



Insight report

A critical juncture for DRS in the UK



Executive summary

The introduction of deposit return schemes (DRS) in the UK has the potential to be a major step forward in the fight against packaging waste and litter.



Anne Godfrey
CEO
GS1 UK

The environmental impact caused by single-use containers is massive and could be avoided. Nearly two thirds of the 10 million tonnes produced each year is recoverable. In recent years, campaign groups and NGOs have rightly pushed this issue up the public agenda, with calls for far greater action and a move to a policy of extended producer responsibility (EPR).

We know how effective DRS models can be as a means of combating this problem. The idea is simple: incentivise consumers to return single-use containers by charging a small deposit that is refunded either manually or digitally.

In those countries where DRS is already in place, sometimes for as long as three decades, we've seen recycling rates vastly improve, as consumers are successfully incentivised to return single-use containers, with collection rates close to 100 per cent in some cases.

“The idea is simple: incentivise consumers to return single-use containers by charging a small deposit that is refunded either manually or digitally.”

In short, the move by all four UK nations to roll out a model of DRS by 2025 is a welcome one.

But, for DRS to deliver the desired outcome, government and industry need to work towards a joined-up, future-proofed solution. One solution that creates clarity and consistency for all involved; prioritises ease of cross-border implementation; and integrates existing product identifiers.

As our recent study of 2,000 UK consumers reveals, there is currently a chronic lack of awareness, with 26 per cent of those surveyed unaware of what a DRS is. Confusion is already a key contributor to declining recycling rates in some parts of the UK.

That's why GS1 UK supports an approach that delivers consistency, facilitates cross-border trade and supports efficient and effective supply chains.

Currently, we're at a critical juncture in the implementation of any such scheme.

On 16 August 2023, Scotland will become the first of the four UK nations to launch a national DRS. England, Wales and Northern Ireland are also consulting on the parameters of what such an initiative may look like in their own regions and nations.

If the outcome of those consultations is a fragmented model, one that lacks the flexibility to adapt to future expansions in EPR, then it will be at best a missed opportunity, at worst a highly expensive failure.

At GS1 UK, we're in a unique position to provide insight on, and support the delivery of, a robust and efficient DRS in the UK. 90 per cent of those retailers, producers and wholesalers affected are already among our members, and already use our interoperable standards to identify, capture and share data about their products.

We're calling for a future-proofed approach that delivers simplicity, convenience and ease of use for both consumers and industry.

To achieve this, we need to work towards a collective, collaborative effort in which both industry and government work together to solve the problem of packaging waste across the UK.

We're at the cusp of a major opportunity to reduce the damage that is done to the environment. Let's not waste it.



The basics: what exactly is DRS / DDRS?

Deposit return schemes (DRS) are an example of extended producer responsibility (EPR).

EPR is the idea that responsibility for the whole lifecycle of a product and its packaging should lie with the producer. It's a shift that therefore incentivises industry to factor sustainability into the development of new products, packaging and labelling.

DRS achieves this by incentivising consumers to return used containers for recycling by charging them a small deposit that is only reimbursed once the packaging is returned. These containers can then be properly disposed of under a scheme that is ultimately paid for by the producer.

A **traditional deposit return scheme** involves consumers manually returning containers to reverse vending machines (RVMs) or handing them back to retailers, online delivery drivers or takeaway outlets.

A **digital deposit return scheme (DDRS)** allows them to return containers via a network of 'on the go' return points or regular kerbside collections. Consumers would likely scan a QR code to register the return and redeem the deposit via their smartphone.

The concept of a DRS isn't entirely new to UK food and drink.

In the past we've seen individual brand owners, technology firms and even property developers create and execute their own schemes.

Up until 2015, Scottish soft drinks brand owner AG Barr famously had a long-standing tradition of returning a 30p deposit on its 'ginger bottles' of Irn Bru, for example.

In 2019 Canary Wharf began what it claimed was the UK's first on-site DRS, with publicly accessible RVMs positioned around the central London complex as part of its 'Breaking the Plastic Habit' campaign.

That same year, recycling tech specialists Polytag sought to demonstrate how its digital codes could be used as part of a DDRS, via a pilot scheme in the northwest of England.

Although these were all important steps forward in understanding the parameters of a DRS / DDRS, a national rollout would require all producers to participate, significantly amplifying the benefits – but also the complexity – of such a scheme.

To work successfully, it's our view that such a scheme must fulfil four criteria:

Harmonised

Product information must be shareable across borders, allowing for data from any of the four nations to be integrated with a UK-wide recycling ecosystem.

Neutral

Underpinned by global, open, interoperable standards to drive participation and maintain regulatory integrity by preventing the lock-in of any providers.

Flexible

A system that looks beyond drinks containers and can support a range of collection methods best suited to each product type.

Future-proofed

Adaptable to wider reform of the producer responsibility system for packaging and can support future developments in digital labeling.



Our mission

At GS1 UK we are in a unique position to support the successful roll out of DRS across all four UK nations.



We have more than 58,000 members, covering 90 per cent of the retailers, wholesalers and brands who will be impacted by the implementation of DRS



Our globally recognised open standards already help our members uniquely identify, capture and share information as a common foundation for business



GS1 standards are already used in DRS systems across the world, and we are actively supporting the development of a data model which supports product attribution in the context of EPR

That's why our mission is to work across industry to support the implementation of effective schemes, by facilitating stakeholder collaboration and promoting the interoperability of DRS systems through GS1 standards.

Tackling the UK's growing waste problem

The need for DRS in the UK has gained support as a result of growing awareness of the environmental impact of packaging waste.

Though all packaging materials contribute to this impact, plastic is seen as the most harmful. According to WRAP, the volume of plastic packaging placed on the UK market between 2017 and 2019 totaled 2.3Mt, and accounts for nearly 70 per cent of our total plastic waste.

Each year, UK consumers are estimated to get through 14 billion plastic bottles, nine billion aluminium and steel cans, and 1.5 billion glass bottles.

By volume, drinks containers account for 75 per cent of the litter found on UK streets and, although many of these items are fully recyclable, recent recycling rates show there is much more to be done if the Government is to reach their target of recycling 77 per cent of single-use plastic bottles by 2025, and 90 per cent by 2029.

“Recycling doesn’t work, we all know it. If we think things are being recycled we can carry on the way we are. We need to address things further up the chain. By reducing the amount we produce it will reduce the amount that is thrown away.”

Daniel Webb, founder of Everyday Plastic



There is strong support for more stringent government action to tackle the issue, with one 2018 consultation attracting 162,000 submissions from individuals, businesses and campaign groups, the vast majority voicing support for additional taxes and incentives for recycling.

As a result, all four UK nations have announced their intention to deploy EPR schemes in order to make producers to take greater responsibility.

- In England these commitments appear in the Resource and Waste Strategy for England (2018)
- In Scotland and Wales, via the devolved government's circular economy strategies 'Making Things Last' (2016) and 'Beyond Recycling' (2012)
- In Northern Ireland, via its Waste Management Plan (2019)

It isn't only DRS that forms part of this shift toward EPR, with a wider framework of policy changes designed to tackle packaging waste. From April 2022, for example, a new tax was introduced for all UK plastic packaging manufacturers.

This 'Plastic Tax' applies to any plastic packaging that doesn't contain at least 30 per cent recycled material, and sees producers charged £200 per metric tonne of plastic used.

With its direct impact on both consumers and industry, it is hoped that deposit return schemes could have a significant impact on recycling rates and make a major dent in the volume of packaging waste currently ending up in rubbish bins, or littered across the UK's streets, green spaces and coastline.

“The public is concerned about their plastic waste, and want to see genuine action from the government to turn the tide on our plastics crisis. That means an immediate end to us dumping our waste on other countries like Turkey, and legally binding targets that tackle the plastic problem at source.”

Chris Thorne, plastics campaigner at Greenpeace UK

Deploying DRS could be critical to overcome falling recycling rates



The Big Plastic Count, Britain's biggest ever survey of household plastic waste, found that the average participating household threw away 66 pieces of plastic in a week.

Using those figures the organisers, Greenpeace and Everyday Plastic, estimate that the UK throws out nearly 100 billion pieces of plastic a year.

Falling recycling rates are a major barrier to reducing the impact of packaging waste in the UK.

In 2021, recycling rates for household waste in England decreased to 43.8 per cent, compared to 44.5 per cent in 2020. In Scotland too, figures declined from 44.9 per cent in 2019, to 42 per cent in 2021, and in Northern Ireland from 50.6 per cent to 49.1 per cent. Only Wales saw a slight increase, with a single percentage point rise to 56.5 per cent.

It's thought COVID-19 related closures and restrictions were partly to blame for the declines, with some local authorities unable to maintain a full roster of collections, and the widespread closure of household waste recycling centres.

This highlights the erratic progress currently being made on recycling packaging waste and the importance of a deposit return scheme.

The current DRS landscape

All four UK nations have announced plans to introduce some form of scheme by 2025.

But as waste management is largely a devolved issue, each devolved government is opting for a slightly different approach, on a slightly different timeline.

Scotland

Scotland has a strong track record on leading the UK on circular economy initiatives. DRS is no exception.

After regulations were passed by the Scottish Parliament in May 2020, Scotland will become the first UK country to rollout its plans for a traditional 'return to retailer' DRS, a scheme described by first minister Nicola Sturgeon as "the most environmentally ambitious" in Europe.

It will see consumers pay a 20p deposit on all drinks in a single-use container made from PET plastic, glass, steel or aluminium, and sized between 50ml and 3 litres.

The scheme will come into force from 16 August 2023, though there remains plenty of details to be finalised ahead of that date, and before producers, retailers and other affected parties can start to prepare.

Circularity Scotland will act as the scheme administrator, a role which will see it oversee the rollout of DRS and ensure all the involved parties meet their obligations.

England

In 2018 DEFRA first announced plans for a DRS as part of its crackdown on plastic pollution.

"We can be in no doubt that plastic is wreaking havoc on our marine environment – killing dolphins, choking turtles and degrading our most precious habitats," said then environment minister Michael Gove. "It is absolutely vital we act now to tackle this threat and curb the millions of plastic bottles a day that go unrecycled."

Many of the parameters of this scheme remain unclear, with the government yet to publish a joint response to DEFRA's latest consultation.

In March 2022 however, it was confirmed that glass bottles would be excluded from the scheme. Some consultation responses raised concerns over the cost, complexity and logistics of adding the material, as well as health and safety implications, while also pointing out its comparatively lower environmental impact. The decision has proven controversial.

It's thought DRS will not come into force prior to 2024 in England.

Wales

The Welsh government has confirmed its intention to introduce an 'all in' DRS. As with England, it's not expected to come into force until 2024.

Unlike England, the scheme is also set to include glass bottles.

There are also signs the government may be considering a DDRS. It commissioned Resource Future to research and evaluate how such a scheme could work, the results of which were published in January 2022.

Northern Ireland

Northern Irish authorities began considering the introduction of a DRS as early as 2015, requesting an 'options paper' from officials on the feasibility of such a system.

But it wasn't until 2018, alongside England and Wales, that DAERA confirmed its commitment to such a scheme, further details of which are expected once a joint response is issued on the latest consultation.

It's expected that Northern Ireland will advocate for a traditional DRS, with glass outside of scope.

As with England and Wales, a DRS isn't expected to come into force in Northern Ireland until 2024.

Trialling DDRS in the Welsh town of Conway

In 2021, a DDRS trial kicked off in the North Welsh market town of Conway to test the viability of such a scheme. As part of the four-week study, participating residents were given a set of clear plastic water bottles stamped with a unique code, provided by technology firm and GS1 UK partner, Polytag. Once they'd used the bottles, they were asked to scan the code using a free app before leaving them out for kerbside collection.

Once collected, these bottles were scanned by the local council's household waste and recycling team. For every bottle returned, participants received a digital token worth 20p.

It's thought that using 'tag and trace' technology in this way could make deposit return schemes far more convenient for households, removing the need to travel to a retailer or RVM to manually return their containers. Some local authorities also say it could keep valuable materials within the existing waste stream.

Results were promising, with 97 per cent of participating households engaging with the process by scanning at least one water bottle, and 90 per cent scanning at least two thirds.



Simplicity and convenience are key

Simplicity could make or break any DRS scheme implemented in the UK.

Our research of more than 2,000 consumers and businesses reveals that confusion is already fuelling poor recycling rates.

16 per cent of consumers currently don't recycle at all, citing lack of knowledge and confusion over which materials can and can't be recycled as key reasons.

A third (34 per cent) believe recycling is unnecessarily complicated, whilst 45 per cent think that simplicity would be the most important aspect if the recycling system were to be redesigned.

In short, any deposit return scheme needs to have simplicity and ease of use at its core.



Consistent collections

In November 2021, research by Tetra Pak, the world's leading food processing and packaging solutions company, found that consumer confusion risks undermining DRS implementation in the UK. 59 per cent of people who had a view on the issue would be confused by the DRS unless it was consistent with household recycling collections.

Already DRS struggles with low awareness levels.

Currently less than half (42 per cent) of consumers have heard of a DRS and have a basic understanding of how it would work, while a quarter (26 per cent) have no idea what it is at all.

This extends to businesses too, with 38 per cent of business owners unaware of the proposed schemes. A third (33 per cent) have also said they will raise the RRP of products to account for added operational costs and complexities, potentially resulting in double price hikes for consumers.

It's clear that policymakers must therefore work to proactively educate both consumers and businesses on how any DRS will operate well in advance of its introduction.

Equally though, our research reveals the size of the opportunity should stakeholders prioritise an approach that puts convenience and simplicity at the forefront.

When explained how a DRS operates, nearly two thirds (60 per cent) of consumers surveyed said the ability to reclaim a deposit would make them more likely to buy products included in a scheme, and more than half (57 per cent) said they would do a lot more recycling if it meant they'd be left out of pocket.

More than two thirds (69 per cent) of businesses also believe the introduction of DRS will be a positive step for their industry although 40 per cent are concerned it will have a negative impact on their business.

Making schemes as easy as possible

“The situation is clear. The British public is willing and excited to use the new deposit return scheme, but confusion over which materials are included risks undermining it.”

“The job of industry and government should be to make that as easy as possible; current, limited proposals fail in that regard.”

Alex Henriksen, managing director of Tetra Pak North Europe



Our progress to date

GS1 UK is already playing an active role in helping both government and industry design deposit return schemes that can deliver on their objectives.

Our activities include engaging with key political authorities, sharing our expertise and feeding directly into the policies that will shape exactly how the schemes work.

Here are some of the ways in which we're working in partnership with UK governments.



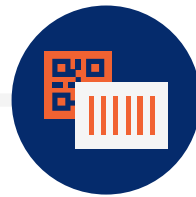
We are working closely with DEFRA and the Welsh government to support the design of their schemes, feeding directly into public policy before it is made public.



We've hosted roundtable sessions with GS1 UK members and representatives from the responsible select committees of England, Wales and Scotland to explore the viability of a four nations approach.



We've been leading ongoing engagement with political stakeholders and environmental committees from all four nations.



We've led on the Welsh Government DDRS feasibility study, in partnership with the British Retail Consortium, Resources Future, Diageo, AB InBev and Alupro, to explore the viability of a digital returns scheme. This has included providing insight on how to develop a practical solution for creating the unique product identifiers that would be required.

With 90 per cent of retailers, wholesalers and brands that will be impacted by the implementation of DRS among our members, we're also actively collaborating with industry, educating business leaders on the potential impact and how best to prepare.

Our work with authorities across the UK

England: GS1 UK is actively engaging with DEFRA to understand their plans for DRS. We are in regular communication and are openly sharing all relevant information.

Wales: GS1 UK is supporting the Welsh Government on its DDRS feasibility study and have facilitated eight process mapping workshops. Our experts hold biweekly calls with the Welsh Government and DEFRA.

Scotland: Scheme administrator Circularity Scotland have already recognised the need for product attributes to facilitate a successful DRS rollout, with GS1 standards mandated.

Northern Ireland: GS1 UK is actively engaging with the Department of Environment, Agriculture and Rural Affairs to support their plans for DRS.



Harnessing the power of standards

To achieve its aims, we believe that any scheme must be harmonised, neutral, flexible and future-proofed.

This requires the integration of global, open, interoperable standards that allow product information to be shared across borders and allow for future extensions in EPR.

Were each of the four UK nations to adopt different identifiers or standards as they implement deposit return schemes, the complexity could make it impossible for producers, retailers and wholesalers – as well as consumers – to manage.

The four pillars of success

In May 2022, Wolfgang Ringel, Senior vice-president for public affairs at RVM technology provider TOMRA, told Forbes there are “four pillars” to a successful deposit return scheme – performance, convenience, producer responsibility and system integrity.

According to Ringel, it is the legislation behind the schemes that determines whether they become a “political success story” for the government involved. TOMRA believe that any successful DRS must be easy to use, both for the consumer and the producer. They must be fair and balanced for everyone involved, and they must be transparent in terms of reporting all the results to national governments or local authorities.

That's why we're calling for all UK schemes to be underpinned by a common identification system and data model. This system would be universally adopted in the UK, and agile enough to integrate with whatever technologies may be used, whatever packaging materials are included and whatever scheme administrators are appointed.

Were one of the UK nations to opt for DDRS over a traditional scheme, for example, the underlying standards would remain the same.

Our catalogue of globally recognised standards can fulfil this role, which is why they're already used in a number of countries where successful schemes are established.

They not only offer both regulators and businesses a consistent way to identify, label and categorise product and packaging attributes, but also ensure this information can be exchanged easily and consistently. Plus, they provide consumers with simplicity, greater choice and product identification they can trust.

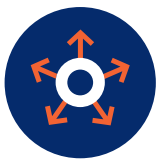
Our standards can be used to...



Identify: Accurately identify any real-world entity, including a product



Capture: Add supplementary data to the identifiers of that product



Share: Allow for this data to be seamlessly shared between different stakeholders



Use: Combine to streamline business operations

Which GS1 standards could play a role in DRS?

Global Trade Item Number (GTIN):

Our most widely recognised standard, already used to identify the vast majority of FMCG products.

Global Location Number (GLN): Though not currently used in recycling processes, GLNs could be used to identify the location of recycling points or RVMs.

Global Data Model (GDM): Simplifies and harmonises the exchange of product data, and could be used to share recycling attributes as part of a DRS.

Serial Shipping Container Code (SSCC):

Can be used by companies to identify a logistic unit, such as a pallet of recyclable materials returned via a DRS.

Serialized GTIN: Act as an identifier alongside unique product or serial numbers. This could be used as part of a DDRS.

Digital Link: Provides a digital pathway to additional product information using one identifier, that could be used as part of a DDRS.



An international blueprint for success

A variety of schemes are already up and running successfully in several countries around the world.

In many cases GS1 standards are already powering these schemes, providing us with clear insight into the attributes that will create a smooth rollout in the UK.

Did you know?

The world's first legally binding DRS for single-use drinks containers was introduced in 1970 in British Columbia, Canada. Over half a century later, established schemes are now running in 46 jurisdictions, including several Canadian provinces and Australian states, 10 federal US states, 10 European countries, Israel, and some Caribbean countries. 15 other countries have announced their intention to introduce similar schemes in their jurisdictions by 2023.

Sweden

Set up in 1984, the Swedish DRS – branded as Pantamera – is one of the longest running in the world. Managed by Returpack, a company owned by the country's retailers and drinks producers, and making use of GS1 standards, the scheme covers both aluminium cans and plastic PET bottles (though these weren't added until 1994) while glass containers are excluded. Although an initial recycling target of 90 per cent has not yet been reached, DRS has still contributed to world leading recycling rates in the country, which were 84 per cent for PET bottles and 81 per cent for cans in 2017.

Germany

Introduced in 2003, Germany's scheme is one of the most ambitious in Europe, encompassing not only PET plastic bottles and steel/aluminium cans, but also glass bottles and paper/cardboard cartons. Consumers pay a deposit of €0.25 for each container and can then return materials to one of around 135,000 return points distributed around the country, 80 per cent of which are automated. Now managed by Deutsche Pfandsystem GmbH, the scheme has achieved return rates of 98 per cent since launch.

Norway

Originally known as ‘panting’ the privately run Norwegian DRS has been in place since 2002. The deposit paid by consumers varies depending on the material (from 17-26p) with plastic, glass and aluminium all included. Any retailer eligible to sell drinks acts as a collection point, either manually or using RVMs, and additional collection points are run by schools and charities as a source of extra revenue. The scheme, run by retailer and producer-owned Infinitum, has been hugely successful with 97 per cent of all plastic drinks bottles returned, and 92 per cent recycled back into plastic bottles. Overall returns rates are also high, at 90 per cent.

Lithuania

Run by non-profit Užstatas Sistemų Administratorius, Lithuania’s DRS has only been in place since 2016 but has already achieved an impressive 93 per cent collection rate, up from only 34 per cent (for PET) prior to the scheme’s introduction. Covering PET plastic bottles, steel / aluminium cans and glass bottles, the scheme charges a deposit of €0.10. Consumers can then return their containers to retail collection points where deposits are returned as store vouchers. Any stores larger than 300m² or those in rural areas are obligated to participate. For all others, participation is optional.

A model for the rest of the world

“Germany has the most successful deposit return program in the world, and it’s also the largest. You get the benefit of scale, and it’s also one of the most sophisticated in terms of technology. You have every single retail shop taking bottles back, the vast majority through machines. They’re clean, they’re sexy. They take refillables and non-refillables. This is absolutely unique, so Germany stands as a model for the rest of the world.”

Clarissa Morawski, CEO of the recycling non-profit platform Reloop



Powering successful implementation in the UK

With the environmental impact of single-use packaging waste becoming a growing concern for business, policymakers and consumers alike, plans for the introduction of deposit return schemes across all four UK nations are a welcome step forward in combating this complex problem.

With successful schemes already up and running elsewhere in the world, some dating back nearly three decades, their potential to make a positive impact on recycling rates is clear. These examples should act as both an inspiration and a framework for the UK as it takes its own steps toward such a rollout.

Retailers, producers and consumers are already grappling with major legislative change and economic upheaval. While there's no doubt that the introduction of deposit return schemes can be a positive step forward, the needs of consumers and industry need to be carefully factored into their design. This will be essential for ensuring that the UK's schemes have a meaningful impact on recycling and deliver an approach that works for all.

In short, all stakeholders in the process must be committed to a model that is:



Harmonised



Neutral



Flexible



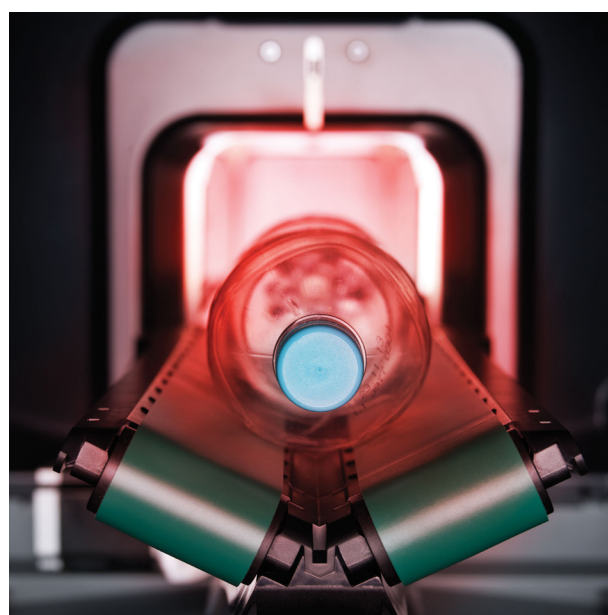
Future-proofed



The need to underpin any such scheme with global, open, interoperable standards, that ensure consistency and allow data to be easily shared across borders, is a key part of meeting these criteria.

We're urging all affected parties to take a collaborative, joined-up approach to deposit return schemes across the UK. With that approach, these schemes have the potential to radically boost recycling rates across all four nations, while minimising disruption at a time when that's the last thing consumers, industry or the government needs.

We have a limited window of opportunity to help the industry solve this conundrum, and much more still needs to be done to inform consumers and change their behaviour. Only through a shared level of focus and collaboration will any scheme stand a chance of being successful.



GS1 UK

Hasilwood House
60 Bishopsgate
London
EC2N 4AW

T 020 7092 3501

E support@gs1uk.org

www.gs1uk.org

