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MRF Code of Practice & Material Quality Sampling

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- Background
- Developing the Code
- Sampling Requirements
- Sampling Methodologies
- ZWS Support
- Early Findings



EU Waste Framework Directive

“Member States shall take measures to promote high quality recycling and set up separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors”

Zero Waste Plan

Mission:

To achieve a zero waste Scotland, where we make the most efficient use of resources by minimising Scotland's demand on primary resources, and maximising the reuse, recycling and recovery of resources instead of treating them as waste.



Waste (Scotland) Regulations

Co-mingling permitted where:

- the quality/quantity is not *significantly* less than from a separate collection;
- waste is not mixed with other wastes that cannot be recycled;
- the waste meets any relevant quality standards;
- the waste is managed in a manner that promotes high quality recycling.



Circular Economy

The Scottish Government

Circular Economy
Strategy for Scotland

- Design
- Reuse
- Repair
- Remanufacture
- Recycling
- (Producer) Responsibility
- Recovering value
- Recovering energy
- Landfill



#MakeThingsLast

Quality?



Developing the Code

Recyclate Quality Action Plan Consultation

- Material Sampling and Composition Testing
- Making Material Testing Results Transparent to all Stakeholders
- Benchmark Standards for paper, card, plastics, metals and glass
- Voluntary Grading System

Key consultation findings

- agreement for intervention,
- that any sampling regime should be mandatory,
- proposed 1000T threshold was appropriate,
- sampling focus on input materials,
- no consensus re output materials,
- no desire to include residual waste.

The Final Code

Collaborative Development



Industry Body Consultation



Intended Outcomes

- Ensure compliance with Waste (Scotland) Regulations;
- Drive up the quality of recycled materials,
- Increase transparency within marketplace around quality,
- Stimulate a robust and vibrant marketplace;
- Increase confidence in quality of recovered materials amongst remanufacturer,
- Reduce issues arising under the Waste Shipment Regulations

Code of Practice on Sampling
and Reporting at Materials
Recovery Facilities

Sampling Requirements



Facilities likely to be in scope:

- Material Recovery Facilities (MRFs) receiving and sorting;
 - Mixed dry recyclable waste and/or,
 - Separately collected dry recyclable waste.

- Commercial waste treatment operations and transfer stations where materials similar to mixed dry recyclable waste are sorted into two or more output materials (e.g. a MRF sorting plastics and cans would be in scope).

Facilities not likely to be in scope:

- Waste transfer stations acting only as bulking points (with no sorting activities).
- Household Waste Recycling Centres (Civic Amenity Sites).
- MRFs receiving and sorting residual waste only (so called 'Dirty' MRFs).
- Mechanical Biological Treatment (MBT) plants, including those used at autoclave facilities unless mixed dry recyclable waste is accepted for any MRF operations that form part of the process.
- Refuse Derived Fuel (RDF) production facilities.
- WEEE management facilities.

Key definitions

Materials Recovery Facility	A facility where dry recyclable waste is treated in order to separate that waste into a dry waste stream or streams.
Input Material	Mixed dry recyclable waste received at the facility for sorting and separately collected dry recyclable waste received at the facility for sorting (e.g. to remove contamination).
Co-mingled	The collection of two or more target materials in a single receptacle for subsequent sorting into separate streams at a materials recovery facility.
Target Material	A material that is specifically targeted by the MRF licence or permit holder as destined to be separated out from other materials to facilitate its recycling.
Non-Target Material	A material that is capable of being recycled but is not a target material for the MRF.
Non-Recyclable Material	Waste material that is not capable of being recycled.

Input Materials

Sampled to determine types of

- Target
- Non-Target
- Non-Recyclable



Target must further reference target material grades –
paper card glass plastic metals

Rejected loads - no need to sample

Loads received, but not sorted at facility – no need to sample



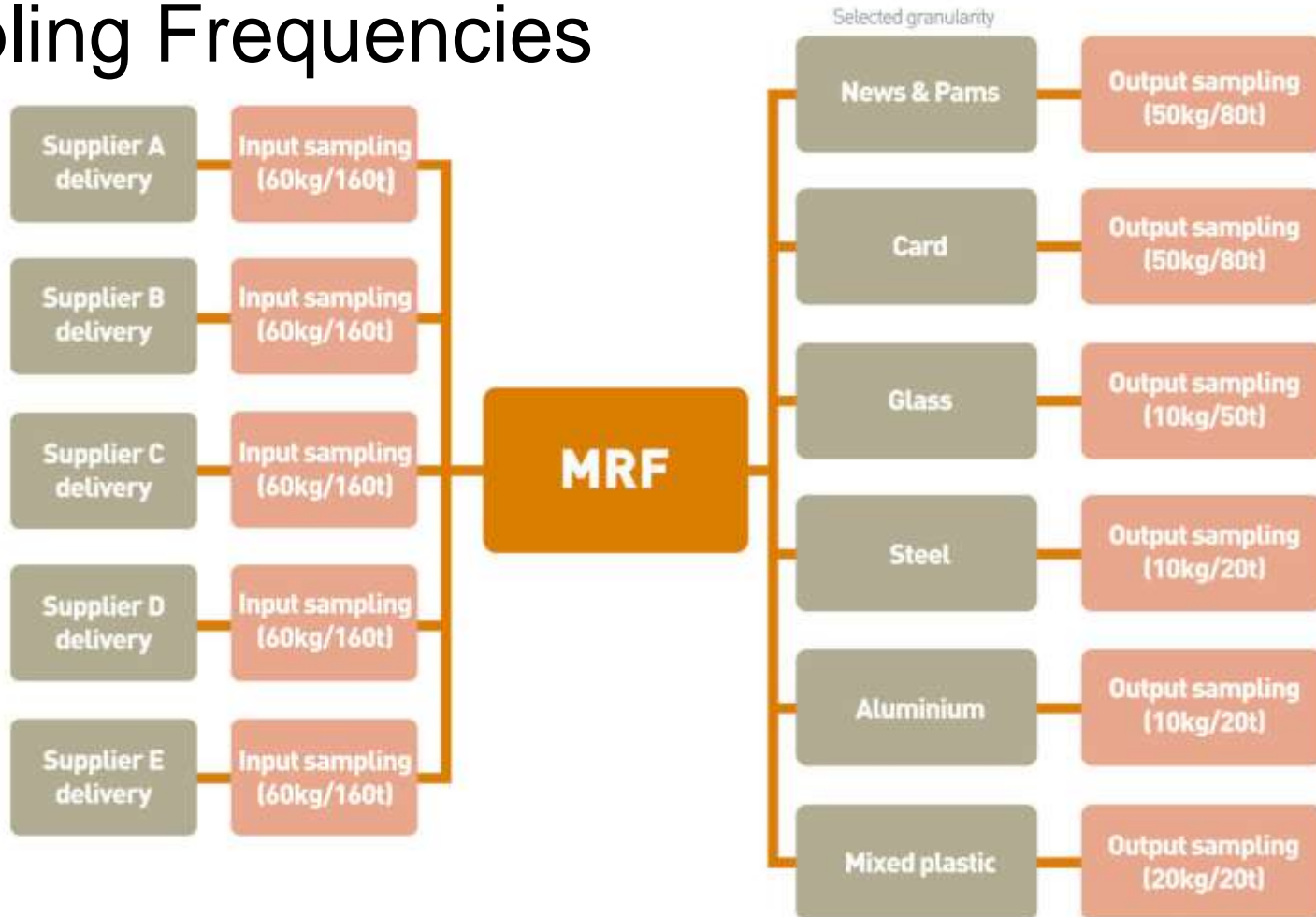
Output Materials

Sampled with reference to specific material grade – e.g. PET Bottles or News & PAMS

Target, Non-Target, Non-Recyclable materials defined against each output grade purchase specification

Materials can only be classified as “target” if they’re not identified as a contaminant, even if within limit they can be recycled directly by that reprocessor

Sampling Frequencies



Resources required

Safe sampling area

Covered, and away from vehicle movements

Trained Staff

Fully understand sampling requirements

Ensure consistency in method/results

Secure Record Keeping

Code requires quality data is held for 4 yrs



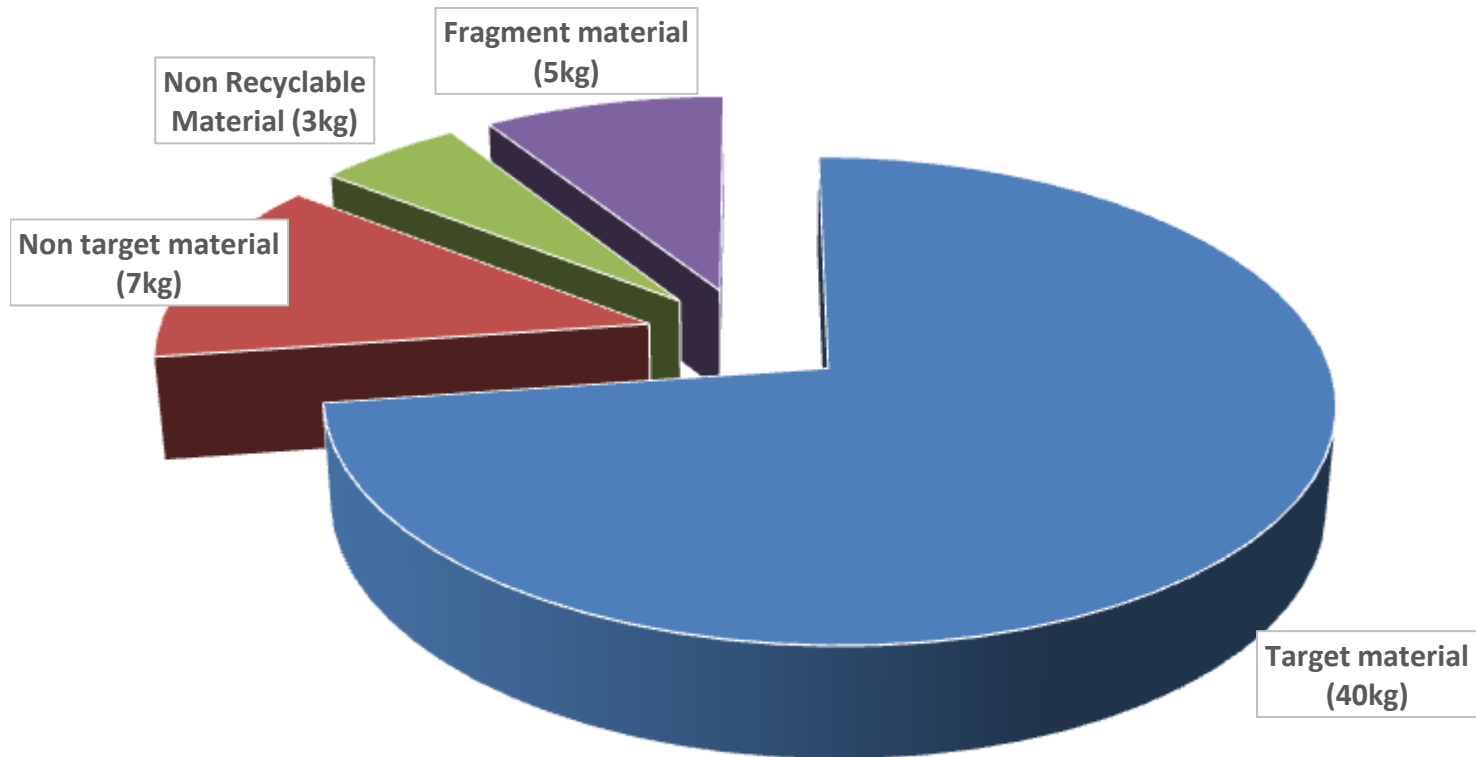


Sampling Methodology

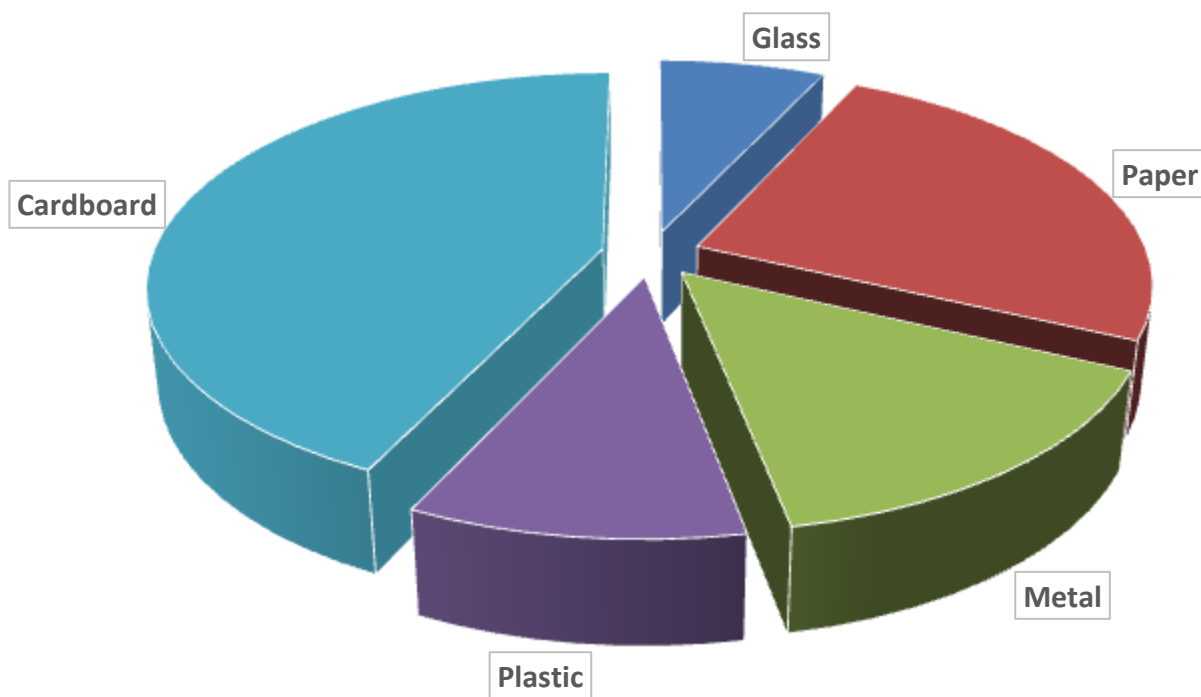
- Prepare sampling area/equipment
- Isolate Material
- Collect sample
- Weigh sample
- Test the sample
- Record Results
- Clean Up



Analysis



Analysis



ZWS Support

Grant Funding

- 2x programmes for sampling equipment
- 11 recipients, approx. 100K

Testing & Reporting Guidance

- Developed by ZWS & SEPA
- Derived from WRAP guidance

Training

- Quality sampling training for MRF staff (15 sites)
- Local Authority Officer sessions delivered soon









Early findings...

- In-scope?
- Increasing contamination %
- Difficulty defining non-target/non-recyclable
- Fragments data
- Quality push required
- Regular communication between Suppliers/MRF



Thank you.

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