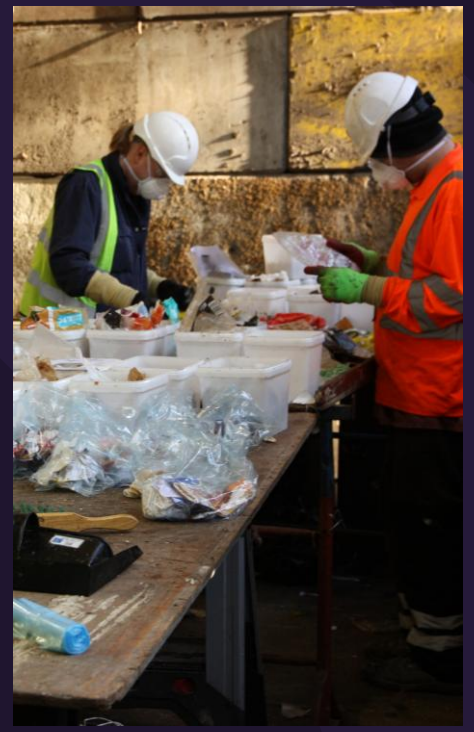
Research project:
Carpet and flooring take-back schemes in the UK

Contents

Our work spans communities, consultancy and data.



We help governments, businesses, NGOs, non-profits and community groups **embrace regenerative change and rebalance their relationship with resources.**

Consultancy

Making plans for positive change

Our consultancy team supports clients to address their **circular economy**, **policy**, **behaviour change** and **waste strategy** needs.

Projects

The carbon impact case for increasing reuse and remanufacturing of leftover paint

When the British Coatings Federation (BCF) developed the Resource Efficiency Action Plan for decorative paint in 2015, it was estimated only 2% of leftover paint in the UK was recycled or remanufactured. The 98% that is landfilled or incinerated is seen as a major environmental issue for the industry that must be tackled.

An action roadmap for aerosol recycling

It is expected that mandatory recycling targets of 50 percent for aluminium and 85 percent for steel packaging by 2030 will form part of new packaging Extended Producer Responsibility (pEPR) reforms. Both aluminium and steel aerosols will have an important role in helping achieve these targets; however, aerosol recycling is not currently optimised.

With the advent of pEPR, the current lower than needed levels of aerosol recycling among households could result in producers and users paying large fees for using steel and aluminium, the world's most recyclable materials, in aerosols. At the same time, this could undermine the sustainability credentials of aerosols if less recyclable and sustainable materials were to be used instead, despite technology being established enough to ensure high quality recycling of metal aerosols.

Communities

Tapping into the power of togetherness

We have a proven track record of supporting and delivering vital programmes that help groups and organisations to harness the full potential of community action.

Our community-focused projects include:

Community Action Groups Devon

Community Action Groups Somerset

Community RePaint
Proudly sponsored by Dulux

FiXY

Recofloor™
Vinyl Take-Back Scheme

GLOUCESTERSHIRE
REAL NAPPY PROJECT

Projects

Recofloor™
Vinyl Take-Back Scheme

Multi-award winning Recofloor scheme now part of Resource Futures

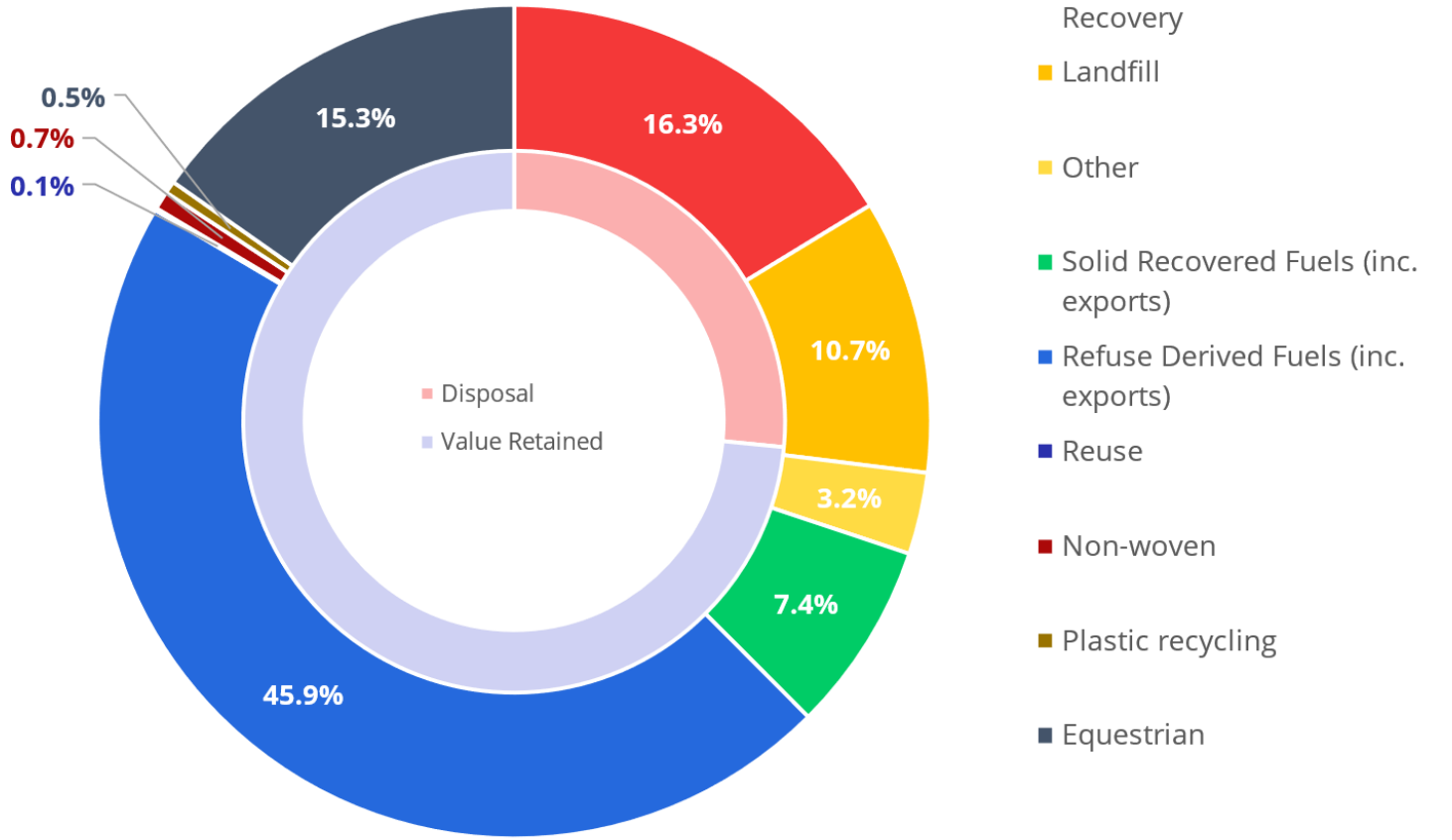
2 December 2024

Resource Futures will take on the management of multiple award winning Recofloor programme as of November 2024, after flooring manufacturers Altro and Polyfloor commissioned it to oversee the day-to-day operations of their scheme to recover and recycle vinyl flooring in the UK.

Project overview

Context

- Total carpet and textile flooring waste = 389,922 tonnes
- 46% (207,882 tonnes) sent to energy from waste plant as RDF
- 27% incinerated or landfill



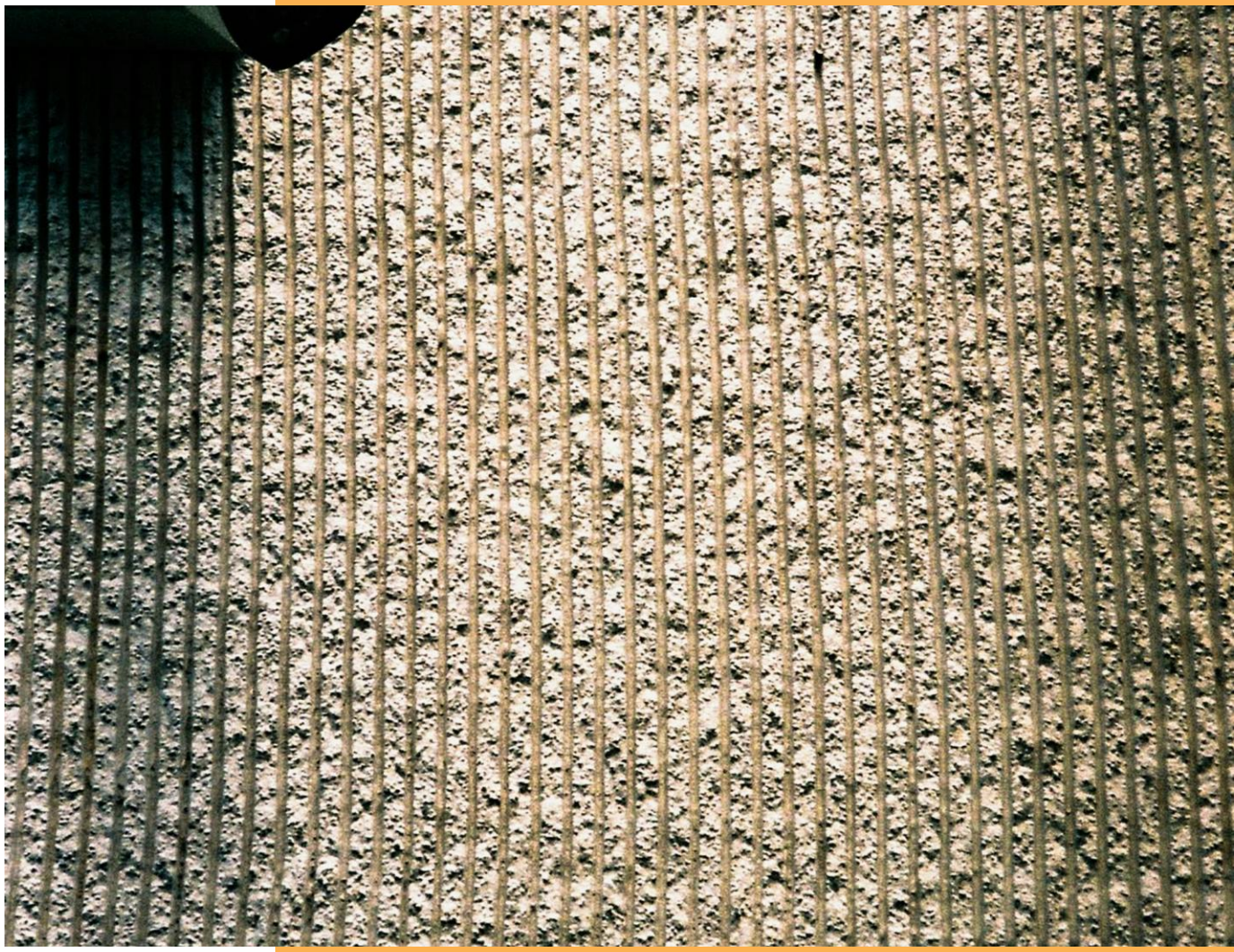
Project Overview

- A comprehensive assessment of existing textile and flooring takeback schemes across the UK
- Identify and assess:
  - Current schemes
  - Existing infrastructure
  - Where material is being processed
  - Data collection and reporting
- Provide key insights into how the industry can improve existing schemes

Methodology

Methodology

- Rapid evidence assessment
  - Initial scan of stakeholders and data sources
- Desk research / literature review
  - Review of industry reports, journal articles, public datasets
- Interviews
  - Interviews with take-back scheme operators and waste management stakeholders
- Data analysis and results synthesis



Interviews

Take-back scheme operators (*various flooring types*)

- Product types / range collected
- Operational delivery and logistics
- Volumes collected
- Scheme administration and management
- End destinations
- Future plans and directions

Waste management stakeholders (*specialist only*)

- Facility locations/mapping
- Facility types
- Material sorting and new technologies
- Regional hubs
- Capacity analysis
- Cost analysis
- Collection requirements

Data collection and management

- Data systems
- Digital tools
- Data integration
- Legal compliance
- Data sharing

Initial findings: literature review

Literature review: take-back schemes

- Materials are often replaced ahead of the end of their life expectancy
- While high recovery for non-hazardous construction and demolition waste, lack of auditing and official channels to confirm routes and destinations
- A linear fit-out process – decisions for final destinations of materials generally decided by waste contractors
- Range of take-back schemes run by retailers and manufacturers – using reclaimed material as a feedstock in their manufacturing process. However, common constraints include:
  - minimum quantities/grades
  - only specific, few products requested
  - waiting times for collection
- On-site reuse vs reuse by social enterprises

Literature review: waste management

- Gradual movement towards improving recovery; environmental ambitions driving better design and collection. However, key challenges remain:
  - Recyclability and re-usability of products
  - Waste management at sites
  - Information on products at end-of-life
- Need for:
  - Processing infrastructure (hubs)
  - Improved access to information at end-of-life

Initial findings: interviews

Interview findings:
take-back schemes

Product types / range collected

Scheme admin and management

Operational logistics

End destinations

Volumes and data collected

Future plans

Data

Product Range and accessibility

- Mix of post installation and post consumer take back
- Carpet tiles, planks and underlay
- Most schemes aimed at **commercial** contractors and fitters

Receipt of materials

- **Collection** more common than drop-off
- Bulk bags & pallets for collection on-site
- Not many TBS drop-off sites; mostly operated by re-use organisations

Own products vs competitors

- Most accept **own material** only for recycling
- Evidence of others taking other competitors' products, for re-use only
- Main reasoning is lack of knowledge of what materials are in the competitor's product

Interview findings:
take-back schemes

Product types / range collected

Scheme admin and management

Operational logistics

End destinations

Volumes and data collected

Future plans

Data

Material acceptance

- Most have set criteria for recycling (e.g. own brand) and re-use (e.g. whole tiles)
- **Contamination** in post-consumer waste;
  - Soiling/glue etc
  - Other products
- Generally good condition required for re-use
- Issue of other materials with clean-off cuts

Scalability and Expansion

- General openness and **willingness to do more and collaborate**;
  - Expand volumes collected
  - Expand product range
  - Work with other manufacturers
- Main barriers include bad habits and **lack of motivation & legislation**

Interview findings:
take-back schemes

Product types / range collected | Scheme admin and management

Operational logistics | End destinations

Volumes and data collected | Future plans

Data

Operational Logistics

- Mixed methods used (e.g. bags vs pallets) – contractor convenience
- No systems in place for tracking collections – either ad-hoc or use by 3rd party

Service Delivery

- Generally run by 3rd party companies (mostly transportation needs)
- Where in-house, difficult to organise reverse logistics due to irregular collection patterns

Capacity Assessment

- All schemes covered do not run at full capacity – could process more volumes of material if available

Interview findings:
take-back schemes

Product types / range collected | Scheme admin and management

Operational logistics | End destinations

Volumes and data collected | Future plans

Data

Volumes and data collected

- All schemes collect basic volumes collected & sent to final destinations – low granularity
- Few looking at future projected collection volumes
- Recyclers reporting 90-100% recycling rates of recovered material
- Re-use less clear – exception with schemes where re-use is primary destination (80%)

Interview findings:
take-back schemes

Product types / range collected | **Scheme admin and management**

Operational logistics | End destinations

Volumes and data collected | Future plans

Data

Scheme admin and management

- Not managed by dedicated members of staff – additional responsibility
- No funding received – open to aid expansion/absorb costs
- Costs are varied – depend on material & operational model
- Some free of charge, others charge costs for collection and/or processing
- Mixed efficiencies – improvement requires buy-in from customers

Interview findings:
take-back schemes

Product types / range collected | Scheme admin and management

Operational logistics | **End destinations**

Volumes and data collected | Future plans

Data

End destinations

- Most TBS indicated they own their own recycling capacity (generally for their own products)
- At least two TBS have recycling facilities abroad
- Recovered carpet tiles for re-use (either in –house or partnered with charities/social enterprises)
- Rejects (contamination) end up in EfW - gate fees unknown

Interview findings:
take-back schemes

Product types / range collected | Scheme admin and management

Operational logistics | End destinations

Volumes and data collected | **Future plans**

Data

Future Plans

- All stakeholders indicated either plans / intent to expand
- EPR is a common talking point – seen as an enabler for expansion for some, and a driver for change for others

Interview findings:
take-back schemes

Product types / range collected

Scheme admin and management

Operational logistics

End destinations

Volumes and data collected

Future plans

Data

Data systems and integration

- Majority use basic systems – internal spreadsheets
- Use of digital tools include bin weighing systems and weighbridges
- Potential to integrate data systems into industry-wide platforms, however:
  - Lack of standardisation in data
  - Cyber-security concerns

Data reporting and sharing

- Majority indicated no legal obligations to report data – this may change with EPR
- TBS either already share data, or do not but show potential interest in doing so
- However, data confidentiality will need to be in place;
  - Safeguards and anonymity
  - Protect competitive advantage

Next steps

Timescales

- **June:** Continue interviews with TBS and waste management stakeholders
- **June/July**: Synthesis of complete findings and report development with results & recommendations

We will be seeking to understand how best UKSFA Members can get involved.

Come and talk to us

resource futures

resourcefutures.co.uk

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