering a range of rurality's, socio-economics, collection methods, and service offerings
- Most extensive flexible plastic packaging kerbside collection trial ever undertaken in UK
- Fully funded for local authority partners and their contractors

FUNDERS



PROJECT DELIVERY





FLEXCOLLECT GOALS

Help industry and government prepare for the rollout of flexible plastic packaging municipal kerbside collection by 2027

1. How to incorporate into existing collection services, likely volumes, participation and end markets
2. Understand operational issues, communication approaches, and cost throughout the system
3. Share learnings and create best practice guidance to inform the value chain
4. And any other learnings necessary

WHERE

Cheltenham

Urban and low deprivation, fortnightly source segregated collections (Romaquip)

South Gloucestershire

Suburban and low deprivation, weekly source segregated collections (Romaquip)

Maldon

Rural and low deprivation, fortnightly twin stream (glass out) – Separate pass vehicle

Somerset

Weekly source segregated, rural and high deprivation

Newcastle

Fortnightly twin stream, urban and high deprivation



HOW

EXPANDING TRIAL MODEL

Experiment during early stages
Build on findings through project

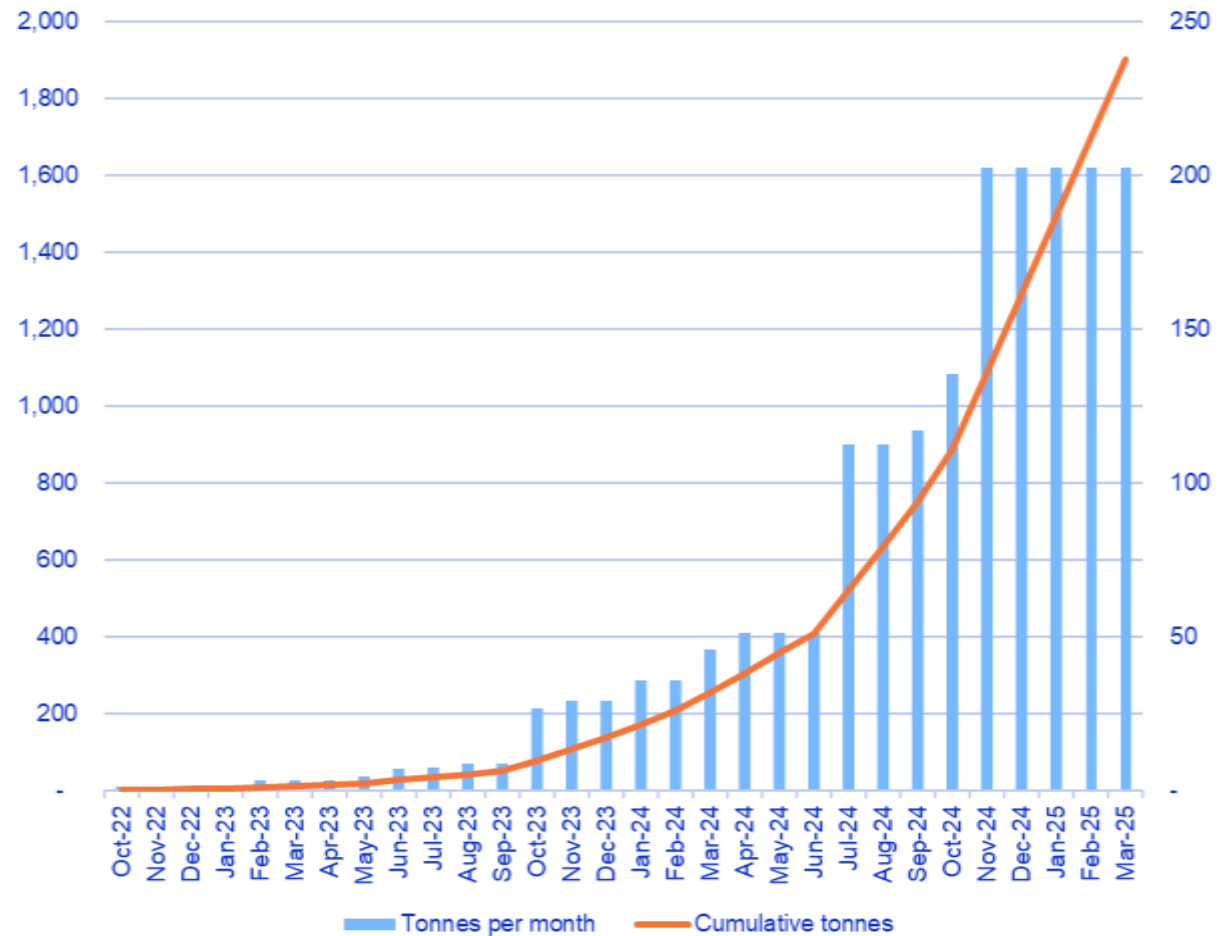
Pioneers

5% of households year one
25% year two, up to 100% year three

Industrialisers

5% project year two then 25% year three

Learnings from experimental stage applied as each pilot expands





LEARNINGS SO FAR

COLLECTIONS AND SORTING

ARISINGS

2 bags per 5 households and 310g per bag

Higher than anticipated participation, but less than 50% of placed of market

INTEGRATION INTO COLLECTIONS

Currently operating a collection bag solution

No issues with space on vehicles

Seamlessly integrated so far

SEPARATION

Utilising coloured bags for ease of separation during early phase of pilots

Collection bags could be future option for source segregated collections via transfer station

Need to test loose collections to understand infrastructure required at sorting stage, challenging for source segregated

COMPOSITION

Initial findings in line with expectations regarding material type split

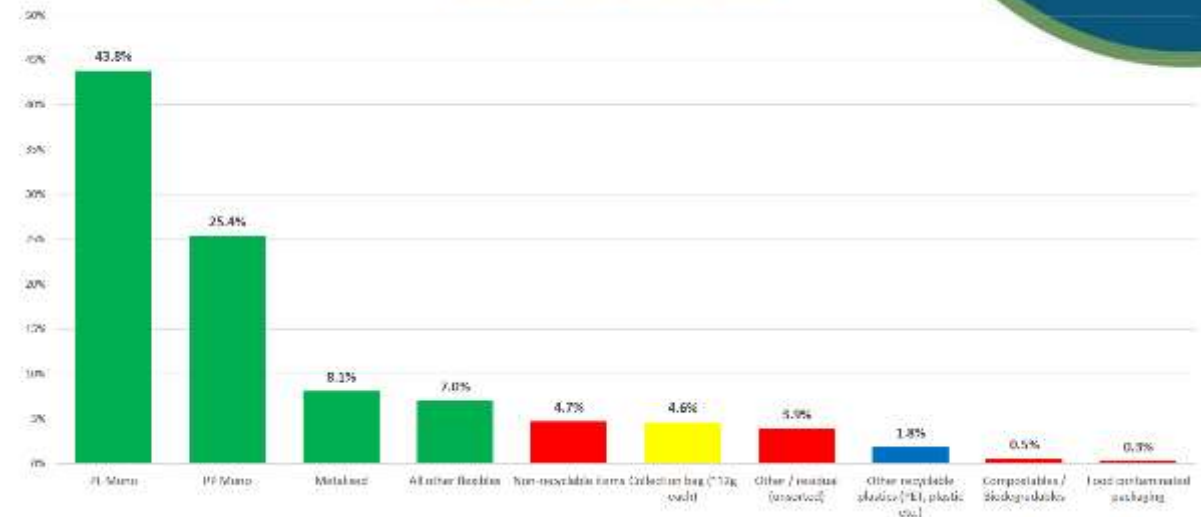
Lower than anticipated contamination

- 84% Target material
- 7.6% non-target non-recyclable
- 78% material is PE and PP, of which 25% has no ink coverage
- 16% multi-layered material
- Under 0.5% food contamination

Interesting householder behaviour



Overall Material Composition



TREATMENT

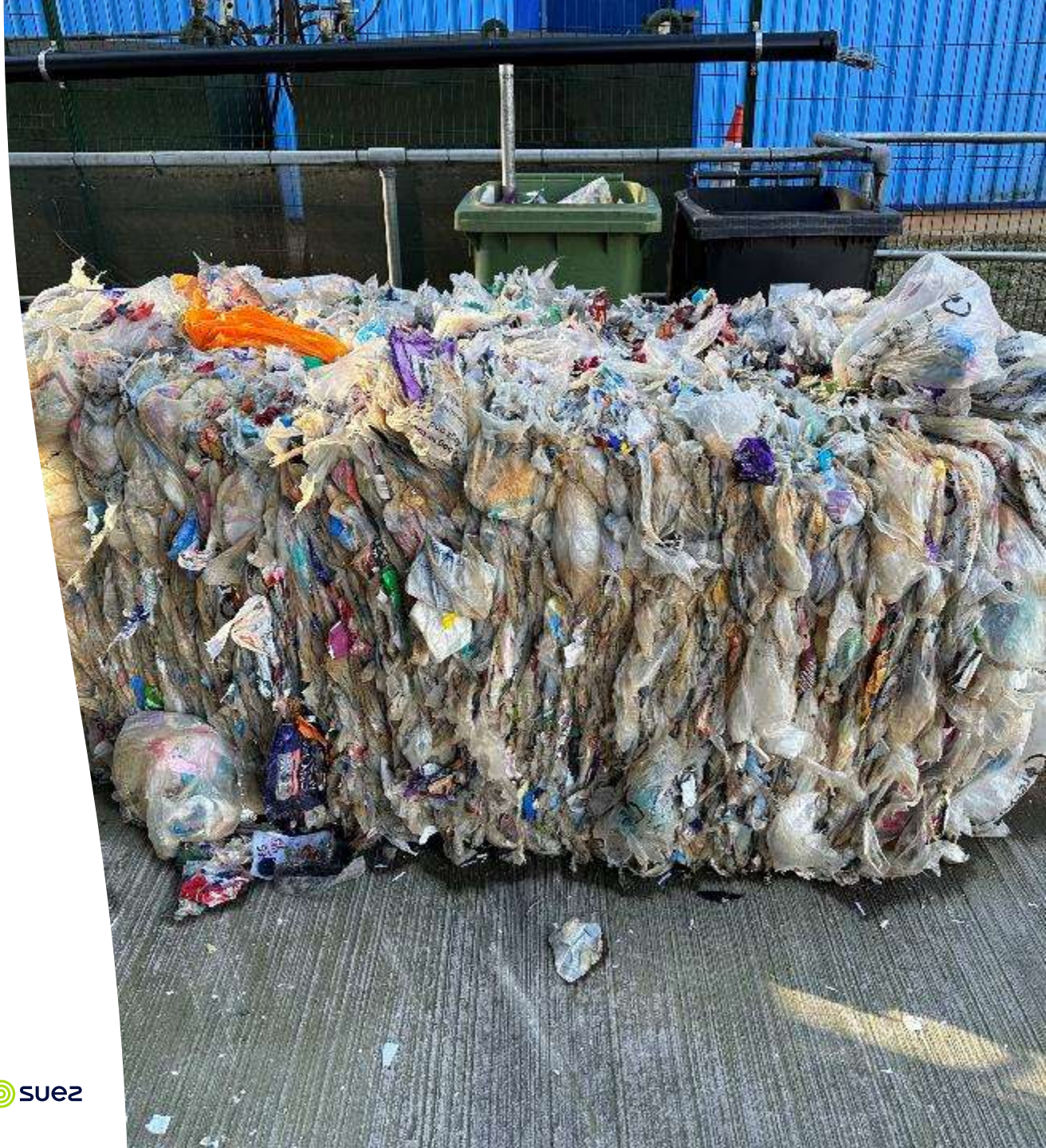
MATERIAL TO BE TESTED IN MECHANICAL AND CHEMICAL RECYCLING

Commercial

Plastic lumber, wash, shred extrude mechanical, and chemical recycling tests

Advanced/Novel

Technology to remove odours, colours and contaminants and advanced chemical recycling





WHAT'S NEXT

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“Simpler Recycling” details

Flexibles to be included

EPR SA and Modulation fee for flexibles

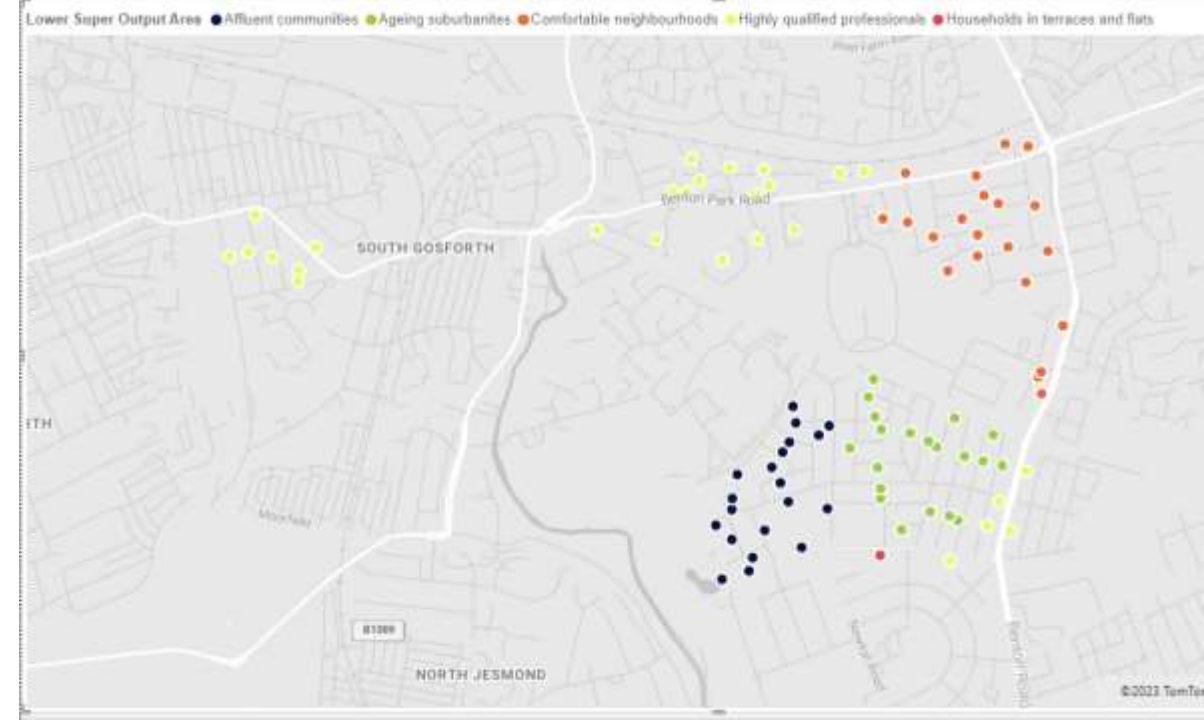
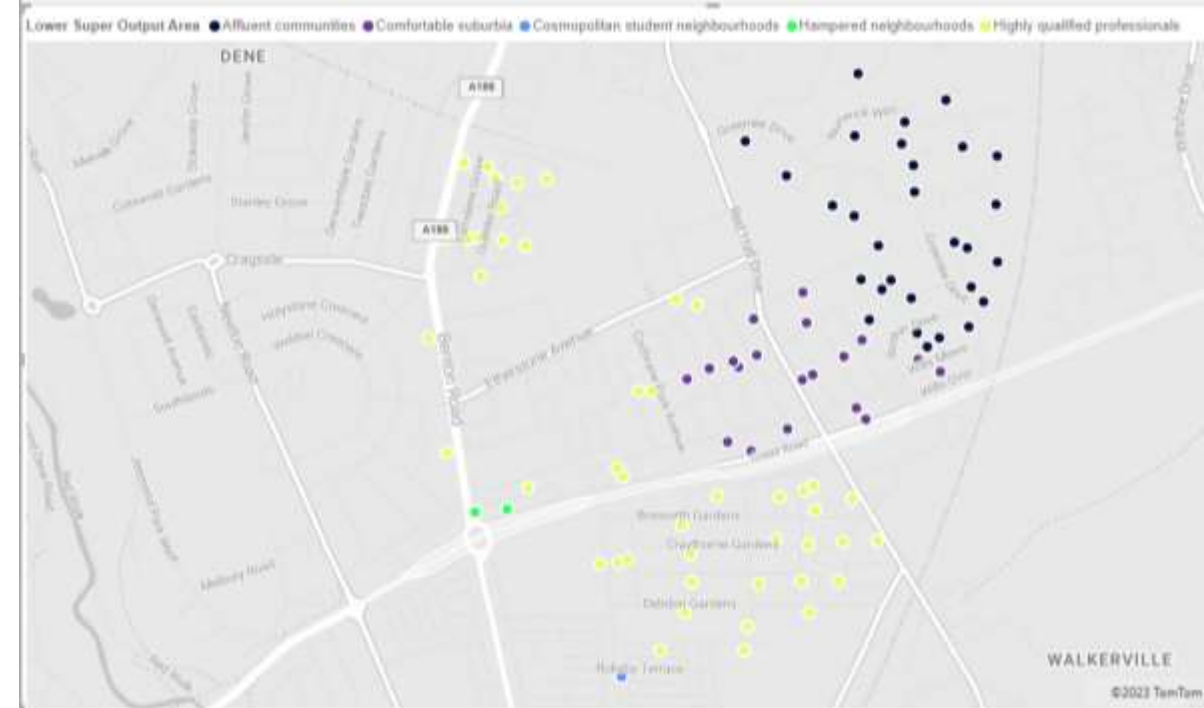
FlexCollect learnings will feed in to inform modulation fee development

What is needed to industrialise

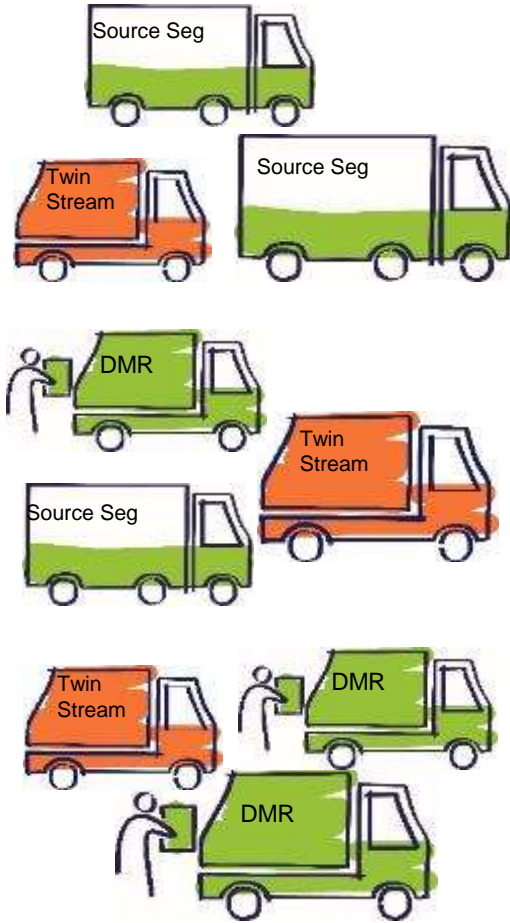
Overlay ONS and project data to understand participation, composition and volumes levers

Understand volumes of flexibles households are still placing in residual bins

Loose collections and sorting, end markets options and costs, understanding of flexibles not captured to inform placed on market, detailed participation monitoring



FUTURE OF COLLECTIONS AND SORTING



Suburban and rural

Expecting more source segregated and twin stream (fibre and the rest)
Less materials needs complicated sorting
Likely to lose some fibre to source seg collection

Urban and Some suburban

Expecting more source segregated and twin stream (fibre and the rest) and less comingled
Slightly less material requires complex sort, more requirements for simple sort
Likely to lose some fibre to source seg/twin stream collection

Urban and very Urban

Expecting twin stream (fibre and the rest) and slightly less comingled
Slightly less material requires complex sort, more requirements for simple sort
Likely to lose some fibre to twin stream collection

Comingled MRFs lose DRS materials, gain cartons, plastic films, flexible packaging, more bathroom plastics, and pots, tubs and trays.

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