



## **Evidence to Environmental Audit Committee Plastic bottle and coffee cup waste inquiry**

### **INCPEN**

The Industry Council for research on Packaging & the Environment is a group of manufacturers and retailers from across the supply chain who carry out research to understand the environmental and social effects of packaging and work together to promote responsible packaging which will enable sustainable supply chains.

We hope the inquiry will cast some clear light on the reasons why plastic bottles and coffee cups exist and both the positive and negative impact they have. Media coverage typically assumes that all marine litter is packaging and muddles two separate challenges:

- How to increase the quantity and quality of materials recycled
- How to prevent littering of anything, both on land and at sea

The reason containers exist is because many people want to drink when they are out and about. Drinks containers keep the product safe and in good condition.

Our evidence covers plastic bottles and coffee cups. We would welcome the opportunity to give oral evidence.

### **Environmental impact of plastic bottles and coffee cups**

- There have been a number of studies of the environmental impact of reusable cups and disposables. Some conclude reusables are better provided they are used a sufficient number of times eg [Refiller, Bern](#)

Others conclude that disposables are better, predominantly because of the energy and water needed for washing the reusables.eg [Institute for Lifecycle Energy Analysis](#)  
[Single Use cups or Reusable](#)

- Overall all types of containers have pros and cons. Provided they are used appropriately and disposed of responsibly, the choice between them appears to make little environmental difference. In practice most people will use all types depending on where they are and their needs. At home a glass or mug which is washed with other items, a cup in a restaurant and a disposable on-the-go.
- The amount of waste needs to be put in perspective with other municipal waste. There is far more food waste (7.3 million tonnes) than used packaging (5 million tonnes). Coffee cups are 0.5% of used packaging (25 thousand tonnes) and soft drinks containers 14% (700 thousand tonnes).

## Plastic bottles

- Soft drinks are the only food group where it takes more energy to make the packaging (37% of supply chain energy) than the product (26%). The packaging enables people to drink directly from the container, contains and preserves the drink; and where necessary, retains carbonation. (Source: [Table for One](#))
- All drinks containers (cans and bottles) typically have a high scrap value and are more widely recycled than most other materials – over 60% in the UK.
- Bottled water is essential in saving lives in disaster zones.

## Coffee cups

- Boiling water in a kettle to make a hot drink accounts for 51% of the supply chain energy. Growing and processing coffee and tea accounts for 41%. Coffee prepared in a machine or in catering outlets has a lower environmental footprint because only the exact amount of water needed to make the drink is heated.
- Coffee cups are designed to keep the drink in good condition and hot, and keep hands cool.

## Recycling

- Recycling has its own environmental burden, using energy, water and chemicals to collect, sort and clean items. Some types of packaging are designed with so little material per item that the environmental cost of recycling is more than the value that can be recovered. In these cases it is better to put the packaging in residual waste which will either go to a controlled landfill site or will be treated for energy recovery (20%).
- Whether an item is recyclable or not does not determine whether it becomes litter. The owner of an item decides whether to put it in a recycling bin, litter bin or residual waste bin. When on-the-go, most people put unwanted items in a litter bin if there is one; otherwise they take them home.
- A few people litter. They need to be persuaded that it is socially unacceptable and they need to use a bin – whether the unwanted item is a piece of packaging, a till receipt, apple core or anything else.

## Solutions and what industry does

In the 1960s few people ate or drank in the streets. Drinks for on-the-go consumption were either served at a café or people made them at home and carried them in a bottle or a flask. Lifestyles have changed and it seems unlikely that people will go back to those days.

Industry can help prevent the packaging becoming a problem, but everyone needs to take personal responsibility for putting it in a bin.

## Preventing littering

- INCPEN has funded research on litter composition and the effectiveness of anti-litter messages for many years.
- Since 1997 INCPEN has commissioned litter count surveys every three or four years. These surveys are the only scientifically robust series in the UK that use fieldwork, cover a wide range of land use

types and count the number of littered items in each site.

- The most recent [survey](#) was done in 2016 in Scotland, carried out by Keep Scotland Beautiful. The findings were compared with an identical survey done in 2014, six months prior to the introduction of a carrier bag charge.
- It shows that supermarket carrier bags though still very few in number (under half a percent), have gone *up*, the number of plastics drinks containers has *decreased* (1.5%) and coffee cups have *decreased* (0.5%).
- It appears that charges do not influence some people's irresponsible behaviour. And the carrier bag charge has not met its objective of preventing litter.
- In the last few years we have funded a behaviour change charity, HUBBUB, to trial a number of new interventions to persuade people not to litter. Called [Neat Streets](#), it has a number of significant successes, including "voting bins" which are being used by a number of local authorities in this country and abroad. The next programme will tackle litter in the Thames in London and will launch in May.
- We encourage companies to adapt the International Tidyman logo so it attracts attention, for example the Tidyman on Penguin biscuits is a penguin.



- The most effective way to tackle littering is for everyone to have pride in the environment so that nothing is carelessly littered and any accidental litter is picked up immediately. Measures that target selected items may have some impact but unless environments are properly cleaned, it takes only one piece of litter, of any kind, on a pavement to attract more. See [Litter breeds litter](#).

## Increasing recycling

- Kerbside recycling collects all recyclables, including drinks containers. The UK has hugely increased its recycling rates in the last 20 years and now recycles at a similar level to many other countries.
- The most effective way to increase the amount recycled is to encourage everyone to segregate all their recyclable containers for collection. All local authorities produce guidance on the types of items they collect but people still need to be reminded frequently.
- Industry supports recycling directly via the Producer Responsibility Regulations. The system raises over £60 million each year. A number of organisations fund additional measures to reinforce communicating with the public such as [Metal Matters](#).
- **Note that the current slight fall in recycling rates was due to a fall in green waste, not paper and packaging.**

## **Charges, taxes, deposits, levies**

### **Carrier Bag charge**

- There is a big difference between a tax on drinks containers and a charge on plastic carrier bags. Unlike a bag charge which is avoidable if you take your own bag – everyone who wants a drink would have to pay a tax.

### **Deposit Return systems**

- Evidence and industry experience show that Deposit Return Systems, DRS, have many unintended consequences. See [evidence](#) submitted to the Scottish government in 2016.
- The reason consumers say they like the idea of a DRS is because they have been told that it is good for the environment. When they are made aware that a DRS system has negative environmental impacts they think again.
- Some of the funding for environmental campaigners supporting DRS has come from a company that sells reverse vending machines (used to collect returned empties). See Annex for article from the *Sunday Times*.
- Most countries that operate DRS have done so for many years and do not have nationwide kerbside recycling. Sweden for example has only 30% kerbside collection coverage so many non-drinks containers do not get recycled.

### **Effect of deposits on LITTER.**

- They do not cure the anti-social habit of littering and perversely may increase litter if scavengers empty litter bins to find deposit containers, leaving other waste on the ground.
- Drinks containers are less than 15% of litter (by any measure). A 2014 [survey](#) of litter in England by Keep Britain Tidy for INCPEN showed drinks container litter at under 5% or only 1.2% if chewing gum and cigarette butts are included in the count.
- They have no effect on other littered items such as crisp bags, leaflets, chewing gum, cigarette butts, newspapers, apple cores.

### **Effect of deposits on RECYCLING.**

- They have little impact on increasing overall recycling rates. When Germany introduced deposits in 2003 the recycling rate fell and it was not until 2012 that it regained the same rate.
- Other recyclables still have to be collected, sorted and cleaned through kerbside collection.
- Containers collected via a DRS require additional lorries, with their associated environmental impacts, to take them to the same destination that kerbside collected material is delivered to.

#### **Contact:**

**Jane Bickerstaffe**

**CEO INCPEN**

[jbickerstaffe@incpen.org](mailto:jbickerstaffe@incpen.org)

**07788 724817**

## Annex

Sunday Times

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### Funding 'rubbishes' litter appeal

A CAMPAIGN by environmentalists to persuade ministers to introduce financial incentives for Scots to recycle waste is being funded by a company that could make millions from the scheme.

As The Sunday Times reported last week, consumers could be paid to return bottles, cans and cartons in a move under consideration by SNP ministers to help curb the country's litter problem and reduce emissions.

Richard Lochhead, cabinet secretary for rural affairs, food and environment, has praised the use of deposit-return schemes. In these, a levy is imposed on products in reusable containers at point of sale and refunded when shoppers return them to reverse vending machines.

The Association for the Protection of Rural Scotland (APRS) is leading a campaign called Have you got the Bottle? to persuade ministers to introduce the measure, which it says would improve the environment and create jobs.

Last week Friends of the Earth Scotland, which is backing the campaign, accused big business of "squealing, just like they did on the plastic bag levy" as drinks manufacturers and traders claimed a "container tax" would be unpopular with consumers.

The Scottish Retail Consortium (SRC) has raised concerns about the campaign group's financial links to Tomra, a multinational reverse vending machine supplier, which has told investors Scotland is a potential market with scope for 2,000 reverse vending machines by 2018.

**In a statement posted on the campaign website last week, John Mayhew, the APRS director, said the association had been introduced to Tomra by a fellow charity in 2014.**

**He added: "We commenced a dialogue with them, following which Tomra gave a grant toward a campaign APRS felt was important to Scotland — to introduce a deposit return system for drinks packaging. "As a result of this funding, we were able to launch the Have you got the Bottle? campaign in September 2015."**

David Martin, an SRC spokesman, said: "The revelation that a campaign is being funded by a company that stands to make millions from the introduction of a deposit return scheme in Scotland raises many questions. While retailers, drink manufacturers and packaging companies have been openly and appropriately explaining the many problems with a deposit return scheme, it appears the proponents of the scheme are receiving funding from those companies most likely to financially benefit from its introduction."

Mayhew said that, as with all APRS funders, Tomra has no strategic influence over the campaign or APRS trustees "and is not promised any business or preferred status in Scotland as a result of its funding". He added: "The Office of the Scottish Charity Regulator has approved this grant from the beginning of the campaign."

Tomra said that while it had advised investors of potential business growth opportunities in Scotland, it had "no idea if the countries mentioned will actually introduce any type of reuse and/or recycling legislation".