



# 2023 CITIZEN SCIENCE BRAND AUDIT

A plastic tide has swept across the globe and is choking the ocean. It's time to identify the polluters and hold them to account.

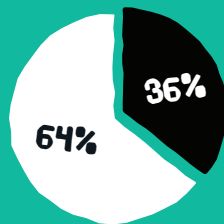
**July 2023**

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# THE 2023 BRAND AUDIT IN NUMBERS

**4,240 VOLUNTEERS  
TOOK PART IN 2023**

to pick up plastic across almost 500  
beach, river, woodland and street cleans.



Volunteers recorded almost **11,000 items (36%)** of clearly branded pollution, and almost **20,000 items (64%)** that couldn't be attributed to one brand.

Our volunteers picked up  
**OVER 30,000  
POLLUTING ITEMS**

belonging to 327 brands.



There were **over 19,000 items recovered from beaches & coastal locations**, bound for the ocean.



Over **3,500 polluting items** were rescued from rivers and lakes.



**63 street cleans** took place, with almost 4,000 polluting items found.



We found packaging from the **#1 worst polluter** in half of all the cleans. This polluter has remained in the top spot since we started our brand audits.

# WHAT IS A BRAND AUDIT?

The Surfers Against Sewage (SAS) brand audit is a citizen science initiative that relies on volunteers collecting, recording and reporting the pollution they have uncovered during their Million Mile Clean throughout the year. This data enables us to **identify and call out** the UK's biggest plastic polluting brands.

Collectively, we are able to use this hard hitting data as concrete evidence to hold polluters accountable, demand resolutions for the plastic pollution crisis and drive corporate behaviour change. We annually expose the Dirty Dozen, highlighting repeat offenders and calling out delays or lack of consideration by these polluters who need to take responsibility for managing their plastic waste.

From our sandy beaches to our city streets, we're sick and tired of picking up plastic pollution. The **ocean is drowning in plastic** and our systems simply can't cope. We can't pick our way out of this problem. It's time for the big businesses responsible for flooding the world with plastic to take accountability and reduce their plastic packaging.

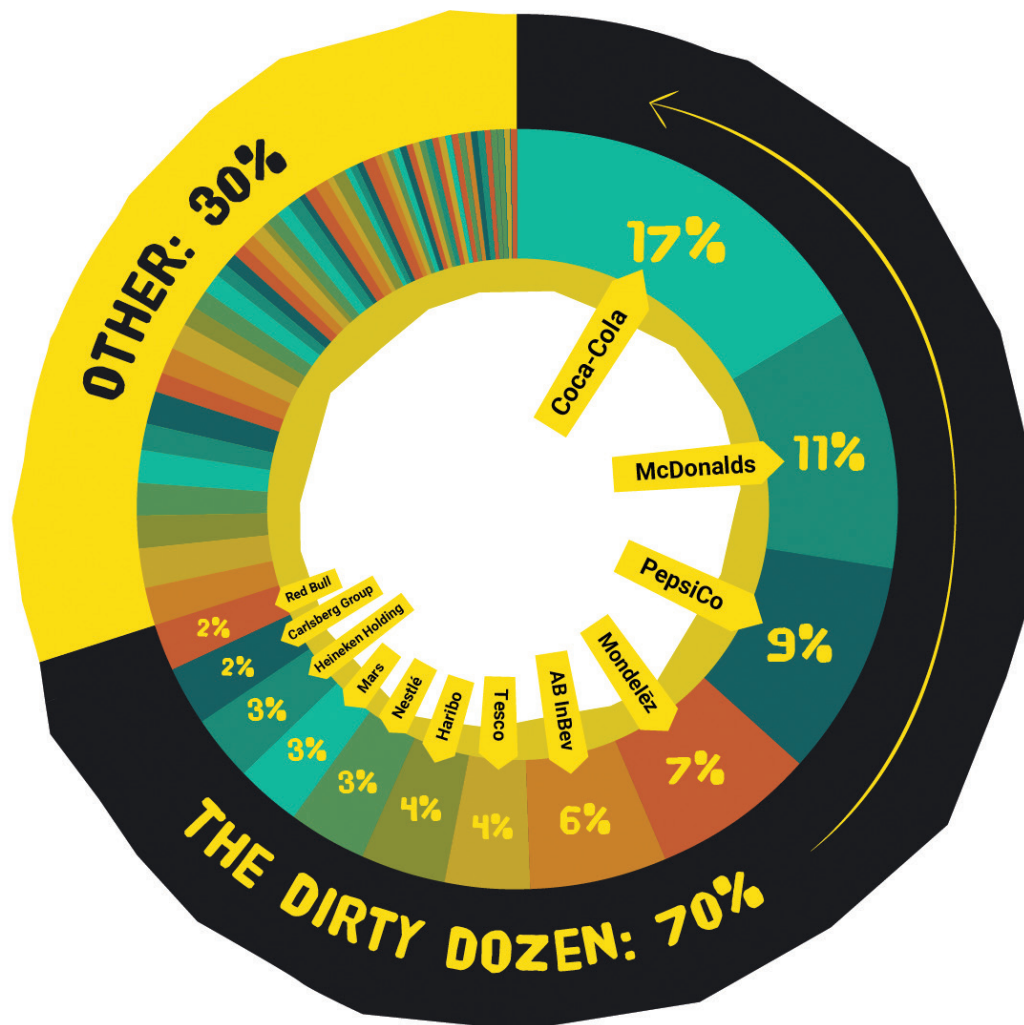
For the fourth time, we are calling out the plastic polluters responsible for the scourge of plastic pollution across the country in the 2023 Brand Audit. Together we have the power to hold plastic polluters to account, and demand they reduce their plastic and switch to models of reuse and refill.

# INTRODUCING THIS YEAR'S DIRTY DOZEN



# WHO ARE THE DIRTY DOZEN?

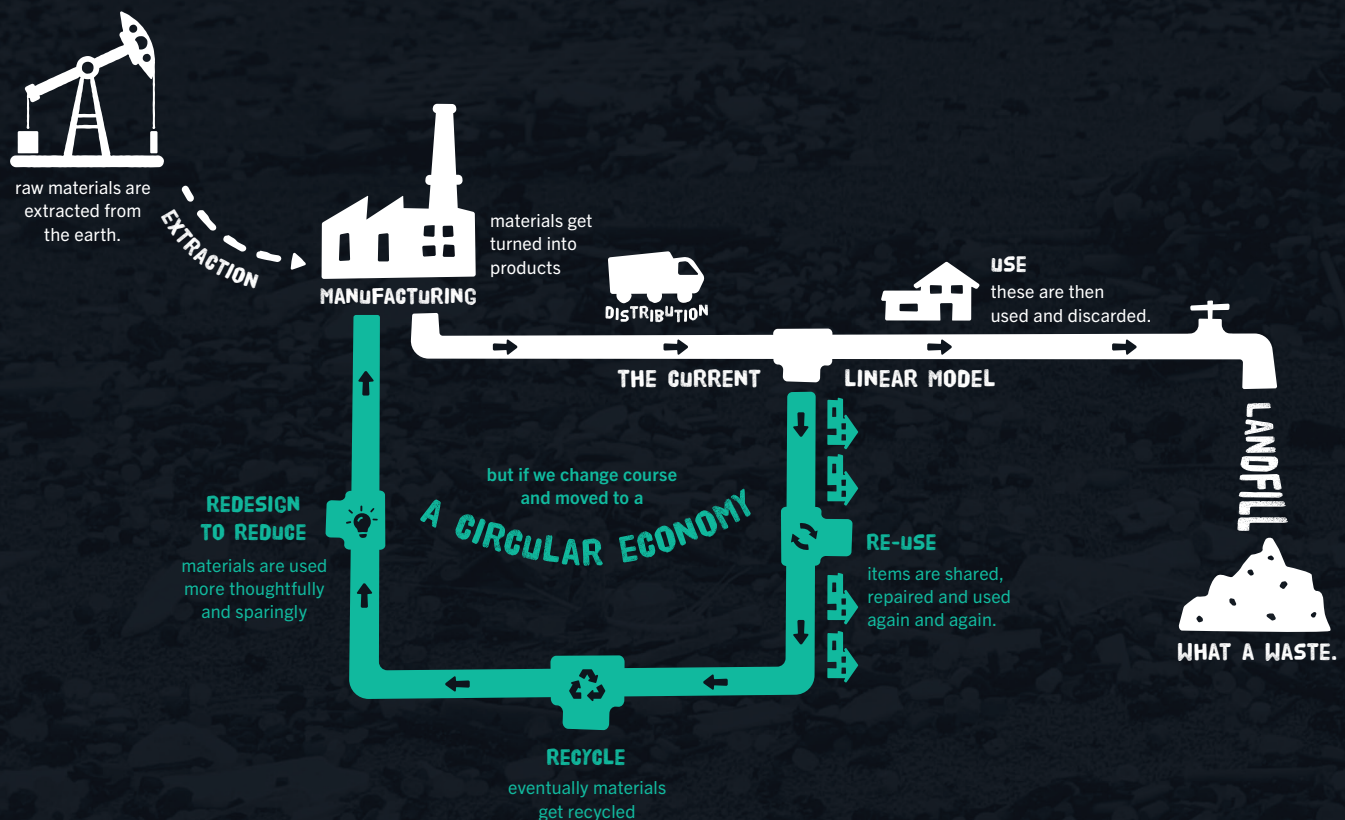
The Dirty Dozen represented a staggering 80 well-known product brands, including food & drink, confectionery and alcohol brands, and this is from just what our volunteers found in the audit. The reality is that these global organisations are responsible for producing some of the largest numbers of plastic pollution globally. The three worst offenders this year, **Coca-Cola**, **McDonalds** and **PepsiCo**, were accountable for over 50% of all of the Dirty Dozen's polluting waste.



# VIRGIN PLASTICS & ENDING THE CYCLE

The #DirtyDozen continues to fuel the plastic pollution crisis and fill the Ocean with their single-use packaging.

Our findings yet again have highlighted the systemic problem the UK faces with plastic and packaging pollution. The root cause is the overproduction and overconsumption of non-essential, single use, throw away items, including those produced from virgin plastics made from crude oil. Crude oil rigs have terrifying and far reaching consequences for the planet. Not only are they among the highest carbon emitters in Europe, CO2 emissions released into the atmosphere from extracting North Sea oil and gas reached 13.1 Million Metric Tonnes<sup>1</sup> in the UK in 2019, or 21kg of carbon dioxide for every barrel of oil produced. They also pollute the water with chemical byproducts and microplastics, disrupt marine mammals and tear up sea beds and precious marine ecosystems.



<sup>1</sup> <https://www.offshore-mag.com/production/article/14183372/uk-offshore-operators-assessing-oil-and-gas-production-emissions-reduction-measures>

Our research found that the majority of plastic litter is still coming from just a handful of the world's largest companies. With their massive resources and influence, they have real power to positively change consumer behaviour to stamp out this excessive and often unnecessary production and pollution of plastic.

Yet, despite global brands' use of virgin plastics reportedly being on track<sup>2</sup> for a significant drop by 2025, are these brands, wider businesses and the government REALLY doing enough to reduce packaging, switch to reuse models and enable recycling? In fact, we've seen **no change at the top** since we started our Brand Audits back in 2019.



### Global plastics treaty

In May this year, 180 nations were represented at a high-level round of negotiations in Paris to agree a plan to tackle plastic pollution. This key global treaty against plastic pollution could start to take effect as early as 2025, in order to halt the current trajectory of plastic pollution, which threatens to triple by 2060 unless action is taken now. The treaty which would take the form of a new legally binding instrument to end plastic pollution, including the marine environment, could not come soon enough<sup>3</sup>.

### What's the solution?

To solve the plastic pollution crisis, we urgently need our government to keep working on additional measures to stop the production of unnecessary plastic products that add to the waste problem and continue to threaten human health and the environment, moving away from the current linear consumption model. Reducing the production and consumption of non-essential single-use, throwaway and polluting plastic is key. It is vital that we continue to build on a circular economy that ensures plastics are designed to be reused, repaired and then effectively recycled in truly circular systems<sup>4</sup>.

2 <https://ellenmacarthurfoundation.org/global-commitment-2022/overview>  
3 <https://environment.ec.europa.eu/news/eu-calls-agreement-global-rules-end-plastic-pollution-2023-05-26>  
4 <https://www.sas.org.uk/plastic-pollution/>

# THE NEED FOR A DEPOSIT RETURN SCHEME

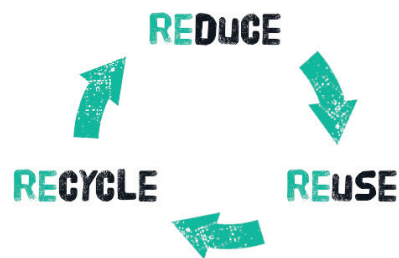
A Deposit Return Scheme (DRS) is a system where consumers pay an up-front deposit on an item (such as a sealed drink), at a point of purchase, which is redeemed on return of the empty drinks container. In other words, you're buying the contents, but renting the container, obtaining your deposit back on its return.

This means that high-quality plastic material is kept 'in the loop' and is much easier to recycle into different products, reducing the number of new bottles or drinks containers needing to be made from virgin material<sup>5</sup>.

DRS systems are a proven way to capture material through a circular system and dramatically increase recycling and reuse. Recycling rates of over 90% are common in well-designed and all-in Deposit Return Schemes.

The UK Environment Act became law in 2021, and it acts as the UK's new framework for environmental protection, including powers to implement a Deposit Return Scheme<sup>6</sup>.

Despite this, it has taken the UK government 7 years to get to this point and in June this year, they delayed the UK's deposit return scheme for a third time! This means they will have taken over 9 years to implement the promised scheme<sup>7</sup>.



An all-in Deposit Return Scheme would...

**RAISE £5.6BN**  
IN BENEFITS FOR THE UK



## What pollution does the DRS include?

This scheme originally proposed to include Polyethylene Terephthalate (PET) plastic bottles, glass bottles, and steel and aluminum cans, but glass is, frustratingly, expected to be excluded, despite governments across the UK promising the inclusion of glass<sup>8</sup>. There are significant benefits to the inclusion of glass in a deposit return scheme, including the expected economic benefit to the tune of 2.3bn higher than when excluded<sup>9</sup>.

The fragile nature of glass means that it can often break when in the environment causing serious risk of injury to both humans and wildlife. Capturing these products for recycling before they enter the environment is one of many ways in which pollution and waste can be reduced. Including glass will also hugely reduce the CO2 emissions associated with producing and recycling it<sup>10</sup>.

## CURRENT STATUS: DELAYED

The UK Government for England, the Welsh Government and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland response for introducing a deposit return scheme for drinks containers in England, Wales and Northern Ireland was published earlier this year in January 2023.

**START DATE FOR SCHEME NOW SET FOR THE 1<sup>ST</sup> OF OCTOBER 2025.**

We want the UK government to quit their delaying. People and the ocean are calling for this simple scheme to put us on track for a circular economy. We want the scheme to include glass.

The inclusion will make the most effective, most environmentally friendly and most comprehensive scheme.

**MEANWHILE 8 BILLION CONTAINERS ENTER THE ENVIRONMENT FOR EVERY YEAR OF DELAY<sup>11</sup>.**

View the latest developments posted by DEFRA here: [www.gov.uk/government/consultations/introduction-of-a-deposit-return-scheme-in-england-wales-and-northern-ireland#full-publication-update-history](https://www.gov.uk/government/consultations/introduction-of-a-deposit-return-scheme-in-england-wales-and-northern-ireland#full-publication-update-history)

5 <https://www.reloopplatform.org/>

6 [https://consult.defra.gov.uk/environment/consultation-on-introducing-a-drs/supporting\\_documents/DRS%20Consultation%20FINAL%20.pdf](https://consult.defra.gov.uk/environment/consultation-on-introducing-a-drs/supporting_documents/DRS%20Consultation%20FINAL%20.pdf)

7 <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

8 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1063589/epr-consultation-government-response.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063589/epr-consultation-government-response.pdf)

9 Ref(pg 99): [https://consult.defra.gov.uk/environment/consultation-on-introducing-a-drs/supporting\\_documents/DRS%20Consultation%20FINAL%20.pdf](https://consult.defra.gov.uk/environment/consultation-on-introducing-a-drs/supporting_documents/DRS%20Consultation%20FINAL%20.pdf)

10 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1063589/epr-consultation-government-response.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063589/epr-consultation-government-response.pdf)

11 <https://www.cpre.org.uk/about-us/cpre-media/over-8-billion-drinks-bottles-and-cans-wasted-in-2019/>

# WHAT ELSE DID OUR OUR CITIZEN SCIENTISTS FIND?

This year, volunteers from all over the UK took part in local audits at beaches, woodlands, rivers, mountains and streets. The following map shows the locations of each of the audits we have analysed data from, along with localised data for each of the UK's devolved nations; England, Northern Ireland, Scotland and Wales.

## SCOTLAND

**3,457** **39**  
POLLUTING ITEMS AUDITS

Top  
polluting  
brands



Top polluting items

1 Misc. plastics	669	4 Bottles	165
2 Wet wipes	619	5 Bottle lids / tops	133
3 Cigarette butts	182	6 Sweet wrappers	121

## ENGLAND

**25,623** **434**  
POLLUTING ITEMS AUDITS

#1 **Coca-Cola** 1,443 ITEMS  
Top  
polluting  
brands



Top polluting items

1 Misc. plastics	5,527	4 Bottle lids / tops	1,022
2 Cigarette butts	2,958	5 Fishing line	732
3 Fishing ropes	1,409	6 Wet wipes	667

## WALES

**1,612** **25**  
POLLUTING ITEMS AUDITS

Top  
polluting  
brands



Top polluting items

1 Fishing (other)	704	4 Bottle lids / tops	28
2 Misc. plastics	351	5 Plastic bags	15
3 Wet wipes	35	6 Bottles	15

## NORTHERN IRELAND

**53** **1**  
POLLUTING ITEMS AUDIT

Top polluting items

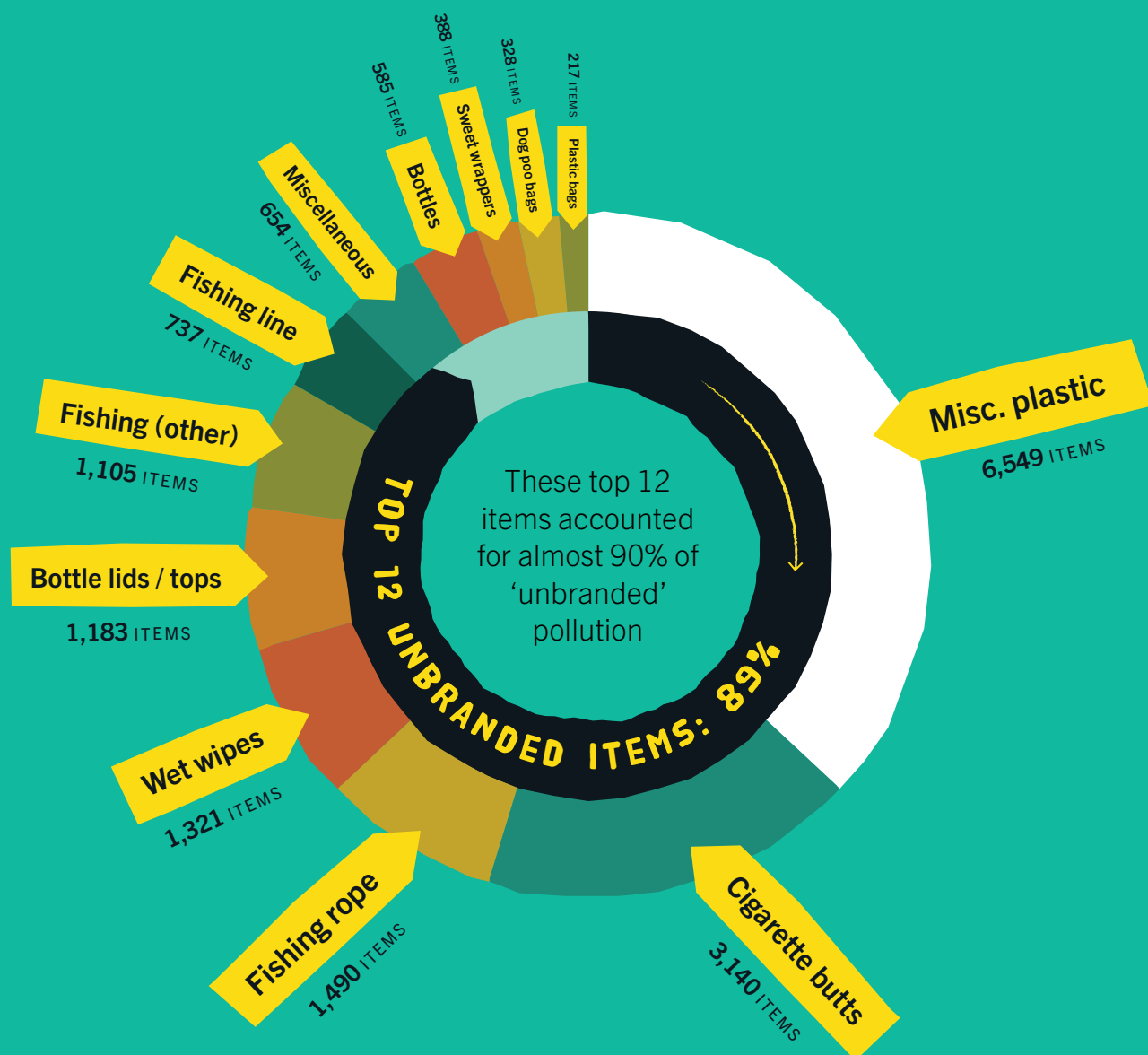
1 Fishing gear	40
2 Clothing	10

(Not enough brand data)

## Not every brand could be identified

Many of the items recovered from the environment were too degraded or small to confidently identify as a specific brand. Cigarettes in particular have their brand names burned away before the butts are discarded into the environment, and items out of their original packaging such as dog poo bags and straws don't show a brand at all.

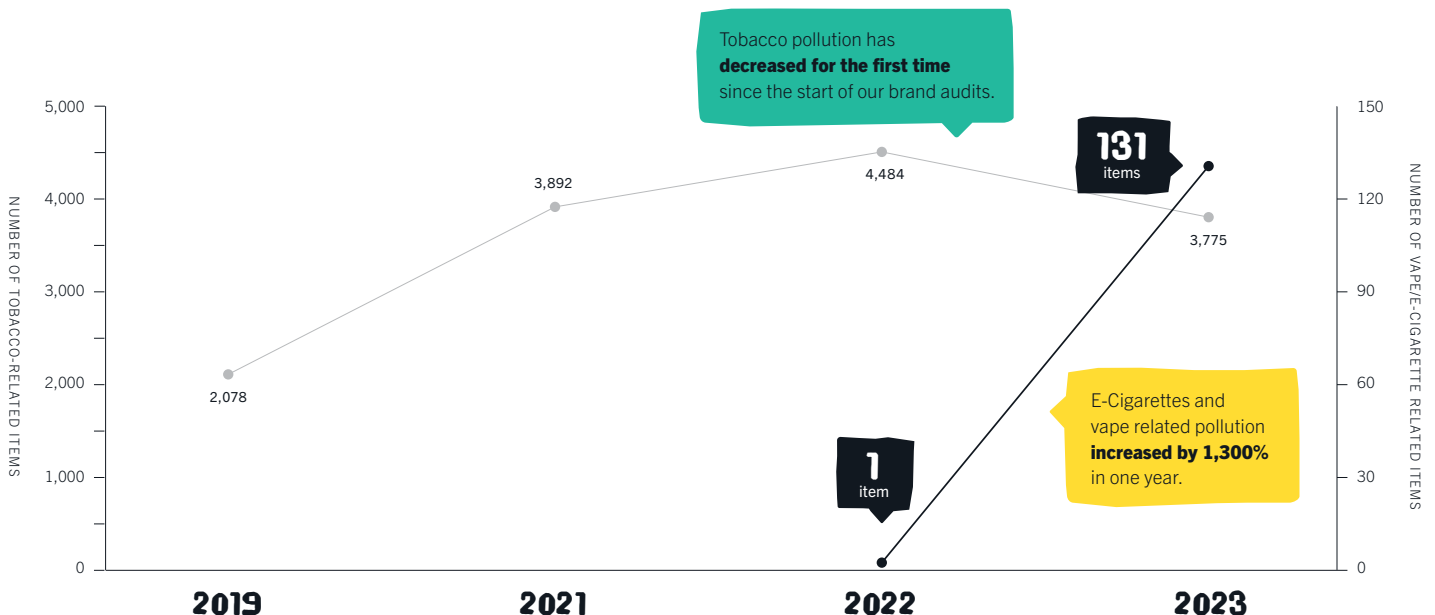
These 'unbranded' items accounted for a whopping 64% of all pollution found this year, totalling over 19,000 items. Our citizen scientists recorded their findings of this apparently unbranded pollution, and the following chart shows the 12 most commonly found item types.



# THE RISE OF VAPES & E-CIGARETTES

This year's brand audit figures reveal a staggering increase in the amount of e-cigarette (vape) brand products found polluting the environment, from 1 to 131 in just one year!

This represents the wider problem across the UK, as the growth in the use of vapes and particularly e-cigarettes, is rapidly on the rise. As sales and profits flourish for the polluting companies, the environmental impact of vapes and e-cigarettes has been disregarded. As e-cigarette waste is on the rise, so is the environmental threat due to the introduction of plastics, toxic nicotine, lead, mercury and flammable lithium-ion batteries into waterways, soil and to wildlife. EU and UK regulations for producers of electronics such as these are **legally obligated** to fund the recycling of the tonnage equivalent to what they put on the market. Currently, **only 16** of the UK's 150 biggest vape brands have registered to comply with this<sup>12</sup>.



12 <https://envirotecmagazine.com/2023/03/30/vape-producers-in-the-uk-failing-to-meet-environmental-regulations/>

13 Material Focus, One million single use vapes thrown away every week contributing to the growing e-waste challenge in the UK, 15 July 2022

14 <https://www.ft.com/content/6d5ed980-8b91-4372-9e7e-14eda5419325>

15 <https://www.recycleyourelectricals.org.uk/how-to-recycle-electronics/what-electronics-can-be-recycled/recycle-vapes/>

16 <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/latest#the-use-of-electronic-cigarettes-e-cigarettes-great-britain>

17 <https://mgriblog.org/2018/10/16/e-cigarettes-and-adolescents-a-break-down-of-products-and-preferences/>

18 <https://envirotecmagazine.com/2023/03/30/vape-producers-in-the-uk-failing-to-meet-environmental-regulations/>



1.34 MILLION SINGLE-USE  
E-CIGARETTES GET THROWN  
AWAY EVERY WEEK<sup>13</sup>

IN 2022  
**138 MILLION**  
DISPOSABLE VAPES WERE  
SOLD IN THE UK<sup>14</sup>



**OVER 3**  
MILLION PEOPLE  
IN THE UK USE E-CIGARETTES<sup>16</sup>

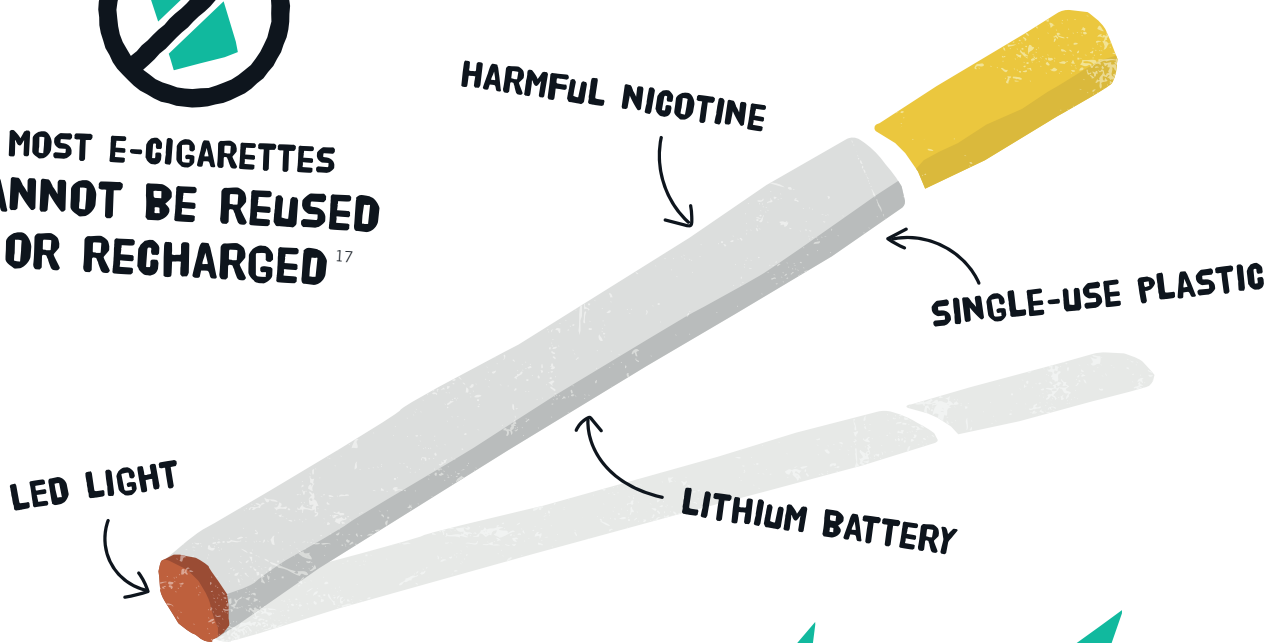


E-CIGARETTES COULD HAVE  
A VALUABLE SECOND LIFE  
IF RECYCLED PROPERLY<sup>15</sup>

# THE STATE OF VAPES 2023



MOST E-CIGARETTES  
CANNOT BE REUSED  
OR RECHARGED<sup>17</sup>



ONLY  
**10%**  
OF E-CIGARETTE PRODUCERS  
AND IMPORTERS IN THE UK  
FULFIL THEIR LEGAL  
OBLIGATIONS SURROUNDING  
RECYCLING AND WASTE  
MANAGEMENT<sup>18</sup>

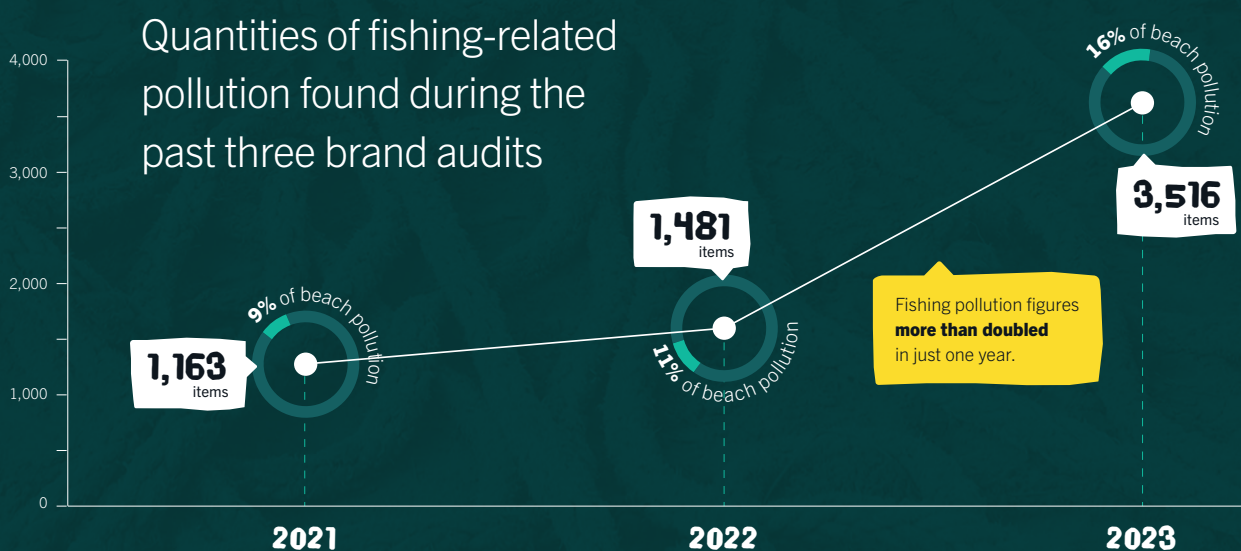
10 TONNES OF LITHIUM ENDS UP IN  
LANDFILL EVERY YEAR AS A RESULT  
OF THROWING AWAY E-CIGARETTES.  
THIS IS ENOUGH TO POWER 1,200  
ELECTRIC VEHICLES

# ABANDONED FISHING GEAR

Discarded and abandoned fishing gear (also known as ghost gear) items collected in this year's brand audit have more than doubled in one year.

With an estimated 640,000 tonnes of lost or discarded gear entering our oceans each year, this remains a key threat to the health of the oceans, waves, beaches and wildlife<sup>19</sup>. As this material is often lost or discarded at sea, it can be assumed that much of this material will remain within the ocean rather than being washed up onto beaches. Latest research shows that the majority of floating plastic pollution stems from fishing activities on behalf of industrialised fishing nations, highlighting the important role the fishing industry plays in the solution to this global issue<sup>20</sup>.

The Environment Agency just last year released guidance setting out how UK port and harbour managers can protect marine life by responsibly managing resources and waste. The Interreg Preventing Plastic Pollution is a partnership of 18 organisations in England and France who work together and fund educational material aiming to reduce the impact of plastic pollution in river and marine environments and encourage cultural change in both local communities, and businesses, whilst identifying real solutions<sup>21</sup>.



# WHAT DOES THIS ALL MEAN?

**This year's brand audit has unveiled the shocking truth behind the Dirty Dozen who are continuing to unleash packaging pollution havoc in the UK.**

We discovered the alarming expansion of vape plastic pollution, a growing crisis for our environment and found that abandoned fishing gear has almost doubled in one year, with over 640,000 tonnes of fishing gear polluting our oceans each year. We have exposed the companies responsible for a staggering amount of plastic pollution and yet AGAIN Coca-Cola and PepsiCo are leading the pack as repeat offenders. Coca-Cola have claimed the top spot for the 4th consecutive year and McDonalds are coming in at a close second place.

The Dirty Dozen were responsible for over 70% of branded pollution found. It's time to hold these companies accountable for their actions and demand responsibility in their single-use plastic waste. Join us in the rebellion against the Dirty Dozen, make them feel the heat and help us to shut down the plastic tap once and for all. It's time for these companies to take real accountability and move towards a circular economy.

## **WE ARE CALLING FOR...**

- **Legislation that ends the production and consumption of non-essential single use and polluting plastics.**
- **Legislation that ensures effective resource use and waste management.**
- **Business models that are focused on reduction and reuse.**
- **Cultural change across society.**

Read more at [sas.org.uk/plastic-pollution/plastic-pollution-what-we-stand-for/](https://sas.org.uk/plastic-pollution/plastic-pollution-what-we-stand-for/)



**SURFERS AGAINST SEWAGE**

Unit 2, Wheal Kitty Workshops, St Agnes, TR5 0RD

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