

# NERF

## Consistency & EPR – Drivers for Businesses

29 April 2021



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**Senior Consultant**

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**How I wish this  
NERF wasn't  
virtual!!!**



*'This eternity has been going on  
for what seems like a lockdown!'*



**The Company bit**

**Our vision is to create  
a sustainable world**

**resourcefutures** 



# Resource Futures

- 30-year heritage in the sustainability sector
- Employee-owned and non-profit-distributing
- We take an ethical approach to business to make a positive difference in the world
- We contribute to the communities we work and live in
- We take projects through initial design, pilot and delivery, to review
- We are a certified B Corp



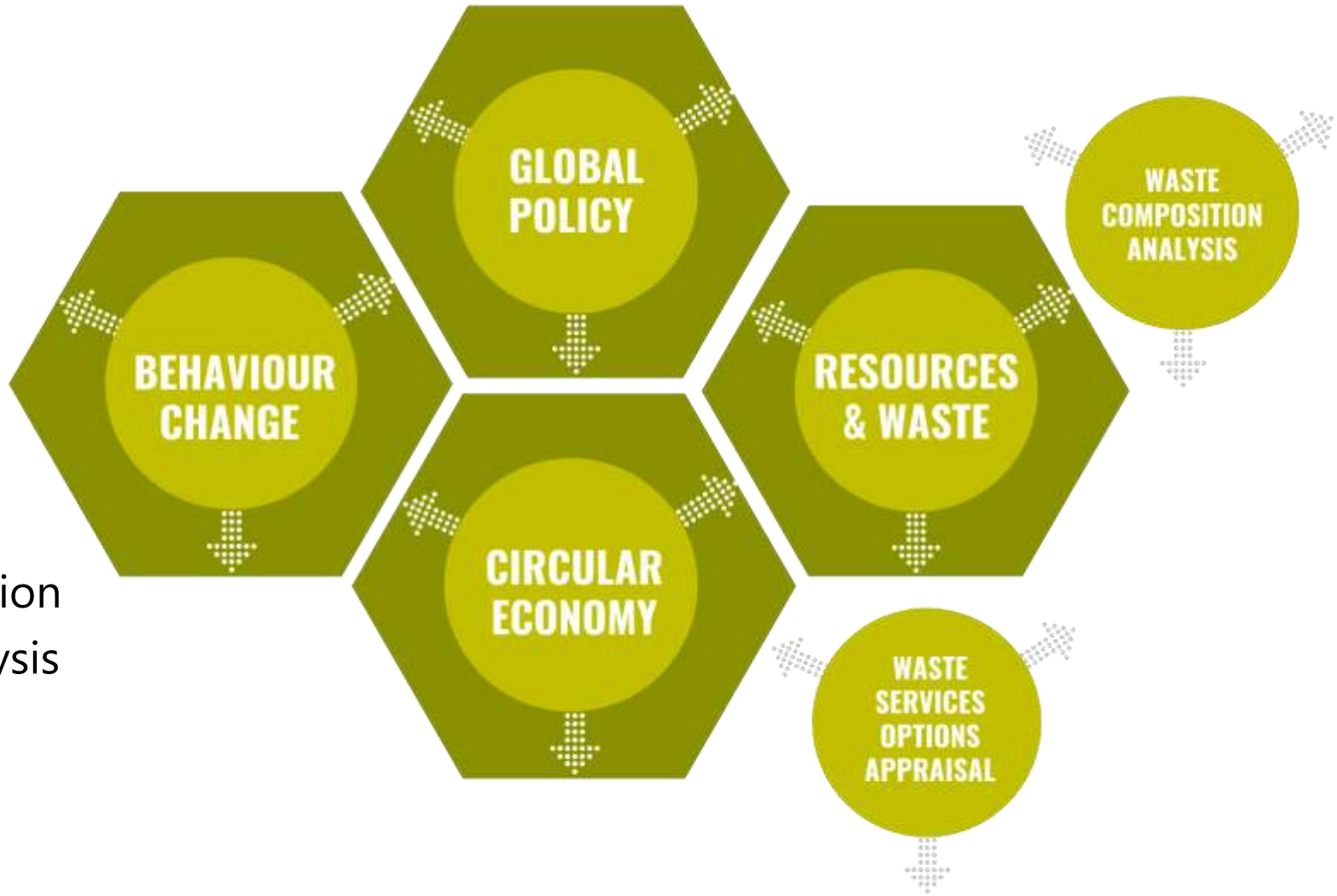
**PEOPLE** **USING**  
**BUSINESS**  
.....AS A.....  
**FORCE** **FOR** **GOOD**



# Our expertise

Our areas of expertise are:

- Behaviour Change
- Global Policy
- Circular Economy
- Resources and Waste
  - Waste Services Optimisation
  - Waste Composition Analysis





# Some of our clients





# **What I'll cover today**





- A few interactive polls!!!
- Scope
- Background information – data and targets
- Commercial waste sectors and waste types
- Consistency and EPR
- What do businesses see as drivers and barriers?
- Behind the scenes – what is happening?
- Financial mechanisms, incentives and support
- Summary
- Any questions





# Scope

- “Non-Household Municipal” – NHM – a fairly new term which could be misunderstood
- Household-like waste materials from businesses – not industrial waste – same materials, potentially different size
- Covering certain “defined” NHM sectors
- Focus on England – albeit close working with Wales, NI and Scotland
- EPR - Packaging:

“all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. Non-returnable items used for the same purposes shall also be considered to constitute packaging” - **primary, secondary and tertiary.**



# **Background information – data and targets**

# Background information

## Defra survey 2009 (Jacobs)

**Table 21** Waste arisings by sector and waste type, with mixed wastes allocated across the remaining waste types ('000s tonnes)

|    | Business sector                               | Animal & vegetable wastes | Chemical wastes | Common sludges | Discarded equipment | Healthcare wastes | Metallic wastes | Mineral wastes | Non-metallic wastes | Non-wastes | Grand total   |
|----|---|---------------------------|-----------------|----------------|---------------------|-------------------|-----------------|----------------|---------------------|------------|---------------|
| 1  | Food, drink & tobacco                         | 2,657                     | 796             | 616            | 6                   | 1                 | 63              | 66             | 551                 | 0          | 4,756         |
| 2  | Textiles / wood / paper / publishing          | 32                        | 1,079           | 62             | 28                  | 1                 | 88              | 98             | 2,061               | 1          | 3,450         |
| 3  | Power & utilities                             | 287                       | 397             | 26             | 2                   | 1                 | 53              | 4,843          | 111                 | 0          | 5,720         |
| 4  | Chemicals / non-metallic minerals manufacture | 62                        | 1,704           | 77             | 7                   | 15                | 134             | 956            | 893                 | 0          | 3,848         |
| 5  | Metal manufacturing                           | 96                        | 689             | 21             | 6                   | 2                 | 983             | 2,140          | 298                 | 0          | 4,235         |
| 6  | Machinery & equipment (other manufacture)     | 55                        | 212             | 35             | 31                  | 22                | 1,022           | 26             | 756                 | 5          | 2,164         |
| 7  | Retail & wholesale                            | 675                       | 302             | 2              | 389                 | 403               | 817             | 79             | 6,544               | 0          | 9,211         |
| 8  | Hotels & catering                             | 463                       | 97              | 15             | 17                  | 81                | 99              | 47             | 2,183               | 0          | 3,002         |
| 9  | Public administration & social work           | 241                       | 68              | 64             | 55                  | 955               | 63              | 120            | 1,170               | 0          | 2,736         |
| 10 | Education                                     | 297                       | 28              | 37             | 48                  | 45                | 109             | 44             | 900                 | 0          | 1,508         |
| 11 | Transport & storage                           | 233                       | 96              | 1              | 149                 | 363               | 264             | 37             | 1,327               | 1          | 2,471         |
| 12 | Other services                                | 339                       | 173             | <0.5           | 167                 | 162               | 139             | 881            | 3,053               | 0          | 4,914         |
|    | <b>Grand total</b>                            | <b>5,437</b>              | <b>5,641</b>    | <b>956</b>     | <b>905</b>          | <b>2,051</b>      | <b>3,834</b>    | <b>9,337</b>   | <b>19,847</b>       | <b>7</b>   | <b>48,015</b> |



# Background information

## WRAP 2017 - composition

Table 2: National waste composition estimates for England, all municipal waste and recycling, 2017 (tonnes)

| Waste Stream →         | HOUSEHOLD<br>TOTAL | COMMERCIAL<br>TOTAL | MUNICIPAL<br>TOTAL | Composition   |
|------------------------|--------------------|---------------------|--------------------|---------------|
| Metric →               | tpa                | tpa                 | tpa                | %             |
| Material Category ↓    |                    |                     |                    |               |
| Food Waste             | 4,386,331          | 3,295,025           | 7,681,355          | 18.2%         |
| Garden & other organic | 4,643,585          | 450,894             | 5,094,479          | 12.1%         |
| Paper & Card           | 4,200,837          | 7,243,053           | 11,443,890         | 27.1%         |
| Glass                  | 1,621,034          | 1,210,521           | 2,831,555          | 6.7%          |
| Metals                 | 893,631            | 573,021             | 1,466,652          | 3.5%          |
| Plastic                | 2,143,984          | 2,773,739           | 4,917,723          | 11.7%         |
| Textiles               | 1,107,958          | 379,794             | 1,487,753          | 3.5%          |
| WEEE                   | 424,637            | 120,908             | 545,545            | 1.3%          |
| Hazardous              | 89,358             | 47,378              | 136,736            | 0.3%          |
| Wood                   | 903,175            | 847,678             | 1,750,853          | 4.2%          |
| Miscellaneous          | 3,378,342          | 1,434,888           | 4,813,231          | 11.4%         |
| <b>TOTAL</b>           | <b>23,792,872</b>  | <b>18,376,899</b>   | <b>42,169,771</b>  | <b>100.0%</b> |



# Background information

## results of analysis: “known” estimates, WRAP 2017 study (with RF input)

Waste composition estimates from commercial sector - England

Table 2: National waste composition estimates for England, municipal waste collected from businesses in the commercial sector (2017) - adjusted

| Material category            | Total composition<br>(LA-collected & non-LA collected) |                   | Residual<br>(LA-collected & non-LA collected) |                   | Recycling<br>(LA-collected & non-LA collected) |                  |
|------------------------------|--|-------------------|---|-------------------|--|------------------|
|                              | % composition  | Tonnes            | % composition                                 | Tonnes            | % composition                                  | Tonnes           |
| Food waste                   | 17.9%  | 3,295,025         | 24.5%   | 2,928,375         | 5.7%   | 366,650          |
| Other organic & garden waste | 2.5%   | 450,894           | 1.6%  | 193,961           | 4.0%   | 256,933          |
| Paper & card                 | 39.4%  | 7,243,053         | 30.4%   | 3,628,256         | 56.2%  | 3,614,796        |
| Plastic                      | 15.1%  | 2,773,739         | 19.4%   | 2,313,562         | 7.2%   | 460,177          |
| Metals                       | 3.1%   | 573,021           | 4.1%  | 485,354           | 1.4%   | 87,668           |
| Glass                        | 6.6%   | 1,210,521         | 2.3%  | 272,420           | 14.6%  | 938,101          |
| Textiles                     | 2.1%   | 379,794           | 3.2%  | 379,767           | 0.0%   | 27               |
| Wood                         | 4.6%   | 847,678           | 3.2%  | 388,038           | 7.1%   | 459,639          |
| WEEE                         | 0.7%   | 120,908           | 0.9%  | 108,796           | 0.2%   | 12,112           |
| Hazardous                    | 0.3%   | 47,378            | 0.4%  | 47,346            | 0.0%   | 33               |
| Miscellaneous                | 7.8%   | 1,434,888         | 10.0%   | 1,199,109         | 3.7%   | 235,779          |
|                              | <b>100%</b>  | <b>18,376,899</b> | <b>100.0%</b>                                 | <b>11,944,984</b> | <b>100.0%</b>                                  | <b>6,431,914</b> |



# Background information

## Knowns

- Total arisings were estimated (2017) to be **18.4 million tonnes**, of which **11.9 million tonnes** was collected as **residual** and **6.4 million tonnes** was collected as **recycling**.
- **Overall arisings** are predominantly:
  - **paper and card** (39.4% of total arisings);
  - **food waste** (17.9% of total arisings); and
  - **plastics** (15.1% of total arisings).
- A similar pattern is evident in the residual composition.
- In comparison, paper and card accounts for **56.2% of recycling arisings**, and **glass (14.6%)** is the next most prevalent material.
- This may indicate the ease of separation and recycling.
- **The analysis indicates that private sector collections achieve a significantly higher recycling rate than LA collections.**

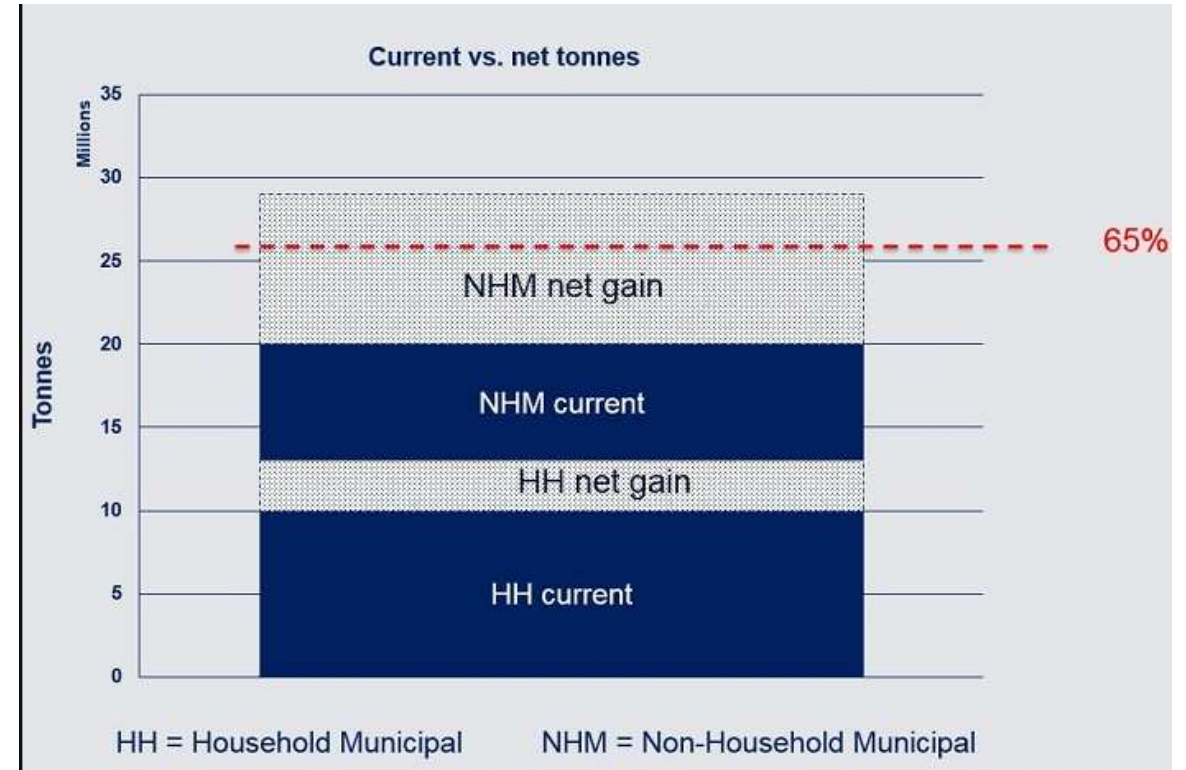


# Background information

## Comparison of NHM & HM

"...in order to reach the 65% municipal target, non-household sources of waste might have to reach about 80% and local authority collected household waste could need to reach around a 53% recycling level.

This approach would still mean that high recycling rates such as 65% at some councils would be needed to help compensate for lower levels at other local authorities." Letsrecycle Feb. 2019



EPR UK proposed target – by 2030 73% of in-scope packaging will be recycled.

Chart source - WRAP





# Sectors – similar but not the same?

## Wales

| Commercial Sector                    |
|--------------------------------------|
| Wholesale and retail                 |
| Administrative & support             |
| Transportation & storage             |
| Other services                       |
| Information & communication          |
| Financial & insurance                |
| Professional, scientific & technical |
| Arts, entertainment & recreation     |
| Accommodation & food                 |
| Education                            |
| Public administration & defence      |
| Real estate                          |
| Human health & social work           |

## England

- Wholesale and retail trade; repair of motor vehicles and motorcycles

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- Transportation and storage

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- Accommodation and food service activities

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- Information and communication

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- Financial and insurance activities

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- Real estate activities

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- Professional, scientific and technical activities

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- Administrative and support service activities

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- Public administration and defence; compulsory social security

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- Education

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- Human health and social work activities

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- Arts, entertainment and recreation

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- Other service activities

## Australian Government Study

| Division   |
|--|
| Manufacturing  |
| Wholesale trade <sup>2</sup>                                 |
| Retail trade   |
| Accommodation and food services                              |
| Transport, postal and warehousing                            |
| Financial and insurance                                      |
| Rental, hiring and real estate services                      |
| Professional, scientific and technical services <sup>3</sup> |
| Administrative and support services                          |
| Public administration  |
| Education and training                                       |
| Health care and social assistance                            |
| Arts and recreation services                                 |



# Gaps/issues

- A lot less data than household municipal waste.
- Some quite old data although some newly compiled information.
- Lack of data regarding production of recyclate and residual waste by NHM sectors for England?
- Difficult to produce reasonable capture targets for businesses if sector-specific information is not clear.





# Consistency and EPR

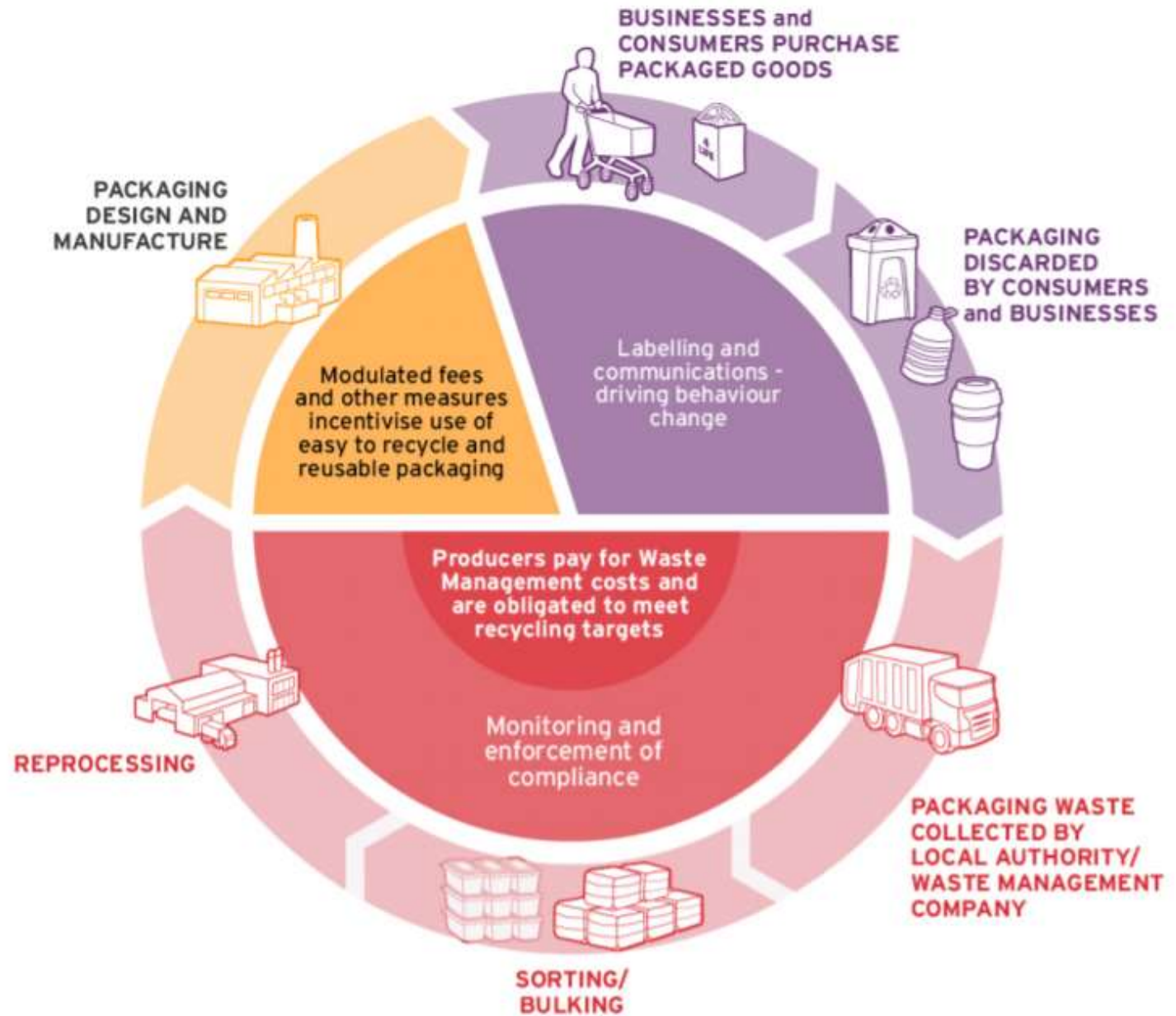


# Consistency – household - WRAP



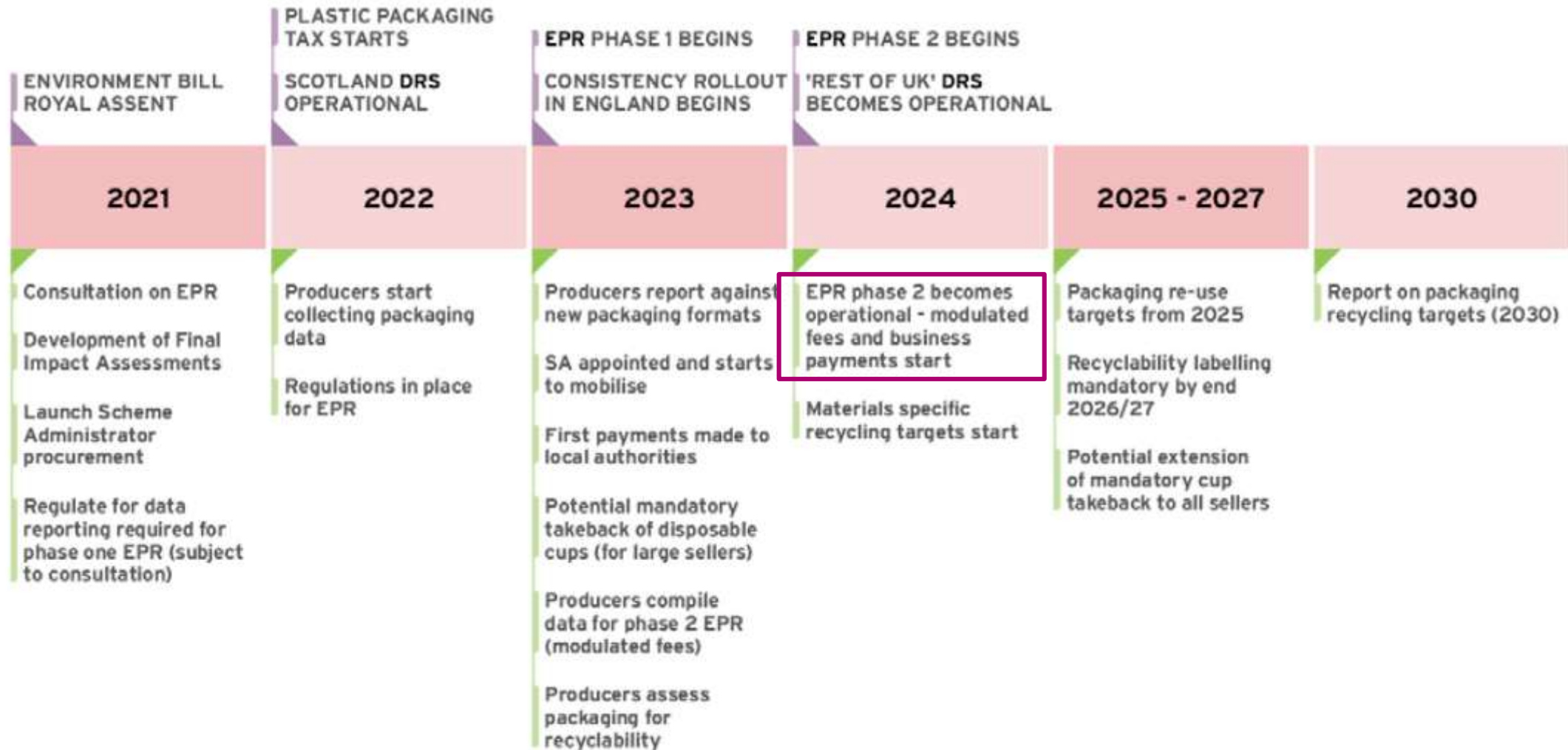


# EPR consultation document – very similar to Consistency





# EPR timeline – very tight!





# Consistency and EPR: different focus, same ends?

## Consistency

- **Focus is the whole “value chain”**
- Intention that packaging is designed with ease of recycling in mind
- a **common set of materials** – including food waste – is separated for recycling
- the materials are collected and separated **cost-effectively**
- they are reprocessed into a useable product for manufacture (or nutrients)

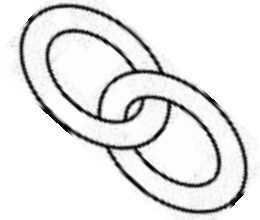
## EPR

- **Focussed on producers**
- “It gives producers an incentive to make better, more sustainable decisions at the **product design** stage including decisions that make it **easier for products to be re-used or recycled** at their end of life. It also places the **financial cost of managing products** once they reach end of life on producers.” DEFRA
- Impact is on the whole “value chain”
- However, also intended to incentivise recycling of packaging waste
- **Unlike Household Waste the disposal of NHM residual packaging is not being funded by producers**

**N.B. Consistency consultation is England only but the approach to EPR is UK-wide**



# Consistency and EPR - interlinked



**Consistency** – a requirement for businesses to have certain recyclable materials collected separately – however the EPR consultation does mention “dry mixed recycling” from businesses?

**But** - even if the level of Consistency is “watered down” **EPR is likely to still drive a certain level of Consistency in how the materials are collected** through necessity:

- efficiency of collections;
- payment mechanism related – both minimum service and quality requirements to attract financial payback?
- quality of materials – required by the Producers; and
- targets for specific materials due to level of likely capture.

(DEFRA estimated capture rates - glass 96%, card 86% and steel 93% lower estimates for aluminium - 69% and plastics 62%, **“but we expect these to increase once the collection and recycling of other aluminium packaging and plastic film and flexibles are included in our analysis.”**)

However:

- Could having both the requirement of Consistency and the mechanisms falling out of EPR lead to some confusion for businesses in terms of what they need to do?
- The focus for producer-payment is currently on packaging – what about the other NHM waste materials? How will Consistency incentivise?



## **Interactive poll**

**Which do you see as the main driver/s for businesses to separate more for recycling?**

- a. Consistency**
- b. EPR**
- c. Both**



# **Businesses' drivers and barriers**



# Drivers and barriers to recycling for businesses

## WRAP survey of businesses

In order of importance the drivers were found to be:

1. Cost;
2. Meeting standards or requirements;
3. Pre-empting future legislation; and
4. Reducing environmental impact.

The barriers, which can be grouped into two areas, were:

## **Direct or indirect costs:**

- service charges;
- staff time;
- unable to quantify benefits and the costs of change; and
- the time need to manage the system.

## **Support and knowledge:**

- lack of knowledge;
- lack of support; and
- lack of sector-specific support.





# Drivers and barriers to recycling for businesses

- An interesting mix – environment isn't a top concern – perhaps a “nice to have”?
- But **legislation / compliance and cost** are key drivers
- Acknowledged lack of knowledge;
- **Sector-specific support** is required... given the wide variety of size and type, complexity of businesses within the sectors this is unsurprising.



**So – what has been going on?**



**Behind the scenes**

# Behind the scenes

A lot of work is being done by DEFRA and WRAP behind the scenes, some of which I have been involved in:

- filling the data gaps;
- costs & financial mechanisms;
- industry consultation and brainstorming;  
and
- knowledge support and advice – what is available?





# Behind the scenes

## WRAP is supporting DEFRA in its work to:

- address the barriers; and
- to help drive change.

c. 26 million tonnes from  
2.1 million business units



1. Overall **cost effective (i.e. efficient) system / packaging value chain, necessary** costs of collection, sorting & treatment - through to a final useable product
2. Defining the **£££ required from packaging producers**
3. Mechanisms for **distributing monies** provided by producers
4. How to **incentivise and recompense** fairly all parts of the value chain – **critically, the businesses on the ground**
5. Dealing with **other recyclable** but EPR non-target materials (e.g. food waste and office paper)
6. **Advice to businesses** and what needs to be done to help?
7. Helping with the consultation questions - see this:  
[https://consult.defra.gov.uk/extended-producer-responsibility/extended-producer-responsibility-for-packaging/supporting\\_documents/Wrap%20QA%20statement.pdf](https://consult.defra.gov.uk/extended-producer-responsibility/extended-producer-responsibility-for-packaging/supporting_documents/Wrap%20QA%20statement.pdf)



# Filling the data gaps

WRAP with DEFRA - a top down and bottom up approach, using

- EWC codes of waste types, such as:

15 WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

- SIC Codes – UK Standard Industry Classification of Economic Activities – 100s of codes, main higher-level areas within the NHM data work are:
  - Hospitality, Retail, Education, Health, Transport & Storage and Food Manufacturing
- Waste sampling and modelling carried out on a more granular level and built back up
- Rurality levels also considered as regards quantities and costs – domestic was 6 ruralities – expansion to 9 to deal with very urban and very rural
- Headline cost results are in the EPR consultation - **£1.5 bn – but probably higher?**



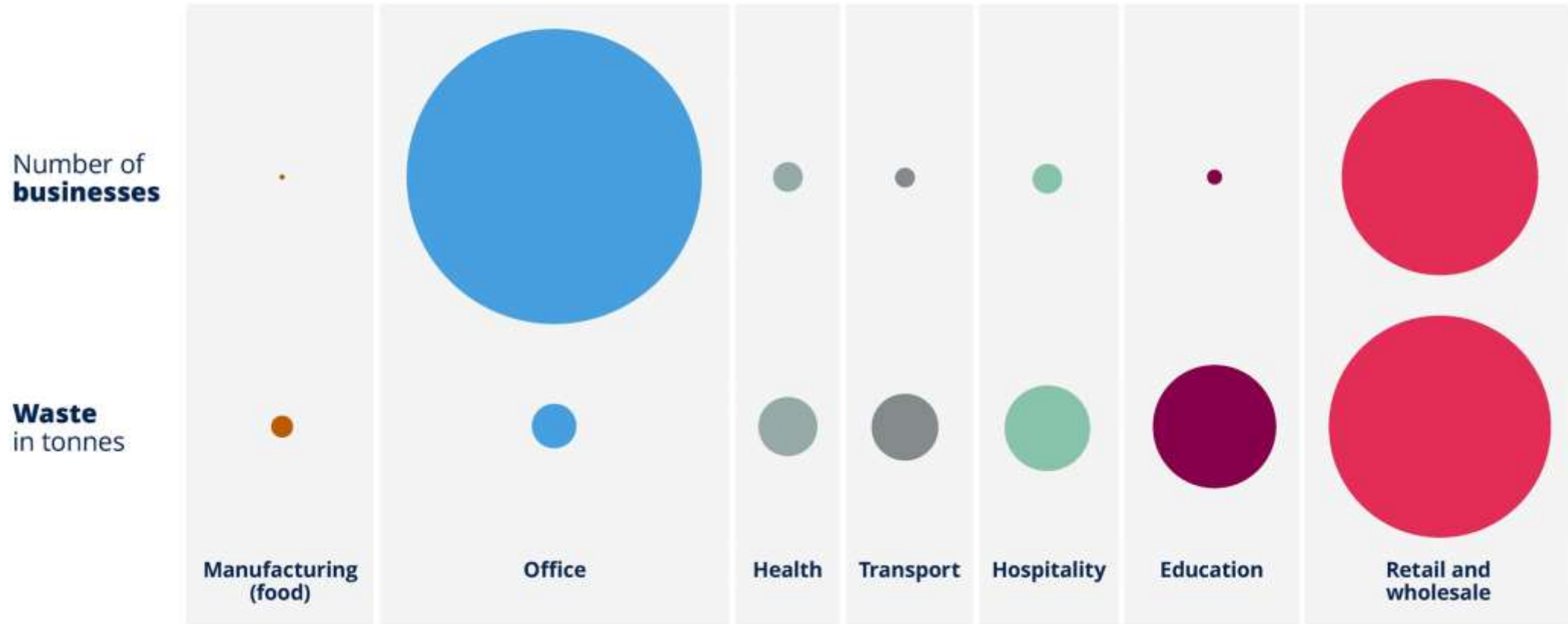


# EPR consultation business waste - issues

- Cost data is commercially sensitive
- Little information on containers, sizes and collection frequencies
- Cost split estimate - time taken to collect c.70% of costs, actual waste management c.30%
- WRAP analysis – potential to reduce overall costs by 20%, at an individual business level, through optimising the use of containers, their capacity and collection frequency
- Further 20% reduction may also be possible through approaches such as collaborative procurement of collection services, bin sharing by businesses, and more formal zoning approaches
- Efficiency is a big issue and a high potential cost – huge number of businesses producing small percentage of arisings although retail / wholesale seems more evenly matched



## Overall comparison





**Financial mechanisms, incentives & support**

**“They will need to be robust and financial flows and outcomes transparent whilst providing flexibility for producers to decide how best to meet their obligations.”**

**DEFRA**



# Financial mechanisms and incentives

- Improve the **effectiveness** of packaging waste collection services, **incentivising increased recycling and quality**.
- Increase the efficiency of packaging waste collection services, seeking to **minimise producer costs** where possible, but **not undermining the achievement of targets**
- Be **fair and transparent**, ensuring costs are borne by those who place the packaging on the market, and **all businesses, regardless of their size or location** have the potential to have their packaging taken away for free, via a reasonable and proportionate service, provided they use it in the manner it was intended.
- Be **deliverable and enforceable** on the ground, tracking the tonnages, composition and **quality of materials** collected from business in a manner which is enforceable by regulators.



# EPR - financial mechanisms and incentives

Different mechanisms have been put forward by industry / industry bodies – these have been externally reviewed and critiqued to date – part of my contribution, which has been hard work but **VERY interesting!**

My personal perspective was honing-in on the **practicality / clarity** of the mechanisms, having a **cost-effective system** and really thinking about the **perspective of businesses** – to whom recycling may not be a priority.

However, it is complex, as can be seen in the Consultation, (213 pp!) and DEFRA admits that more work will be needed – however all of our opinions are needed to make it as good as possible!!!

A brief summary on the following pages:

- Three main options +
- Longer term options +
- Support



# Option 1 – per tonne approach

## Paragraphs 8.87 – 8.90 of the EPR consultation

- **Scheme Administrator (SA) led, producer-funded, rebate system**
- SA would set the per tonne rate – multiple rates to reflect ruralities, business types/size
- Payment would cover **collection and sorting** and be net of material value
- Would take account of performance and non-packaging materials
- Business invoice would set out: cost of service; amount of rebate and how the rebate could be increased (more recycling etc.)
- “free (or close to free) service”
- Waste management companies would report the % of customers’ packaging recycled.



# Option 2 – Cost rebate system

## Paragraphs 9.91 – 8.94 of the EPR consultation

- **Compliance scheme led, producer-funded, rebate system**
- SA to set the rate – as per Option 1
- Compliance scheme pays waste collectors – who pass the rebate to customers, detailing the rebate on the invoice
- **Compliance scheme arranges sorting and processing** to secure evidence for its obligated packaging producer members
- **Compliance scheme is responsible for meeting quantity/ quality** via sourcing recyclate and arranging and investing in sorting and reprocessing
- SA might act on behalf of all compliance schemes to make initial payment per tonne
- **SA auctions off the right to manage materials to compliance schemes** – collections + net sorting and reprocessing costs – equitably split between compliance schemes based on market share





# Option 3 – free bin approach

## Paragraphs 8.95 – 8.99 of the EPR consultation

- **Producer-funded, compliance scheme involvement, free bin**
- Any **waste collector** offering a service **would have to offer free collections for all packaging waste**
- Collectors would specify frequency, bins size or sharing arrangements
- Businesses could upgrade service beyond that offered – i.e. frequency
- Collectors can still charge for non-packaging materials and must state the proportion of collection that is packaging
- **Compliance schemes come to a commercial arrangement with collectors and take ownership of materials**
- Evidence of over-achievement could be sold to other compliance schemes, facilitated by the SA (average price, cap, threshold considerations)



# Key points

- Evidence is key – “first point of consolidation” and evidence of reprocessing
- Setting of fair £££ rebates is key
- So therefore:
  - Upfront data reporting will be necessary with potential need for some investment – on-board weighing, geo-tagging etc.
  - Standardised business profiles for reporting:
    - Size/type of business
    - No. and size of bins etc.
    - Cost data
- Over time this data would be reported to the SA or the compliance scheme, through to obligated packaging producers
- **So, revision of the set rates is a consideration – upfront estimates are very important – hence later payments of commercial EPR that household EPR (24/25 rather than 23/24)**

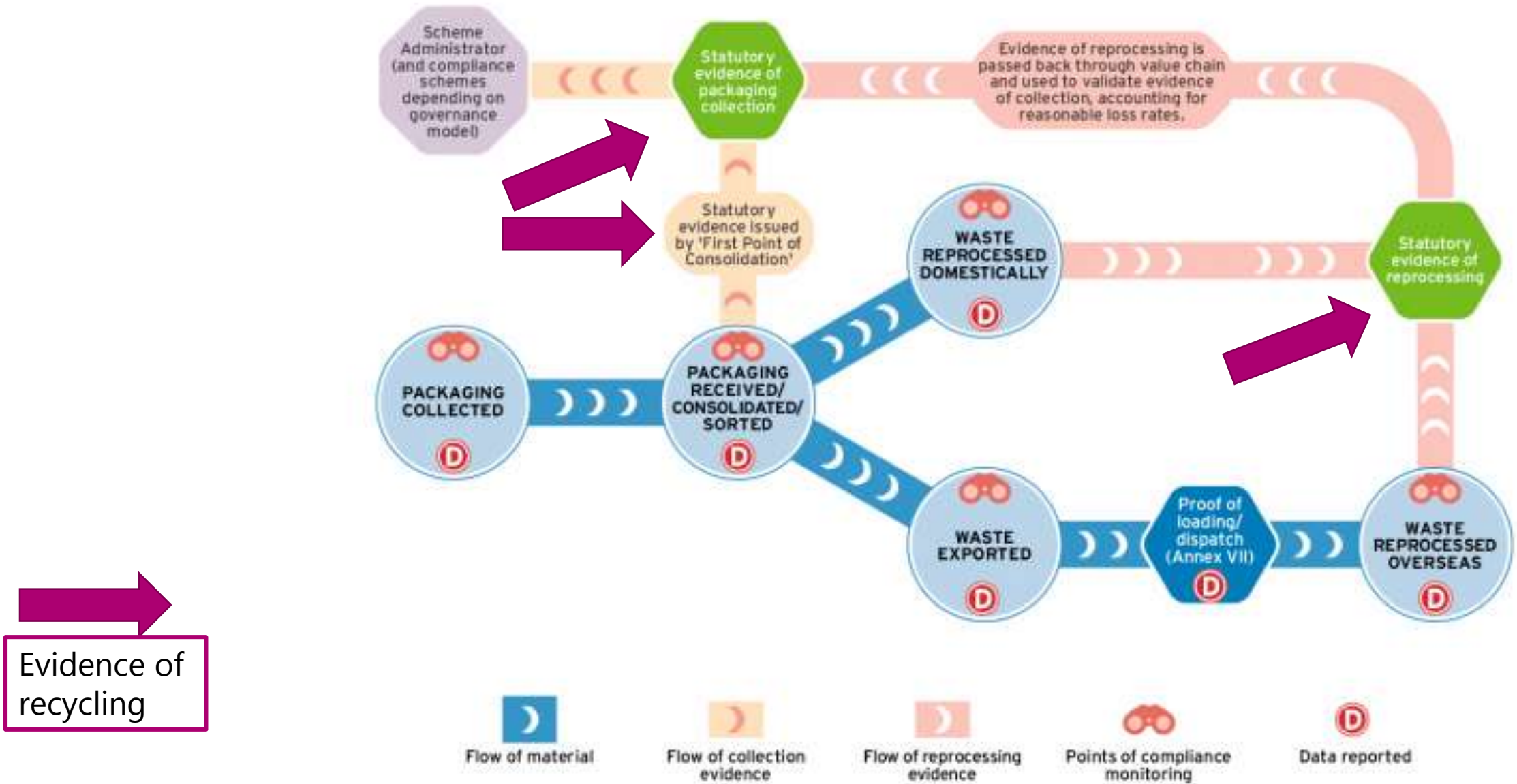


Figure 6 - Key reporting points and flow of evidence through the system



# Knowledge – support & advice

- Businesses will face having to interpret a lot of information so support will be needed.
- Support can be part of the obligated producer costs.
- WRAP commissioned a group of us to look at the advice and guidance out there and to assess the quality and the gaps – work is needed – **some advice good but big gaps.**
- Recommended that support should be via a combination of:
  - written information (multi-media platforms and networks); and
  - direct, potentially regional / local support.
- Underpinning whichever Option is implemented? A preference of WRAP?
- To interest businesses, use their drivers – cost; meeting standards or requirements; pre-empting future legislation and reducing environmental impact.
- Information must include:
  - what needs to be done and why;
  - how this is going to affect their business; and
  - benefits to the business, financial and image.



# Knowledge – support & advice

Information on HOW to make the changes:

- understanding what businesses produce, by sector – showing the likely proportions of the different materials – paper/ card, plastics, metals and glass (and, potentially, food) and where they might arise in their businesses;
- ways to assess their current systems and services – how to audit their own waste production;
- how to change how they manage their own waste internally and best ways to communicate with staff and stakeholders;
- how to change their current waste collection contract or how to procure a new contract, making sure they get the right service from their contractor; and
- obligations and expectations – what they need to do and what they might get in return – free bin, rebates etc..



# Other longer term options

## Paragraph 8.100 of the EPR consultation

- Zoning / franchising
  - Allow local authorities, or others, to issue contracts for commercial waste in a given region – reduced vehicle movements and greater efficiency – producers involved in contract procurement
    - Co-collection with household waste
    - Framework zoning – selected suppliers
    - Material-specific zoning (food, packaging, residual)
    - Exclusive service zoning
- Joint procurement by BIDs, retail parks, neighbouring businesses
- If formal zoning was an option new primary legislation would be required – late 2020s would be the target

## **Interactive poll**

**Which do you see as the main driver/s for businesses to separate more for recycling?**

- a. Consistency**
- b. EPR**
- c. Both**

## Interactive poll

**Off the top of your head which of the following would you prefer?**

- a. Scheme Administrator-led, producer-funded, p/T rebate system
- b. Compliance scheme led, producer-funded, rebate system
- c. Producer-funded, compliance scheme involvement, free bin
- d. A hybrid system taking elements of each of the three Options
- e. Unsure at the moment



## **Interactive poll**

**Do you think that business support should be provided**

- a. Centrally**
- b. Regionally**
- c. Locally**



# Summary

A **significant change** to legislation and financial systems

A **huge opportunity** towards greater circularity

**Complex issues** therefore insight and opinions from across the industry can help shape a workable system

**Drivers – a real combination of carrot and stick**, which done in the right way could be very effective.





**Any questions?**



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