

Next Steps for High Performing Communities Lessons from the UK

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Sarah Edwards
North America Business Lead
Eunomia Research & Consulting

Agenda

- 1. Introduction to Eunomia**
- 2. Key Elements of an Effective Waste Management System**
- 3. Case Study - Wales**
- 4. Conclusions**

Introduction to Eunomia

eunomia



UK

★ Glasgow

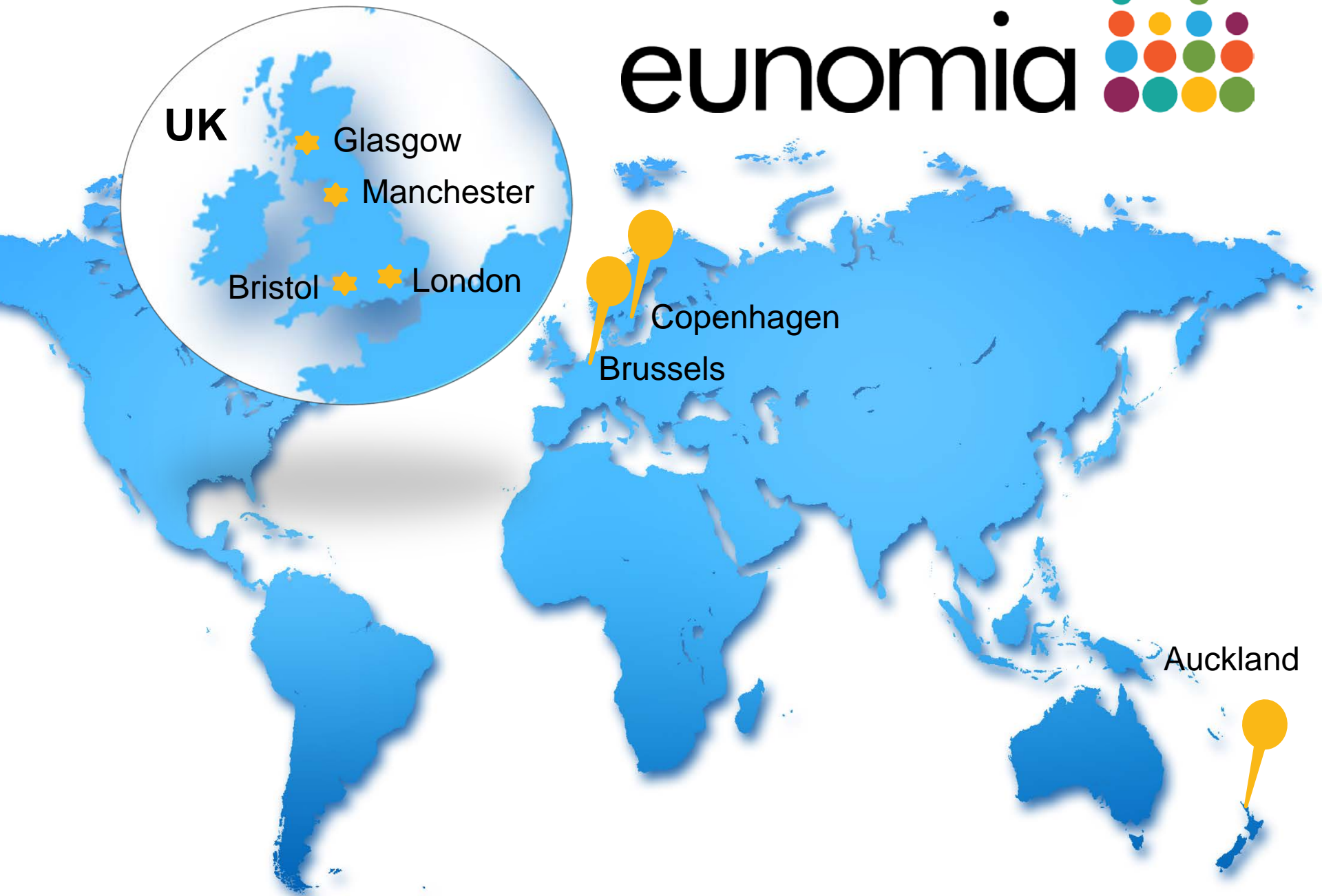
★ Manchester

Bristol ★ ★ London

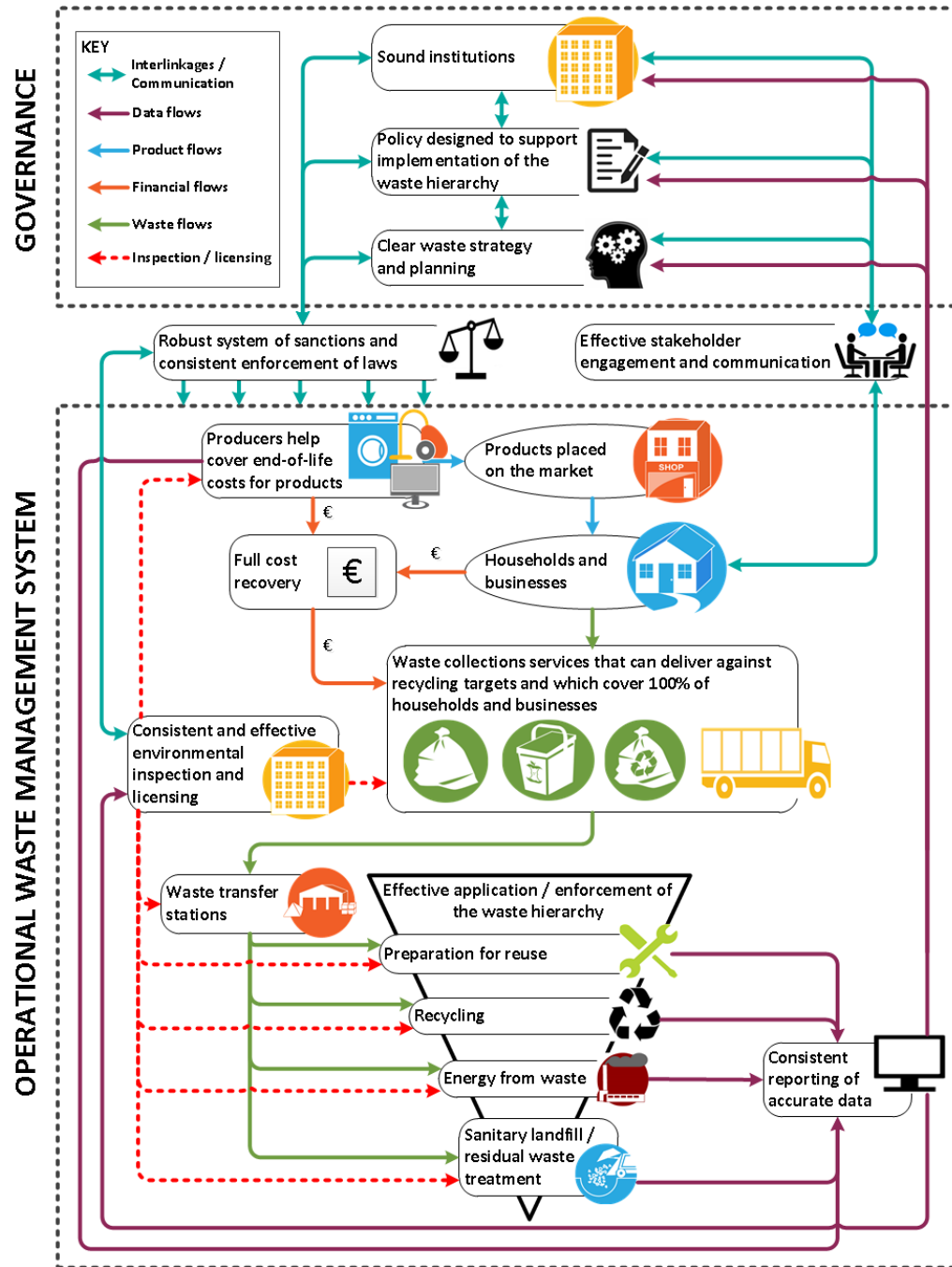
● ●
Copenhagen

●
Brussels

●
Auckland



Key Elements of an Effective Waste Management System

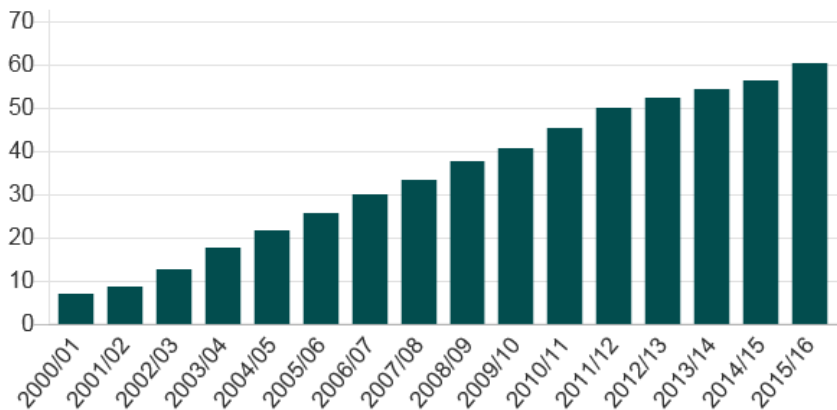


Case Study - Wales

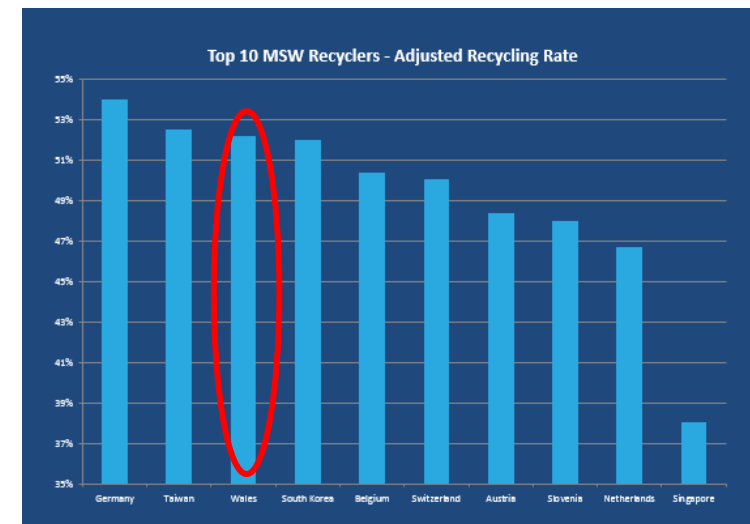
Why Wales?

- Who Really Leads the World?
- **Recycling Rate**
 - 2005 = 25%, 2010 = 40%
 - 2016 = 60%
 - 2025 = 70%, 2050 = 100%

% recycled, from 2012/13 recycled, reused and composted

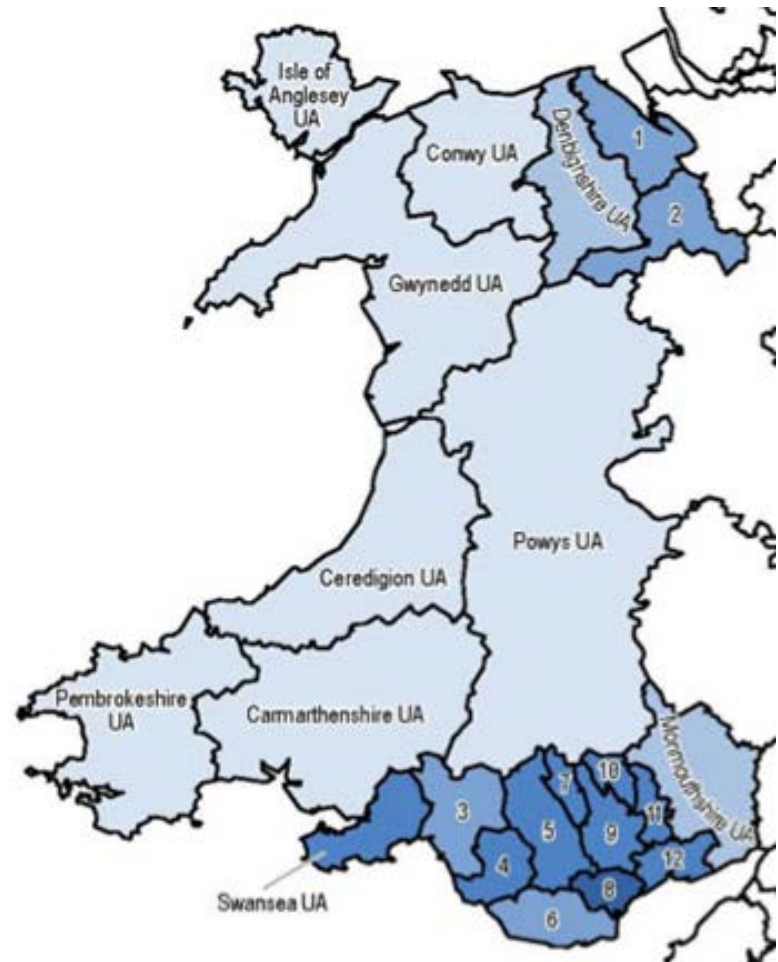


Recycling – who really leads the world?
Identifying the world's best municipal waste recyclers



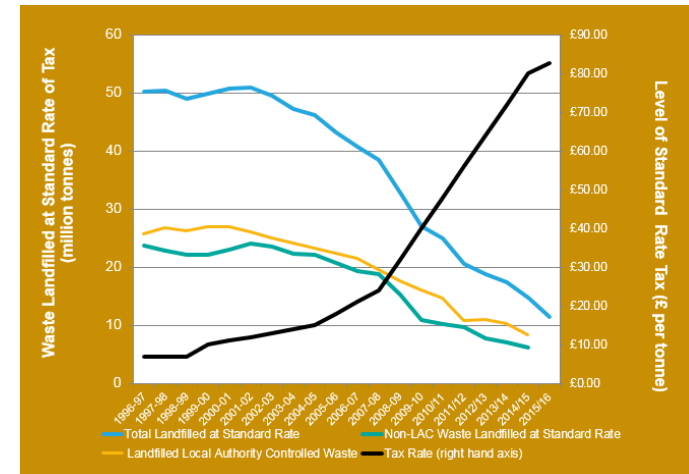
Introduction to Wales

- Area = 8,000sq m
- Pop = 3m
- 22 municipalities
- Mix of rural and some urban



How Did it Get there? - Policy and Legislation

- **Landfill Directive 1999**
 - Set BMW diversion target – 35% by 2020 – trading
 - Landfill Tax (~\$68/t)
- **Waste Framework Directive 2008**
 - Reuse and Recycling targets 50% H/H (70% C&D) by 2020
 - Amendment to align with circular economy package



How did it get There? - Policy and Legislation

- **Wales**

- **One Wales – One Planet 2009**

- Sustainable development
- Low carbon, low waste society

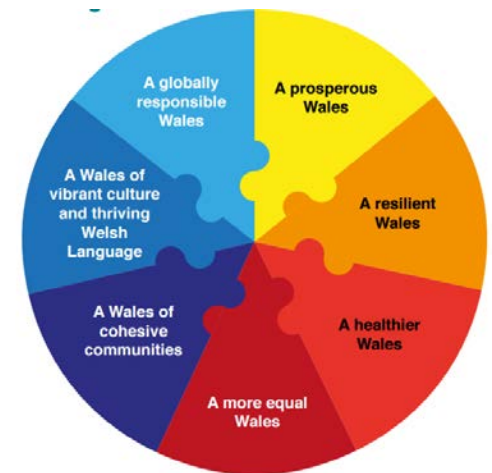
- **Towards Zero Waste 2010**

- 2025 - 70% Recycling/Re-Use
- 2050 - Zero Waste Nation

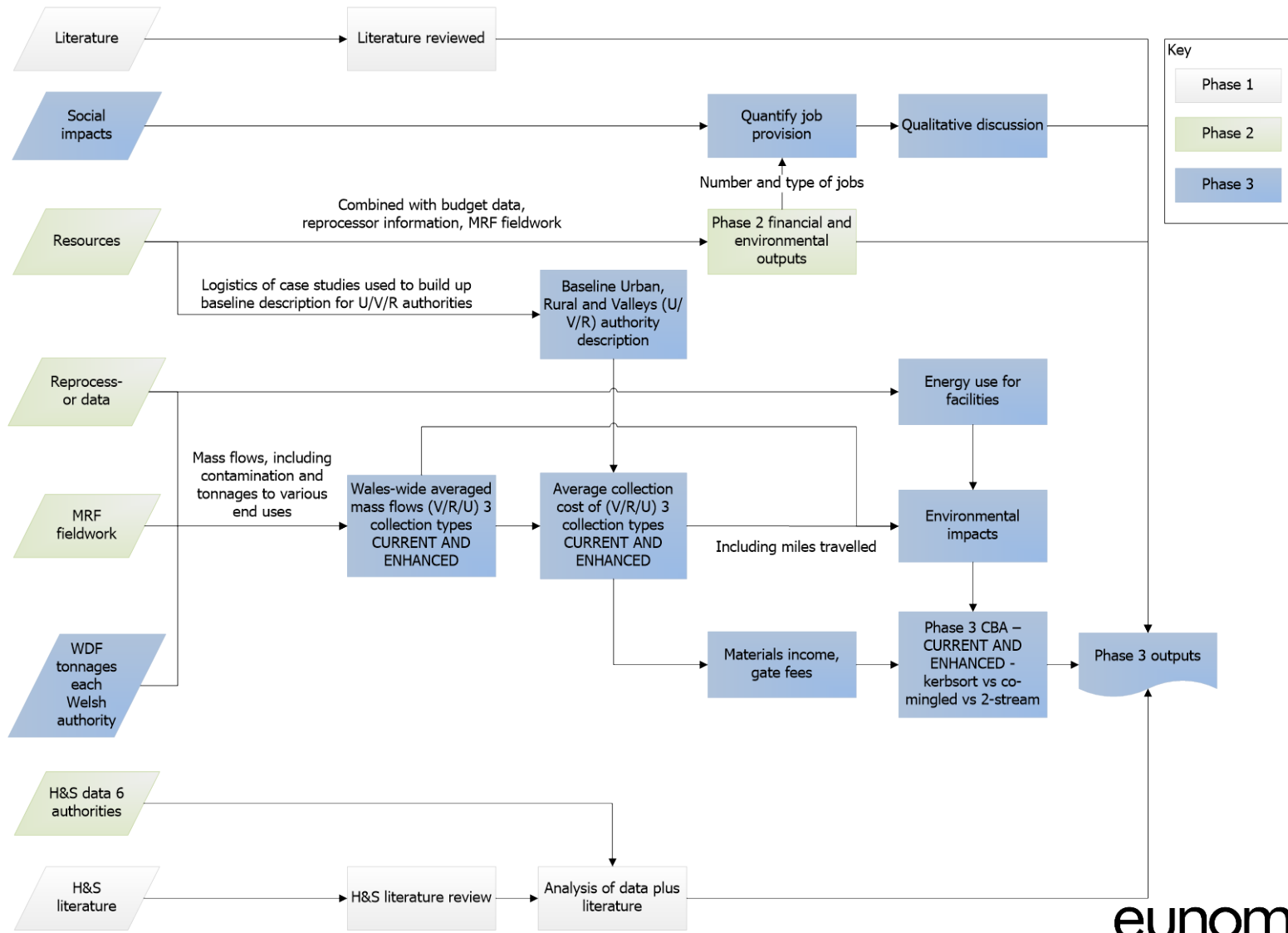
- **Municipal Sector Plan 2011**

- **Collections Blue Print 2011**

- A preferred cost effective curbside collection system
- Contribute to circular economy
- Resilient to recycling market

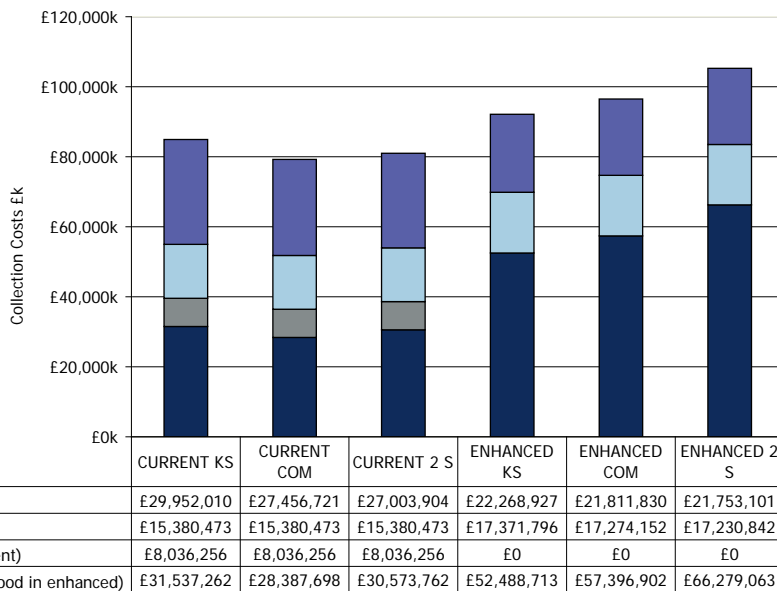


Collections Blue Print Modelling

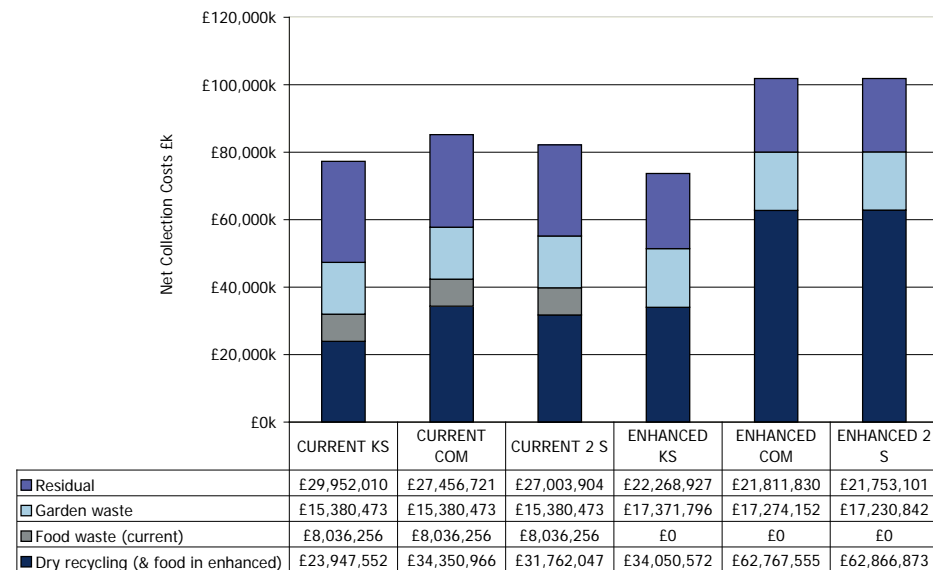


What Collection System - Best Value for Money?

- **For each of the three dry recycling**
 - **Current – No change in performance or range of services**
 - **Enhanced – 70% recycling achieved through fortnightly trash, weekly food, weekly recycling**

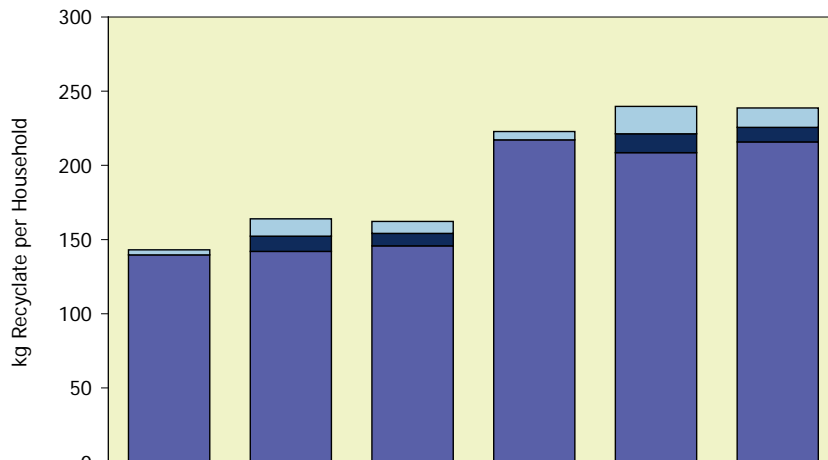


Collection Costs for All Authorities (excluding material income and MRF/depot processing costs)

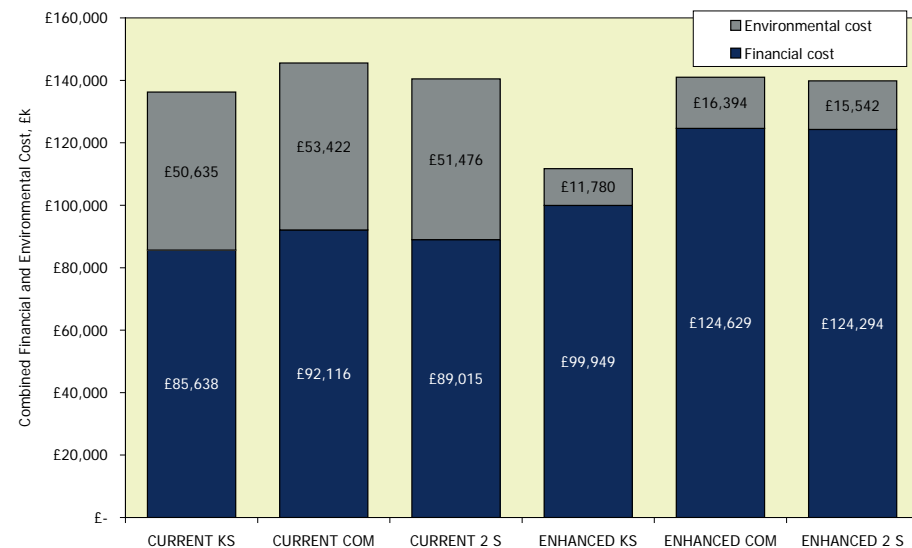


Collection Costs for All Authorities net of material income and MRF/depot processing costs

What Collection Option - Recycling Performance?



	CURRENT KS	CURRENT COM	CURRENT 2 S	ENHANCED KS	ENHANCED COM	ENHANCED 2 S
Process Loss (kg/hh)	3	12	8	6	18	13
Rejects (kg/hh)	0	10	8	0	13	10
Recycled Material (kg/hh)	140	142	146	217	209	216



Blue Print System

- Weekly Multi Stream Recycling
- Fortnightly Trash
- Weekly Food Waste



Food Waste Container

Kitchen



Curbside



Communal

Kerbside Sort Vehicles

The Romagrip Kerb-Sort

THE KERB-SORT, SORTED.

ROMAQUIP KERB-SORT™
Kerbside Recycling Sorted

AUTOMATED OFFLOADING
Offloading controlled by the driver from the safety of the cab.

UPPER DECK COLLECTION SPACE
Upper deck area is fully enclosed and sealed. A compacting ram compresses the materials, significantly increasing the amount of material that can be collected. It also acts as an ejector for offloading. Materials are still loose when unloaded to allow further separation.

NOISE REDUCING DESIGN
A highly innovative feature, noise reduction processes have been used to eliminate the sound of glass being loaded thereby reducing potential noise impact on collection crews.

REAR ACCESS FOR UNLOADING
Top deck door lowers down guiding the ejected material clear of the rear of the vehicle.
The Kerb-Sort can reverse into unloading bays which helps increase the turnaround time in the depot.

VERTICAL LOADER
A vertical loader moves material to the upper deck where it is compacted and stored.

LOWER DECK COMPARTMENTS
Plastics + Cans, Paper, Food Waste, General Storage, Glass, Cardboard

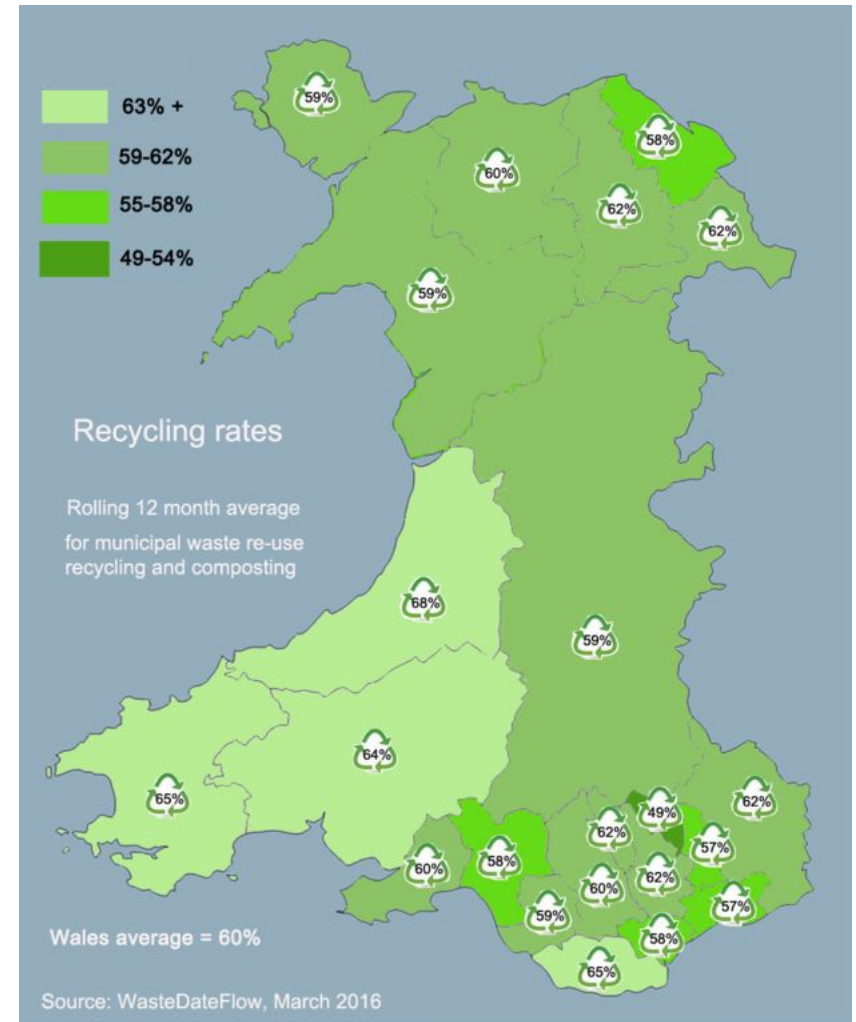
MAGIC FLOOR

REMOVABLE FOOD WASTE WASTE POD
Special sealed stillages are used for food waste. These are loaded and unloaded, locked and unlocked hydraulically. This removes any need for a forklift to come in direct contact with the vehicle.



Now What?

- **2016 = 60%**
- **2025 = 70%**

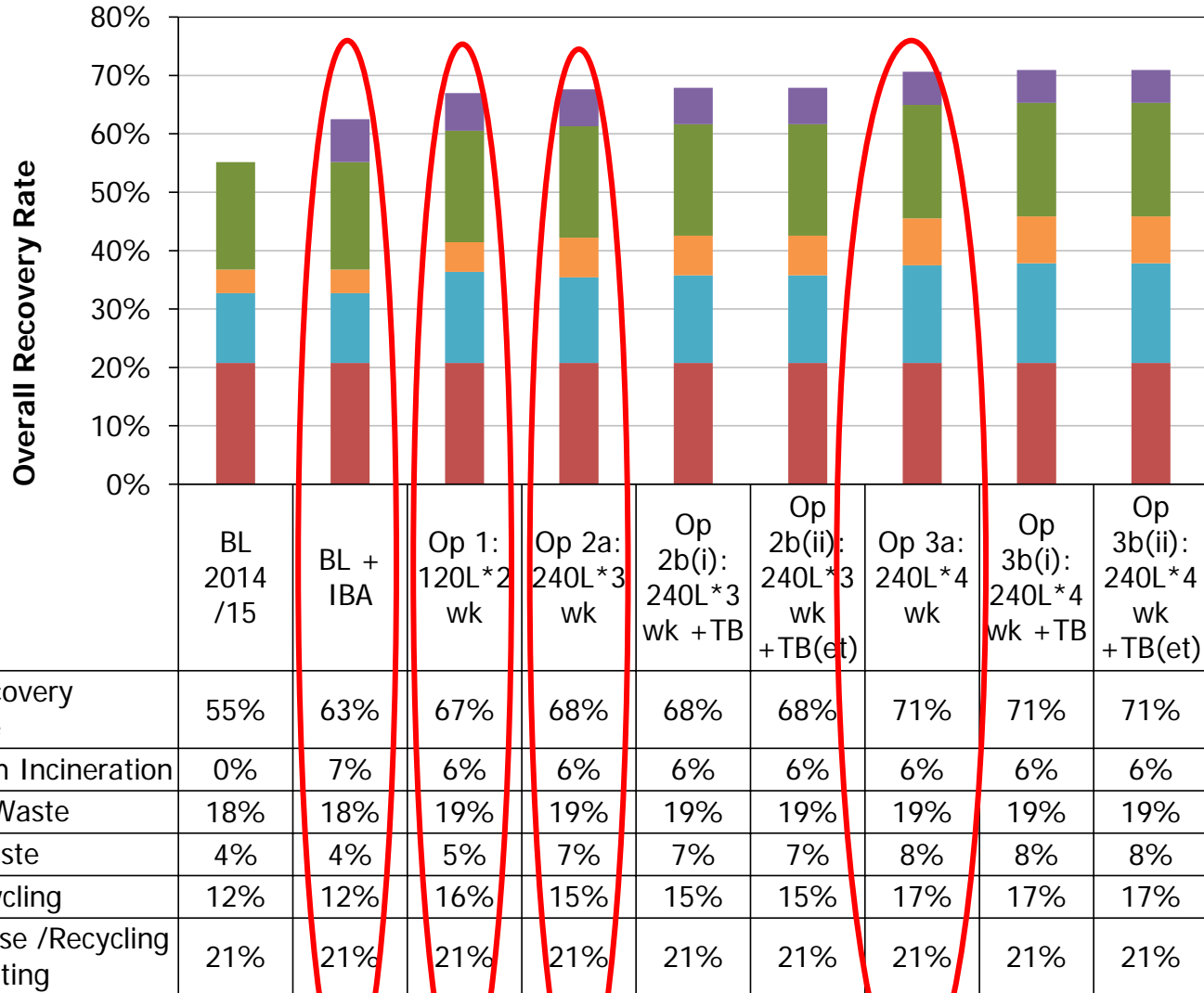


Further Reduce Trash Collection Frequency

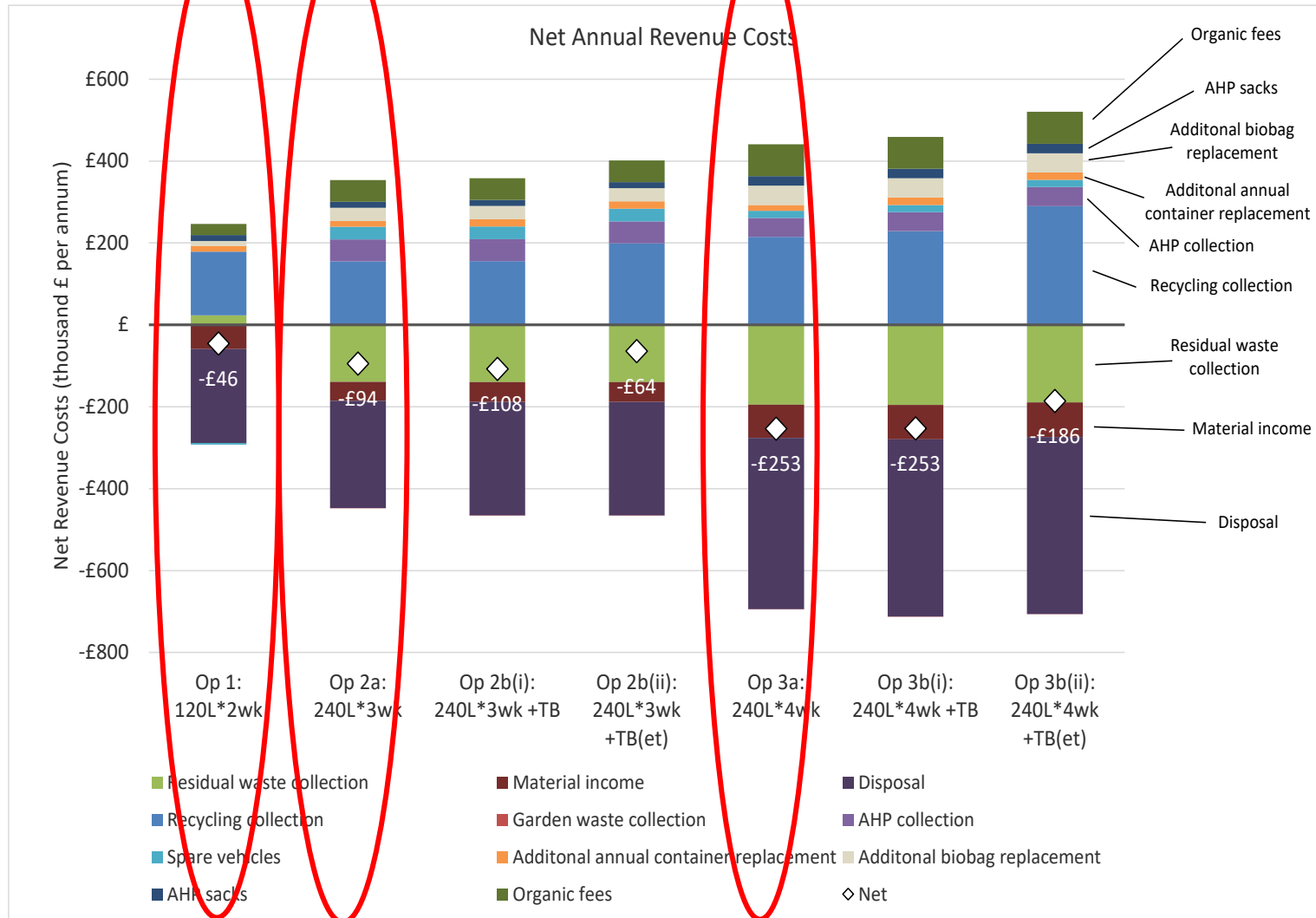
- **Isle of Anglesey**
 - 2015 = 55%
 - Failing to meet 70% = \$60k per % point
- **Options**

Option	Trash	Recycling	Food
Baseline	Fortnightly 240l (63g)	Weekly Multi stream	Weekly 24l (6.3g)
1	Fortnightly 120l (31g)	Weekly Multi stream	Weekly 24l (6.3g)
2	Three Weekly 240l (63g)	Weekly Multi stream	Weekly 24l (6.3g)
3	Four weekly 240l (63g)	Weekly Multi stream	Weekly 24l (6.3g)

Reduce Trash Collection Frequency



Reduced Trash Collection Frequency



Reduce Trash Collection Frequency

- Live October 2016 – 3 weekly
- Waste Avoidance Took Kit
- National education schemes
 - Love Food Hate Waste
 - Love your Clothes
 - Support tools for waste education
 - Standard images



CONGREG YNYS MÔN ISLE OF ANGLESEY COUNTY COUNCIL

Eich system ailgylchu NEWYDD
Your NEW recycling system

Beth sy'n mynd i ble? What goes in where?

BOCS COCH / RED BOX	BOCS GLAS / BLUE BOX	BOCS OREN / ORANGE BOX
		
<ul style="list-style-type: none">✓ Papur cymysg / Mixed paper✓ Cylchgronau ac amlenni / Magazines and envelopes✓ Tecstilïau (Hen ddilad a deunydd, mewn bag plastig) / Textiles (old clothes and material, in a plastic bag)	<ul style="list-style-type: none">✓ Poteli plastig / Plastic bottles✓ Potiau, tybiau a chynwysyddion plastig / Plastic pots, tubs & trays✓ Caniau diod, tuniau bwyd ac erosolau / Drinks cans, food tins & aerosols✓ Eitemau ffoil glân / Clean foil items✗ Dim tuniau nwy / No gas canisters	<ul style="list-style-type: none">✓ Poteli gwyrdr a jarïau / Glass bottles & jars✓ Cardbord (dim nwy na 50cm x 50cm) / Cardboard (maximum size 50cm x 50cm)
		

Conclusions

Conclusion

- **Levers for high performance**
 - **Comprehensive scheme to enable people to recycle**
 - Food waste collections
 - Broad range of materials
 - **Clear performance and policy targets**
 - 70% moving to zero waste
 - **Funding and commitment**
 - Collaborative Change Programme National Resource
 - \$9m Circular Economy Fund create processing capacity in Wales
 - **Incentives/mechanisms to encourage people to recycle**
 - Restricting trash collections
 - Pay as you Throw
 - Deposit Refund Scheme



www.eunomia.co.uk

@Eunomia_RandC

mail@eunomia.co.uk