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**From:** [Redacted]  
**Sent:** 12 November 2020 15:50  
**To:** wastecomments  
**Cc:** Leaf\_ie Info  
**Subject:** Leaf Environmental Ltd response on Deposit Return Scheme Consultation Document on Potential Models for Ireland  
**Attachments:** Leaf DRS Consultation Response 12112020.pdf; Reward4Waste Latest Presentation Nov 4th.pdf

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good afternoon,

Please find attached Leaf Environmental Ltd's response on Deposit Return Scheme Consultation Document on Potential Models for Ireland.

You should also find attached a document which expands on the Smart DRS trial referred to in our document.

Should you have any queries, or need any of the references, please do not hesitate to contact me.

Best regards

[Redacted]

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# Leaf Environmental Ltd response on Deposit Return Scheme Consultation Document on Potential Models for Ireland

**Submission via e-mail to:** [Wastecomments@DCCAE.gov.ie](mailto:Wastecomments@DCCAE.gov.ie)

**Date:** 12th November 2020.

**Managing Director:** Simon Stringer



## Introduction

Leaf Environmental wishes to make the attached submission in relation to the Department of Environment, Climate and Communications (DECC) - Consultation on Deposit Return Scheme Consultation Document on Potential Models for Ireland.

### Name

Leaf Environmental Ltd. Contact details are on the cover page to this submission.

### Who are we?

Leaf Environmental has been operating since 2001. It is a leading consultant specialising in Producer Responsibility legislation. It provides project management, audits, advice and support on all PR legislation with a special emphasis on packaging, WEEE & Batteries across the British Isles, and increasingly across Europe.

The Leaf Group operates packaging compliance schemes in both Great Britain and Northern Ireland as well as a sitting member of the Advisory Committee on Packaging that provides advice, guidance and technical support to the UK Government on policy and legislation around the Packaging Regulations and the recovery & recycling infrastructure in the UK. This puts Leaf Environmental in a unique position of identifying potential conflicts in ROI and UK waste policy and the effects they will have on clients that operate in both jurisdictions.

### Opening remarks

While Leaf Environmental is in agreement with the aims of reducing carbon emissions and litter, it would not agree with implementing a DRS at this point in time as contributing significantly to these aims, for the following reasons:-

- The DRS as proposed does not attend to reducing waste as the first priority, neither by promulgating the need to not require something first, nor is it encourage the use of refill rather than recycling single use containers as a better carbon reduction option;
- We have seen no evidence of a DRS being implemented on top of an existing successful kerbside collection that has significantly increased the collection rates for recycle;
- There is a new technology (blockchain based Smart DRS) trial being undertaken on this island at the time of writing, that is using predominantly existing household kerbside infrastructure. Details<sup>1</sup> are attached to this submission;
- Reverse Vending Machines (RVMs) are old technology;
- RVMs are capital intensive, to be paid for by retailers. The accompanying Eunomia report<sup>2</sup> suggests a cost of €70.79M, amortised over seven years. Irish ones may be required as other Members States are simultaneously looking to install them, leading to additional costs and delays for implementing the system;
- RVM infrastructure requires resources to build, operate and maintain;
- RVMs may need planning permission and this will take time to go through the process;

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<sup>1</sup> Reward4Waste Latest Presentation Nov 4th

<sup>2</sup> Improving the Capture Rate of Single Use Beverage Containers in Ireland, 2019

- An RVM based DRS will add to the existing Carbon budget in the form of additional collection, infrastructure and operational requirements, while reducing the carbon efficiency of the kerbside collections;
- On its own additionality, a DRS will not meet the increased Circular Economy targets;
- A DRS is mentioned as a possible route for Member States, but it is not mandated as a method to meet the SUP targets;
- On its own additionality, a DRS will not address other plastics required in the SUP Directive;
- A DRS may contribute to collecting less than 10% of all littered waste<sup>3</sup> in Ireland;
- A DRS may collect an additional 9,000T<sup>4</sup> of packaging at a cost of €67M which is more than twice that of Repak's €31,282,988 for collecting 1,008,130T in 2019<sup>5</sup> – it doesn't seem to represent value for money;
- Even using the net annual cost to producers in the Enumia report of €20M annual operating costs, it doesn't seem to represent value for money;
- While this additional cost is being placed initially on producers it will ultimately end up being passed on to the consumer, most of whom have very little fiscal headroom at the moment;
- The timescale seems ambitious given the unknowns, external factors and unintended consequences that do not appear to have been scoped thus contradicting the Precautionary Principle that should be guiding environmental best practice;
- The suggestion in the same Enumia report is that Repak operates the DRS. Can that be clarified? Is a tender or competition process envisaged? We are not aware in any other country where the operator of a DRS is also a PR scheme as we understand that separation is better for independence and transparency; and
- There is not enough detail in the proposed model to merit validation yet.

## Consultation Questions

*The Report recommends a centralised, operational model for Ireland. Do you agree with this recommendation?*

Leaf Environmental does not support a centralised model for Ireland as proposed in the accompanying Enumia Report. It cannot for the reasons outlined in the opening remarks section.

*If not, do you favour a:*

- a) *decentralised / financial DRS; or,*
- b) *hybrid.*

Leaf Environmental does not support a de-centralised or a hybrid model for Ireland as proposed in the accompanying Enumia Report. It cannot for the reasons outlined in the opening remarks section.

*Are there other models you believe could work in an Irish context?*

According to the Irish Enumia DRS report, the additional costs to producers, and ultimately the consumers, is estimated at €82M for set up costs and anticipated running costs of €67M per year.

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<sup>3</sup> Litter Monitoring Body System Results 2019, Tobin

<sup>4</sup> IWMA submission on DRS, 2020 referencing data from Repak

<sup>5</sup> Repak Annual Report, 2019

These running costs are potentially ameliorated by unredeemed deposits which are estimated to be 47%, which seems at odds with the target of 90% redemption, €23M of material values (and these are subject to external global forces). The balance is €20M (30% of annual costs) of producer fees. However, some text seems to suggest that the set up cost is also included in the annual costs, but the amount is not detailed.

The Beverage Council of Ireland, Cryptocycle, the Spar in Whitehead and Bryson House, we believe, are the principal partners in the new technology blockchain Smart DRS<sup>6</sup> based trial referred to above that is being conducted in Whitehead, Antrim. This is a short trial starting 30/9/20 and finishing 19/11/20. It needs to be finished and the results analysed. Two further trials are being planned for Wales in '21. This technology would seem to be available at a price substantially lower than a traditional RVM based DRS, and would seem to have a lower carbon impact as well as it can use much of the existing collection infrastructure.

The financial projections are that it may be a much more cost effective method of collecting recyclate than spending hundreds of millions of Euro that could be better spent on supporting other CO2 saving initiatives such as refurbishing homes or public buildings (which would also save costs and CO2 by reducing the demand for space heating), improving transport options for lower carbon impacts or more support for initiatives such as Tidy Towns.

Using the IWMA<sup>7</sup> tonnages for the target materials:

PET Bottles: Total collected = 25,490 t/a.

- Uplift from 60.7% to 90% = 29.3% = 7,469 t/a extra recycled;
- 7,469 t/a out of a total MSW generation of 2.8 million t/a = 0.27%

Aluminium Cans: Total collected = c.11,456 t/a.

- Uplift from 73% to 90% = 17% = 1,948 t/a extra recycled;
- 1,948 t/a out of a total MSW generation of 2.8 million t/a = 0.07%

Eunomia weights used in Irish DRS report – PET bottle 30g, can 16g

Eunomia weights used in Scottish DRS report – PET bottle 37g, can 17g

To meet the '29 targets, for the additional 9,417T of recyclate collected this would equate to **€8,707/T** for set up costs and **€7,115/T** for tonnage collection costs to increase from the current rate to 90%. Consequently, in the intervening period, these would actually be higher per tonne rates. It would seem to be poor value for money.

Using the Eunomia weights of 30g for a PET bottle and 16g for a can, this gives us a need to collect an additional 249M PET bottles and 122M cans, or about 371M additional containers. This is equivalent to €0.03 per container in set up costs (for seven years) and €0.18 per additional container to collect. As noted in the previous paragraph, these are to increase the collection rate from current to 90%. It would seem to be poor value for money.

#### Calculations

Set up cost - €82,000,000.00

Annual Operating cost – €67,000,000.00

Additional grammes of PET (grammes) – 7,469,000,000

Weight of PET bottle (grammes) - 30

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<sup>6</sup> [www.reward4waste.com](http://www.reward4waste.com)

<sup>7</sup> IWMA submission on DRS, 2020 referencing data from Repak

Additional grammes of Aluminium (grammes) – 1,948,000,000  
Weight of PET Aluminium can (grammes) - 16  
Number of additional PET bottles -  $7,469,000,000/30 = 248,966,667$   
Number of additional Aluminium Cans -  $1,948,000,000/16 = 121,750,000$   
Number of additional containers - 370,716,667  
Cost per additional container for set up over seven years –  $€82,000,000.00/370,716,667/7 = €0.03$   
Cost per additional container for annual operation –  $€67,000,000.00/370,716,667 = €0.18$

Leaf Environmental would recommend that before any commitment to an RVM type DRS in Ireland that the results from the Whitehead trial are analysed so that they could be incorporated into a new proposal to meet the SUP, CE and PW Directive requirements, which should include a trial in Ireland.

*What role should waste collectors play in the operation of a DRS?*

Leaf Environmental acknowledges the pivotal role that waste collectors have in the existing system, and uniquely that they own the material once collected. If this material is taken from the DMR kerbside collection, then it will have an inflationary effect on black, brown and possibly green bin collection costs, as the material value will have been removed from the waste collectors' remit (and in the Irish context, they own the material, so it has a value to them). This could be offset if waste collectors are provided for by a service fee from the DRS operator for handling any material that comes from the kerbside.

*The DRS study proposes a deposit per container of €0.20. Do you think this is appropriate? If not, should it be higher or lower or should different deposit rates apply depending on container size?*

Leaf Environmental would support a pan-British Isles broadly equivalent deposit price to avoid the additional potential for fraudulent claiming of deposits (if using similar packaging). See also the section on NI border issues for references to timing of the potential introduction in the UK.

Leaf Environmental would support the use of differential deposits to avoid the unintended consequence of products moving to different formats, which would be perceived as cheaper. Significantly, this is expected to be glass, large PET containers or different polymer containers.

Leaf Environmental would consider more research and an impact assessment of what the changes in container type and volume essential before a DRS is deemed suitable for Ireland.

Differing rates have been successfully introduced by Scandinavian DR Systems, in Norway (two values of deposit), Sweden (two values of deposit), Denmark (three values of deposit) and Finland (four values of deposit). In these countries consumers clearly understand a system where different pack sizes have different deposit levels.

*Consumers need to know about a DRS long before it becomes operational – do you have any suggestions as to how best the introduction of a DRS can be communicated to the public?*

Leaf Environmental would be of the opinion that the packaging and label manufacturers, producers (design, marketing and operations departments), waste collectors and the container receivers also need to be informed well ahead of any introduction. We suspect they should be informed far in advance of consumers.

We would suspect that a well funded ongoing national campaign is the best way of communicating with the public. For example, continued use of communications by waste collectors as required, consistent use of a platform such as mywaste.ie, and social media pointing towards that as a primary source of

information is fundamental to that success. We would also believe communications would provide better value for changing habits, hearts and minds, rather than introducing a resource heavy DRS.

***What enforcement measures should be considered in parallel with the introduction of a DRS?***

To answer the question Leaf Environmental would ask the following questions: -

- Which enforcement agency/ies will be responsible?
  - Producers
  - Container collectors
  - DRS operator
- What will be enforced?
  - Data integrity
  - Auditing of cash flows and amounts
  - Recyclate ownership
  - Recyclate quality
  - DRS operator
  - Meeting targets
  - TFS and end destination
- What sanctions are being considered, that are appropriate and proportional?
- Where are the funds for enforcement being sourced?

***How should cross-border issues be treated to ensure producers are not at a competitive disadvantage relative to producers in Northern Ireland?***

The UK is looking at a DRS. Scotland has laid Regulations for a DRS to be operational in July '22. This has been postponed from '21. Defra is expected to consult a second time in Q1 '21 for England, Wales and NI. This is for implementation in '23 or possibly '24, and ideally on a UK wide basis.

However, the UK has yet to determine many operational factors *inter alia*:-

- Appointment of a DRS scheme operator
- How will data be managed?
- How will data be managed between the individual devolved administrations?
- How will the material be managed between the individual devolved administrations?
- If Scotland introduces the Regulations in mid '22, and the rest of the UK has not, what impact will that have on data and compliance costs?
- How will fraud be tackled?

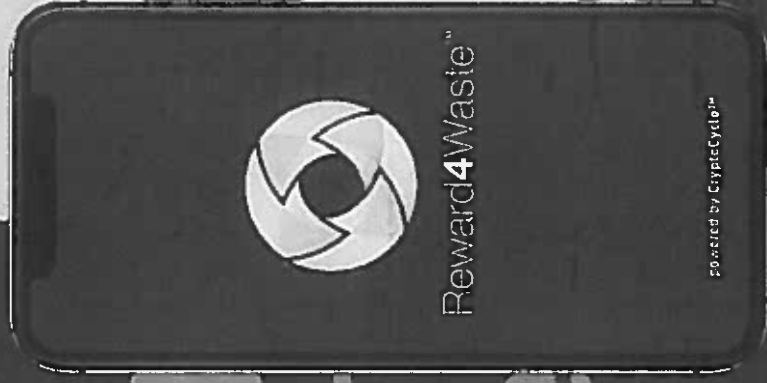
The UK DRS envisages glass bottles to be included in the system, whereas the Irish one does not and this is likely to lead to glass container deposits being claimed in NI on Irish material, and this will affect the recycling percentage that Ireland achieves (as well as costing UK producers more than necessary).

Significantly, the above highlights the need for a co-ordinated approach to this element of policy. If NI introduces a DRS at a different time to Ireland, then that has potential for fraud as well as simple errors. If, as mentioned above, the deposit values are significantly different, then that is likely to exacerbate any movement of material across the border, both legitimately and illegitimately.

End of submission.



# reward for waste



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# Smart DRS for the 21<sup>st</sup> Century



## Donate to Keep NI Beautiful

Keep Northern Ireland Beautiful is dedicated to making Northern Ireland a cleaner and more pleasant place in which to live.

Select an amount to donate:

£1   £5

Donate Points

## The Problem

- Waste is a global crisis
- 8 million tonnes of plastic flows into the ocean every year
- Plastic drinks containers are the worst offenders, but all waste is of global concern.
- No packaging should ever become waste
- Deposit Return Schemes are due to be introduced in the UK in 2022/2023

# Deposit Return Schemes: Flawed



- **Inflexible**
  - Excluding certain shapes and sizes
  - Excluding valuable material and products (limited to specific cans and bottles)
  - Difficult to control centrally with multiple-players
  - Requirement for resorting/counting





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4Waste

## Deposit Return Schemes: Flawed

- Use barcode as an identifier
  - Not unique
  - Vulnerable to fraud – both consumer and larger organised fraud
  - Lack of transparency





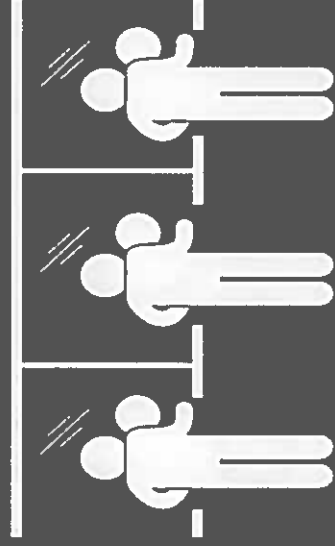
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# Deposit Return Schemes: Flawed

- **Costs vs economic benefits imbalance**
  - Large setup and annual maintenance costs
  - Relies on expensive reverse vending machines (RVM) and over-the-counter returns
  - Operational cost reductions of £250-500M p.a. (UK) and possibly more
  - Capital cost reduction of up to £1bn (UK – DEFRA estimate)
  - Duplicates existing systems and removes valuable recycling from waste contracts
  - Barely carbon neutral

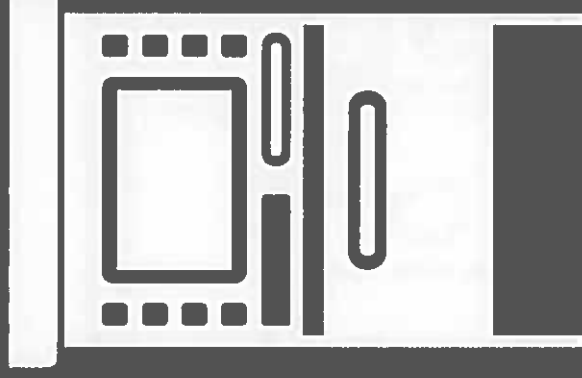


# Banking History



Counter Service

1970s



Cash Point  
Wall Machines

1980s

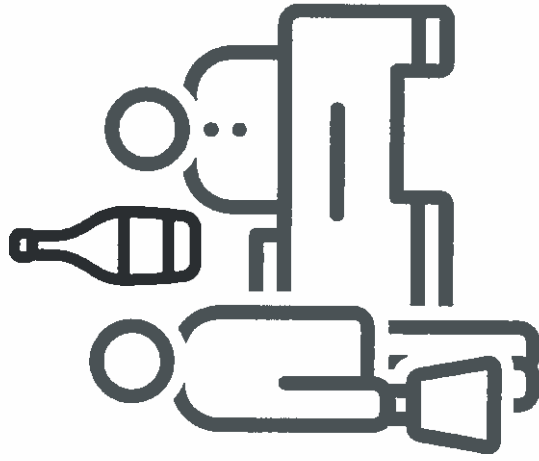


App Based  
Banking

Today

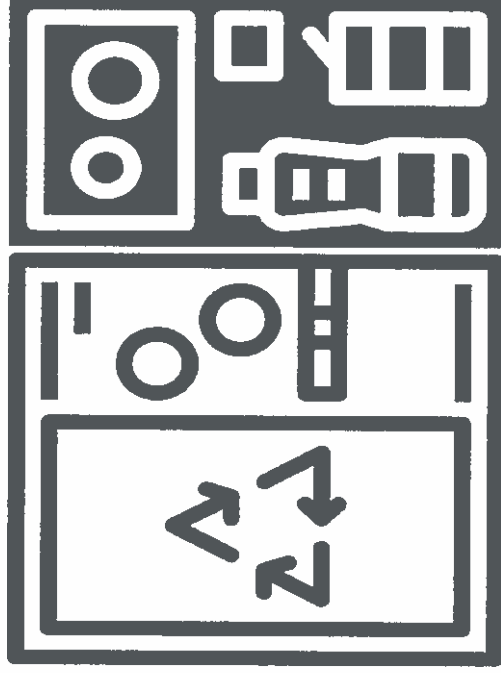


# DRS History



OTC Cash Returns

1970s



Reverse Vending Machines

1980s



Reward4Waste

Today





# Reward4Waste



Reward<sup>TM</sup>  
4Waste

- Recycling should not be made difficult
- Reward4Waste brings ease and convenience
- Recycling at home and on-the-go
- Making recycling inclusive to all (not just those who have cars/mobility)
- Refunding and rewarding consumers for their recycling, or they can donate instead to charity

# Drives Consumers to Recycle More



- Unique codes
  - All producers apply a unique identifying code on each recyclable item
- The consumer's role
  - Pay deposit at point of purchase
  - Download free R4W app onto any smart phone
  - Decide if they want to get cash paid to wallet/or give to charity
  - Scan R4W enabled existing recycling bin/box and each item to be returned
  - Allows for OTC or RVM return
- Role of the app
  - Credits the deposit to the consumer's account
  - Records where the recycling happened and what was recycled
  - Engage with the Consumer and encourage behavioural change

# Benefits



## Helping the planet | E.P.R

No packaging should become waste.

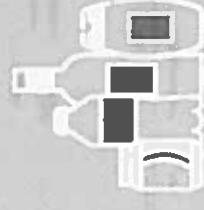
Keep packaging in the circular economy and help reduce your environmental impact.



## Consumer convenience

People need recycling to be easy to do the right thing. The harder we make it, the less they'll recycle.

Reward4Waste is a smartDRS and offers the flexibility to recycle at home or on the go.

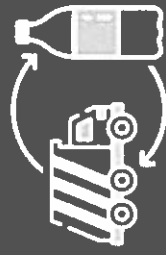


## Not just for drinks

Recycling isn't just for drinks - all packaging should be recycled.

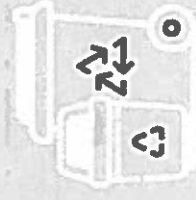
Reward4Waste captures different sizes and materials - so all recyclable packaging does not go to waste.

# Benefits



## Provenance

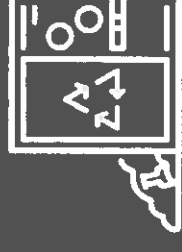
At any one time you (and your consumer) can track and trace your individual packaging and where it is within the circular economy.



## Customer convenience

Retailers do not want large RVMs in their stores, nor do they want to accept returned bottles o.t.c.

With Reward4Waste people do not have to come into store to return their item.



## Keeping things simple

There will be a whole multitude of challenges that come with returning items to store.

Retailers have a difficult job lets not make it harder.

# Benefits



## Winning hearts and minds

The app allows you to engage with your consumers, gaining rich insights, sharing your values, running competitions and offers, winning hearts and minds.



## Created to succeed

We don't want to make recycling so hard so that returns are low but profits are high.

Reward4Waste enables people to be brilliant recyclers, retailers and brands play a part in helping this happen.



## Doing good

Everyone wants to do one thing a day that makes them feel good - right?

Your chosen corporate charity could feature on the Reward4Waste app - raising money for good causes one recycled item at a time.

# Benefits



## Loyalty scheme

The app can help drive consumer loyalty to your retailer through targeted marketing



## Data

From who, where, when, what, and what with - there are huge data opportunities with

Reward4Waste to help you understand recycling and consumer behaviour.

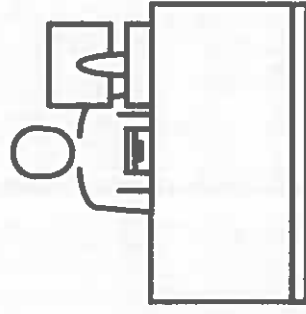


## Everyone's a winner

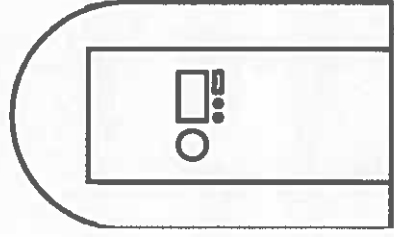
The Deposit Return Scheme is coming and that's a good thing.

Reward4Waste makes sure that everyone's a winner - from the consumer, communities, waste organisations, retailers, brand owners, local governments - and the planet

# Full Service Offering



Over-The-Counter



High Capacity RVM



Simplified RVM



Smart Bin



Recycling Bin



Home Recycling Bin

Consumers rewarded via R4W app or in-system coupon

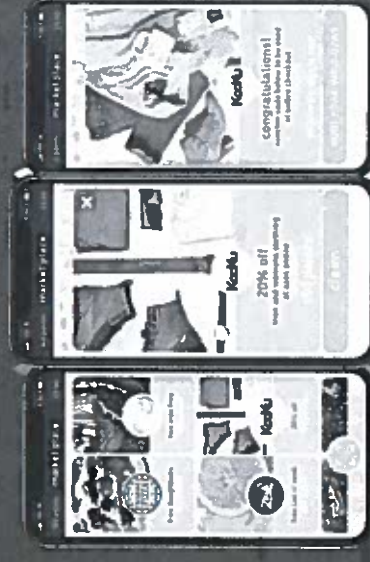
Consumers rewarded via R4W app

# Possibilities are endless...

- Closed loop scheme
  - Can also be used where no deposit is paid
  - e.g. festival, event, return/recycling scheme
- Richness of recycling data and insights over time
  - Who, what, where, when, what with
  - What engages and motivates
  - Highly targeted rewards
- Could be Europe's biggest loyalty scheme
- Making a real impact on the war on waste



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4Waste





# Trial in Northern Ireland

- Across 2000 HH in Whitehead
- In collaboration with Bryson Recycling and MEA council
- At home and on-the-go recycling
- Across a mix of materials and products
- Local residents in marketing campaign
- DAERA Minister, Minister Poots gave support
- Supported by Britvic, PepsiCo & Encirc



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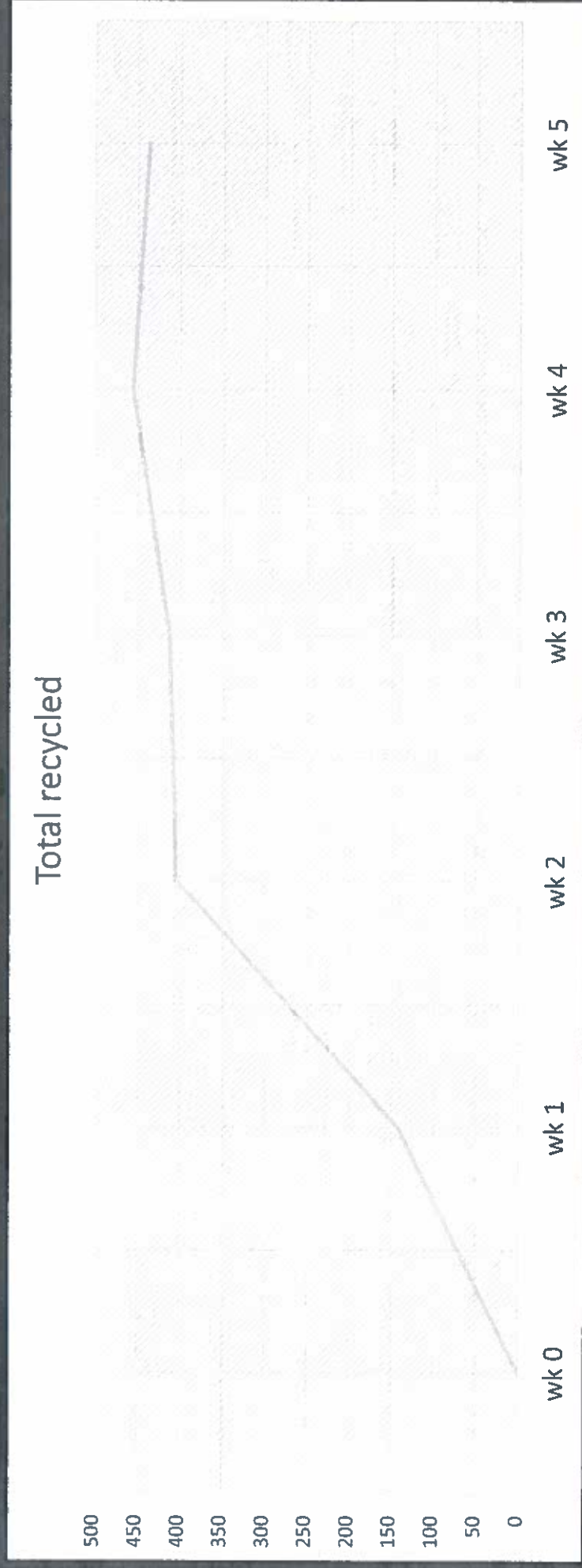


# Trial in Northern Ireland

## Performance over time



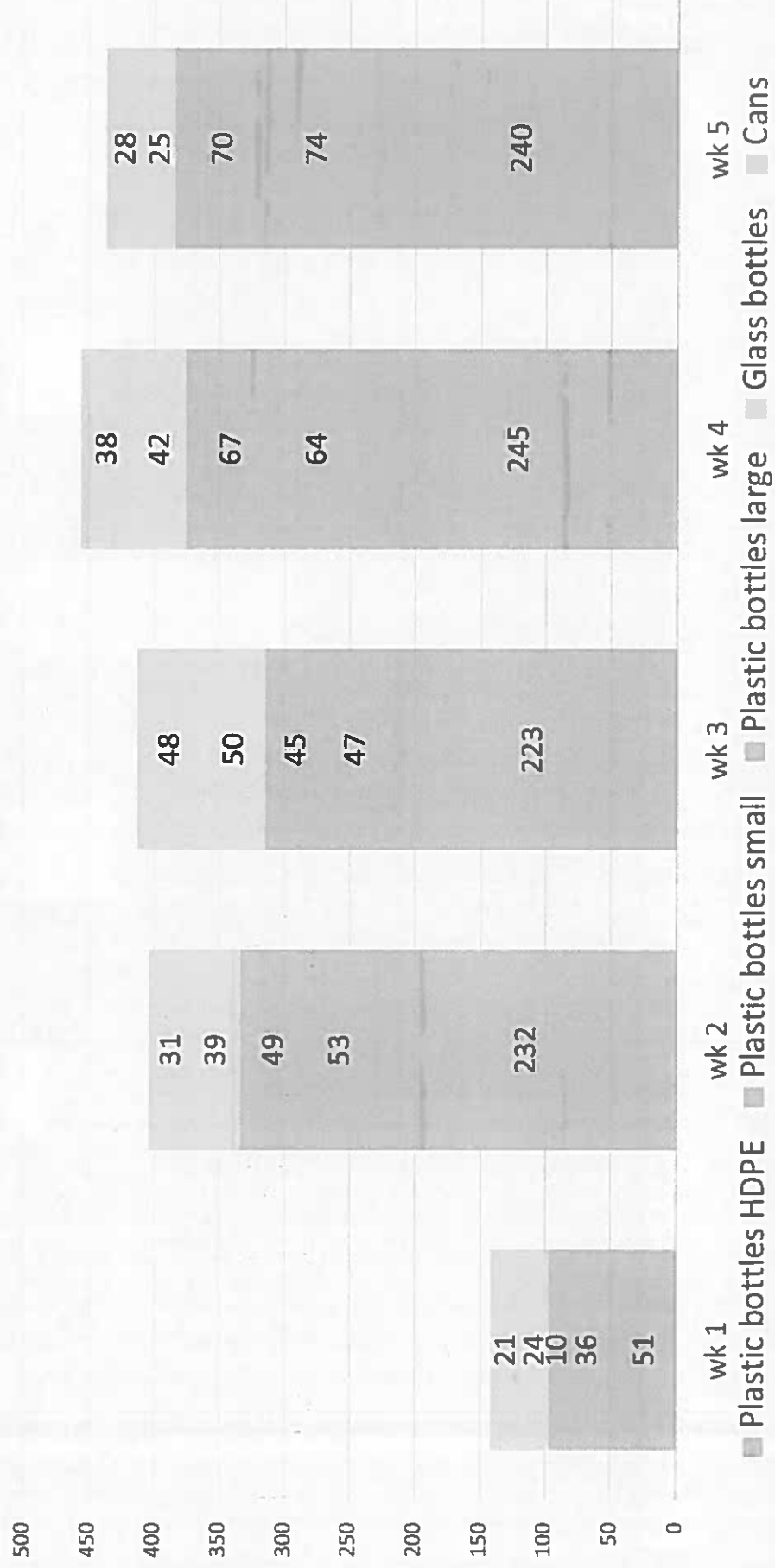
Reward<sup>™</sup>  
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	wk 0	wk 1	wk 2	wk 3	wk 4	wk 5
Total recycled	0	142	404	413	456	437

# Trial in Northern Ireland

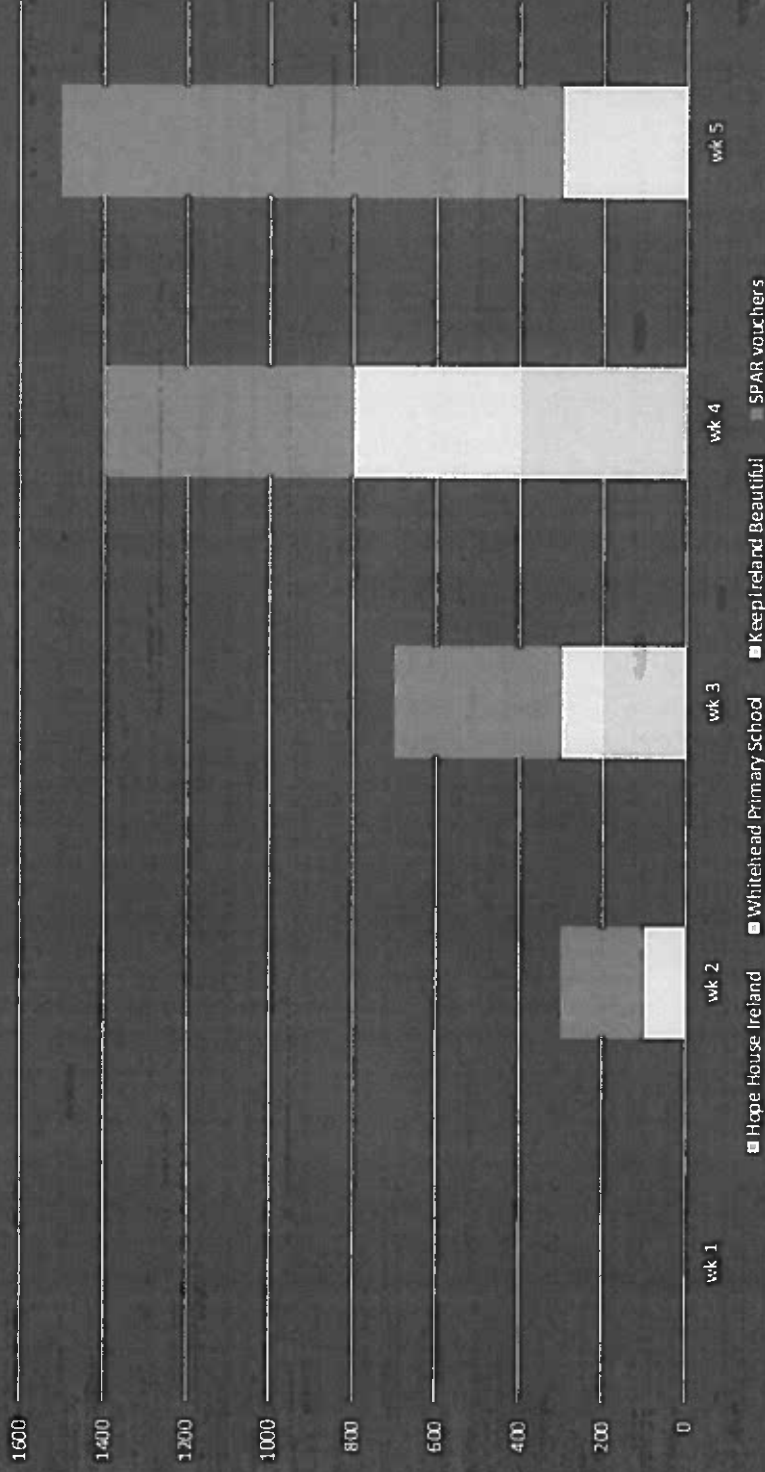
## Item split recycled over time



# Redemption of Rewards



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	wk 1	wk 2	wk 3	wk 4	wk 5
Hope House Ireland	0	0	200	400	0
Whitehead Primary School	0	100	100	400	300
Keep Ireland Beautiful	0	0	0	0	0
SPAR Vouchers	0	200	400	600	1200

# Engaging Community in Marketing



85% of all items recycled by Bryson Recycling stay within Northern Ireland. That's great for our economy

Circle - Bryson Recycling

There's a new app in town.

**Bryson Recycling**  
100% Recycled Paper

Together, let's revolutionise recycling. Download the app to help out!

For more information visit [www.reward4waste.com](http://www.reward4waste.com)

**Reward 4Waste**

**Bryson Recycling** **J&M Habitat Action**  
**BRITVAC** **PEPSICO** **enarc**

We love Whitehead. Recycling helps keep litter out of our town.

Photo - Whitehead Primary School

There's a new app in town.

**Reward 4Waste**

Together, let's revolutionise recycling. Download the app to help out!

For more information visit [www.reward4waste.com](http://www.reward4waste.com)

**Bryson Recycling** **J&M Habitat Action**  
**BRITVAC** **PEPSICO** **enarc**

# What Next?

- We are in discussions for our next trial
- Over 100,000 people
- At home & on the go recycling
- We are building evidence based case studies
- We want to shape the future of the DRS
- Reward4Waste can revolutionise recycling
- **We welcome discussions**





Howe of  
Agriculture

