GS1 UK Consultation Response

Deposit Return Scheme

June 2021
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GS1 UK can help drive the move towards a more circular economy by harnessing the power of standards.

As the leading global provider of interoperable standards, we are a neutral, not-for-profit organisation transforming the way people live and work by enabling the seamless sharing of trusted data. We have over 52,000 members in the UK, covering 90 percent of retailers, wholesalers and brands who will be impacted by the implementation of a deposit return scheme (DRS).

We support an all-in approach to DRS that delivers consistency across the four nations, facilitates cross border trade and supports efficient and effective supply chains.

GS1 standards are accessible to all and offer users a common language to identify, capture and share supply chain data while ensuring important information is accessible, accurate and easy to understand. In the context of DRS, our standards offer organisations and businesses a consistent way to identify, label and categorise product and packaging attributes and ensure information can be exchanged in a manner that reduces variation and simplifies and harmonises the exchange of product data – including across borders.

Mandating these identifiers provides opportunity for scale, streamlining and data transparency. Building GS1 standards into the DRS process will ensure longevity – as the processes evolve and become digitally enabled – and provide efficiencies between various parts of the recycling supply chain.

If we are truly going to move towards a more circular economy, a DRS needs to be agile and implemented with an eye towards the future – aiming for proactive building and not regressive retrofitting. GS1 standards can help Government build foundational processes and systems that look beyond drink containers and create opportunities to collect and reuse recyclable material from other product categories. Incorporating standards that give the scheme the flexibility to adapt to wider reforms of producer responsibility and UK-wide DRS integration will set the scheme up for success and could save millions simply through the proper consideration of system design.

Moreover, any changes to product labelling, data management and, more specifically, the identification of a product, should be underpinned by GS1 standards to prevent the lock-in monopoly of any one scheme or technology provider.

We understand what is needed to successfully implement DRS across the UK. Our insights can help ensure there is an agile, future-proofed scheme in place that guides producer and consumer behaviours towards a more resilient, sustainable economy and society.

Our internal and external expertise combined with our deep member perspective allows us to deliver unique insights into businesses of all sizes and sectors, industry trends and evolving consumer needs.

As the leading voice on traceability, sustainability, and the informed and protected citizen, we hope to work alongside Government and be at the heart of conversations that lead to successful DRS implementation in England, Wales, and Northern Ireland.

Sincerely,

Anne Godfrey
CEO
GS1 UK
**Q1. What is your name?**
Alice Rackley

**Q2. What is your email address?**
Alice.Rackley@gs1uk.org

**Q3. Which best describes you?**
- [x] Academic or researcher
- [ ] Business representative organisation/ trade body
- [ ] Charity or social enterprise
- [x] Community group
- [ ] Consultancy
- [ ] Distributer
- [ ] Exporter
- [ ] Individual
- [ ] Local government
- [ ] Non-governmental organisation
- [ ] Product designer/ manufacturer/ pack filler
- [ ] Packaging designer/ manufacturer/ converter
- [ ] Operator/ Reprocessor
- [ ] Retailer including online marketplace
- [ ] Waste management company
- [x] Other – GS1 UK is a neutral, not-for-profit global standards organisation, with 52,000 UK members covering 90 per cent of the producers and exporters in scope of the DRS legislation.

**Q4. If you are responding on behalf of an organisation, what is its name?**
GS1 UK

**Q5. Would you like your response to be confidential?**
No

**Q6. Given the context of the Covid-19 pandemic we are currently experiencing, do you support or oppose our proposals to implement a deposit return scheme for drinks containers in 2024?**

a.) Support
b.) Neither support nor oppose
We fully support the proposal to implement a deposit return scheme for drinks containers in 2024 as a way to encourage greater efforts to recycle in wider society. If we are going to “build back better” this must include finding ways to make the way UK plc works both transparent and sustainable. Moving towards a more circular economy can help make UK plc, and society, more resilient while helping tackle climate change and achieving net zero targets.

7. Do you believe the introduction of a deposit return scheme will have an impact on your everyday life?

If you answered yes the scheme would have a detrimental impact, how significant would this impact be?

8. Have your views towards implementation of a deposit return scheme been affected following the economic and social impacts of the Covid-19 pandemic?
9. Do you agree that the cap should be included as part of the deposit item in a deposit return scheme for:

a) Plastic bottle caps on plastic bottles – yes/no
b) Aluminium bottle caps on glass bottles – yes/no
c) Corks in glass bottles – yes/no
d) Foil on the top of a can / bottle or used to preserve some drinks – yes/no

Yes

In theory, all packaging should be constituted from recycled material, only compostable material should go into landfill. Difficulty arises when caps – which do not have identifiers attached – are not affixed to their containers.

By using GS1 standards it is possible to identify, capture and share information about component parts by using barcode technology. Therefore, if - for example, a bottle lid - needs to be identified in a different way from the bottle, a unique barcode can be applied to the lid. As noted in other responses, GS1 standards should be mandated to ensure accurate classifying, capturing and sharing of materials information through preferred barcoding method.

10. Do you believe we have identified the correct pros and cons for the all-in and on-the-go schemes described above?

a.) Yes
b) No

There are additional advantages of the all-in scheme to be considered, including the fact that an all-in focus will act to future-proof system-design investments.

A narrow focus may limit the potential for interoperability with a wider UK scheme and the future demands of extended producer responsibility (EPR).

A programme that is future-proofed will have the flexibility needed to adapt to wider reform of the producer responsibility system for packaging. Any changes to product labelling, data management and, more specifically, the identification of a product, should be underpinned by standards to prevent the lock-in monopoly of any one scheme or technology provider.

11. Do you foresee any issues if the final scope of a deposit return scheme in England and Northern Ireland does not match the all-in decision taken in Wales? E.g. an on-the-go scheme in England and an all-in scheme in Wales.
A scheme specific to any one home nation would impact supply-chain efficiency in the short, medium and long term – the antithesis to the UK Government’s levelling up agenda.

A differing approach on a country-by-country basis will add cost and complexity to the process, necessitating different stock-keeping units (SKUs), warehouse stocking points, vehicle utilisation and packaging complications.

UK-wide harmonisation is undoubtedly the best approach but appears, at present, to be a distant possibility. In the case of a “mixed estate”, with differing schemes across the UK nations, GS1’s global open-source standards would improve the efficiency and operation of any deposit return scheme.

Should there be a push for the schemes to merge at any stage the fact they are underpinned by GS1 interoperable standards would greatly streamline the alignment process and make uniting disparate systems a far easier task.

12. Having read the rationale for either an all-in or on-the-go scheme, which do you consider to be the best option for our deposit return scheme?

a) All-in  
b) On-the-go

Looking forwards, the opportunity to collect and reuse recyclable material extends well beyond drinks and a single collection method.

In the long term, millions could be saved simply through the proper consideration of the system’s design. If a system is future-proofed from the beginning, with the flexibility to adapt to wider reforms of producer responsibility and the possibility of UK-wide DRS integration down the road, the task becomes about proactive building and not regressive retrofitting.

13. Given the impact Covid-19 has had on the economy, on businesses and consumers, and on everyday life, do you believe an on-the-go scheme would be less disruptive to consumers?

a) Yes  
b) No

While a phased in implementation that starts with an on-the-go scheme could potentially be less disruptive by reducing the initial volume of products in scope, an all-in scheme is ultimately preferred. Among other benefits, an all-in approach would help ensure the scheme achieves its potential, collects higher volumes of quality material, reduces litter and minimises consumer confusion.
14. Do you agree with our proposed definition of an on-the-go scheme (restricting the drinks containers in-scope to less than 750ml in size and excluding multipack containers)?

a.) Yes
b.) No

b) If no, how would you change the definition of an on-the-go scheme?

Multipack containers should be in scope; however we believe an all-in scheme is the best option.

15. Do you agree that the size of containers suggested to be included under an on-the-go scheme are more commonly consumed out of the home than in it?

a) Yes  
b) No  
c) Difficult to say

Typically, people will buy products in a larger volume to consume at home if the price is cheaper. However, many multipacks are competitively priced and ideally suited to things like packed lunches. The consumer seldom buys the same product in more than one packaging type, so the same on-the-go units are also consumed inside and outside of the home.

16. Please provide any information on the capability of reverse vending machines to compact glass?

N/A

17. Do you agree that the scope of a deposit return scheme should be based on container material rather than product?

Yes / No

GS1 global standards can be applied to any material or product category.

18. Do you agree with the proposed list of materials to be included in scope?
Yes / No
Anything that does not breakdown naturally in landfill should be considered in the long term.
Plastics are of the highest priority in terms of their deleterious environmental impact and should be the first material in scope.

19. Do you consider there will be any material switching as a result of the proposed scope? Please provide evidence to support your response.
Yes / No
This purely depends on the long-term ambition and scope of EPR.

20. Which of the following approaches do you consider should be taken to phase in a 90% collection target over 3 years?

a) 70% in year 1, 80% in year 2, 90% in year 3 and thereafter
b) 75% in year 1, 80% in year 2, 90% in year 3 and thereafter
c) 75% in year 1, 85% in year 2, 90% in year 3 and thereafter
d) 80% in year 1, 85% in year 2, 90% in year 3 and thereafter

21. What collection rate do you consider should be achieved as a minimum for all materials after 3 years?

a) 80%
b) 85%
c) 90% collection rate should be achieved for all materials

22. Is it reasonable to assume that the same collection targets could be met with an on-the-go scheme as those proposed for an all-in scheme for in-scope materials?
Yes / No
Please provide any evidence to support your answer
N/A
23. Who should report on the volumes of deposit return scheme material placed on the market in each part of the United Kingdom (England, Wales and Northern Ireland) for the proposed deposit return scheme, and what would be the implications of these obligations?

a) The producer/importer
b) The retailer
c) Both the producer/importer and retailer

A thorough cross-check could provide some interesting intelligence, but the ability to combine data sourced from multiple systems is dependent on the use of interoperable data standards.

GS1 global standards support organisations with reporting and analytics as they enable data to be captured and stored in a machine-readable format, and insights can be shared with ease.

In this way, data about volumes and composition of material can be effectively and democratically shared with any reporting authority.

24. What evidence will be required to ensure that all material collected is passed to a reprocessor for the purpose of calculating the rate of recycling of deposit return scheme material?

Access to business process events and the transactional information that underpins the product journey helps to establish and build trust between trading partners and consumers. Business processes and the systems that support them will need to support the flow of funds as well as the data about the movement and transformation of the collected material.

There should be several pillars to this approach:

**Standardisation** – GS1 standards will be a key component in capturing critical information. GS1 global standards include 18-digit Serial shipping container codes (SSCCs). These codes capture information relating to the composition of crates/bundles of product and material.

**Interoperability** – when moving beyond the exchange of data between direct trading partners, interoperability becomes a foundational need.

**Digital maturity** – In both master-data management and data quality.

**Transparency** - The scheme should be transparent in reporting on performance to build trust in a system that can be expanded and, eventually, harmonised.
25. What length of contract do you think would be most appropriate for the successful bidder to operate as the Deposit Management Organisation?

a) 3-5 years  
**b) 5 – 7 years**  
c) 7 – 10 years  
d) 10 years +

If GS1 global standards are built into the heart of the DRS mechanism, then transition between contractors could be managed seamlessly.

26. Do you agree that the above issues should be covered by the tender process?

Yes / No

Please list any further issues you believe should be covered as part of the tender process.

**Standards as standard:** It is imperative that any contractor is fully aligned with GS1 global standards and understands how to apply them to the benefit of an efficient, effective and future-proofed DRS scheme. GS1 UK has 52,000 members, many of whom are major brands and retailers (90 per cent market coverage), who already use GS1 standards to label, track and monitor products throughout the supply chain.

**Technology or service provider “lock in”:** A strong exit management and transition strategy is essential and should be added to support the long-term ambition for EPR.

**Looking beyond drinks containers:** The building of foundational processes and systems should look beyond drinks containers and provide support for a phased implementation that leverages a range of collection methods best suited to specific materials and product categories.

27. Do you agree that the above issues (pages 46/47 of the consultation) should be monitored as Key Performance Indicators?

Yes / No
**Please list any further issues you believe should be covered by Key Performance Indicators**

Adopting GS1 standards will enable a tracking and monitoring system and effective data analytics for KPI management.

<table>
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<tr>
<th>28. Do you agree that Government should design, develop and own the digital infrastructure required to register, and receive evidence on containers placed on the market on behalf of the Deposit Management Organisation and regulators?</th>
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<td><strong>Yes</strong> / No</td>
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<td>Please elaborate on your answer</td>
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<td>The Government should mandate the use of GS1 global standards to ensure the longevity, effectiveness and robust implementation of DRS across the four nations. The use of the GS1 Global Data Model (GDM) increases operational efficiency for brand owners and retailers and improves data accuracy and completeness for consumers. This is critical to interoperability, by reducing the variation and harmonising the exchange of product data between the home nations.</td>
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<td>The process flow and digital infrastructure should be designed by Government and then implemented by industry-appointed experts, having followed a procurement process.</td>
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<th>29. Government will need to understand the needs of users to build digital services for deposit return scheme. Would you like your contact details to be added to a user panel for deposit return scheme so that we can invite you to participate in user research (e.g. surveys, workshops, interviews) or to test digital services as they are designed and built?</th>
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<td><strong>Yes</strong> / No</td>
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<td>We are a global, open-standards organisation. Our standards are used by 52,000 members in the UK with coverage of 90 per cent of retailers, wholesalers and brands who will be impacted by the implementation of a DRS. As the leading voice on traceability, sustainability and the informed and protected citizen, we hope to have the opportunity to participate in user research and be at the heart of conversations about successful DRS implementation.</td>
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### 30. What is an appropriate measure of small producers for the purposes of determining the payment of registration fees?

- Taxable Turnover
- **Drinks containers placed on the market**
- Any other

The measure is directly related to the problem by volume sold.

### 31. Is a high level of unredeemed deposits funding the scheme problematic?

**Yes** / **No.** Please explain your answer

Unredeemed deposits should not be needed to fund the scheme and cannot be counted upon because it contradicts the purpose.

However, if you want to be able to effectively and accurately analyse data on redemption rates and carry out regional demographic reporting, embedding GS1 standards at the heart of any DRS solution would expedite and validate this process.

Referring to page 52/53:

### 32. Which option to treatment of unredeemed deposits do you support?

- **Option 1** / **Option 2**

### 33. With option 2, do you foresee any unintended consequences of setting a minimum percentage of the net costs of the deposit return scheme that must be met through the producer fee?

**N/A**

### 34. If a floor is set do you consider that this should be set at:

- a) 25% of net costs
- b) 33% of net costs
- c) 50% of net costs
- d) Other
Please provide any evidence to support your response.  
N/A

35. Do you agree that any excess funds should be reinvested in the scheme or spent on other environmental causes?

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<td>1)</td>
<td>Any excess funds should be reinvested in the scheme with an approved business case.</td>
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<td>2)</td>
<td>The operational cost should be performance managed and all investments should be transparent and approved by the governance structure.</td>
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<td>3)</td>
<td>Change management for the general public is a neglected cost-centre. If the government wants the implemented DRS to succeed, there will need to be significant investment in a public awareness and engagement campaign, based around a clear roadmap to drive adoption.</td>
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36. What should be the minimum deposit level set in legislation?

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<td>c.)</td>
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<td>d.)</td>
<td>Other</td>
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Consumer research has been clear that keeping things simple when designing the scheme will be critical to successful delivery. Harmonisation with the DRS scheme already legislated in Scotland should be a consideration in any subsequent later four nations approach.

37. Do you agree that there should be a maximum deposit level set in legislation?

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<td>Yes/No</td>
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If yes, what should be the maximum deposit level set in legislation?

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<td>c.)</td>
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<td>d.)</td>
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N/A
38. Recognising the potentially significant deposit costs consumers could pay on a multipack purchase, how best can we minimise the impact of the scheme on consumers buying multipacks?

In order to do this, the scheme should specify the same price for each multipack item versus a single item.

E.g.
One can = 20p,
Six cans from multipack = £1.20

39. Do you agree with our approach to letting the Deposit Management Organisation decide on whether to adopt a fixed or variable deposit level, particularly with regards to multipacks?

Please provide evidence to support your answer

No

Consumer research has been clear that keeping things simple when designing the scheme will be critical to successful delivery. Harmonisation with the DRS scheme already legislated in Scotland should be a central consideration.

40. Do you agree that all retailers selling in-scope drinks containers should be obligated to host a return point, whether it is an all-in or on-the-go deposit return scheme?

Yes, although with exception criteria, as this will be a significant challenge for smaller retailers.

41. Given the proposed extensive distribution and availability of return points for consumers to return bottles to, do you think customers would be likely to experience delays / inconveniences in returning drinks containers? If so, how long or how frequently would such delays be likely to arise for?

N/A

Referring to page 61:
### 42. Do you have a preference, based on the 3 options described above, on what the schemes approach to online takeback obligations should be?

We welcome views from stakeholders on who this obligation should apply to, including if there should be an exception for smaller retailers or low volume sales. **Please explain your answer.**

N/A

### 43. Do you agree with the proposed criteria for the calculation of the handling fee?

Yes / No

Would you propose any additional criteria are included for the calculation of the handling fee?

N/A

### 44. Please tick which exemptions you agree should be included under the scheme:

- Close proximity
- Breach of safety

Any further comments you wish to make

N/A

### 45. Please can you provide any evidence on how many small and micro sized retail businesses we might likely expect to apply for an exemption to hosting a return point, on the grounds of either close proximity to another return point or on the compromise of safety considerations?

N/A
46. Do you think obligations should be placed on retailers exempted from hosting a return point to display specific information informing consumers of their exemption?

If yes, please tick what information retailers should be required to display:

a.) Signage to demonstrate they don’t host a return point;
b.) Signage to signpost consumers to the nearest return point;
c.) Anything else?

Yes, with a QR code link to a locations app.

The world is hungry for sources of authoritative data, with millions of app and solution providers looking to build value on top of such data sources. A "show return points near me" capability should be available online and for every device operating system.

47. Do you agree with our rationale for not requiring retailers exempted on the basis of a breach of safety not to be required to signpost to another retailer?

Yes / No

Please explain your answer.

The maintenance of the signage and the associated costs cannot be justified if all return points are registered centrally and this information is made available to app developers.

48. How long do you think exemptions should be granted for until a review date is required to ensure the exemption is still required?

a.) 1 year
b.) 3 years

C.) 5 years or longer
49. Do you think the scheme could benefit from technological solutions being incorporated as a method of return, alongside reverse vending machines and manual return points?

Yes / No

The scheme should certainly plan to evolve from static point of return DRS towards a dynamic point of return, enabled through digital technology. GS1 is a recognised expert in the field of identification and offers an in-depth view of retailer and supplier operations and the practicalities of their implementation for DRS.

GS1 has an open-standard service called Digital Link which can enable the consumer to scan the product code and access a variety of information to support their deposit-return journey – such as the closest returns point, the option to return using their own kerbside recycling bin and/or information about their deposit’s account value. Digital Link “web-enables” barcodes by providing a simple, standards-based structure for the data that is encoded in barcodes and by providing simple rules that apps, websites and scanners can use to translate both existing (1D linear) barcodes and newer (2D) barcodes into connections, shopping experiences and interesting product content.

50. How could a digital deposit return scheme solution be integrated into existing waste collection infrastructure? Please explain your answer.

Quite simply, by design.

It is perfectly possible to have coexisting kerbside and reverse-vending machine programmes if they are all underpinned by GS1 interoperable standards.

51. What are the potential fraud control measures a digital deposit return scheme could bring? Please explain your answer.

The establishment of an IT verification system that will allow the assessment of the authenticity and the potential for a decommissioning scan of a serialised product at the time of collection (or using reporting) to identify patterns of fraudulent activity.

The is already a precedent for this. In 2019, marketing-authorised holders were obliged to place safety features on the packaging of most prescription medicines and some over-the-counter medicines in the European Union. This included a unique identifier (a 2D barcode), in accordance with Commission Delegated Regulation (EU) 2016/161.
**52. Do you think a digital deposit return scheme could ensure the same level of material quality in the returns compared to a tradition return to retail model, given containers may not be returned via a reverse vending machine or manual return point where there is likely to be a greater scrutiny on quality of the container before being accepted?**

Yes / No

Please explain your answer.

The cross-contamination of combined products can affect the quality of some materials. In this scenario, consumer sorting and collection is of paramount importance. However, the levels of quality required can vary by material type and/or recycling method.

The adoption of GS1 global, open standards can facilitate far more accurate and detailed separation and sorting at recycling facilities. If every product has a 2D DataMatrix on the packaging, high-speed neural camera networks can sort and categorise packaging material with maximal accuracy.

In addition, bundles of waste can be clearly labelled using GS1 SSCCs to ensure transparency and validation of material types dispatched for onward processing.

**53. If the digital deposit return scheme system can be integrated into the existing waste collection infrastructure would its implementation and running costs be lower? Please provide evidence to support your answer**

The recently published DDRS impact assessment, produced by ResourceFutures does suggest a lower cost.

**54. Do you support the proposal to introduce a new permitted development right for reverse vending machines, to support the ease of implementation for the scheme?**

Yes / No

N/A

Do you have any amendments or additional parameters you would propose are reflected in the permitted development right?
55. Do you agree that the following should be part of a mandatory label for deposit return scheme products?

a) an identification marker that can be read by reverse vending machines and manual handling scanners
b) a mark to identify the product as part of a deposit return scheme
c) the deposit price

Yes

GS1 standards should be mandated for all products intended to be recycled through reverse-vending machines. GS1’s global, open standards are used by 90 per cent of retailers and brands in the UK.

Mandating these identifiers provides opportunity for scale, streamlining and data transparency. Building GS1 standards into the DRS process will ensure longevity – as the processes evolve and become digitally enabled – and provide efficiencies between various parts of the recycling supply chain.

56. Are you aware of further measures that can be taken to reduce the incidence and likelihood of fraud in the system?

No, not beyond the verification of serialised products.

Serialisation could prevent the same deposit from being claimed in advance of a sale and multiple times post sale. It would also make it easier to detect fraudulent patterns if redemption activity is recorded. The GS1 2D Data Matrix (similar to a QR code) can deliver this with a single code printed on the product, reducing operational bottlenecks and overall space required for the product label.

57. Do you agree with our proposals to introduce mandatory labelling, considering the above risk with regards to containers placed on the market in Scotland?

Yes / No

Industry needs to increase supply-chain efficiency and improve product safety, value and integrity, while also meeting regulatory requirements to track and trace the movement of their products. In addition, increased consumer interest about the products they buy is driving more brands and retailers to explore ways to share information about the origin of products and
ingredients.

Mandated labelling removes ambiguity and provides business case certainty. An example of this can be found in the Falsified Medicines Directive (FMD) and Medical Devices Regulations (MDR) mandating the necessary label changes needed to support serialisation.

In addition to introducing mandatory labelling, the government should introduce the obligatory use of GS1 standards to improve process efficiency of the DRS, clear and effective data analysis for DRS, and future-proof any evolution of the DRS by embedding standards in the operation.

58. Do you consider the risk of incorrectly labelled products entering the markets of England, Wales or Northern Ireland via Scotland to be a significant risk? Please provide any evidence to support your answer.

N/A

59. Do you consider leaving any labelling requirements to industry to be a better option than legislating for mandatory labelling requirements? Please explain your answer.

No

Legislation needs to be the driver here, as it has been in the healthcare sector, cf. FMD and MDR.

Technological solutions are dependent on a consistent approach to product identification and labelling, and these requirements should be mandated by law. GS1 standards can help provide this consistent approach.

Labels will need to be machine readable, and this can only be achieved with a universal, standardised format to prevent fragmentation of the system and ensure interoperability. Therefore, the use of GS1 standards should be obligatory.

60. Are you aware of any other solutions for smaller producers who may not currently label their products? Please explain your answer.

In becoming GS1 members, these smaller producers would receive their own unique identifiers and barcodes that would help enable their participation in DRS. This drives home the need for GS1 standards to be the foundation for DRS.
61. We believe 18 months is a sufficient period of time for necessary labelling changes to be made. Do you agree?

Yes/ No

Can you provide any evidence to support your answer?

It depends on whether serialisation is adopted and the technological solutions that are under consideration.

62. Will your processes change as a result of mandatory labelling?

Yes/ No/ Don’t know. Please explain your answer.

63. Do you agree that our proposed approach to labelling will be able to accommodate any future changes and innovation?

Yes/ No/ Don’t know

The type of barcode and the information encoded is not defined.

Utilisation of the existing and ubiquitously adopted product barcode is a good place to start – however, there are some limitations.

Linked data uses the concepts, open standards and technologies of the internet to connect objects, people, places, products and documents. If this connected data is made available using a well-defined structure, it becomes easy to integrate, enabling the rapid development of applications that actively put products and services in front of consumers.

In our opinion, Government should mandate the use of GS1 2D DataMatrix. GS1 standards and identifiers are employed by 90 per cent of UK retailers and brands, and our Digital Link technology, enabled through 2D DataMatrix labels will be able to connect data and accommodate any future changes and innovation.

Are you aware of any upcoming technology in the field of labelling?

In order to future proof the deposit return scheme, consideration should be given to:
1. Introduction of 2D barcodes which would enable serialisation in order to reduce fraud and facilitate more granular analytics and reporting.

2. Consider emerging technology such as digital watermarking which is on the roadmap for consideration by reprocessing and sorting facilities.

64. Do you agree that local authorities will be able to separate deposit return scheme containers either themselves or via agreements with material recovery facilities to regain the deposit value?

- Yes
- No

Please explain your answer

Cross-contamination and label deterioration are problems, but we are aware of the Holygrail 2.0 project, and its dependency on the application of digital watermarking to the product label.

GS1 UK’s counterpart in Europe is leading the Holy Grail data management project, which is a work package focussing on designing an effective and efficient data collection and sharing system. This system is based on the ability for the package to communicate to the web, the consumer, and the supply chain. Information carriers - such as barcodes, serial numbers, security features (holograms, etc), QR codes, RFID and digital watermarks - may be used.

Ultimately, this work will lead to:

- Identifying the essential sorting-related attributes of packaging
- Building a relational and transactions flow graph
- Develop a data-management system that meets all essential requirements in terms of reliability and security
- Standardisation of HolyGrail 2.0 Technology as industry standard for sorting and recycling
- The system has also the potential to collect and track data in sorting and recycling

We would welcome the chance to discuss this in further detail with DEFRA.
### 65. Do you agree that local authorities will be able to negotiate agreements with material recovery facilities to ensure gate fees reflect the increased deposit values in waste streams or a profit sharing agreement on returned deposit return scheme containers was put in place?

- Yes
- No

Please explain your answer.

N/A

### 66. In order to minimise the risk of double payments from the Deposit Management Organisation to local authorities, where should data be collected regarding the compositional analysis to prevent the containers then being allowed to be redeemed via return points?

N/A

### 67. How difficult do you think this option would be to administer, given the need to have robust compositional analysis in place? Please explain your answer.

N/A

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Referring to pages 79-83:

### 68. What option do you think best deals with the issue of deposit return scheme containers that continue to end up in local authority waste streams?

- a. Option 1
- b. Option 2
- c. Option 3
Please briefly state the reasons for your response. Where available, please share evidence to support your view.

| N/A |

69. Are there any other producer obligations you believe the Environmental Regulators should be responsible for monitoring and enforcing?

| N/A |

70. Are local authorities (through the role Trading Standards and the Primary Authority Scheme) best placed to enforce certain retailer obligations?

| Yes /No |
| Please give any alternative suggestions. |
| N/A |

To what extent will local authorities be able to add monitoring and enforcement work for the deposit return scheme to existing duties they carry out with retailers?

| N/A |

Referring to table on p87-89:

71. In addition to those in the table, are there any other types of breaches not on this list that you think should be? If so, what are they? These may include offences for participants not listed e.g. reprocessors or exporters.

| N/A |

72. Are there any vulnerable points in the system? Please explain your answer?

| N/A |
The use of GS1 standards minimises potential vulnerable points such as fraud, agility and interoperability.

The introduction of 2D barcodes which would enable serialisation would reduce fraud and facilitate more granular analytics and reporting.

If we are truly going to move towards a more circular economy, a DRS needs to be agile and implemented with an eye towards longevity and the future – aiming for proactive building and not regressive retrofitting. The building of foundational processes and systems should look beyond drinks containers and leverage the opportunity to collect and reuse recyclable material from other product categories. If a system is future-proofed from its very establishment, with the flexibility to adapt to wider reforms of producer responsibility and the possibility of UK-wide DRS integration down the road, millions could be saved simply through the proper consideration of the system’s design.

GS1’s global, open standards are used by 90 percent of retailers and brands in the UK. Mandating these identifiers provides opportunity for scale, streamlining and data transparency. Building GS1 standards into the DRS process will ensure longevity – as the processes evolve and become digitally enabled – and provide efficiencies between various parts of the recycling supply chain. Moreover, they will allow for interoperability and harmonization of DRS across the four nations, serving as a common thread tying the schemes together, increasing effectiveness and reducing consumer confusion.

<table>
<thead>
<tr>
<th>73. Do you see a role for the Deposit Management Organisation to seek compliance before escalating to the Regulator?</th>
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<tbody>
<tr>
<td>N/A</td>
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<tr>
<th>74. Do you agree with the position set out regarding enforcement response options? If not, please expand your answer.</th>
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<tbody>
<tr>
<td>N/A</td>
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<tr>
<th>75. Do you have any comments on the delivery timeline for the deposit return scheme? Please pose any views on implementation steps missing from the above?</th>
</tr>
</thead>
</table>
| The timeline as it relates to the implementation of a proven RVM model already deployed successfully in other countries seems reasonable.  
However, the consultation document also uses the term digital DRS, and speaks to a new approach that provides support for collection methods that extend beyond an RVM. Some elements of the proposed solution remain unclear and possibly unproven. |
76. How long does the Deposit Management Organisation need from appointment to the scheme going live, taking into account the time required to set up the necessary infrastructure? Please provide evidence to support your answer.

a.) 12 months  
b.) 14 months  
c.) 18 months  
d.) Any other (please specify)

It depends on the scope, but the use of GS1 standards can help ease the process because they offer users a common language to identify, capture and share supply-chain data, ensuring important information is accessible, accurate and easy to understand. In the context of DRS, our standards offer organisations and businesses a consistent way to identify, label and categorise product and packaging attributes, ensuring information can be exchanged in an efficient and cost-effective way.

77. Depending on the final decision taken on the scope of the scheme in England and Northern Ireland – all-in or on-the-go – what, if any, impact does this have on the proposed implementation period?

The decisions on product scope, future-proofing and the implementation of serialisation could all have a significant impact.

Referring to impact assessment: p94-99

78. Do you agree with the analysis presented in our Impact Assessment?

Yes/No

The use of GS1’s global, interoperable standards can support the ambitions of DRS, whichever scheme is selected. We agree an all-in scheme is achievable and would provide the greatest net social benefit as well as economic benefit. Our standards are the best way of ensuring these benefits are actualized and can be compounded on in the future, as the interoperability that GS1 standards provide can help the scheme evolve and meet the requirements of both producers and consumers today and tomorrow.