



UK Paper Recovery

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Unsustainable



“PaperChain Members have serious concerns that the introduction and growth of single stream (co-mingled) collection systems by Local Authorities and the Waste Management industry is unsustainable”

An Apology

■ Source A

- UK Paper Production
 - 12.5 Million Tonnes
- UK Recovered Paper Utilisation Rate
 - 75%

■ Source B

- UK Paper Production
 - 14 Million Tonnes
- UK Recovered Paper Utilisation Rate
 - 67%



Basic Facts



- UK Consumption of Paper:
 - 12.3 Million Tonnes
- UK Production of Paper:
 - Approx 5.6 Million Tonnes
- Recycled Content of UK Production:
 - 67%
- Paper Recovery Rate
 - 55%

Basic Facts

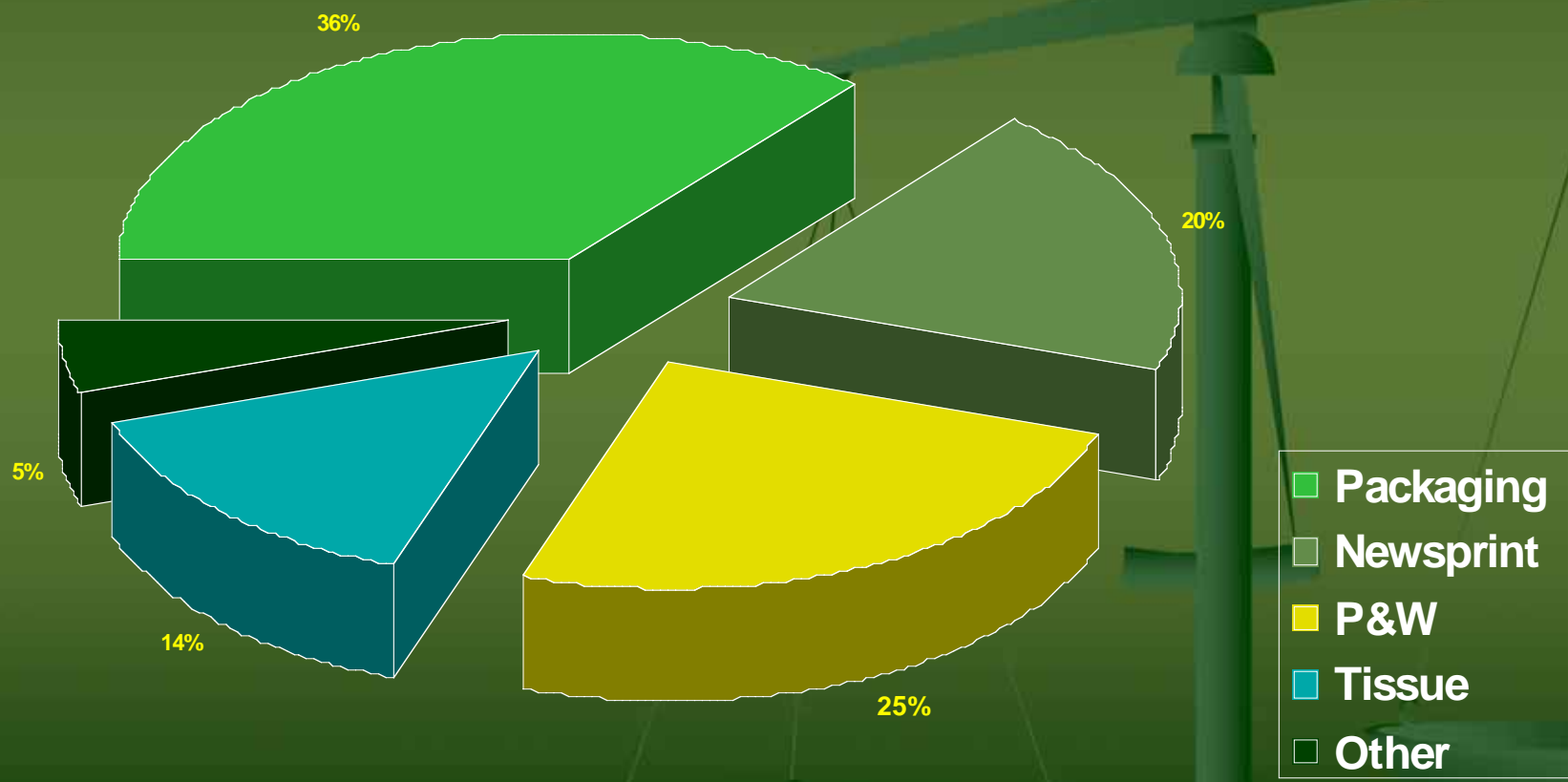


- UK Consumption of Paper:
 - 13.9 Million Tonnes
- UK Production of Paper:
 - Approx 5.6 Million Tonnes
- Recycled Content of UK Production:
 - 67%
- Paper Recovery Rate
 - 49%

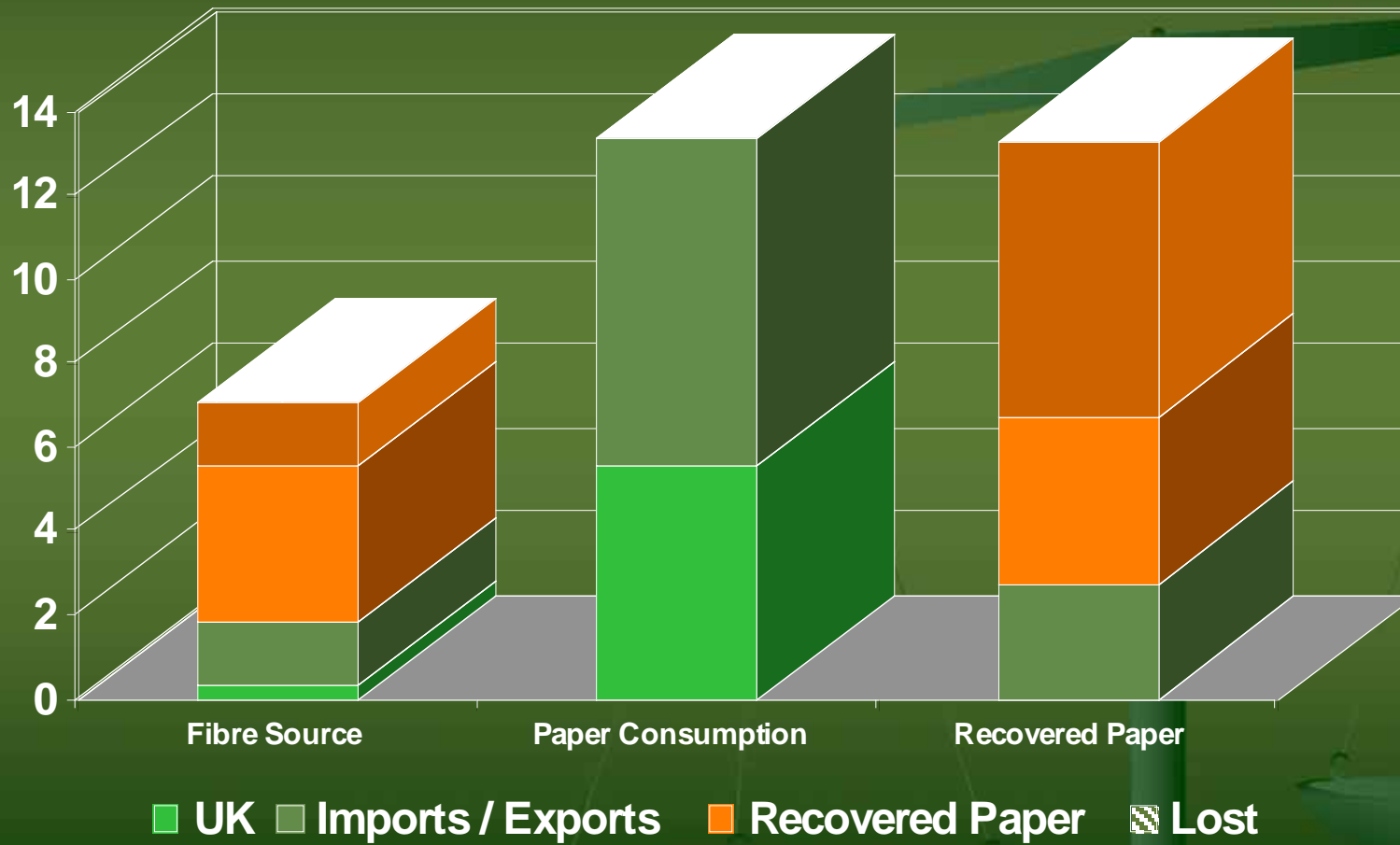
The UK Paper Industry

Paper Grade	Consumption	Production
Newsprint	2.5	1.1
Printings & Writings	4.6	1.4
Tissue	1.1	0.8
Packaging	3.7	2.0
Other Paper & Board	0.4	0.3
Total	12.3	5.6

The UK Paper Industry



UK Paper Flow



Recovered Paper Flow

Non Municipal
Sources

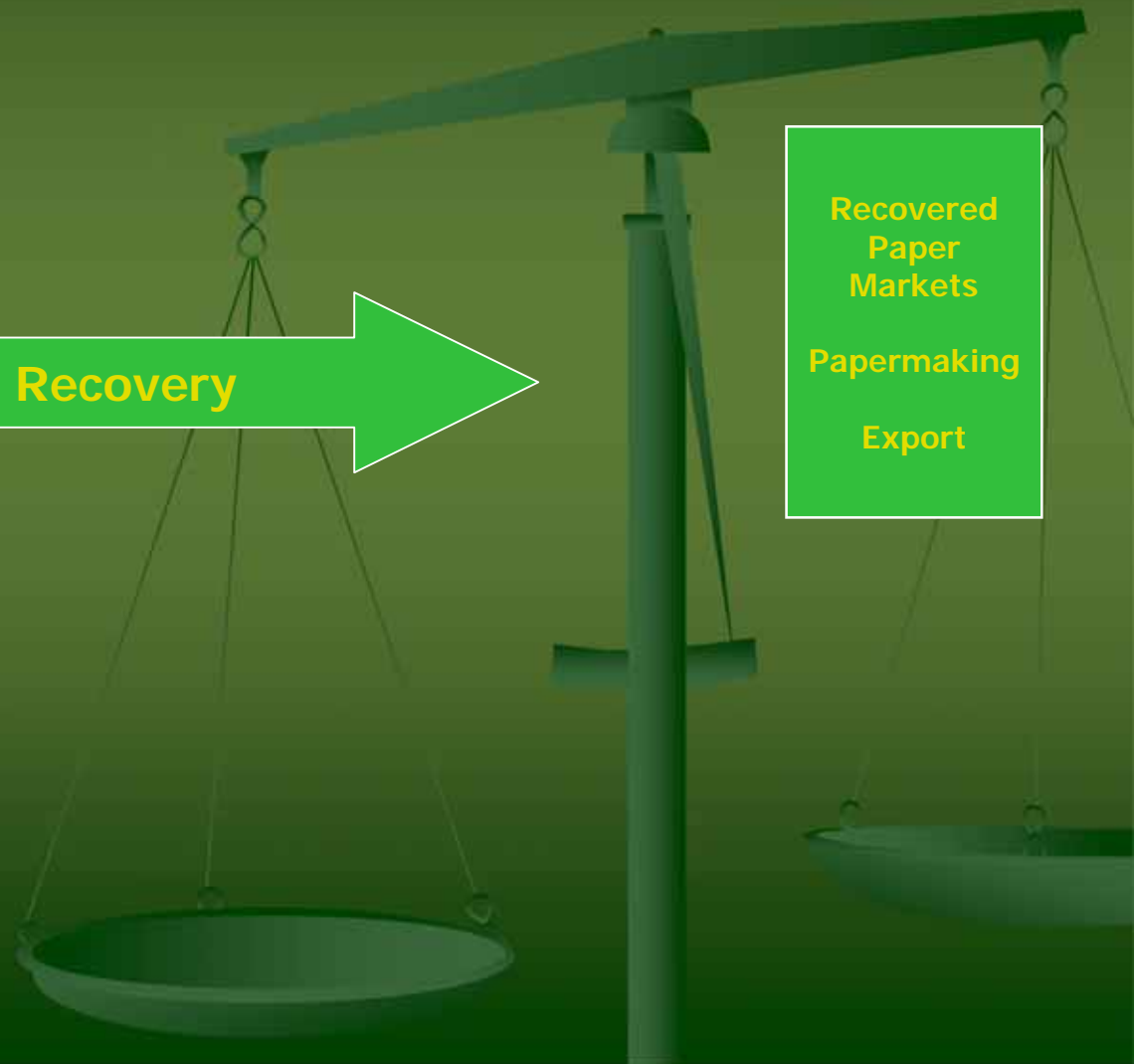
Municipal
Sources

Recovery

Recovered
Paper
Markets

Papermaking

Export



Sources of Recovered Paper



- Non-Municipal Recovery – 60%
 - Retail Sources – c 40%
 - Publishing – c 15%
 - Office Waste – c 15%
- Municipal Recovery – 40%
 - Bring Banks – c 10%
 - Kerb Side / Co-Mingled – c 30%

Municipal Collection



Municipal Collections

Region	Kerbside	Bring Site	Other	Total
England	1,670	407	46	2,123
Wales	63	29	8	100
Scotland	159	67	13	239
Northern Ireland	48	9	1	58
Total	1,940	512	68	2,520

Thousands of tonnes

Recovered Paper Flow

Non Municipal Sources

Municipal Sources

Recovery

Recovered Paper Markets

Papermaking

Export

Down-Cycling

Other Routes

Energy
Composting
landfill
etc

Recovered Paper Flow

Non Municipal Sources

Municipal Sources

Transfer Station

Separation At Source

Co-Mingled Collections

Recovered Paper Markets

Papermaking

Export

Other Routes

Energy
Composting
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Recovered Paper Flow

Non Municipal Sources

Municipal Sources

Transfer Station

Separation At Source

Co-Mingled Collections

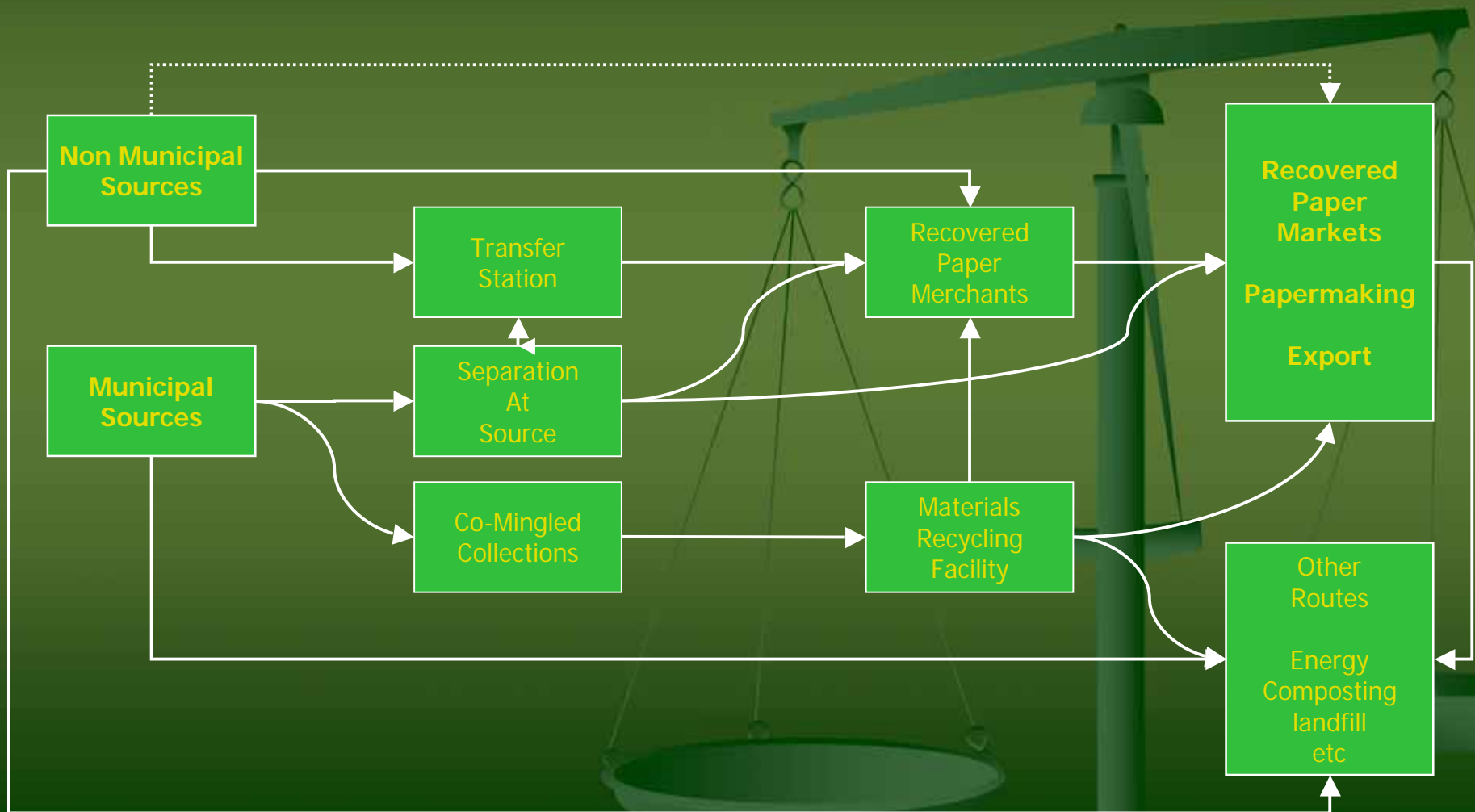
Recovered Paper Merchants

Materials Recycling Facility

Recovered Paper Markets
Papermaking
Export

Other Routes
Energy
Composting
landfill
etc

Recovered Paper Flow



Separation at Source



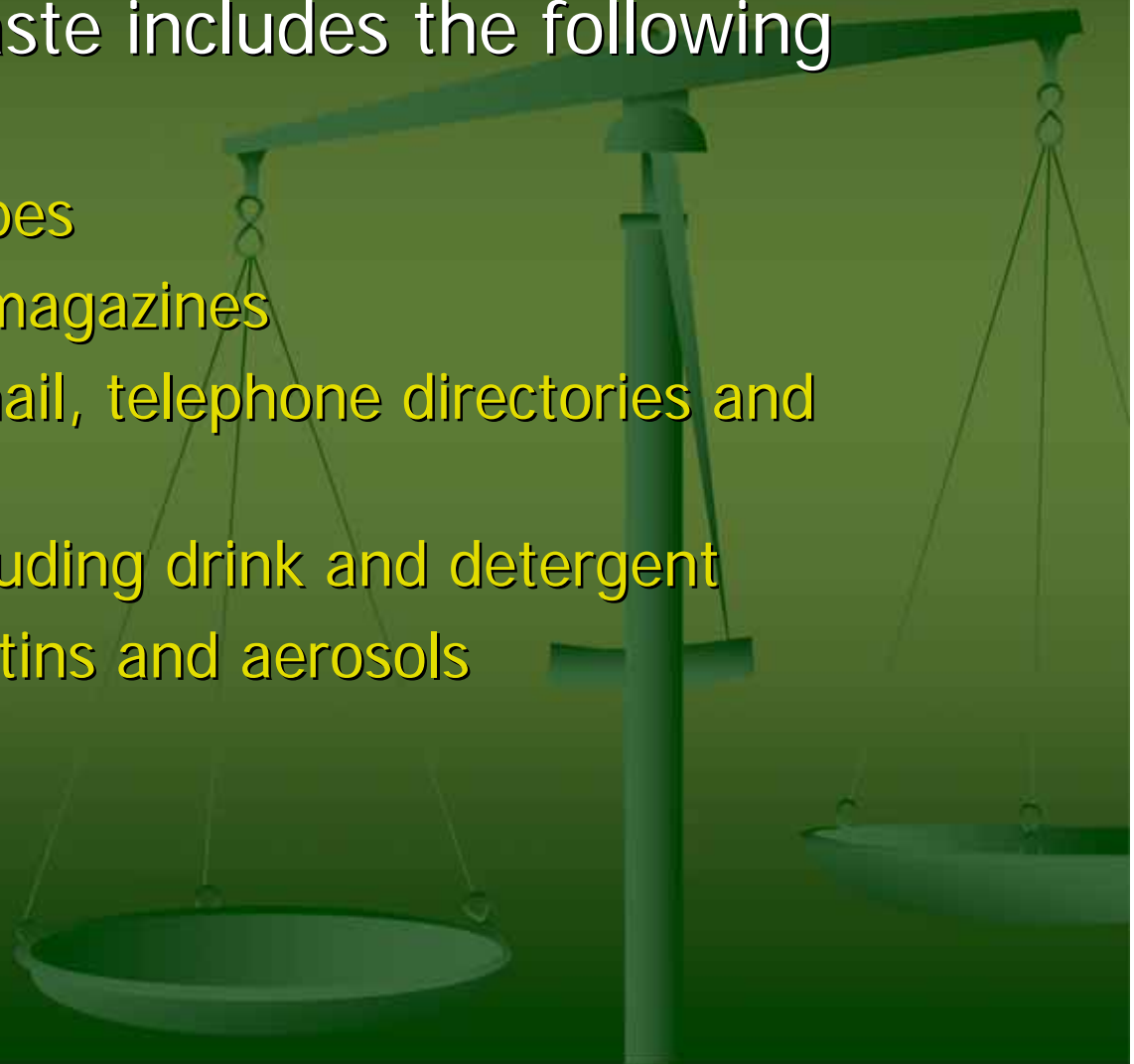
Dry Recyclables



- Dry Recyclable waste includes the following materials:
 - Paper, cardboard and envelopes
 - Newspapers and magazines
 - Brochures, junk mail, telephone directories and catalogues
 - Food packaging - cereal boxes without inner bags
 - Plastic bottles including drink and detergent
 - Drinks cans, food tins and aerosols

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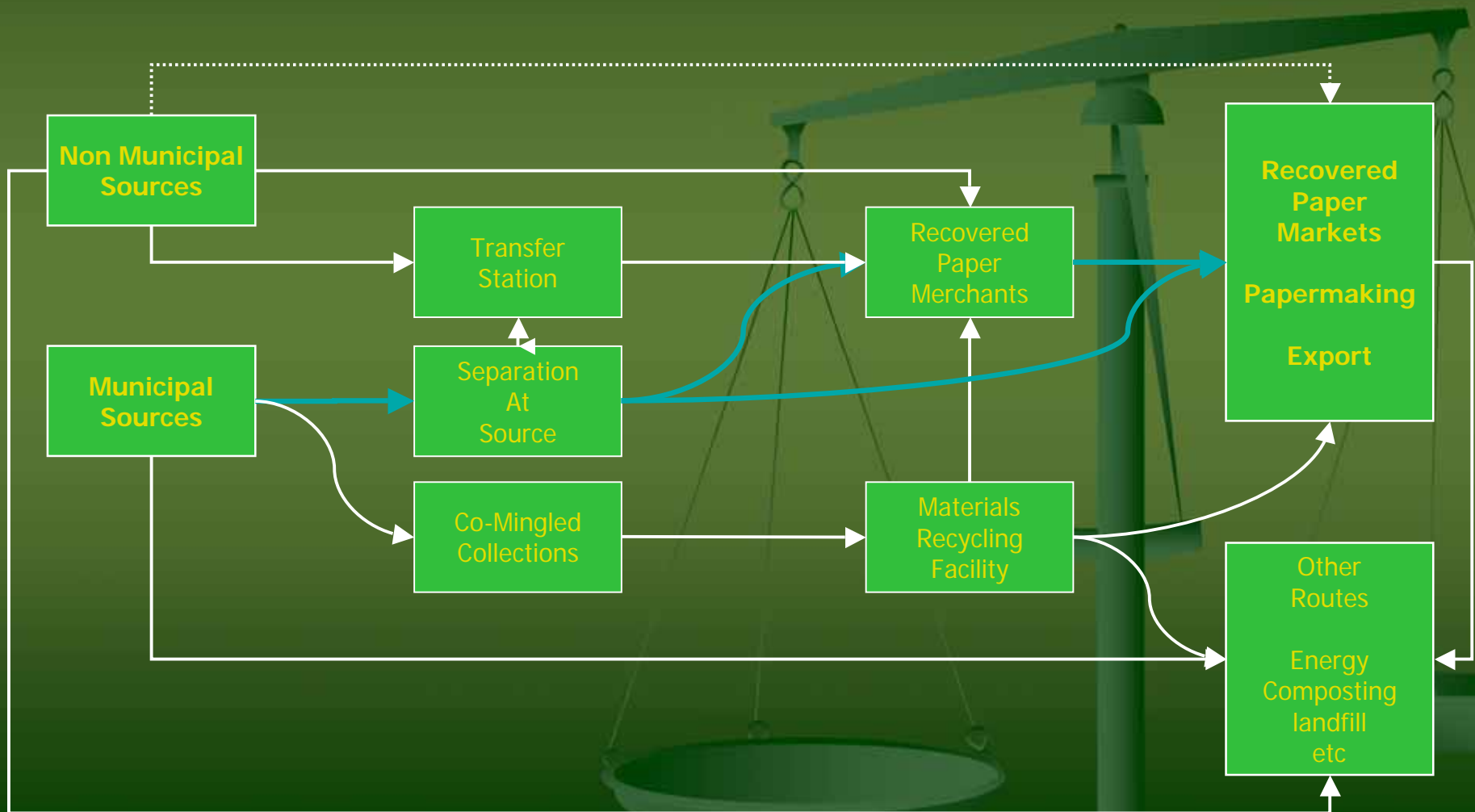


Separation at Source

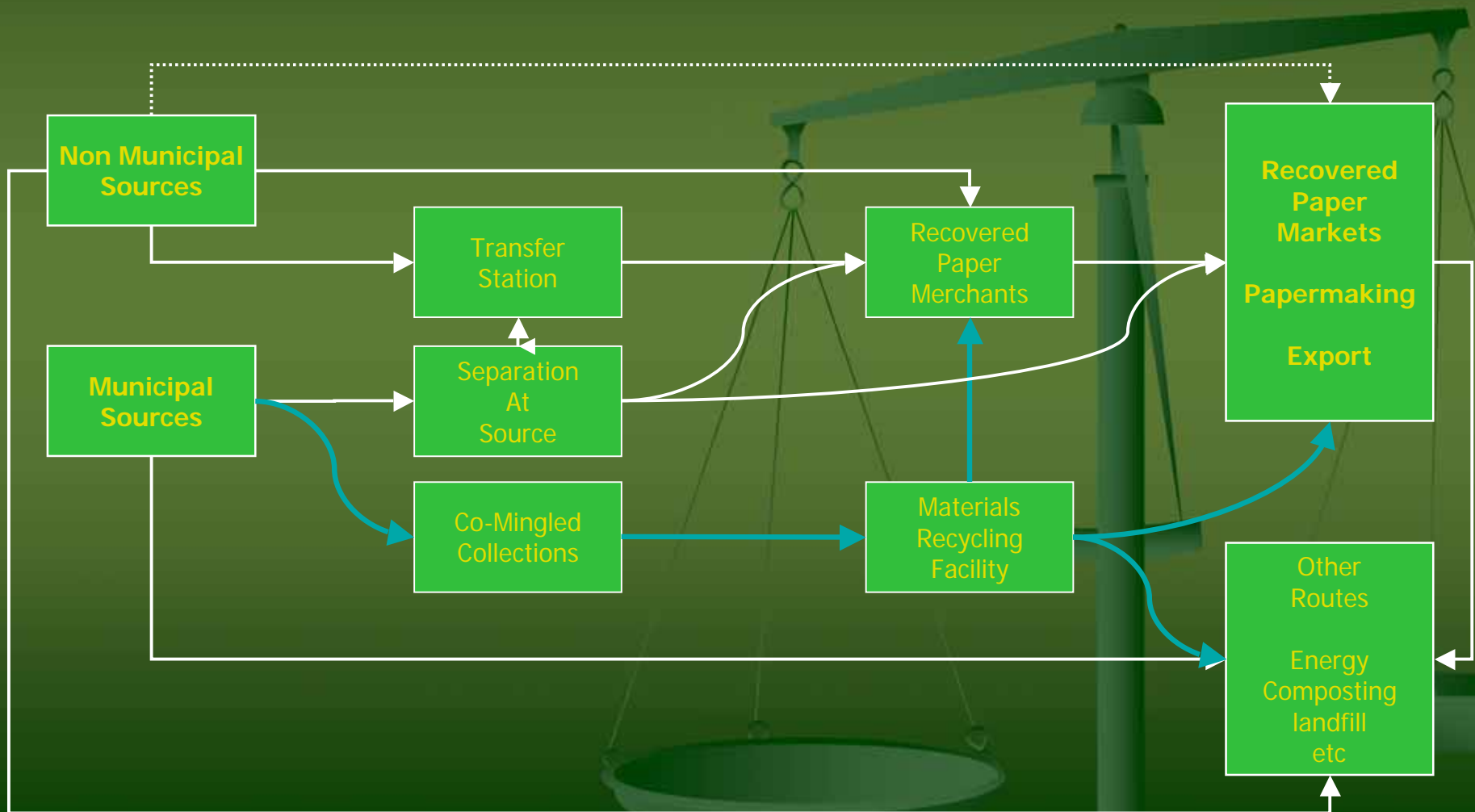
- Labour intensive
- Slow
- Expensive
- Bad Weather
- Blocks Streets
- Dangerous



Recovered Paper Flow



Recovered Paper Flow



Materials Recycling Facility



- Industrial Scale Sorting
- Cost Effective
- Efficient
- Automated



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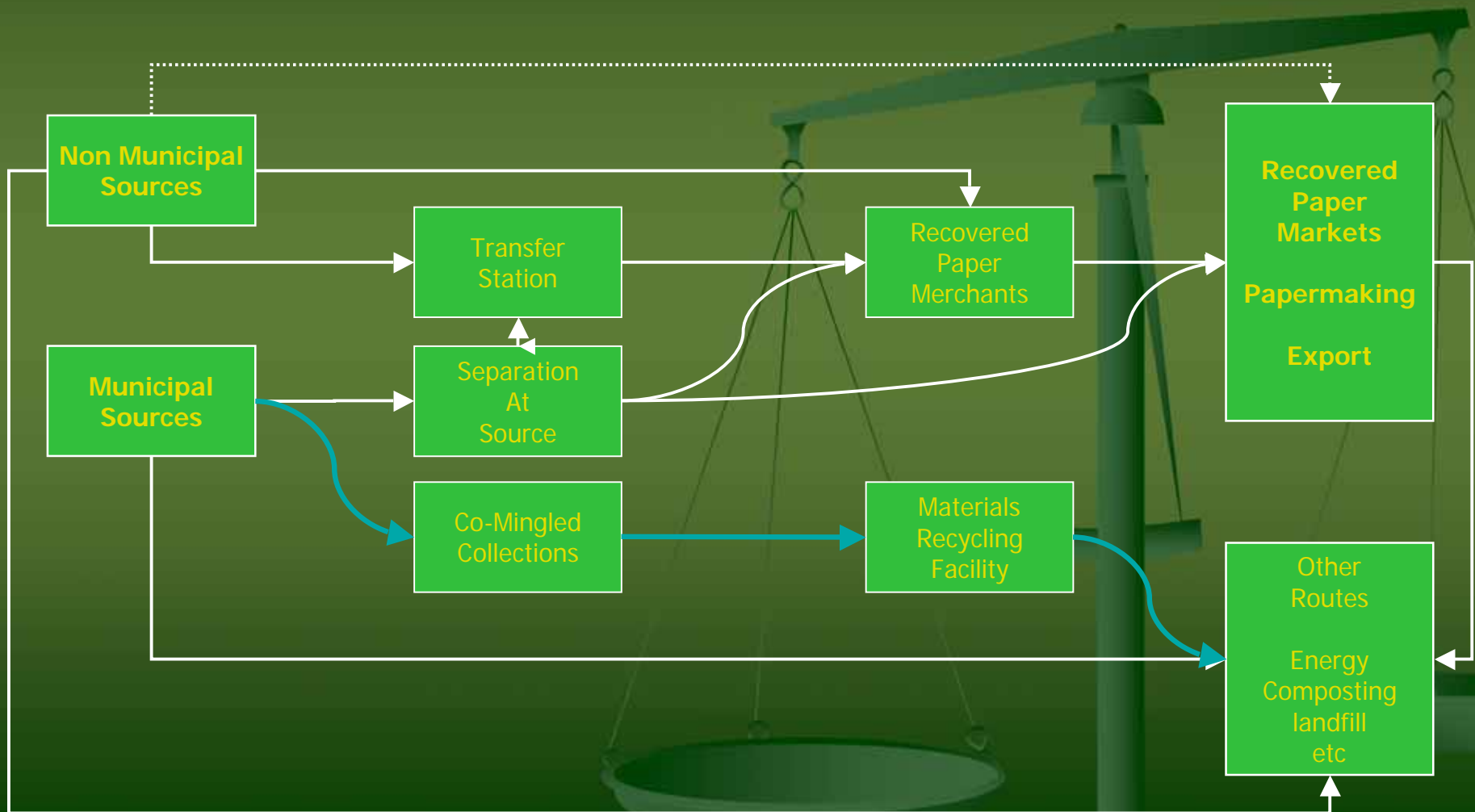


Move to Co-mingled

Collection Route	2003/04	2005/06
Kerbside	1,118 (75%)	1,670(79%)
<i>of which co-mingled</i>	<i>289 (19%)</i>	<i>626 (29%)</i>
Bring Bank	347 (23%)	407 (19%)
Other	20(1%)	46 (2%)
Total	1,485	2,123

Thousands of tonnes

Recovered Paper Flow



Campaign for Real Recycling



CAMPAIGN FOR
REAL RECYCLING

Aylesford Newsprint Ltd

Bridgewater Paper Company Ltd

SCA Recycling UK Ltd

Smurfit Kappa Group

St Regis Paper Co Ltd

UPM-Kymmene (UK) Ltd

Campaign for Real Recycling

Six reasons source separated collects work best:

- Increased revenue from sale of materials from higher quality materials.
 - Reduced carbon footprint – recycling into like for like materials within the UK or Europe reduces greenhouse gas emissions.
 - More flexible – additional materials such as batteries, textiles, etc can easily be added to the range collected.
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Campaign for Real Recycling

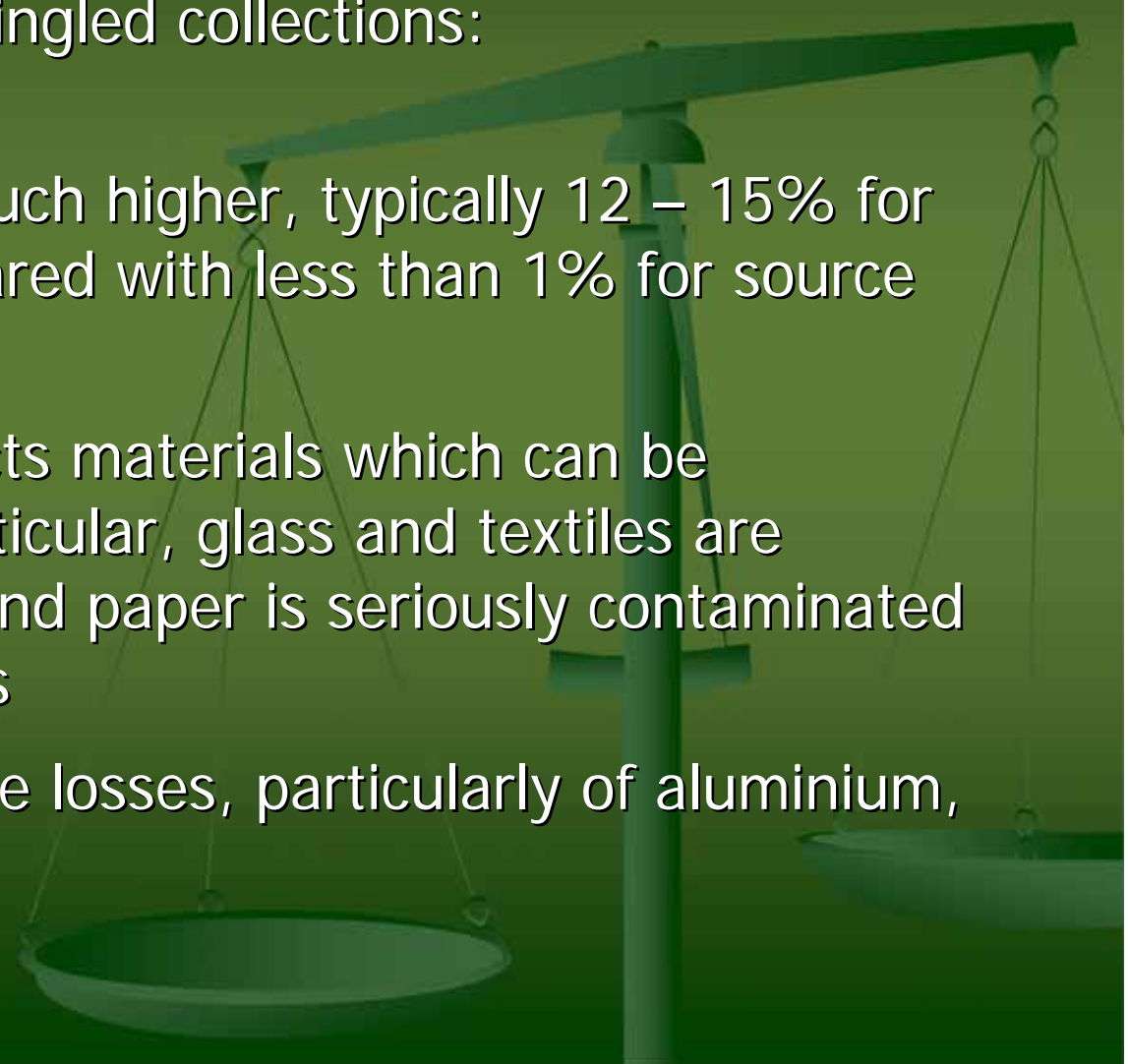
Six reasons source separated collects work best:

- More immediate feedback - to householders by leaving material which can't be accepted for recycling with a note, while still taking those materials which can be accepted.
- Better public relations - people have greater confidence that source separated waste will be recycled efficiently.
- Higher collection quantities - well organised source separated collections are collecting higher quantities of recycled materials over time, particularly if food waste is added.

Campaign for Real Recycling

Disadvantages of Co-mingled collections:

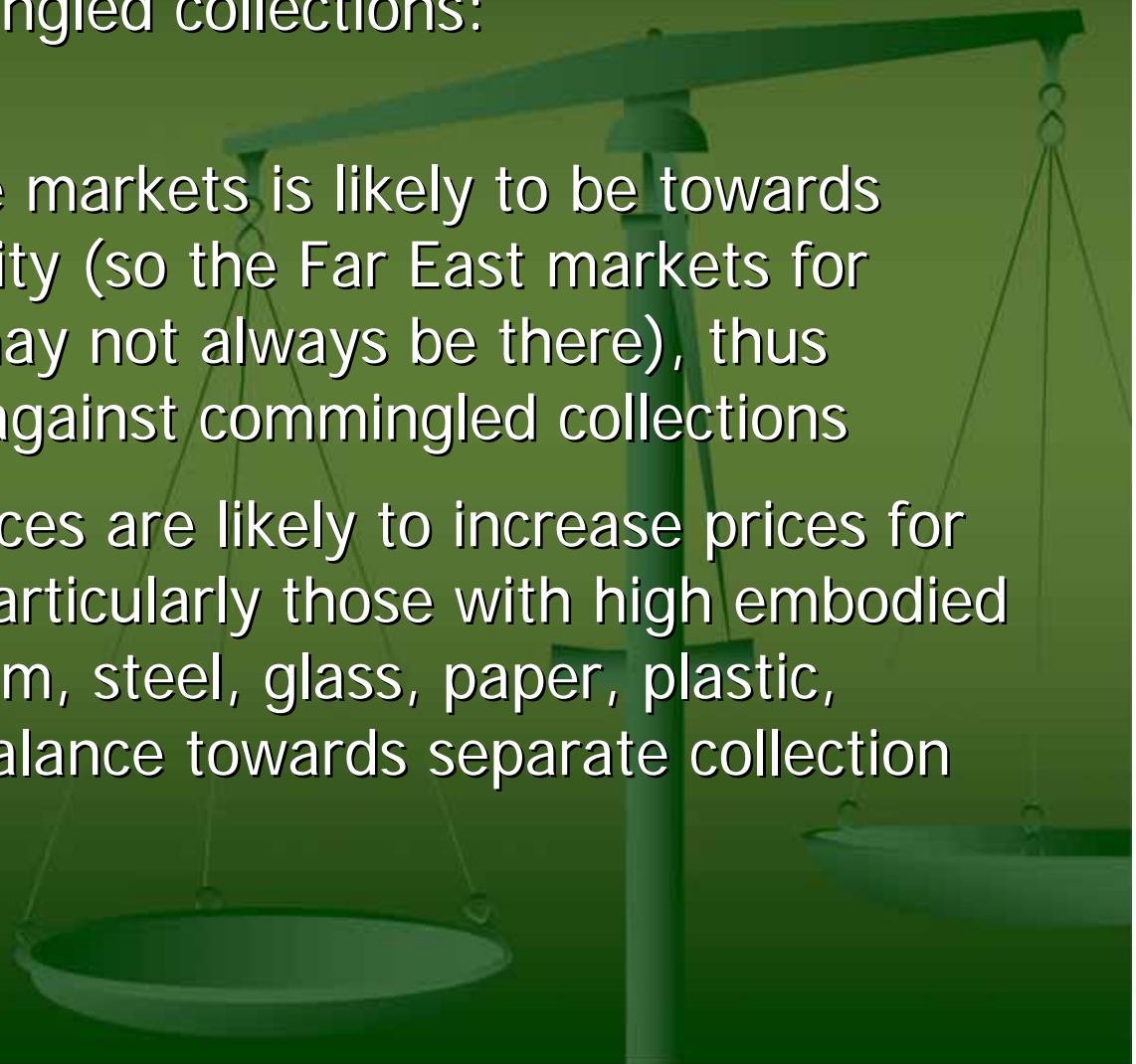
- wastage rates are much higher, typically 12 – 15% for English MRFs, compared with less than 1% for source separated collections
- contamination restricts materials which can be commingled – in particular, glass and textiles are mutually exclusive, and paper is seriously contaminated if collected with glass
- compaction can cause losses, particularly of aluminium, plastic and glass



Campaign for Real Recycling

Disadvantages of Co-mingled collections:

- the trend in recycle markets is likely to be towards requiring higher quality (so the Far East markets for commingled waste may not always be there), thus shifting the balance against commingled collections
- increasing energy prices are likely to increase prices for recycled materials, particularly those with high embodied energy – eg aluminium, steel, glass, paper, plastic, which will shift the balance towards separate collection to maintain quality



PAS 105



- Publicly Available Specification
 - (NOT a standard, but will carry the same credibility in the UK).
- Only Applicable to UK End Markets
- Develops the current EN643 Standard
- Could for the Basis of Quality Management
- Publication Delayed Two Years

Summary

- Paper Recovery in the UK is changing
 - Two Distinct Markets
 - Home Market
 - Export Market
 - Many Issues as a result of Legislation
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Summary

Watch This
Space!

