From: ▓▓▓▓▓▓▓▓▓▓▓▓
Sent: 12 November 2020 12:58
To: wastecomments
Subject: Deposit Return Scheme consultation
Attachments: Deposit Return Scheme in Ireland - Final.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.

Dear Sirs

We attach our response to the consultation.

We would be happy to answer any questions you may have.

Regards

▓▓▓▓▓

▓▓▓▓▓▓▓
Director

[✗]

m. ▓▓▓▓▓▓▓▓
w ▓▓▓▓▓▓▓▓

Reward**4**Waste™

Deposit Return Scheme in Ireland

Responses to the

Consultation Document

on Potential Models for Ireland

Steve Clarke – CEO CryptoCycle Ltd

CryptoCycle™

www.reward4waste .com

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

A: We believe the model should operate under the following principles:

- The material should not be owned by the operator

- We believe key stakeholders including drinks producers, retailers, waste management and the government should nominate a scheme administrator or central operator to manage the scheme

- We believe the operator should be an independent, not-for-profit, industry/trade association-led organisation to manage the implementation and day-to-day running of the scheme

- This central operator should remain altruistic, with the overall aim to reduce litter and increase recycling in order to benefit the planet rather than be profit led

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

A: We believe the success of a scheme comes by integrating the existing waste infrastructure into the DRS solution, which would have the following benefits:

- Deposit return via both home recycling and on-the-go recycling should be fully included and captured within the scheme - giving a more realistic approach to how consumers currently recycle. With more people recycling drinks bottles at home than on-the-go it is vital to have a scheme that captures at home recycling, recognising the habitual existing recycling behaviour and rewarding those for recycling, whilst strengthening out of home recycling behaviour. We believe this strategy is vital to the success of the scheme and Reward4Waste delivers this.
- Every household and every on-the-go bin can be a deposit return point with our simple cost-effective technology. The waste collectors have a key role to play in this by having RFID chips on home recycling bins.
- Research by DEFRA in the UK shows that in a typical week most survey participants (84%) visit a large supermarket and travel to do their main shop by a car or van driven by them or someone in the household (72%), although those from lower social grades were less likely than those from higher social grades to travel by car.
- Ability to engage those who are less able to take part in static retail schemes. As many will find a traditional DRS difficult to take part in. Recycling and taking part in the Deposit Return Scheme should be fully inclusive to all, including those who are less able to get to a central deposit point, such as low-income

families without cars, those in high rise flats, rural locations with poor transport links and the disabled and elderly
- Engaging those who are resistant to the scheme. Many will find the more traditional DRS cumbersome and more difficult to recycle than before. There may be a large group of time challenged, dis-engaged people, where the bottle deposit just becomes part of their spending repertoire and they do not take part in the scheme.
- Including home recycling and on-the-go bins as deposit return points makes deposit return convenient and simple for consumers.

Reward4Waste has been formulated to work hand-in-hand with existing infrastructure such as static bins or home recycling kerbside collections – therefore minimising effort and confusion for consumers and maximising recycling rates without disadvantaging and complicating existing processes such as local government or district backed home recycling.

RVMs and other newer smart bins can work effectively in high footfall areas and specific scenarios. Reward4Waste is designed to work alongside all other systems.

The following video shows how Reward4Waste works
https://www.youtube.com/watch?v=Sgo53xh-pss

More detailed information follows below
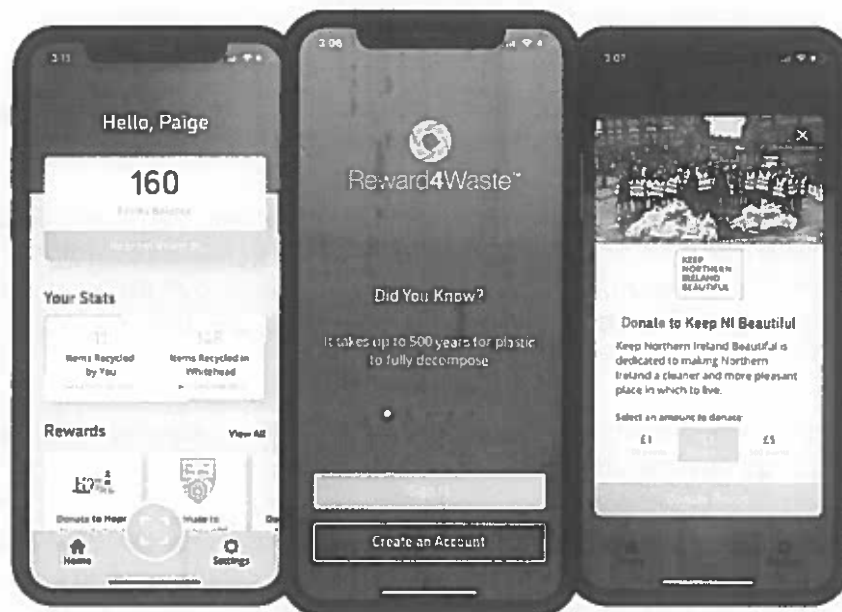
CryptoCycle™

Consumer

Consumers can recycle at home and on-the-go.

Users download the free Reward4Waste app on their phones and start getting rewarded for their recycling. Users receive their deposit back each time they recycle using Reward4Waste - by scanning the recycling bin/box, then scanning the unique code on each item to be recycled before dropping them in the bin. Where recyclable materials have separate bins, consumers carry out the process for each bin/material.

When each item is recycled, consumers can monetise and 'cash out', collect Reward Points (that can be used like a loyalty scheme) or donate to charity.

For a small minority of households who don't own smart phones, we offer other solutions to take part.

By shifting the recycling and deposit return from point of sale to point of consumption and collection, consumer convenience is greatly enhanced (no special trips to RVMs or remembering to take recycling material with you) leading to higher levels of recycling.

Quality of material recycled is enhanced where there is separation. Research by WRAP Cymru shows consumers typically do not want smelly bins so are more likely to wash material than those using RVMs.

Deposit Point

Reward4Waste can use existing kerbside and on-the-go infrastructure, enabling convenient options for returning packaging at home and 'on-the-go'.

When recycling at a public recycling point, the consumer scans the unique ID code on the recycling Deposit Point (any bin, receptacle or reverse vending machine at home, at work or on-the-go, that has been allocated a unique identifying code) scans the product's unique ID code printed on the container, and then recycles. The recycle is registered once these 2 scans have taken place.

Reward4Waste uses blockchain technology and unique codes (serialisation) on every item which brings several advantages over existing systems:
- It prevents any product from being recycled twice
- If a consumer scans an item to claim back their deposit but then throws it away as litter, it can be picked up and rescanned which will identify who claimed the deposit without recycling. Identifying 'bad actors' in this way allows us to send

advisory messages and remove them from the system either temporarily or permanently
- Fraud is reduced to close to zero
- Producers can trace product from being packaged through to it being recycled. This gives traceability for provenance and rich consumer data
- Data can be kept totally confidential for each stakeholder

Waste Management Organisation (WMO)

The WMO collects and recycles the waste collected on existing collection routes and any additional routes or collection points to collect from on-the-go bins and RVMs at places with very high footfall. The ownership and value of the waste is retained within the WMO where recycling takes place.

Overall, collection journeys are massively reduced because most in-scope material is being collected from existing collection rounds. In turn, huge financial and carbon savings are made compared to the proposed centralised RVM-heavy scheme.

Waste collectors continue with their collections – Reward4Waste allows them to scan each bin into the system for data purposes, although this is not vital to the success of the scheme.

Reward4Waste receives and validates data from the WMO.

As Reward4Waste works hand-in-hand with existing infrastructure such as static bins or kerbside collections it operates without disadvantaging existing processes.

Reward4Waste can capture all recyclable packaging of all shapes and sizes, refunding or rewarding consumers when they recycle. No material need be out of scope.

Producer

Reward4Waste sends proprietary unique identifying codes to producers, who then label their items with this code, to track through their journey to recycling and eventual reuse.

Producers send production information back to Reward4Waste. Reward4Waste records each transaction on an auditable and immutable blockchain, which can be programmed to know where the item was produced, what it contained and the type and amount of recyclable material it comprises. It then tracks the item through the circular economy.

Each producer has free access to their own data 'node' but will not be able to see data any other producer or system user.

Producers with containers not in-scope of DRS (for example fabric conditioner) can also use Reward4Waste, by encouraging consumers to recycle by offering Reward Points. These Reward Points can then be claimed against future purchases, used within loyalty schemes or donated to charity. This creates endless opportunities to increase both quantity and quality of recyclable materials.

Retailer

Reward4Waste brings DRS to users' phones, and can run alongside or instead of RVMs, across products of all materials, shapes and sizes - not just drinks.

When the retailer purchases drinks from a distributor or producer, they will pay the price of the product plus the deposit amount, which is then added to the price of the drinks being sold. This ensures that the paying of the deposit amount is transferred through the supply chain from producer to distributor, retailer, and then consumer.

Reward4Waste can capture all recyclable packaging of all shapes and sizes, rewarding consumers when they recycle.

Data for administration

Due to the unique features of serialisation and blockchain at any point the following data is available without the need for all material to go through counting centres (with further reductions in transport costs, administrative costs and carbon pollution):
- How much material and what type has been put on the market
- How much material and what type has been sold and not yet recycled
- How much material and what type has been returned for recycling

More granular data is available to producers/brands and other stakeholders.

All data is anonymised.

All data relating directly to a specific stakeholder is available to them free of charge through a 'data node' and only visible to them

Q: 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?

A: We have no hard view on this. Using Reward4Waste the deposit per container can differ by material, by category or by brand by location should you wish, and further incentives can be made through the app – at times when litter dropping is high.

Q. 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?
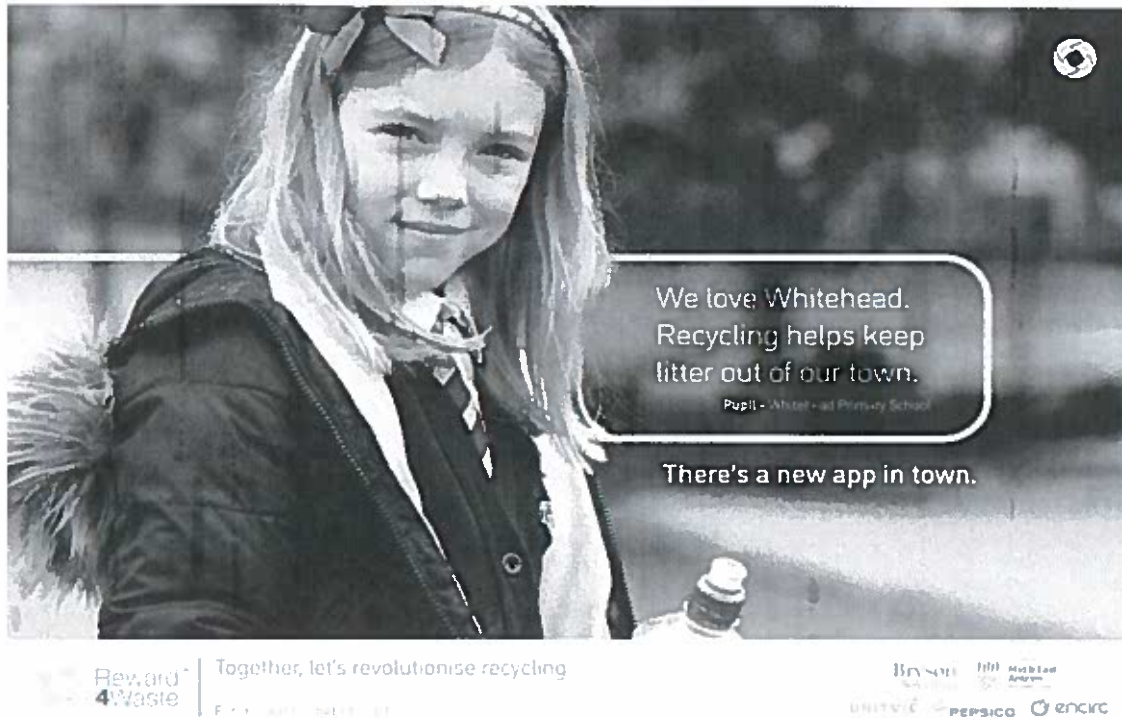
A: Marketing communications is an important part of DRS success. But more important is having a DRS solution that is easy and engaging for the consumers to take part in.

We believe the following marketing comms will be helpful:

- Advertising across all main consumer points of contact
  - TV
  - Social Media from Facebook to TikTok and YouTube
  - Radio

- Involvement of the community
  - To engage and get buy into the scheme
  - For advertising to not just be a faceless authority explaining the scheme, but real people who are relatable to them

- Over-arching campaign that connects to all

- A solution that can be responsive to changes and challenges
  - Reward4Waste is app based and therefore can send immediate pop ups / messages to users reminding them to recycle, or advising them of any recycling changes within their county
  - One of the main reasons for not recycling is confusion over what can and can't re recycled. Reward4Waste alleviates that confusion by education and engagement

CryptoCycle™

With our recent trial in Whitehead, Northern Ireland, we used real people who communicated the scheme which created buy in, engagement and a buzz of excitement.

We love Whitehead.
Recycling helps keep
litter out of our town.
Pupil - Whitehead Primary School

There's a new app in town.

Together, let's revolutionise recycling

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

A: Reward4Waste can identify bad recyclers, those who scan the deposit point/bin, scan their bottle, collect the rewards then litter. Whilst we believe this will be a very small minority, those that do that can be traced through the app and either fined for littering with continued bad recycling or taken off the scheme. Using Reward4Waste each bottle has a unique code that allows for tracking through the circular economy and this code ensures that the container can only be recycled once.

Because each unique code can be used only once any attempts to photocopy or otherwise reproduce an existing code will result in the scan being rejected. This is unlike EAN codes which can easily be copied and therefore much more susceptible to fraud.

The features of serialisation and blockchain combined with artificial intelligence allow us to implement further security measures which are highly technical and commercially sensitive so not expounded here.

CryptoCycle™

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

A: With Reward4Waste each bottle is individually identified and is fully accountable. Using features within the system it becomes easy to identify potential fraud /grey stock. The unique codes can enable the operation of an all-Ireland system if required. By identifying items based on origin the system can manage the return of the deposits based on location and deposit paid/value and currency.