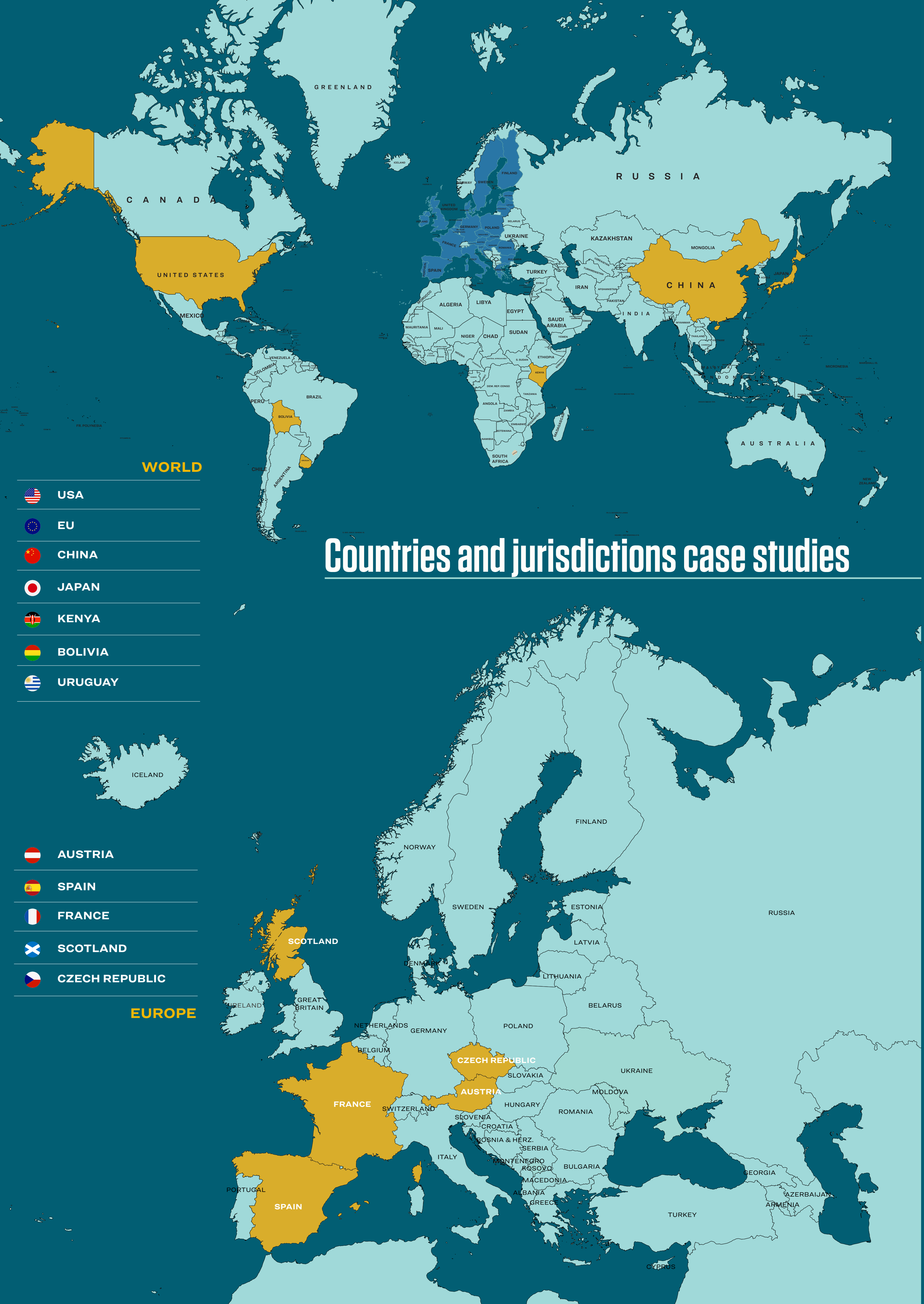


4. Country case studies

This chapter investigates industry lobbying around proposed or adopted legislation to address plastic pollution, and investigates how corporate tactics to distract, delay and derail legislation have played out in recent years across the world. First, we investigate whether the tide is turning in the US, where the industry has been extremely successful at both preventing any meaningful legislation and shifting the blame on to consumers.

Then, we focus on the recently adopted EU SUP Directive and the industry's lobbying in reaction to it, first at the EU level and now at the national level in different member states. We subsequently look into how the industry is working to delay and weaken the introduction of DRS in Austria, Spain, France, Scotland and Czech Republic. Finally, we investigate how the plastics industry influences policies in China, Japan, Kenya, Bolivia and Uruguay, each of which reveals a range of on-the-ground different tactics in the corporate playbook.

4.1. About the research

As we have seen, companies in the plastics supply chain have published voluntary commitments and become members of a number of group initiatives intended to address plastic pollution. Although the public may perceive these commitments as reassurances that corporations are taking plastic pollution seriously, we have exposed serious shortcomings in the voluntary approach. One of the big problems is that these commitments are not benign; indeed, they are often used to delay or undermine legislation. As Table 4.1 shows, companies are not only members of nice-sounding initiatives but also run, and actively participate in, trade associations and other groups established to defend corporate interests from regulation that could restrict plastic, or make corporations responsible for managing the waste they create, financially or otherwise.

For this reason, we looked beyond these paper promises and investigated how plastic polluters act when policymakers pursue legislation to rein in the plastic crisis. Spanning 15 countries across 5 continents, and involving investigative journalists, researchers and experts across the world, this global investigation took place between December 2019 and July 2020. The research ranged from literature reviews and interviews with experts, journalists, NGOs, industry sources and policymakers to FOI requests and on-the-ground research. At times, we also used professional photographers to document the scale of our addiction to plastic – and the scourge of its aftermath.

While a significant focus of our research was the implementation of mandatory-collection legislation, including the introduction of DRS, we also touched on other measures to reduce plastic pollution – from plastic-bag bans to circular-economy and waste-management proposals. We also looked at the actions of other active industry players in the countries investigated, from big retailers to national beverage industries, FMCG companies, the glass industry, Green Dot organisations and recyclers. The picture that emerges confirms our hypothesis: The industry is actively delaying and derailing ambitious action on plastic pollution in its fight to maintain business as usual for as long as possible.

A landfill in California

Credit: Les Stone

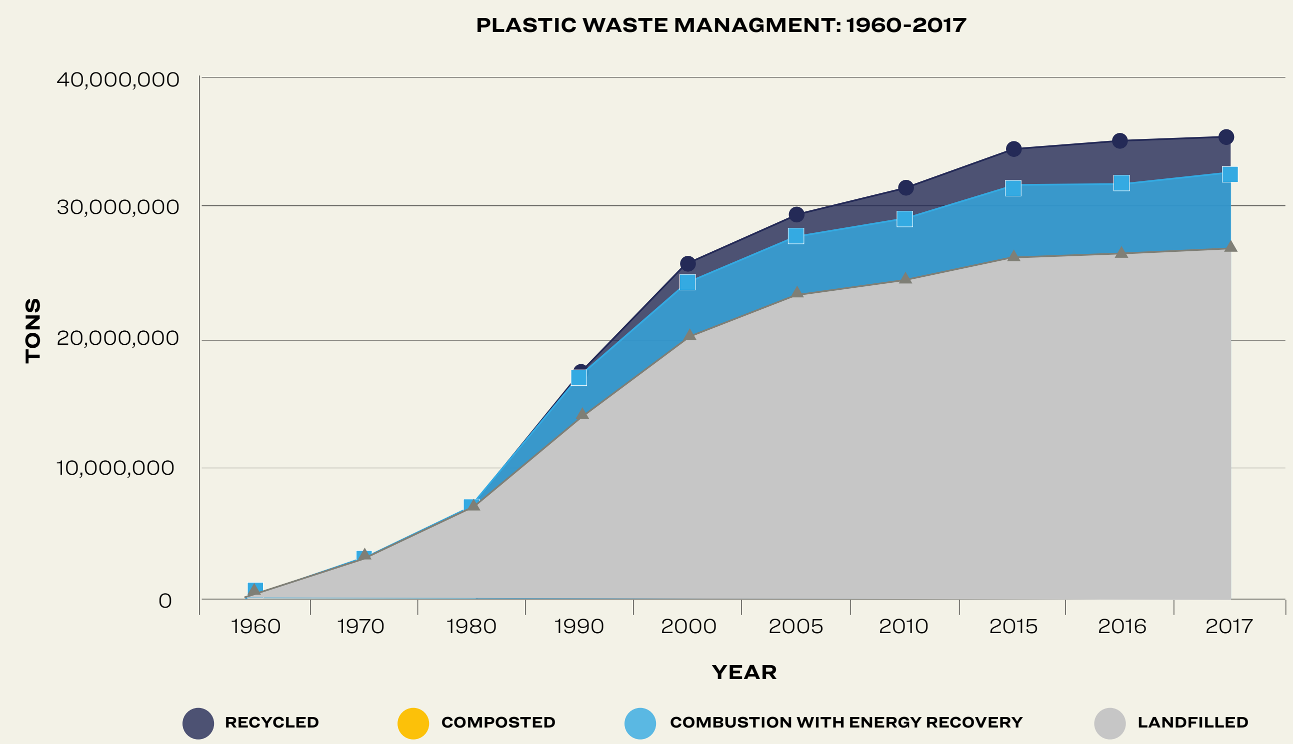


Figure 4.1: US plastic-waste management, 1960–2017 - *Source: United States Environmental Protection Agency*[1]

4.2. US: The war against plastic legislation

The US is facing a huge plastic pollution crisis, which was entirely predictable. Over the last few decades, the plastics industry has massively increased the supply of single-use plastics, with consumer-goods companies more than willing to package their beverages, cereals, snacks, cosmetics and other products using these cheap materials. At the same time, the industry has continuously promoted recycling as the solution to dealing with all this extra waste, funding efforts through seemingly pro-environment non-profits to lay the blame and responsibility for 'litter' on consumers and municipalities. This focus on recycling has acted a smokescreen, behind which the industry has opposed mandatory legislation – from bottle bills to plastic-bag bans.

4.2.1. A global leader in garbage

The US generates three times more garbage than the global average, and recycles far less of it than other high-income countries.[2] It represents just 4% of the world's population but produces 12% of global municipal solid waste – 773kg per capita – of which 106.2kg (234lb) is plastic waste.[3] In comparison, China and India make up more than 36% of the world's population and generate 27% of its waste.[4]

Nearly 1 million workers are employed in the US plastic supply chain, which is a sector worth over $400 billion annually, according to industry data.[5] According to the US Environmental Protection Agency (EPA), in 2017 the US produced over 35 million tonnes of plastic, yet fewer than 3 million tonnes were recycled.[6] As Figure 4.1 shows, plastic production has grown exponentially since the 1960s, less than 10% of which has been recycled; most of it has ended up in landfills or incinerated. Plastic bottles are recycled at a much higher rate in the 10 states that have bottle bills, but the US average rate has hovered between 28% and 31% over the last decade.[7]

For years, cities and waste-management authorities were able to put a band aid on the situation by exporting cheap – often contaminated – plastics to China. This all changed in 2018, when China implemented the National Sword policy, dramatically limiting the flow of plastics and other materials into the country.[8] Other countries – such as Malaysia,[9] the Philippines[10] and Thailand[11] – have followed suit, closing their borders to imported plastic waste. Coupled with low prices for nearly all recyclables, it is no surprise that recycling centres across the country are closing, kerbside recycling is being abandoned and more plastic is ending up in landfills and the environment. The fall in oil prices following the Covid-19 lockdowns further exacerbated this crisis, as the fall in price of virgin plastic makes it difficult for recycled materials to compete without supportive legislation.[12]

4.2.2. Derailing legislation

Legislation and regulation threaten to fundamentally change our business model. We can't continue to fight back just at the reactive stage when things are emotionally charged. We have to take the offensive.

– William Carteaux, former president of the Society of the Plastics Industry[13]

The US plastics industry has been extremely successful in delaying, undermining and pre-empting any attempt to introduce progressive legislation. Over the past decade, several states and local governments have passed bans on commonly wasted, unrecyclable, single-use plastics, such as plastic bags and polystyrene foam;[14] however, the industry always vigorously attacked these efforts, which have, in many cases, even been rolled back at the state level. Industry groups associated with plastic producers mounted concerted efforts to block bans or other types of legislation, pre-empt the ability of local governments to pass them and delay their implementation.[15] If they did pass, producers challenged them in the courts or through industry-funded voter referendums, and launched accompanying – heavily funded – disinformation campaigns. The Covid-19 health crisis has been the latest opportunity seized by the plastics industry to roll back some of the legislation, notably plastic-bag bans.[16]

4.2.3. History of opposition

The plastics industry in the US is extremely powerful, and has been fighting legislation for over 70 years. Initially, the industry denied the problem, but this started changing due to environmental awareness; as the problem of marine pollution became undeniable, the industry changed tactics. According to Sharon Lerner's exposé for The Intercept, '*[the] trick has been to publicly embrace its opponents' concern for the environment while fighting attempts at regulation behind the scenes*'.[17] She writes that this 'strategy dates back to at least 1969, when an editorial in Modern Plastics magazine warned about the impending waste crisis'.[18] That year, a conference on packaging waste was organised at the University of California at Davis, which showed the plastics industry was aware of the general plastic-waste issue – and, according to the Centre for International Environmental Law (CIEL), *'recognised the ways in which they contributed to the problem and the viability of different solutions'*.[19]

The industry turned to two key tactics: pushing the blame onto the public for littering, and promoting recycling as the solution. The 'Crying Indian' ad by Keep America Beautiful (KAB) came out in 1971, and had a profound impact on the American public and its perception of litter as their own individual responsibility. Although KAB was set up by packaging and beverage companies, they never publicised their involvement, and viewers were led to believe a neutral organisation created this ad.[20]

The solution presented for continuing to use plastics was recycling, and, in the mid-1970s, the industry started urging municipalities to run taxpayer-funded recycling programmes.[21] At the same time, as a means to prevent legislation – such as bans on different types of plastic or bottle bills – it spent millions of dollars on massive advertising and public relations campaigns, promoting recycling and extolling the virtues of plastic. [22] A Frontline PBS investigation uncovered the industry's internal documents from the 1970s, which show they knew recycling plastic on a large scale was unlikely to ever be economically viable – but it was a great strategy to prevent legislation and improve the image of plastic.[23] When legislation was proposed, the industry vigorously lobbied against it and used all kinds of legal and political tools to stop undesirable laws, as we will see in the following case studies.

4.2.4. Case study: Opposing bottle bills

As far back as 1969, at the first national conference on packaging waste, an industry insider explained the profit-driven trend away from deposit-type bottles: 'each deposit-type bottle displaced from the market means the sale of 20 one-way containers'.[24] It is therefore no surprise that giant drinks companies (like Coca-Cola and PepsiCo) and their associations (like the American Beverage Association (ABA) and International Bottled Water Association (IBWA)) have been fierce opponents of bottle bills. Opposition also came from grocery and manufacturers' associations, waste haulers, and the wine and beer industries.

4.2.4.1. Beverage industry and bottle bills

Oregon was the first state to successfully pass a bottle-deposit law in 1971, and Vermont was the second in 1973; most of the other states with bottle bills passed their laws in the 1980s.[25] Since 1987, however, only one state – Hawaii – has successfully passed a bottle bill, due to very strong opposition from beverage companies, grocery manufacturers and many of the non-profit groups they control. According to the Container Recycling Institute, opponents have spent huge sums of money '*to defeat ballot initiatives over the past twenty years, with industry opponents outspending proponents by as much as 30:1*.'[26] In 2019, such measures have been proposed in at least eight states, but nearly all have been rejected or failed to gain traction.[27]

Although the ABA and Coca-Cola, which have opposed bottle bills in the past, say they are no longer opposed – if they 'do not harm the comprehensive curbside recycling systems that consumers prefer'[28] – a recent example from Georgia still casts doubts over where they stand. *The New York Times* reported that, in 2019, the Coca-Cola Foundation was making a $4 million investment in Atlanta to showcase its World Without Waste campaign, which centred on increasing collection rates of bottles and cans.[29] The idea was that the RP – an industry group whose members include Coca-Cola, PepsiCo and many other FMCGs – would pay city workers to comb through residential recycling bins for recyclable items. When participants at the meeting proposed a bottle bill as a proven way to increase recycling rates, Coca-Cola made its opposition to deposits clear, calling bottle bills inconvenient and costly.[30]

The ABA website promotes its commitment to recycling through its Every Bottle Back project, which Coca-Cola, PepsiCo and Keurig Dr Pepper launched in October 2019, in conjunction with WWF, the RP and Closed Loop Partners.[31] The launch press release talked about '*directing the equivalent of $400 million to The Recycling Partnership and Closed Loop Partners through a new $100 million industry fund that will be matched three-to-one by other grants and investors'*, which '*will be used to improve sorting, processing and collection in areas with the biggest infrastructure gaps to help increase the amount of recycled plastic available to be remade into beverage bottles*'.[32] The initiative boasted it would capture an additional 80 million pounds of PET bottles per year by reaching 9 million homes in the US. According to calculations by journalist Steve Toloken, this would have likely resulted in only a very small boost in the US PET-bottle recycling rate – from 29.2% to about 30.5%, based on the industry report that estimated total PET-bottle resin sales to be 5.91 billion pounds in 2017.[33] Interestingly, there is no mention of bottle bills, which have proven high collection rates of clean PET that can easily be recycled back into new bottles.

Recycling rates in the 10 states with bottle bills are 2–3 times higher than in the 40 states without them. In addition, the quality of material is better (due to cleaner waste streams),[34] which means rPET is more easily recycled back into bottles. This makes opposition to bottle bills by beverage companies, which have made significant voluntary commitments to increase recovery and recycled-content rates, increasingly untenable. Recently, some companies – including Coca-Cola and Nestlé Water NA – told an As You Sow survey they were in favour of deposit systems operated by producers, or by a consortium of stakeholders. PepsiCo and Keurig Dr Pepper were still opposed or neutral to all types of deposit systems. However, As You Sow cautions that 'brand endorsements of producer responsibility laws must be taken with a measure of caution', as they have, in the past, expressed principled support and then opposed concrete legislation due to disagreement with specific provisions of a bill.[35] Still, our research shows none of the companies are publicly calling for enactment of bottle bills.

4.2.4.2. Opposing reform of existing bills

A recycling plant worker in California

Credit: Les Stone

In addition to undermining proposals for new bottle bills, the industry has opposed modernisation of existing bills. For example, New York State proposed an update to its bill in 2009, which IBWA delayed using legal action.[36] Repeated efforts to reform the Californian bottle bill have been unsuccessful due to strong industry opposition. The redemption rates of consumers in California have fallen to 66%, and will continue to decline due to the closure of recycling centres, which makes it difficult for citizens to return their used containers.[37] The bill is in desperate need of an update, but the most recent attempt failed in early 2020. This bill, led by Senator Bob Wieckowski (D-Fremont), proposed reforming California's Beverage Container Recycling Program by shifting the system from one managed by CalRecycle (the state recycling authority) to an EPR system managed by the industry itself. The bill proposal included a four-year period in which beverage companies and distributors would be in charge of designing a new system.[38]

Among the main opponents of reform are waste haulers – companies in charge of picking up kerbside recycling, which currently benefit from a proportion of deposits from kerbside collection, even though this waste is often highly contaminated and non-recyclable. California is the only state that allows waste haulers to redeem consumer deposits; according to Consumer Watchdog, in 2017, waste haulers received over $170 million in payments from CalRecycle for bottles and cans that ended up in kerbside recycling (around 12% of beverage containers),[39] while recycling centres – where consumers bring their containers – received $155 million for handling 88% of containers.[40] Waste haulers also got paid $13 million for scrap, and some (but not all) of these companies also run landfills and materials-recovery facilities. Waste Management (the largest waste hauler in California) was a key opponent of the bill, as was the Institute of Scrap Recycling Industries (which represents the recycling industry).[41]

The alcohol industry is opposed to efforts to expand the scope of the Californian programme to include wine, liquor and beer. In particular, the wine industry – led by the Wine Institute, which represents around 1,000 wineries – played a key role in the bill's defeat. According to Consumer Watchdog, the Wine Institute, along with large wineries like Southern Glazer's Wine & Spirit and EJ Gallo, donated roughly $1.3 million to individual lawmakers between 2017 and 2019 to continue to be exempt from the bottle-deposit programme.[42] In a local news piece, a Wine Institute representative said: '[Our] long standing, established opposition to being placed in a redemption program is mainly based on the fact that we don't believe people are likely to redeem heavy glass bottles'.[43] However, a March 2020 YouGov opinion poll, commissioned by the Changing Markets Foundation, showed that 68% of Californians are in favour of extending the deposit system to include wine and liquor containers.[44]

Plastic bag litter in nature

Credit: pikist.com

4.2.5. Case study: Delaying and undermining plastic-bag bans

Eight of the 50 US states – California, Connecticut, Delaware, Maine, New York, Oregon, Vermont and Washington State – have banned single-use plastic bags. Fourteen other states have pre-emptive laws, which prohibit the government from regulating containers (such as plastic bags, and, in some cases, bottles and foam foodware), while in six states there is threat of pre-emption, and in Florida there is an ongoing lawsuit to establish whether pre-emption is in place.[45]

In 2007, San Francisco became the first city to pass a ban on plastic shopping bags. Other cities and counties soon followed, passing their own bans. Seen as a direct threat to plastic-bag manufacturers, the industry has fought bans at every level ever since.

4.2.5.1. Lobbying against the bag bans

Leading the charge against bag bans is the American Progressive Bag Alliance (APBA), which represents the plastic-bag industry, and the ACC, which represents large petrochemical companies like ExxonMobil, Dow, LyondellBasell and SABIC. The ACC originally set up the APBA, which recently changed its name to the American Recyclable Plastic Bag Alliance. According to CIEL, during California's 2007–08 legislative session the ACC led a $5.7 million campaign against plastic-bag bans. The group then spent over $1.5 million to overturn a bag tax in Seattle in 2009, and over $2 million when the California legislature was considering a state-wide ban in 2010.[46]

Where laws have passed, the industry has challenged them through referendums. In 2014, California implemented a state-wide plastic-bag ban by passing SB 270, which banned the sale of most single-use plastic bags. The plastic-bag industry wasted no time fighting back; the APBA spent more than $6 million gathering signatures and promoting a ballot initiative, Proposition 67, aiming to prohibit the state from enforcing the ban.[47]

The APBA failed in California, where voters voted in favour of upholding the bag ban, but it has succeeded in most states. Its latest win was New Jersey, which failed to pass a bill that would ban most retail store bags, foam food containers, some plastic utensils and plastic straws; media reports said the APBA, and plastic-bag manufacturers like Novolex, played a key role in its defeat.[48] In addition to pushing for a delay in enacting the legislation, the industry wanted thicker-film plastic bags to be considered reusable, and thus not subject to the ban.

Where the industry did not manage to stop the bans, it tried to delay and weaken legislation. When New York City tried to pass a 10-cent bag fee in 2014, the APBA funded a local grassroots group, the Black Leadership Action Coalition, which opposed the legislation by arguing it would have a disproportionate impact on lower-income communities.[49] The legislation was delayed for two years - and, when it finally passed in 2016, the fee was reduced to five cents. The New York City bag fee was pre-empted by the New York State legislature, which passed a state-wide bag ban in 2019. The enforcement of the ban, which went into effect in March 2020, was delayed due to an industry lawsuit;[50] however, as part of its general misinformation campaign, the industry is framing this delay as being due to Covid-19.

4.2.5.2. Pre-emptive legislation to stop bans

Besides undermining any ongoing legislative efforts to ban plastic bags, the industry has also proactively introduced its own state-level legislation that pre-empts the introduction of local-level bag bans. According to Jennie Romer, an expert on bag laws, the plastics industry discovered it has more power at the state level, and has worked via The American Legislative Exchange Council (ALEC) to develop a model bill specific to banning local regulation of containers.[51] According to Greenpeace, ALEC is a one-stop shop for elected officials pursuing corporate agendas on many different issues, and has deep ties with Koch Industries and Koch-controlled non-profits.[52] In the past eight years, the ACC (a member of ALEC, along with PLASTICS) has helped pass pre-emption bills, based on ALEC's model, in 13 states.[53,54] This model has proven effective because plastic-bag bans have their roots in grassroots activism.[55] State legislators in Arizona, Indiana, Iowa, Michigan, Mississippi, Missouri and Wisconsin have pre-empted plastic regulation on all manner of containers (including StyrofoamTM), as well as plastic bags, and much of the pre-emption legislation is worded identically.

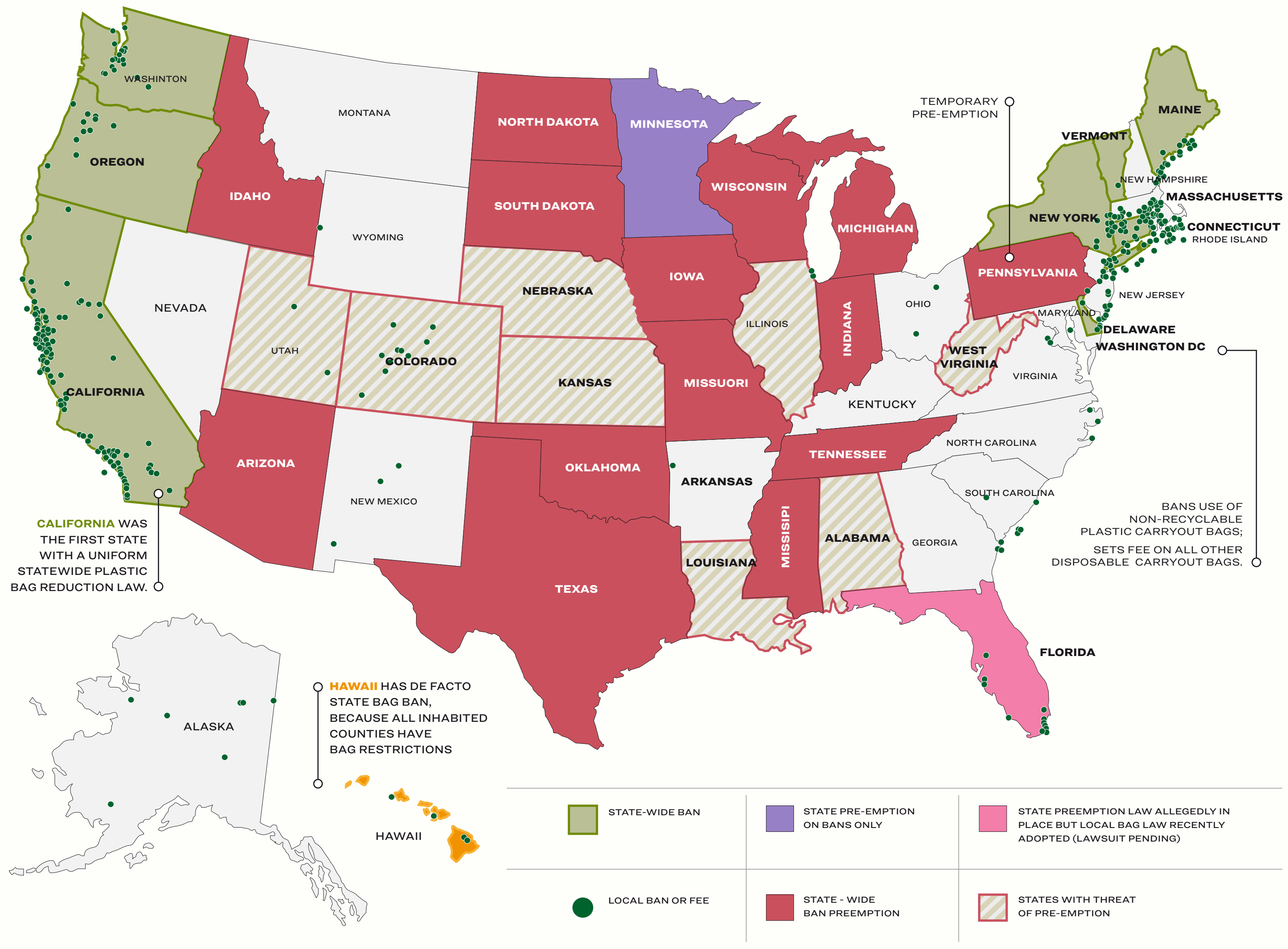
Elsewhere, the Florida Retail Federation - which represents huge retailers, such as Walmart - convinced Republicans in government to include a pre-emption to local bag laws as part of a wide-ranging energy bill in 2008, which environmentalists otherwise welcomed as part of a response to climate change.[56] In Texas, the small border town of Laredo passed a plastic-bag ban in 2014, but had to reverse its decision following the Texas Supreme Court ruling the ban to be illegal - it violated a 1993 law that prevented cities or counties from banning containers or packaging.[57] The lawsuit was brought by the Laredo Merchant Association - but it was supported by the APBA and ACC, and funded by Novolex.[58]

4.2.5.3. Using the Covid-19 health crisis to reverse the bans

The plastics industry's most recent attempt to reverse the bans happened during the Covid-19 pandemic. Towards the start of the pandemic, two prominent studies found that coronaviruses can survive the longest on plastic, among other surfaces.[59] Despite the original studies not testing reusable bags, soon after, several media outlets began to warn about the potential of reusable grocery bags in spreading the virus, conflating the Covid-19 study with older studies into the transmission of some types of bacteria via reusable bags.[60] Crucially, these studies were industry sponsored; the ACC and Novolex paid for them.[61]

Throughout February and March 2020, a flurry of articles appeared in major media outlets - including the *New York Post and Wall Street Journal* - decrying plastic-bag bans and claims around unsanitary reusable bags.[62] Most of these articles cited the original op-ed - written by John Tierney of the Manhattan Institute, which is funded by Exxon Mobil and Koch Brothers - which claims (without citations) the virus survives on reusable bags for nine days.[63] According to Greenpeace, the media campaign appears to have been strategically targeted at states where plastic regulation was recently enacted or planned - including Maine, Maryland, New Hampshire, New York and Washington State - as well as at the municipal level in Albuquerque and Denver.[64]

US states that have plastic bag bans or pre-emption laws:



SOURCE: WWW.PLASTICBAGLAWS.ORG, POLITICO

Figure 4.2: Plastic bag bans and pre-emption laws in the US [65]

At the same time as capitalising on pandemic fear, the industry was doubling down on efforts behind the scenes by lobbying legislators directly. In the midst of the media campaign in March, the Plastic Industry Association wrote to the US Health Secretary, Alex Azar, denouncing reusable bags and urging him to '*make a public statement on the health and safety benefits seen in single-use plastics*'[66] - revealing that, all along, the industry's goal was not public health but pushing plastics. By capitalising on public fears and skewing scientific facts, the industry achieved reversals of bans on single-use plastic. Several states - Colorado, Illinois, Maryland, Massachusetts, and New Hampshire - have either stopped enforcing their bans or have banned reusables, while several cities (including San Francisco) and retailers also prohibited customers from bringing in reusable bags or cups.[67]

4.2.6. Pre-empting legislation at the national level

Despite the growing waste crisis, little legislation has been proposed at the national level in the US. This changed recently with the introduction of three bills in Congress that aim to address plastic pollution. Two of them are weak, industry-backed bills, while a stronger third bill has already been heavily attacked by industry groups. This points to a growing trend in federal attention to recycling; action from either federal agencies or Congress is growing increasingly appealing to some in the industry, who are feeling the squeeze from the closure of waste-export markets and falling prices of virgin materials. In addition to these proposals, the EPA drew up plans to establish national recycling goals in 2020 – but these targets are entirely voluntary, like the agency's existing goal of reducing food waste by 50% by 2030.[68]

4.2.6.1. HR 5115: Realising the Economic Opportunities and Values of Expanding Recycling (RECOVER) Act

This bill has broad support from industry groups – PLASTICS, the ACC, the Association of Plastic Recyclers, the National Waste & Recycling Association, the Solid Waste Management Association of North America and the Sustainable Packaging Coalition all support it. Brands such as PepsiCo and Unilever have also expressed support.[69]

The bill would allocate $500 million in matching federal funds, aimed at improving various aspects of collection and processing infrastructure, and would establish a recycling infrastructure programme within the EPA, but part of the funds would have to be ringfenced to support incineration. It would require the EPA to submit a progress report to Congress no later than two years after implementation.[70] Otherwise, the bill neither includes any measurable targets nor addresses the key problem – growing production of single-use plastic.

In April 2020, during the Covid-19 pandemic, the industry wrote a letter to the House Speaker, Nancy Pelosi, asking her to include the RECOVER Act in the next pandemic stimulus bill.[71] The industry group signatories – which increased their request for public funding to $1 billion – claimed this 'immediate investment would start to reverse the current trend of landfilling valuable materials'.

4.2.6.2. S. 1982: Save Our Seas 2.0

As with the RECOVER Act, Save Our Seas 2.0 enjoys the support of the ACC, PLASTICS and other associations, like the Grocery Manufacturer Association and the Ocean Conservancy.[72] It would earmark funds for clean-up efforts and processing technologies meant to reduce the amount of plastic that ends up in waterways. In a letter of opposition, Break Free From Plastic argued: '*the bill ultimately approaches the issue as one of waste management, not overproduction of plastic, and risks further entrenching the systems that produce plastic rather than dislodging them*'.[73]

Senator Tom Udall of New Mexico proposed several amendments that would strengthen this bill: adding a national container-deposit requirement, prohibiting certain types of single-use plastic, and preventing the bill from supporting chemical recycling and waste-to-energy.[74] These amendments were not voted on. The bill passed the Senate unanimously in January 2020, and is currently in the House Subcommittee on Conservation and Forestry.

4.2.6.3. Break Free from Plastic Pollution Act of 2020

On 10 February 2020, Senator Udall and Rep. Alan Lowenthal of California introduced legislation that would create a national EPR programme and a 10-cent container-deposit system for plastics, while also banning certain plastic bags, disposable foodware and straws. The bill also has minimum recycled-content standards for plastic beverage bottles: 25% by 2025, 30% by 2030, 50% by 2035 and 80% by 2040. Requirements for other covered products would be set by the EPA administrator, in coordination with other stakeholders. EPR is also a strong component of the legislation, which '*aims to shift the large and growing financial burden of cleaning up plastic pollution from state and local governments to the companies that manufacture and sell the products*'.[75]

Senator Udall notes the Act tackles the issue from a new angle, and that past approaches have '*been mostly supplied by industry, who would rather see taxpayers and the government resolve the issue.*' Rep. Lowenthal said: '*Save Our Seas 2.0 Act is a good step, but it doesn't deal with the source of the problem, and it doesn't put the responsibility on the producers for the financial resources needed for the design and the management of cleaning it up.*'[76]

Thus far, no Republicans have come out in support of the bill; nor has the White House released any statement with regards to it. Rep. Lowenthal said opposition from the plastics industry is expected, but that he also believes there is bipartisan support in Congress for addressing plastic pollution. Agence France Presse (AFP) reported that the bill '*has little chance of passage in the Senate where a Republican majority opposes curbs on an industry that generates about $400 billion in sales and maintains almost a million manufacturing jobs*'. Udall told AFP that, while his bill was unlikely to become law soon, it was intended as a model, '*so that when we have an administration and a Senate that's more receptive, that we can get something done*'.[77]

Prior to its introduction, the ACC pushed Save our Seas 2.0 in its official response to the bill, and said banning certain plastics '*would have the unintended consequences of increasing greenhouse gas emissions and other environmental impacts*'. Upon introduction, the ACC released a press release that stated '*suggestions, such as a moratorium on new plastic facilities, would limit domestic manufacturing growth, jobs, tax revenues for local communities, and other benefits*', and argued the bill '*would lead to increased environmental impacts*'. It also highlighted its existing work, including the Alliance to End Plastic Waste, as an adequate solution.[78] PLASTICS has also come out against the bill.

4.2.7. Distracting: Blaming the consumer for littering and making them responsible for recycling

> *End users of packaged goods – citizens – are integral to sustainable material management. Without their participation the material loop cannot be properly closed.*
>
> **– How2Recycle website (Green and Blue)[79]**

> *No doubt about it, legislation [restricting plastics] is the single most important reason why we are looking at recycling.*
>
> **– Wayne Pearson, Executive Director of the Plastics Recycling Foundation[80]**

The industry has turned to recycling as a convenient way to distract environmentalists and government authorities, offering what seemed to be a solution to the growing waste crisis.

Early on, it founded separate institutions that were in charge of such initiatives – such as the Plastics Recycling Foundation, an initiative that 45 companies (such as Coca-Cola and PepsiCo) formed in the mid-1980s;[81] and the Council for Solid Waste Solution, to promote recycling programmes and infrastructure while also pushing for incineration – as a form of recycling.[82] Currently, the main industry-funded organisations with similar agendas – to co-ordinate recycling, and the private funding that supports it, while simultaneously supporting communicating to citizens that this is the solution – are the RP, Closed Loop Partners and the Sustainable Packaging Coalition. In addition, the How2Recycle® programme – an initiative to standardise recycling information through labels informing consumers what types of packaging can be recycled – is continuing with its corporate communication to consumers about the recyclability of different products and importance of recycling.

However, a significant amount of evidence, including internal industry documents, points to the fact that the industry knew recycling was a limited solution from the start. The evidence against recycling ranged from the warning that there is no market for recycled plastics to the fact that recycling is not feasible for most multi-material or multi-laminate packages. These facts are still true, but this did not stop the industry coming out with new recycling pledges and initiatives, while at the same time pushing most of responsibility onto consumers and municipal authorities. Early industry documents also show the industry did not feel responsible for plastic pollution in the ocean, concluding that most marine debris (with the exception of resin pellets) is '*the result of activity by individuals beyond the 'control' of the plastics industry*'.[83] To deal with this problem, the industry largely focused on '*public education encouraging the proper disposal of plastics and other materials as the most effective way to reduce harm to the marine environment*'.[84]

4.2.7.1. A network of organisations, set up by brands to promote recycling – without legislation

Keep America Beautiful (KAB) was founded in 1953 by the packaging and beverage industry. Its focus has been to push the responsibility for waste, litter and recycling away from the companies producing single-use packaging and onto consumers and municipalities. As we have seen, this well-funded organisation initiated a massive media campaign against individuals' littering, rather than exposing corporate responsibility for producing this litter in the first place.[85] According to Mother Jones, within its first few years, KAB had state-wide anti-litter campaigns either planned or running in 32 states, which shifted the entire debate about America's garbage problem. The focus on regulating production – like the introduction of bottle bills or refillable containers – disappeared, and there was no new legislation on packaging. Instead, the 'litterbug' became the real villain, and individual behaviour was to be regulated by fines and jail time for people who carelessly tossed out litter.[86]

'We're planting trees for a greater, greener LA'

Credit: Les Stone

These industry cover groups also constantly invent new tricks. As not everything can be 'recycled', the KAB – in partnership with Dow and the Flexible Packaging Association (FPA) – developed a new feel-good alternative to keep using the single-use plastic: 'The Hefty EnergyBag'.[87] This was aimed at diverting non-recycled plastics into a separate consumer waste stream and converting this into energy in two cities: Omaha and Nebraska.[88] But the inconvenient truth of the energy bag is that, far from being recycled, it is simply burned.

Almost 80 years later, KAB's relationship with the industry remains cosy – its director is also the Chief Financial Officer of Dow, another board member is from PepsiCo, and other corporate members and supporters include Coca-Cola, DART, Mars, and Nestlé.[89] While KAB remains influential, and continues to push its message of consumer responsibility, it now has a sister organisation: The Recycling Partnership (RP). RP describes itself as a 'force for improving recycling'. While acknowledging a problem with recycling in its current form, its focus is not on reducing production of single-use plastic but using technological innovation and investment to scale up the recycling infrastructure. RP's membership includes several companies cited as key sources of ocean plastic pollution: PepsiCo, Colgate-Palmolive, Nestlé, P&G and DART. RP also has close ties to several industry groups representing plastic producers (such as the IBWA), and has board members from the ACC and ABA – key groups in preventing legislative action on plastic across the country.

RP's recent report, *The Bridge to Circularity* – published to support the implementation of pledges made by companies as part of the *EMF New Plastics Economy Global Commitment* – claims '*massive national and industry-wide efforts*' will be needed to create a more circular economy for plastics in the US.[90] The report estimates that, to reach a 25% recycled-content target for PET bottles, brands need an '*additional 1.1 billion pounds of r-PET resin to be recycled and used in bottle-grade r-PET—a three-times increase over the current amount available*', which translates into the need for a 27% growth in the US PET recycling rate. Although the report recognises that states with bottle bills have collection rates between 60–90% (as opposed to other states, where PET capture can be as low as 10-15%), it fails to recommend this as a way forward.[91] It says that: '*there is a lack of industry alignment on deposit expansion among the Global Commitment signatories that are most aggressively seeking access to more material*', and that the '*expansions of current deposit laws have largely not succeeded and are counterbalanced by political action to eliminate such laws*'.[92] Such opposition, again, puts a big question mark over how genuine the efforts of these organisations are, and points to this being just the latest form of greenwash.

Another recent organisation established by brands is Closed Loop Partners, which was created in 2014 as a $100 million fund for improvements in kerbside recycling infrastructure, following Walmart's original stakeholder-convening initiative.[93] The fund became an investment firm, raising $700 million in capital to support improvements in recycling. It is supported by Coca-Cola, Colgate-Palmolive, Johnson & Johnson, Keurig Dr Pepper, McDonald's, Nestlé, Nestlé Waters NA, P&G, PepsiCo, Starbucks, Unilever, Walmart, Wendy's and Yum! Brands.[94] A recent Closed Loop Partners report called for increased investment in chemical recycling, which could unlock *'potential revenue opportunities of $120 billion*', as, in their view, demand for recycled materials outpaces supply.[95] The answer to why Closed Loop Partners do not promote proven methods for obtaining higher amount of recyclates, like bottle bills, probably lies in its corporate supporters.

According to As You Sow, the cumulative funding of RP and Closed Loop Partners represents only about 7% of what is needed to fix the US recycling system.[96] Our own analysis shows that many corporations supporting these 'partnership approaches' are in fact lobbying – both openly and behind the scenes – against legislation that would increase recycling and oblige them to invest in infrastructure, whether through producer-responsibility legislation or through expansion or improvement of existing bottle bills.

Box 4.1: Masters of distraction: Recyclable... or not?

In response to growing public concerns about plastic pollution, many corporations are making high-profile public commitments to make all their products recyclable, reusable or compostable. According to The Intercept, the How2Recycle programme – an initiative by Sustainable Packaging Coalition and NGO GreenBlue – makes some plastic products seem far easier to recycle than they actually are.[97] The number of brands and retailers in the initiative grew by 45% in 2018, while the number of products carrying the How2Recycle label was growing at the rate of 80 new products daily at the time.[98]

The Intercept reported that the How2Recycle label is now affixed to several products that are all but impossible for many consumers to recycle, including cups, plates, and containers made from plastics #3 to #7, all of which have recycling rates close to zero.[99] Asked about the 'guilt-free' pouch, Kelly Cramer, director of How2Recycle at GreenBlue, responded that the product was not '*appropriately qualified*' for the label, and said that the organisation would '*reach out to this company immediately to rectify*'.[100] Although How2Recycle provides 'not recyclable' as well as 'recyclable' labels, it is the member companies' choice whether to apply them.[101] In addition, many labels state that consumers must '*check locally*' whether packaging can be recycled, which, according to As You Sow, limits the '*value of the label ... requiring consumers to do additional research to determine if a specific packaging is recycled in their community*'.[102]

How2Recycle is not the first attempt to promote different types of plastic as recyclable. The widely used chasing-arrows symbol, and a numbering system identifying different types of plastic resin, was created by the Society of the Plastics Industry in 1988. According to a Frontline PBS investigation, the plastics industry went around individual states and quietly passed legislation requiring this label to be added to containers.[103] This – in combination with the word 'recyclable', which is also printed on the containers – created the impression that all those types of plastic are actually *being* recycled, despite recyclers being unable to sell or recycle these materials.[104]

A recent Greenpeace report investigated the legitimacy of recyclable claims through a comprehensive survey of US collection, sorting and post-consumer plastic-reprocessing facilities.[105] It concluded that only PET #1 and HDPE #2 bottles and jugs, with acceptable shrink sleeves and labels, can be claimed as recyclable in the US, and are recycled at a rate of 18.2% and 9.4% respectively. The many other types of consumer plastic products and packaging are neither recyclable nor legitimately recycled – and, by labelling them as such, companies are exposed to legal, reputational and financial liability risks. For example, plastic wrappers and pouches only have one Material Recovery Facility (MRF) pilot programme that recycles them.[106] On the other hand, the ACC created the Wrap Recycling Action Program (not to be confused with the UK's WRAP) to raise '*public awareness to make plastic film – including wraps, bags, and flexible packaging – a commonly recycled material*'.[107] Plastic bags are only accepted at 4% of all MRFs, despite the WRAP's goal to increase recycling to 2 billion pounds by 2020. WRAP prides itself that over 70 million Americans have been exposed to its messaging since 2014,[108] and supports the How2Recycle label, informing consumers to recycle these types of packaging via store drop-offs, or to '*check locally*'.[109] Stores only downcycle these materials, and the industry is misleading the consumer about the ability to recycle wraps and similar materials.

Greenpeace recommends that companies have credible in-house expertise on the local recyclability of their products, and verify the accuracy of labels themselves.[110] In addition, they should make direct investments in collection, sorting and proven mechanical reprocessing of the specific type of plastic product.[111] According to Greenpeace, companies that make unsubstantiated recyclable claims could be liable for misrepresentation.

It will be interesting to observe whether companies' liability for these claims will be tested in the US courts. The Earth Island Institute recently launched a lawsuit against the biggest plastic polluters – including Coca-Cola, PepsiCo and Nestlé – for their contribution to the plastic pollution crisis, claiming the key aspects of these companies' misinformation campaign are the ideas that plastic is recyclable, and that recycling is the responsibility of consumer rather than the producer.[112]

4.2.8. Promoting industry-friendly studies and research

The industry also works through the FPA, which includes nearly all the country's major plastic and plastics-chemical companies, and represents chemical companies and plastic-bag manufacturers that produce thick-plastic packaging products – from bags, Saran™ wrap and bubble wrap to plastic lids.[113] These products are among the most difficult to recycle and the most harmful for the environment.

The FPA has been on the frontline of actively misinforming the public through the release of several life-cycle assessments (LCAs). These studies focus on some of the top sources of discarded, non-recycled or recovered plastic waste – coffee lids, laundry-detergent pods, single-serve juice packages and baby food – and compare them to metal, plastic PET/HDPE on water usage, carbon impact and material to landfill. They mostly come out in favour of flexible plastic, ignoring the fact that flexible packaging is rarely recyclable (instead, they blame lack of consumer participation in collection as the key problem in waste management) and failing to assess the impacts of plastic that ends up in the environment or ocean. And there's another problem – these studies were commissioned to PTIS LLC, itself a packaging consultancy, not an independent or academic institution.[114] This conflict of interest is disclosed in neither the case studies nor the accompanying materials.

Industry groups cite the FPA studies and use them to lobby against proposed legislation. When Charleston, South Carolina, was considering a plastic-bag ban in 2015 and 2016, the industry countered with a range of materials, including academic research.[115] This included a 2014 study with an LCA of grocery bags, which concluded that bans '*may result in negative impact on the environment rather than positive*'.[116] A deeper look by Public Integrity uncovered that Hilex Poly Co. (Novolex's previous name) paid for the research, while, according to Greenpeace research, lead author Robert Kimmel is the director of Clemson's Center for Flexible Packaging, which is funded by membership fees from plastic converters and packaging manufacturers.[117]

Other groups use similar tactics. In its public messaging, the ACC regularly cites a 2016 study by the firm Trucost[118] (owned by the financial firm S&P Global), which it claims shows that *'replacing plastics with alternatives in common packages and consumer products would raise environmental costs nearly fourfold'*. It focuses on the lighter weight and durability of plastics compared to alternatives in industrial use, while downplaying the long-term environmental impacts of single-use plastics. These studies, and their potentially false conclusions, confuse and undermine factual analysis on plastic's true impacts on climate and the environment.

4.2.9. Lobbying through fake environmental groups

In June 2019, a new group was registered in California – Californians for Recycling and Environment (CRE). Behind this seemingly green name was a lot of dirty plastic money. The group, founded by plastic-bag manufacturer Novolex, was led by two Novolex staff members. Its goal was not to promote environmental solutions but rather to fight against efforts to ban plastic, or restrict the production of plastic products, in California. Some environmental organisations believe CRE was formed specifically to fight the California Circular Economy and Pollution Reduction Act (SB54) – a piece of legislation that would impose a comprehensive regulatory scheme on producers, retailers and wholesalers of single-use packaging. The bill's aim is that, by 2030, manufacturers and retailers will achieve a 75% reduction in the waste generated from single-use packaging and products offered for sale or sold in the state through source reduction, recycling or composting. It has garnered fierce opposition from not only CRE but also the ACC and PLASTICS. Thus far, CRE has spent nearly $1 million dollars opposing EPR legislation in California, including lobbying against SB54.[119]

Waste sorting centres in California

Credit: Les Stone

4.2.10. Where next for US plastic pollution legislation?

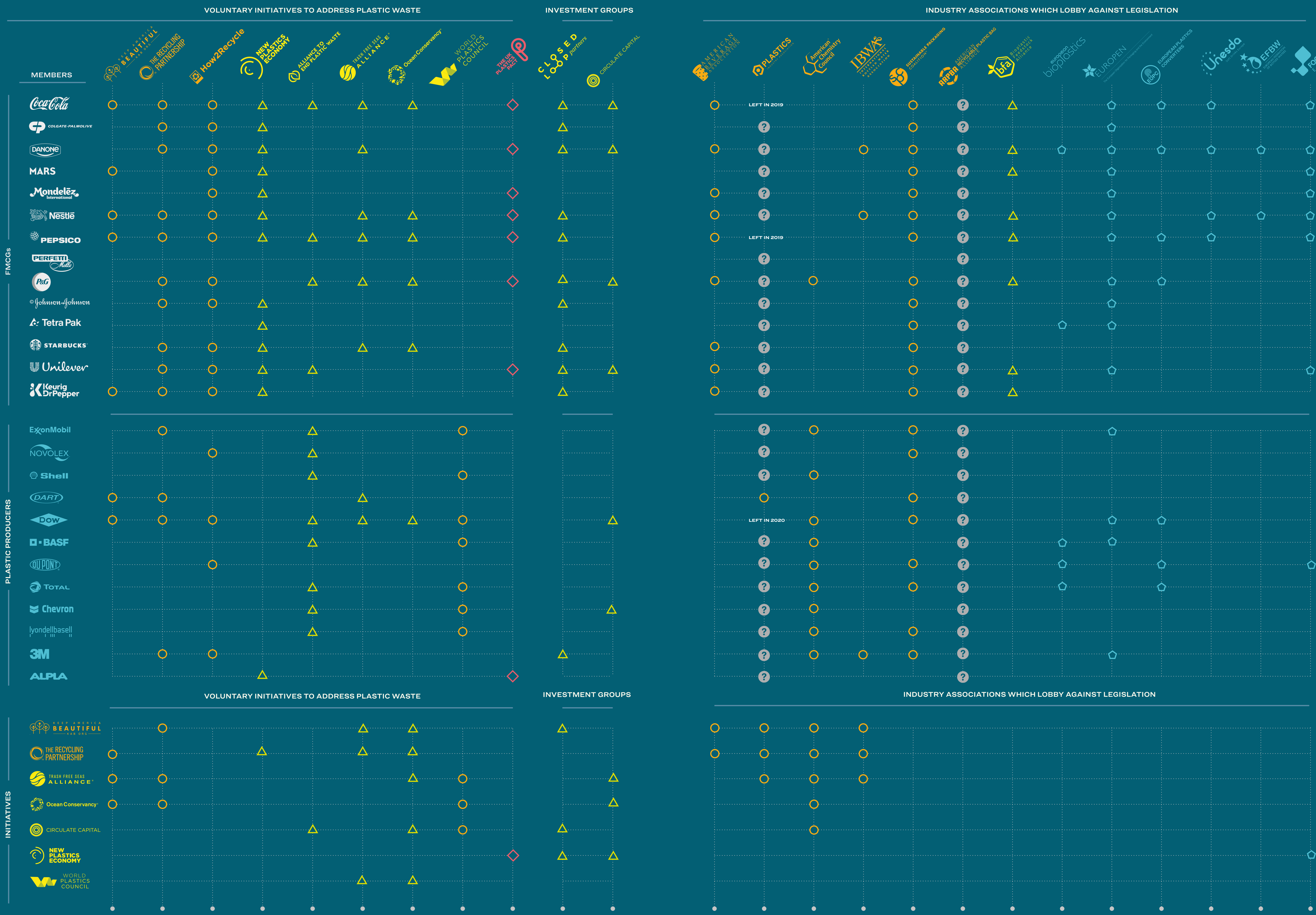
For decades, the American plastics industry has successfully avoided legislation by ploughing millions of dollars into distraction campaigns, putting the blame on consumers for littering, and promoting recycling as a way out of the crisis. The overall rate of recycling has been less than 10%, while the production of plastic has grown exponentially, and a significant amount of new capacity is in the pipeline. The industry has constantly reinvented new organisations that, on the surface, look like a serious attempt to improve recycling infrastructure – but a closer look at what they promote shows excessive reliance on voluntary approaches and false solutions, like chemical recycling, under the guise of innovation. None of these industry-funded organisations has supported proven ways of bringing the plastic crisis under control, like bottle bills, producer responsibility and a greater focus on reuse.

Pre-empting, rather than waiting for, legislation has been another key industry tactic – whether attacking local bag bans or state legislation. We're currently witnessing an attempt at the federal level to pass weak RECOVER and Save our Seas 2.0 acts, which ask for significant sums of public funding, without making the industry accountable for plastic pollution and financially responsible for solving it. The industry is using the Covid-19 health crisis to justify its latest demand for public funds. However, at the same time it is also exploiting public fear to undermine any restrictions on single-use plastics, like bag bans, and to introduce even more single-use plastic in a post-COVID world.

Despite the flurry of voluntary initiatives, consumer brands only cover around 7% of what is needed to fix the US recycling system.[120] These companies have fought producer-responsibility legislation for decades, and, unlike Europe, no US state has EPR legislation in place for packaging. As we have seen, the industry is also fighting bottle bills, although the recycling rate for beverage containers has stagnated at around 30% for many years – except for the 10 states that have bottle bills, where the rate is between 66% and 96%.[121] Brands' commitments to make their products recyclable and increase the share of recycled content will, once again, dissolve into empty promises without legislation that supports collection and delivers clean materials for recycling.

REVOLVING DOORS BETWEEN DIFFERENT INDUSTRY INITIATIVES

GLOBAL ORGANISATION | US ORGANISATION | UK ORGANISATION | EU ORGANISATION | NO TRANSPARENCY ON MEMBERS



4.3. The EU: Time's up for single-use plastic?

The plastics industry is a powerful lobby in Europe, represented through numerous industry associations, consultancies and lobby groups. PlasticsEurope is one of Brussels' biggest lobby groups, with members including all the big names in chemicals and petrochemicals: BASF, Borealis, Dow Europe, ExxonMobil Chemical, Ineos, Novamont, Solvay and many others.[122] Another industry association – which recently sent an open letter to delay the implementation of the EU SUP Directive in light of the Covid-19 crisis – is the EuPC, which represents all sectors of the European plastics-converting industries.[123] The industry also has a specific association representing recycling – Plastics Recyclers Europe (PRE), which represents 500 companies with a combined €3 billion turnover[124] – and another representing packaging – the European Organization for Packaging and Environment (EUROPEN), whose members range from Arcelor Metal, BASF and major FMCGs, like Coca-Cola, Danone, Mars and L'Oreal.[125]

The plastics industry also works through numerous, more specific, trade bodies and seemingly independent environmental organisations. For example, CEO revealed that Pack2Go Europe (a trade association for the convenience-food-packaging industry) and Serving Europe (a trade association for the fast-food industry) are both initiatives of notorious EU lobbyist, Eamonn Bates.[126] On behalf of all these organisations, Bates has proactively lobbied on European and national legislation on single-use-plastic packaging, attempting to reframe the issue as one of litter rather than of corporations taking responsibility for their products and their opposition to DRS in Ireland. Pack2Go also established an organisation called Clean Europe Network,[127] which, according to CEO's exposé, remained closely connected with Eamonn Bates's consultancy, and represented industry interests by putting litter centre-stage in the political debate on packaging waste and ensuring industry contributions should only be voluntary. Member organisations Keep Scotland Beautiful, Mooimakers in Flanders and Nederland Schoon in the Netherlands openly opposed policies on DRS in their respective legislatures.[128]

In addition to specific groups set up to defend industry interests on plastic, the same companies are also members of many national and European associations – ranging from FoodDrinkEurope to Business Europe (a very powerful group representing all businesses in Europe) – and influence EU policy in the guise of these little-known groups, where the lowest common denominator often prevails in defending industry interests from policy interventions. The European Soft Drinks Industry (UNESDA) and European Federation of Bottled Waters (EFBW) – whose members include Coca-Cola, Danone, Pepsi and Nestlé – were especially active in lobbying on the SUP Directive.

The industry has tried to delay and undermine the ambition of EU legislation on waste, plastics and other aspects of the circular economy for many years. In this section, we investigate its attempt to influence the Plastics Strategy (since 2017) and the SUP Directive (proposed in May 2018).

4.3.1. The industry's attempt to weaken the Plastics Strategy

Corporate lobbyists initially focused on the European Commission (EC) – the institution that proposes legislation and was therefore in charge of drafting the Plastics Strategy, which set out how plastics would be addressed under the EU's plan for a circular economy. Of the 92 EC lobby meetings on the Plastics Strategy, 76% were with corporate interests.[129] Access to information requests by CEO revealed the industry's response was not blatant opposition but broadly welcoming – while still delaying and derailing legislative efforts.[130] The EC held several meetings with the industry to try to obtain concrete commitments on the way forward in the Plastics Strategy, but the industry ultimately succeeded in avoiding any mandatory measures and delaying voluntary commitments.[131]

The main objective of the Plastics Strategy was that, by 2030, all plastic packaging placed on the EU market should be either reusable or recyclable cost-effectively – with 55% actually being recycled.[132] Annex III calls on stakeholders to make voluntary pledges to boost the uptake of recycled plastics – which would ensure that, by 2025, 10 million tonnes of recycled plastics would find their way into new products on the EU market.[133] The EC would only consider taking action if the pledged contributions were deemed insufficient.

Some voluntary commitments were published at the same time as the strategy (January 2018), but they were notably weaker than those the EC promoted. PlasticsEurope expressed an ambition to reuse and recycle 60% of plastics packaging by 2030, and said: '*this will lead us to achieve our goal of 100% reuse, recycling and/or recovery of all plastics packaging in the EU-28, Norway and Switzerland by 2040*'.[134] Voluntary commitments from the EuPC and PRE were also 10 years behind the EU proposals – they stated they would '*launch Circularity Platforms aiming to reach 50% plastics waste recycling by 2040*'.[135]

CEO notes that the EC created the CPA because of the failure to include voluntary industry commitments in the strategy, and because industry pledges failed to meet the minimum targets the EC had pushed for.[136] In essence, the CPA was the most buy-in the EC was able to achieve from industry – but even this led to more delays. In May 2018 – more than three months after the Plastics Strategy launch – no pledges had been received. Instead, there had been lobbying calls from BusinessEurope – the corporate world's most significant EU lobby group – for 'flexibility' on the 30 June 2018 deadline, and a strong expression of support for voluntary approaches.[137]

The EC launched the CPA in December 2018, saying it would invite key industry stakeholders to join. In the press release, the EC said its preliminary analysis of the pledges '*indicates that at least 10 million tons of recycled plastics could be supplied by 2025 if the pledges are fully delivered*' – but, on the demand side, '*only 5 million tons will be absorbed by the market*'.[138] From the CPA's meeting in September 2019, and its formal launch, it seemed the industry had committed to work together to actually absorb this recycled plastic and convert it into new products.[139] However, environmental NGOs were excluded from any involvement in drafting the CPA's declaration, and have criticised its lack of transparency, lack of ambition, insufficient emphasis on reuse and redesign, omission of risks associated with the presence of toxic substances in plastic waste, and emphasis on investments in chemical recycling.[140]

4.3.2. Lobbying around the EU SUP Directive

The SUP Directive, whose primary aim is to reduce environmental litter,[141] was formally adopted in April 2019 and published in the Official Journal of the European Union in June 2019. The measures it established include outright bans of certain single-use plastic products, consumption reduction for others, EPR, marking and labelling requirements, awareness-raising measures and separate collection. Some of the key elements of the Directive are:

- EU-wide bans for 15 items (e.g. plastic plates, cutlery, straws);
- consumption reduction and fee-modulated EPR schemes for a number of plastic products;
- an obligation to separately collect 90% of beverage bottles put on the market by 2029, with an intermediate target of 77% by 2025; and
- design requirements for products, including an obligation for drinks containers to have attached (or tethered) lids or caps by 2024, and an obligation for beverage bottles to include at least 30% recycled content by 2030 (and, for PET bottles, at least 25% by 2025).[142]

The speed at which the Directive was drafted and adopted caught both the industry and NGOs by surprise; proposed in May 2018, it took just eight months for the main EU institutions to agree on a text. A range of different industry groups was involved in lobbying on various aspects, though the activity of bottled-drinks companies and their industry federations – UNESDA and EFBW – was particularly notable, given that so much of the legislation related to beverage bottles.

The final text of the legislation remained broadly intact from the original EC proposal, though the industry won some important concessions at the last minute – the most significant changes occurred at the final stage of the negotiations. Although unwilling to compromise on substance, the EU institutions did compromise on targets and timeframes, delaying more ambitious targets for single-use plastic collection and recycled content, as well as the introduction of tethering caps to bottles.[143]

CEO's investigative research shows that various member-state officials working on the single-use-plastics proposal reported '*a lot of lobbying*' on this issue, and that it had been '*very intensive*'.[144] Officials reported that many different industrial sectors had contacted them, including via lobby emails, requests for face-to-face meetings, invitations to attend debates and events, and the circulation of position papers. One member-state official noted '*that the level of industry lobbying outnumbered that by NGOs three-fold*'.[145]

Below, we outline some of the main findings of our investigations into lobbying around the SUP Directive. As we will see later, lobbying continues – at both the EU and national levels – to weaken implementation of the Directive.

4.3.3. Tethered caps

The requirement to attach caps and lids to beverage containers was a major battlefield. Plastic caps and lids are a significant source of marine litter; they easily enter the natural environment, and are hard to collect for recycling, if they are not attached to beverage containers. The major FMCG companies, however, strongly opposed the introduction of tethering caps by design as a solution to this problem. A leaked letter – written by Coca-Cola, Danone, PepsiCo and Nestlé, and sent to Frans Timmermans, First Vice President of the European Commission, on 9 October 2018 – revealed their strong opposition; they suggested 'that tethered caps will only become mandatory if our proposed alternatives do not prove to be effective by end of 2021'.[146] Their proposed alternatives included DRS or EPR schemes, combined with consumer-awareness education.

Two major EU FMCG lobby groups, UNESDA and EFBW, commissioned the consultants PricewaterhouseCoopers (PwC) to conduct an impact assessment on the proposed measure, and used these inflated figures extensively in their lobby meetings. They claimed introducing the measure could require 50,000–200,000 tonnes of additional new plastic, leading to carbon emissions equivalent to adding 244 million cars to the roads. PwC also estimated the cost of the disruption to bottle-production lines across Europe as €2.7–8.7 billion.[147] The industry also claimed no technology existed for the design of tethered caps, despite the existence of solutions using minimal additional plastic.[148]

Loose bottle caps in a kerbside collection

Credit: David Mirzoeff

An email (released under an FOI request) shows that, on 23 November 2018, UNESDA met with a member of Frans Timmermans' cabinet to outline the figures in the forthcoming PwC report.[149] The email correspondence reveals the industry presented even more inflated costs at the meeting (€4.9–13.6 billion), instead of the substantially lower figures (€2.7–8.7 billion) in the final PwC report. Although the meeting was with UNESDA, it is telling that the email correspondence came from Hans Van Bochove, Vice-President of European Public Affairs for Coca-Cola European Partners, who is also chairman of the lobby group EUROPEN. A further released email reveals UNESDA also targeted the EU Council; on 20 November 2018, it invited all permanent representatives to a meeting to present the PwC findings.

Other evidence released reveals that, on 10 December 2018, FoodDrinkEurope (including representatives from Nestlé, PepsiCo and Coca-Cola) organised a meeting with cabinet members representing Vella, Timmermans and Katainen to lobby against tethered caps. Again, the industry said the measure would be very damaging, and proposed waiting until 2025 to see if 90% of plastic caps could be collected as part of the 90% collection target. The industry said it was confident many member states would raise this issue at the final trilogue[a] meeting,[150] indicating its belief that its lobbying against this proposal had been successful.

Although the lobbying took place behind the scenes, UNESDA and EFBW also made their position on tethered caps public in a post on *Politico* in December 2018. The article, titled 'More plastic, more carbon, more cost: Why attached bottle caps are not the way to fix waste', is also available on Coca-Cola's EU Dialogue webpage.[151]

4.3.4. 90% separate collection for beverage bottles

The EC's original proposal stated the 90% collection target should be achieved by 2025. The four-column document, which showed the positions of different institutions regarding the final meeting of the trilogue process, clearly demonstrates that lobbying had taken place to delay target dates – the Commission and European Parliament agreed on a 90% collection rate by 2025, but not the European Council, which proposed 90% by 2030. In the final text, the agreed figure is 90% by 2029 with an intermediary target of 77% by 2025.

The SUP Directive mentions the introduction of DRS as a means to achieving a 90% separate-collection rate, but member states are, in theory, able to choose the system they want – despite all evidence showing that, without DRS, it is impossible to achieve these collection rates. The industry is divided when it comes to the introduction of DRS, and our country case studies reveal the battles that have now moved to the national level, with many industries trying to delay the introduction of DRS for as long as possible. However, some actors have changed their opinions on this issue due to the obligation to include recycled content in beverage containers. DRS delivers a clean and high-quality stream of plastic recyclates, and will essentially finance itself – via the deposit – once the infrastructure is in place.[152] This requirement for recycled material made some big beverage companies, such as Coca-Cola, reluctantly support DRS in Western Europe, although – as will be exposed – they have continued to undermine it elsewhere.

4.3.5. Implementation of the SUP Directive

These battles did not come to an end with the adoption of the SUP Directive. It is evident, from their participation in meetings and workshops, that corporations are still trying to influence and delay the guidelines and implementing acts the EC is developing to ensure effective implementation of the Directive. Among these are unrelenting efforts to exempt single-use-plastic items made from bio-based, biodegradable or compostable plastics, and continued resistance to a design standard for tethered caps.[153] In addition, the industry is trying to influence the very definition of plastic, which would affect the essence of the Directive and undermine its purpose by exempting certain materials – such as PHAs (a novel group of polymers) and lyocell (a man-made cellulosic fibre used for items like disposable wet-wipes).[154]

a Trialogue refers to a series of meetings between the representatives of the European Commission, Council and the European Parliament, which is part of the EU legislative process to reach an agreement between the three institutions on a specific piece of legislation.

The industry's lobbying efforts have also moved to the national level, where it is trying to influence, delay and weaken the transposition of the Directive into national legislation, as we will expand on in our country case studies. One example is the industry's attempt to undermine the 90% separate-collection obligation by including bottles from post-sorted residual waste. NGOs have called on the EC and member states to resist these lobbying efforts as, notably, they will only be able to achieve the Directive's recycled-content targets, if plastic bottles are collected as a clean, separate waste stream.[155]

Box 4.2: Green Dot and producer responsibility

The Green Dot™ symbol is widely used on plastic products and packaging sold in the EU and beyond. According to a UNEP and Consumer International report, '*consumers typically misinterpret these symbols to mean recyclability or perhaps recycled content*', which leads to an overestimation of what items can be recycled, as well as the contamination of waste streams with non-recyclable material.[156] This is because, in reality, the label means only that a producer or retailer has paid a financial contribution to a qualified national packaging-recovery organisation, set up in accordance with the principles defined in European Packaging and Packaging Waste Directive 94/62.[157] Green Dot is a protected trademark, registered and owned by Der Grüne Punkt Duales System Deutschland GmbH and licensed for all European countries to the Packaging Recovery Organisation Europe (PRO Europe). However, it is used in over 140 countries and displayed on more than 400 billion packaging items per year,[158] creating additional confusion for consumers.[159]

In this report's EU case studies, we also analyse the actions of PROs – national organisations that collect licensing fees for packaging placed on the market, and that sub-license Green Dot™ label to companies for their packaging. The money accumulated by these fees is partly used to provide funding for waste management and recycling – usually managed by a PRO. The companies that pay these fees are also relieved from their individual obligation to manage used packaging. Some of the Green Dot organisations examined in this report are ARA (Austria), EKO-KOM (Czech Republic), Ecoembes (Spain) and CITEO (France). As we will see, the companies paying into these schemes often exert undue amounts of influence, and are even coordinating lobbying activities against more effective collection (and recycling) legislation, such as DRS.[160] PRO organisations also have two associations at the EU level: the PRO Europe, founded in 1995, and the Extended Producer Responsibility Alliance (EXPRA), established in 2013. Unsurprisingly, one of EXPRA's first position papers set out its clear opposition to deposit systems, calling them '*problematic from an internal market perspective*'.[161]

4.4. Austria: A plastic pollution lobby mobilising against DRS

In 2016, Austria produced about 300,000 tonnes of plastic waste,[162] with PET bottles accounting for a large proportion of litter found in Austria's natural environment.[163]

Although Austria has a relatively good collection system, it is still far from reaching EU targets on either plastic recycling or bottle collection. In 2016, 34% of all packaging waste was sent to mechanical recycling, after which 26% was recovered as granulate,[b] 40% was treated in waste-to-energy plants and 33% was used for incineration in the cement industry.[164]

The Austrian Federal Ministry of Climate Action and Environment is currently considering introducing a DRS to achieve the new targets set out in the EU SUP Directive. A government-commissioned study recently confirmed that a DRS not only achieves the highest collection rate for plastic bottles but is also the most cost-effective option, ensures the best material quality for subsequent recycling and has the strongest anti-littering effect.[165]

Plastic pollution in Austria's natural environment

Credit: Global 2000

4.4.1. Lobby against introduction of DRS

Our investigation in Austria revealed that a powerful coalition of companies, including retail giants REWE Group (Billa, Merkur, Penny, Bipa, etc.), SPAR, Hofer and Lidl – as well as beverage companies, including Brau Union, Spitz and Pfanner – have been tirelessly working to influence the government's decision against a DRS.[166] They have largely orchestrated their lobbying efforts through the highly reputed

b According to the new calculation method mandated by the EU, the recycling rate has been reduced from 34% to 25%.

Altstoff Recycling Austria AG (ARA), Austria's largest PRO, a non-profit organisation with a near-monopoly on Austria's waste-management market. A closer look at ARA's complex corporate structure reveals that companies under its umbrella have a position almost like that of owners, with legal powers that allow them to use ARA for their own interests – in this case, to lobby against DRS legislation that would reduce litter and increase plastic-recycling rates in Austria.

With the introduction of a DRS, which would replace the need for companies to pay licensing fees, ARA would lose more than €24 million in fees for plastic bottles alone. Since it is likely that a future DRS would also cover other waste streams, such as cans and single-use glass, the loss in licensing fees would consequently be even higher.

ARA
Altstoff Recycling Austria

Not surprisingly, ARA is a loud opponent of a DRS. Among the lobbying tactics used, it coordinated letters sent in December 2019 to the current Federal Chancellor (Sebastian Kurz), Environment Minister (Leonore Gewessler) and other key politicians, vehemently rejecting the introduction of a DRS for single-use plastic. Next to ARA, the signatories include retail giants REWE Group, SPAR, Lidl and Hofer, as well as multinational plastic-packaging manufacturer ALPLA. Unsurprisingly, following the submission of the letters, DRS was neither included nor mentioned in the government programme launched in January 2020.

ARA also attempted to influence the development of the government-commissioned study that examined four options for implementing the 90% collection target. ARA advocated for an improved method for separate collection, as well as additional collection from residual waste. The findings unequivocally show a DRS would achieve at least 95% separate collection, while ARA's proposals would only achieve 80%, would require sorting through 60% (840,000 tonnes) of Austria's residual waste[167] and are also not in line with the interpretation of the SUP Directive. [168]

ARA has a monopoly on the Austrian waste market

Credit: Changing Markets Foundation

The alternatives to DRS these companies are pushing for are the usual promotion of clean-ups and awareness-raising campaigns, in this case *Reinwerfen statt Wegwerfen* ('Throw in instead of throw away'), placing the blame on the consumer rather than pushing for a reduction in plastic pollution at source.[169] This initiative was founded in 2012 as a joint project between ARA, the Austrian Chamber of Commerce (WKÖ) and the discount retailers Hofer, Lidl and PennyMarkt. Other supporting organisations are the very same companies that produce much of the littered waste found in Austria, including Coca-Cola, McDonald's, Red Bull and retail giant REWE. In 2019, approximately 170,000 volunteers in 2,700 clean-up initiatives collected and properly disposed of 1,000 tonnes of waste.

Red Bull cans are frequently found in Austria's natural environment

Credit: Global 2000

While Austrians are keen to participate in such clean-up activities, initiatives such as *Reinwerfen statt Wegwerfen* only provide €700,000-1 million of private funding for clean-ups,[170] with public institutions – not only municipalities but also the Austrian rail and road associations, ÖBB and ASFINAG – bearing the majority of the costs. According to ArgeAWV well over €120 million in personnel and operational costs are spent annually on daily street-cleaning and litter campaigns.[171] The Austrian Beverage Manufacturers Association has also built its DRS-opposition strategy on voluntary initiatives, providing great support for the aforementioned anti-littering campaign. The powerful organisations that represent the interests of retail and industry also support *Reinwerfen statt Wegwerfen*.[172] Through Arge Sustainability Agenda for Drinks Packaging, a consortium headed by the Austrian Chamber of Commerce (WKÖ), the retail and beverage industries use this '*voluntary commitment by the drinks industry*' as a central instrument to focus efforts on the consequences of littering – rather than its causes – continuously delaying better solutions.[173] The beverage industry has also found itself at a crossroads; its position was divided in a surprising U-turn by Coca-Cola, which, for the first time, publicly announced its support for the introduction of DRS for single-use plastic in Austria. [174] Coca-Cola did not sign the lobby letter against the introduction of DRS in Austria that Höllinger, Pfanner, Alpquell, Starzinger, Brau Union and Spitz did.

Clean up initiative with primary school children in St. Jakob.
Credit: Gemeinde St. Jakob (2019)

4.4.2. *The Austrian public supports more action on plastic pollution*

A recent YouGov public opinion poll, commissioned by the Changing Markets Foundation and Global 2000, showed that 83% of Austrians support the introduction of a DRS and 86% believe more needs to be done to address plastic pollution.[175] It is imperative that the Austrian government puts in place a DRS for all single-use-plastic bottles and other beverage containers. In addition, it should introduce measures to promote reuse, such as a specific sub-target for refillables. Such measures are backed by both science and the public. A government roundtable that took place in the beginning of June 2020 showed promising signs of a wide consensus among stakeholders to introduce DRS and reuse measures.[176]

REINWERFEN
STATT WEGWERFEN

Meanwhile, the WKÖ initiated a working group to examine possible alternatives to a DRS system. This step, however, has been criticised in an open letter[177] from the ÖPG Deposit System Company Gm.b.H. to the President of the Austrian Chamber of Commerce (WKÖ), Harald Mahrer, on the basis that such a working group should include *all* representatives of economic enterprises, not only those that oppose DRS. Membership of the WKÖ is compulsory for all Austrian companies, and, by law, it should represent all of them[178] - not just those that oppose progressive legislation. Despite these calls, WKÖ's 'holistic model' to achieve EU recycling targets, published in August 2020, claims that they can achieve these targets without DRS. To prevent littering they propose containers with microchips that would award consumer for returning their recyclables with bonus points on their mobile phones, which could be redeemed with participating companies[179] - a system surprisingly similar to DRS, which they oppose. ARA also published a press release calling WKÖ's 10 point plan 'a big step in the right direction'.[180]

While conversations in Austria are ongoing, we can expect that ARA and WKÖ will further intensify their lobbying tactics to undermine an effective DRS.[c]

Box 4.3: An unusual opponent to DRS: The glass industry

As DRS is being considered across many European countries, an unlikely opponent is operating behind the scenes to try to undermine the establishment of the system, or to lobby for exemptions: the glass industry. This is strange because refillable glass bottles in a local distribution system are considered a very sustainable alternative to plastic packaging and are supported by NGOs across the world. Many countries used to have such systems in place, and the key to their success was a voluntary deposit to encourage consumers to return their bottles.

The glass industry in Europe is, however, firmly opposed to DRS. The European Container Glass Federation (FEVE) has commissioned a study showing that DRS does not lead to greater levels of refill, glass-collection or recycling rates.[181] It also claims '*including one-way glass in a mandatory DRS on single-use packaging only diverts materials from established collection and recycling systems and creates confusion among consumers*'.[182] According to the industry report, the highest impact on glass-recycling rates is the number of available bottle banks, and DRS does not achieve such high recycling rates.[183] The glass industry has lobbied against DRS in Scotland and France, and is currently opposing its introduction in Spain, Portugal and Poland. In Spain, glass Green Dot organisation, Ecovidrio, claims a planned national DRS is one of the '*threats and challenges*' to its strategic plan.[184]

Glass is included in the DRS of Croatia, Denmark, Estonia, Finland, Germany, Iceland and Lithuania. The deposit law[185] for single-use beverage containers, passed in Portugal, also includes glass. Taking advantage of the fact that said law is still pending regulation (which will establish the DRS model to be implemented on 1 January 2022), our investigation found the Portuguese government is receiving a lot of pressure to exclude glass from the deposit system. Portugal has a serious problem of glass containers ending up as litter in the environment,[186] which is already a powerful argument to include glass in the DRS. However, there is another equally important reason – the draft of the new Portuguese waste law establishes reusable-packaging quotas for producers, and forces supermarkets to dedicate a differentiated and designated area for products in reusable packaging. If glass were excluded from the single-use container-deposit system, RVMs able to take glass containers would not be installed, which would make it difficult to return refillable beverage containers, and would very likely mean the Portuguese government would not be able to achieve its reusable quota.

One of the latest tricks from the glass industry at the EU level was the launch of an industry platform, Close the Glass Loop, at the end of June 2020. The initiative aims to achieve '90% average *EU collection rate of used glass packaging by 2030' and 'better quality of recycled glass, so more recycled content can be used in a new production*'.[187] This appears to be a typical industry attempt to push a voluntary approach and prevent glass from being included in upcoming DRS in different EU member states. Despite the industry's claims that glass is already the most-recycled material, the glass-recycling rate in Europe currently stands only at 76%.[188] Far higher rates can be achieved – and, as with other beverage containers, it is impossible to reach levels of over 90% without DRS.

Reusable milk bottles on sale at the Thornton's Budgens supermarket in Belsize Park, London
Credit: David Mirzoeff

c For a full report on the Plastic Pollution Lobby in Austria, see http://changingmarkets.org/wp-content/uploads/2020/05/CM_PLASTIC-POLLUTION-LOBBY_FinalEN.pdf

4.5. Spain: A wolf in sheep's clothing

Spain is the fifth most populous country in the EU and the fourth-largest consumer of plastic containers, as well as producing 4.6 million tonnes of plastic in 2016.[189] Spain accounts for 10% of all single-use plastics consumed in Europe, including 3.5 billion soda bottles, 1.5 billion disposable cups of coffee, 50 billion cigarette butts, 5 billion plastic straws and 207 million disposable packaging units per year.[190]

Spain is one of the world's top plastic polluters, and has one of the highest rates of plastic generation per person: 0.28 kg daily. Spain dumps more plastic into the Mediterranean Sea – the sixth-largest area of plastic accumulation in the world – than any other country in the region except Turkey.[191]

Despite all this, on the surface it would appear that Spain leads the way in plastic recycling in Europe. In the EU, an estimated 42% of plastic-packaging waste was recycled in 2017, according to Eurostat; Spain, meanwhile, recycled 48% of its plastic-packaging waste.[192] However, several organisations have questioned this data; for example, Greenpeace states that the real figure is closer to 25% or lower, partly because much of the information provided to the Spanish government originates from the plastics industry itself.[193]

Plastic pollution on a beach in Spain

Credit: Fabien Monteil/ Shutterstock

The Spanish plastics industry is accused of not only hiding the real extent of the plastic-recycling crisis in Spain but also preventing, and lobbying against, the introduction of measures that would effectively address the problem. Companies in the plastics supply chain leverage an incredible range of tactics to stave off legislation that threatens business as usual.

4.5.1. *Spain's plastics data is trash*

Currently there are no reliable figures on the generation and treatment of plastic waste (including plastic packaging) in Spain. It is important to note that the approximate data available varies considerably, and comes mainly from three different sources.

First, the Spanish government – through the Ministry for Ecological Transition – supplies information to the EU. It has been criticised for providing figures that contain statistical limitations and do not provide a full picture of how the waste of single-use plastic containers is being managed.[194] This data has also been questioned by several organisations, which claim the real figure is lower than that provided – partly because much of the information provided to the Spanish government originates from the plastics industry itself, which has a vested interest in obfuscating the data to conceal the need for change.[195]

The second source – also accused of publishing false figures due to the absence of methodological descriptions or statistical breakdowns – is Ecoembes (Ecoembalajes España, SA). Ecoembes is a non-profit PRO responsible for managing plastic recycling in Spain.[196] According to Ecoembes, 69.7% of disposable plastic containers were recycled in 2017[197] – almost three times the figure provided by Greenpeace that year (25.4%). Ecoembes added that 75.8% of disposable plastic containers were recycled in 2018[198] not only an improvement on the previous year but also three times the target set out by the EU (22.5%).[199] Prominent environmental organisations in Spain (such as Greenpeace, Ecologistas en Acción and Friends of the Earth) have accused Ecoembes of manipulating data to create the impression that Spain is on track to achieve EU targets.[200] The data Ecoembes generates is extremely influential, since this organisation manages most of the waste in Spain.

ecoembes

The third set of data is presented by environmental organisations – such as Ecologistas en Acción, Friends of the Earth and Greenpeace – that conduct their own calculations, based on official government figures (at municipal and regional levels), and combine those with data obtained on the ground across the plastic-waste-treatment system. According to Greenpeace (2019), Spain lags behind most European countries in terms of plastic recycling – only around 25% of plastic waste is recycled,[201] 790,000 tonnes of plastic end up in landfills and 170,000 tonnes are incinerated. Crucially, just over 318,926 tonnes were exported to other countries in 2016 – a statistical grey area, which is often counted towards the overall recycling rate, despite the fact that exported plastic is rarely recycled by the importing country.[202]

Table 4.2: Reported recycling rates of plastic containers in Spain

Year	Reporting organisation			
	Ecoembes	Eurostat[203]	Cicloplast[204]	Greenpeace[205]
2016	66.5%	45.5%	45.4%	-
2017	69.7%	48%	48%	25.4%
2018	75.8%	-	-	-

Notes

(i) The numbers provided by Ecoembes account for all packaging collected, regardless of material and form of collection.

(ii) The data provided by Greenpeace is an approximate calculation of plastic containers recycled.

Given this dissonance in the data – and given the industry has been accused of covering up the real extent of Spain's plastic pollution and recycling gaps – it is almost impossible to know the actual figures.[206] Neither are there any official figures on the kind of plastic packages recovered, littering of plastic packages, the amount of plastic packages companies put on the market, nor the amount of plastic packages that go to landfill sites – only the total plastic-waste figure is provided.

4.5.2. The tentacles of Ecoembes

Ecoembes is the PRO responsible for managing the funds raised from the fees packaging companies pay to recycle plastic. It is controlled by the company Ecoembalajes España SA – a powerful business network comprising more than 12,000 companies linked to the plastics industry – which holds 60% of the shares. Ecoembes' oversight includes all materials for containers and packaging; however, it acts as the main lobbying group for the plastics industry in Spain.[207]

The most prominent consumer brand members of Ecoembes are Bimbo, Pascual, Campofrío, Coca-Cola, Colgate, Danone, Henkel, L'Oreal, Nestlé and PepsiCo. Among its plastic-packaging members are Tetra Pak Hispania, Ciclopast and Ecoacero. Finally, its membership includes large retailers, such as Alcampo, Carrefour, DIA, El Corte Inglés, Mercadona and SPAR. The board of Ecoembes is not only controlled by these same companies but also operates through a proxy organisation; as a result, consumer-goods companies and retailers can avoid directly staining their hands with lobbying. It is also worth noting that Ecoembes' top executives earn more than double the President of the Government of Spain, despite Ecoembes being a non-profit organisation.[208]

In Spain, the Packaging Law allows a choice between EPR or DRS. However, since its inception in 1996, Ecoembes has repeatedly rejected DRS under the premises that it would be too costly for the industry and that recycling rates of plastic packages in Spain are already very high – above EU targets, according to its own, highly questionable data.

4.5.2.1. Ecoembes: The art of manipulation

They have a lot of money and what they do is spend everything on communications. It is very difficult to stand up to them because they have bought almost all the media outlets. There are people who dare to denounce the lies of Ecoembes, but they don't go far because Ecoembes invests so much money in the media that everything ends up being buried.

– Juantxo López de Uralde, Spanish politician and former director of Greenpeace Spain

Ecoembes uses communications as a key influencing tool, disseminating its messages through digital and printed media, sponsored content and advertising in the main national and regional broadcasters and TV stations in the country. All this translates into a wide reach and influence in the Spanish press, and an ability to denounce any claims or accusations made against it.

For example, in 2019, Greenpeace published a report questioning Ecoembes's data on the recycling of plastic waste and packaging in Spain, and debunking the alleged collection success of its current EPR model.[209] Just hours after Greenpeace launched the report, several national and regional media outlets publicised Ecoembes's response, which accused the environmental organisation of being '*irresponsible*' and creating mere '*lies*' – although without any specific refutation of Greenpeace's research, nor any evidence to the contrary.[210]

Other advertising campaigns raise concerns about Ecoembes's greenwashing.[211] This includes using the image of environmental activists like Greta Thunberg in announcements and documents, and the publication of manipulated images. For example, in Ecoembes's TV ad, *#ReciclaYRespira* ('recycle and breathe'),[212] the company uses an image supposedly of a polluted street in Spain; however, it was discovered that the photo depicted a road in Beijing with the road signs photoshopped.[213] Additionally, Ecoembes finances and is a main sponsor of the National Congress on the Environment and the Journalists Association for Environmental Information – and was even a large sponsor of the UN Climate Change Conference, COP25 Madrid, in 2019.[214]

Figure 4.4: Ecoembes: The power of manipulation[215]

4.5.2.2. Controlling the narrative

Another way in which Ecoembes manipulates Spain's narrative around plastic waste is through sponsoring scientific studies from prestigious Spanish public and private universities. Ecoembes directly sponsors the Environmental Chair at the Polytechnic University of Madrid[216] – the only department in that institution that investigates plastic-packaging waste.[217] The Polytechnic University of Madrid, the University of Alicante and the University of Alcalá de Henares have also accepted similar funding from Ecoembes.

Through its sponsorship, it appears Ecoembes has exercised undue influence on the academic rigour of these institutions' reports on plastic waste – reports that have been criticised for misinforming the public about real recycling rates, providing misleading information about the options for improving the current system and disclosing neither methodological details nor how certain calculations were reached. For example, the ARIADNA study – led by the ESCI-UPF School of International Studies – analysed the environmental, economic and social sustainability of the implementation of a mandatory DRS in Spain, alongside the current EPR system.[218] The study concluded the addition of a DRS would be less sustainable than continuing with the current system, and that any resources should be used to improve the existing system. However, the study was wholly funded by the industry associations behind the current EPR system in Spain, as well as Ecoembes.[219] A study by ENT Environment and Management Consultancy examined the ARIADNA study results and methodology, and concluded that the latter created unfounded assumptions about a DRS system in Spain, and was devised to satisfy the needs of the industry rather than to effectively consolidate a DRS in the country.[220]

The scientific rigour of another academic study – conducted by the Polytechnic University of Madrid and the University of Alcalá de Henares – was also called into question, since it was funded by the Plataforma Envases y Sociedad (an NGO under Ecoembes's control) and some of Spain's main plastics-industry organisations (the National Spanish Association of PET Packaging and the Spanish Association of the Plastics Industry). The comparative report, *Models of Household Packaging Management*, advised against implementing DRS in Spain and claimed it would be financially unfeasible, due to high rental costs for supermarkets to install RVMs.[221] The version of the study released to the public not only fails to fully disclose its methodology but also based its considerations on luxury and prime retailing rental spaces, using some of Madrid's most exclusive zones – which are more expensive than the national average – as an average. [222,223]

While Ecoembes has previously spent large sums financing studies to attack DRS, its latest tactic to control the narrative has been to pilot a new voluntary DRS programme called RECICLOS.[224] With a limited number of RVMs installed in four municipalities of Catalonia, and a plan to introduce RECICLOS in five other autonomous communities of Spain,[225] the programme rewards citizens' environmental behaviour when returning their cans or plastic bottles by offering credit through a digital platform, which can be redeemed in certain shops or as donations to NGOs. This tactic attempts to prove that voluntary measures can achieve high collection rates – but is strikingly ironic, given Ecoembes's persistence in undermining DRS.

4.5.3. Supermarkets: Too little action, too much lobbying

Whereas consumer brands with strong brand equity face direct reputational damage when their products are found as litter, supermarkets are one step removed from this risk. Spanish supermarket chains are major contributors to plastic pollution, but are blamed to a far lesser extent.[226] However, a recent report revealed that Spanish supermarkets' commitments to tackle plastic pollution and eliminate single-use plastics are very limited. Most of the commitments use lightweighting as a mechanism to reduce their plastic by weight – with the notable exceptions of Mercadona and Dia – as well as swapping to biodegradable single-use packaging.[227]

Supermarkets claim reducing plastics in their establishments is too costly and time-consuming, and instead blame suppliers and consumers for a lack of demand for plastic-free products.[228] While redirecting blame, these retailers have also become the main opposition to introducing legislation to tackle plastic pollution. Such is the case for Mercadona and Carrefour, which lobby and pressure politicians to prevent the implementation of DRS, mainly through Ecoembes.[229, 230]

Mercadona and Carrefour also threaten other companies in Ecoembes that are more amenable to such legislation, including Coca-Cola, PepsiCo and Danone. According to our sources, tensions have escalated, with Mercadona threatening to remove dissenting companies' products from their shelves if they come out publicly in favour of DRS. While fighting DRS, Mercadona has introduced a new target to increase recycled content – as part of its strategy to reduce the consumption of plastics – by 25% by 2025.[231] It is worth noting that, of the consumer brands supportive of DRS, many state the need for reliable sources of recycled content as their motivation, so it is unclear how Mercadona will reach its target without DRS.

4.5.4. Same tactics, different regions

With waste management a devolved issue in Spain, some autonomous regions have tried taking steps towards better environmental legislation, and have proposed implementing DRS systems in their territories – but these efforts have been quickly undermined by the industry through Ecoembes and by big retailers. Only Navarra and the Balearic Islands managed to partly stand up to the powerful industry lobby, but most DRS initiatives have failed. In Valencia, Navarra and Catalonia, a combination of industry groups' tactics have transpired to delay or derail the establishment of DRS.

Mercadona - one of the biggest opponents of DRS
Credit: Wikimedia

4.5.4.1. Navarra: Mixed progress

On 7 June 2018, the parliament of Navarra passed a new law on recycling, which aimed to encourage waste reduction and promote recycling by discouraging incineration and landfilling. Through the establishment of a legal framework to tax both practices, the law also proposed the creation of a DRS.[232]

From the start, Ecoembes opposed and quickly undermined the reforms under this law, as well as the introduction of a DRS system. Massive pressure also came from companies like Eroski, Coca-Cola, Ecovidrio and the water industry. Regardless of industry claims that the reforms would pose a risk to the current system, the Waste Plan and the law were passed following a process of public consultation.[233]

The new law set out DRS pilot projects for a period of two years, followed by a presentation of the results. These projects included establishing RVMs in parks in the summer of 2018.[234] However, due to high levels of industry pressure, the initial articles of the law proposing a complementary DRS were amended. Four amendments were incorporated, including an obligation to consult various stakeholders when approving any initiatives, which was seen as a covert way of delaying the process.

Ultimately, an appeal to the Council of Ministers was presented. This resulted in the repeal of the Waste Law in March 2019, based on the unconstitutionality of certain paragraphs that contravened state regulations, specifically those focused on the reduction of plastic bags and creation of a producer registry.[235] The appeal is currently being analysed by the Constitutional Court, which can take up to three years to determine its verdict. Fortunately, in this particular case, the law remains in place.

In the meantime – according to former Navarra Director General of the Environment, Eva Garcia Balaguer – industry has renewed pressure against the reform and the implementation of DRS, pushing to delay the deadline for banning single-use plastics in the region to 2021.[236]

4.5.4.2. Valencia: Pressure to dismiss and fire opposition

It appears that the entire business sector [the large packaging companies and their associated companies] has moved against DRS since it involves certain changes to the conditions in the market in which they compete.[237]

– Julià Álvaro, former regional secretary of Environment and Climate Change of the Valencian Autonomous Community

We have no doubt that the cessation of Juliá Alvaro is a response to pressures against the policies that were carried out and is the culmination of industry's months of obstruction and obstacles to environmental policies.

– López de Uralde, former Equos political party's spokesperson

In April 2016, the Valencian government announced its intention to implement a mandatory 10-cent refundable deposit on the purchase of all water, beer, soda and juice containers in 2017. In October 2016, the region made DRS a priority, drafting a law on Additional Environmental Protection and applying DRS to plastic, metal, Tetra Pak and glass containers of beers, juices, soft drinks and water.[238] However, by mid-2017 growing opposition from the plastics industry, Ecoembes and the Confederation of Tourist Entrepreneurs of the Valencian Community (CET-CV), as well as divisions in the government, led to the abandonment of the idea of DRS. Lobbying letters to the government reveal that Ecoembes even offered €17 million per year, or additional funding, subject to the proposed legislation being dropped.[239]

The industry's tactics in this particular case led to the dismissal of Julià Álvaro – regional secretary of Environment and Climate Change of the Valencian Autonomous Community, and a great defender of DRS.[240] With Ecoembes leading the way, the big drink brands and large supermarkets – Mercadona, Consum, MásyMás – systematically attacked and discredited Álvaro's work through the media, and put pressure on the Generalitat (state government) to act.[241] Mercadona, in particular, directly lobbied politicians to prevent the implementation of DRS in the region.[242] also continued to publicly push the claims that DRS would affect business costs and reduce shelving space in supermarkets. Pressure was also exerted via industry and trade associations, which continually raised this issue during meetings with the regional government.

CET-CV also openly lobbied against DRS, which it said would complicate hotel management, represent a clear risk of food cross-contamination and cause logistical problems, including the problem of finding space for RVMs.[243]

In the end, the combined efforts of Mercadona and overall industry pressure undermined the introduction of DRS and prompted the dismissal of Mr Álvaro.

4.5.4.3. Catalonia: Silenced by the industry lobby

Discussions around the introduction of DRS in Catalonia started in 2013, following a successful pilot project in the Cadaques municipality,[244] but fierce industry opposition has largely derailed these efforts.

With the intention of implementing a DRS for single-use beverage containers in the whole region, the Catalan Waste Agency commissioned a technical, environmental and economic viability study. Even though the industry pressured the Catalan government not to carry out this study in the first place, the report was finally published in July 2017, and was presented to Catalonia's Secretary of the Environment and Sustainability.[245] The industry lobby – led by the president of DAMM (a beer manufacturer) and representatives from Ecoembes, Ecovidrio, Foment del Treball, Freixenet and others – orchestrated an in-person intervention a day before the Catalan minister in charge of the study, Santi Vila, was supposed to give it the green light.

As a result, the industry managed to delay the report's launch for over a year – although the study was, subsequently, published. After its release, the industry continued to denounce the report for underestimating the real costs of DRS and the effects it would have on businesses, especially small businesses. [246] Among the loudest opponents were Foment del Treball (a federation of entrepreneurs and Catalan industry),[247] the Spanish Association of Supermarket Chains (whose members include Alcampo, Carrefour, Eroski, Lidl, Mercadona and SuperCor)[248] and the Spanish Commerce Confederation.[249] Ecoembes also used its resources to attack the report through the aforementioned study by ESCI-UPF School of International Studies – funded by companies including Ecovidrio and Tetra Pak – and in a press release disputing the environmental benefits of DRS.[250,251]

Despite the extent to which the industry lobbied to discredit it, the study concluded that, with an appropriate system in place, a DRS would result in higher recycling rates for beverage containers; an overall annual 90% reduction in litter; and a reduction in clean-up costs, saving municipalities €16.90 million annually.[252] Despite the clear benefits confirmed by the study, the industry has still managed to delay its implementation.

4.5.5. Fighting to the end

The example of Spain shows how a wide array of industry tactics have successfully undermined attempts to introduce DRS, or any other meaningful reform, at both national and regional levels.

The plastics lobby (led by Ecoembes and major supermarket giants, like Mercadona and Carrefour) continues to exert pressure – even threatening other companies – and is thus far succeeding in undermining attempts to tackle plastic pollution in Spain.

In June 2020, the Spanish government approved a tax on single-use plastic packaging for the manufacture, import or intra-community acquisition of containers to be used in the Spanish market.[253] This tax, which will come into force on 1 July 2021, will raise €724 million annually. While this new law sets a target of reducing waste generation by 15% by 2030 (compared to 2010 levels),[254] sooner or later Spain will have to comply with the EU SUP Directive, which stipulates that 77% of beverage bottles introduced into the market should be separately collected by 2025 and 90% collection should be reached by 2029 – for which the only proven method is DRS. Leaving DRS as a voluntary commitment for producers and retailers to implement on their own, rather than part of mandatory legislation, would be to cave to industry lobbying, yet again allowing the industry to evade its responsibility for plastic pollution.

4.6. France: A missed opportunity

The situation in France shines a spotlight on a missed opportunity for the introduction of effective deposit return legislation in the country, which will be needed to meet the SUP Directive's 90% separate-collection target for beverage bottles.

According to data from Ecological Transition Agency (ADEME), which is responsible for waste-prevention and -management policy, France produced 4.6 tonnes of waste per capita in 2016. Of that waste, 65% was recycled, 29% ended up in landfills and 6% was incinerated, the latter showing an increase of 59% over the previous 10 years.[255]

In 2017, France generated 2.32 million tonnes of plastic-packaging waste, of which only 27% was recycled.[256] According to Suez, each French person consumes an average of 96 plastic bottles per year. Only 57% of those plastic bottles are currently recycled;[257] 43% end up in landfills, incinerated or in the natural environment, demonstrating significant room for improvement.[258]

4.6.1. The Anti-Waste Law

The Anti-Waste Law for a Circular Economy, released in January 2020, was the outcome of a wide-ranging consultation initiated in October 2017.[259] The law introduced 50 measures, including a ban on all single-use plastics by 2040.[260] The transition towards banning some single-use plastic products began back in 2015 with the French Energy Transition Law.[261] Under this new piece of legislation, however, the ban on single-use cups, plates and cotton buds was fully introduced on 1 January 2020, and was followed by a ban on straws, cutlery, stirrers and other problematic items by 2021. Described as an '*ambitious piece of legislation*'[262] and a '*world-first*'[263] by the French government, it also generated positive press because it banned the destruction of clothes, cosmetics, electrical items, hygiene products and other unsold goods.[264] Implementation of the targets for reduction, reuse and recycling (a ban on all single-use plastic packaging by 2040, all plastic to be recyclable by 2025, a 50% reduction in single-use plastic bottles by 2030, replacing disposable tableware in fast-food restaurants with reusable tableware by 2023, etc.) is being set under decrees, three of which are currently undergoing public consultation, which will be revised every five years.[265,266,267]

4.6.2. Development of a DRS

The new Anti-Waste Law has set a reuse target of 5% of packaging units put on the market by 2023, and 10% by 2027. However, crucially, this target was introduced without corresponding container-deposit legislation, which limits the ability to operate robust reuse systems at scale. DRS will only be introduced after discussions in mid-2023, when the selective collection schemes and voluntary systems can be shown to have failed in reaching the 90% plastic-bottle-collection target. Implementation is subject to a further study from ADEME, which needs to investigate whether EU targets can be reached in any other way, such as through waste sorting and kerbside collection.[268] This pushes mandatory collection at least five years into the future, makes reuse targets more difficult to hit and will produce several years' worth of preventable plastic pollution.

4.6.3. The municipalities and recyclers against DRS

Initially, the debate around DRS for PET bottles and cans was prompted by a report presented to the government by Collectif Boissons – an informal group within CITEO (a French EPR organisation) and an industry conglomerate composed of the beer, food-processing, soda, mineral and water producers and milk industries, as well as the National Beverage Federation and the supermarket associations.[269]

Among the most prominent members of the Collectif Boissons group were Coca-Cola, Nestlé and Danone. Notably, this DRS proposal – which included the amount of deposit, the type of packaging included and the economic balance of the system – was initially entirely proposed by EPR scheme organisations and the beverage and retailers industry. The plan – which did not include glass, and was presented as a *fait accompli* – faced strong opposition and scepticism from recyclers, can manufacturers,[270] NGOs and municipalities. This prompted a wider debate, and put the government under pressure to include a more diverse group of stakeholders in discussions.

The main opposition to DRS came from French municipalities and recyclers. While the Association of French Mayors declared support for reusable packaging in local distribution networks, it firmly opposed a deposit system, calling it '*an attempt to privatise the collection of plastic in favour of producers*', which would supposedly destabilise public services.[271] The municipalities claimed they would experience a drop in revenue for local authorities, and that such a system could unfairly favour large-scale distribution, where collection machines would be installed.[272] Additionally, municipalities were further pushed against DRS due to a study commissioned by the Senate, which estimated that local authorities would suffer at least €240 million in net financial losses annually from the implementation of a deposit on PET bottles and cans.[273,274] This contradicted the study by the governments' pilot committee – chaired by Jacques Vernier and launched in June 2018 by the Secretary of State for Ecological Transition – whose mandate was developing the conditions for the implementation of DRS in France.[275] Vernier's study disputed the numbers in the Senate report and claimed the real cost to municipalities would only be €12 million, as municipalities only pay 20% of collection costs.[276]

Most of the resistance to the Anti-Waste Law from large supermarkets – such as Casino, Auchan, Monoprix and Carrefour – focused on the targets proposed towards food-waste reduction and the prohibition of plastic packaging around fruit and vegetables. However, the most aggressive opposition to the introduction of deposit came from recycling and waste-management specialists, who launched an aggressive campaign against DRS.

Recycling companies (such as Paprec and Federec) and the Association of French Mayors criticised the idea of a DRS due to their investment in sorting centres to manage all household plastic-packaging waste, sorted at source across France, by 2022. Until 2014, French citizens were required to sort all types of packaging and all types of materials – except plastics. For plastics, the exception ruled that citizens were only required to sort plastic bottles and jars. However, after a CITEO study, other types of single-use plastics were included in the scheme, implemented in 2016, which mandated all plastics to be sorted in the 'yellow bin'. Yet, to make this expansion viable, sorting centres had to make certain investments to upgrade the system.[277] Jean-Luc Petithugenin, CEO of Paprec, claimed that local authorities and recycling companies had invested €2 billion.[278] Their opposition to DRS was based on the fact that some of the investment made would become redundant, as the amount of material collected through kerbside collection would decrease. The municipalities' associations were very active in trying to unite all stakeholders (including recyclers), and joined forces to support the stance against mandatory DRS, arguing that it would reduce revenue but not kerbside collection costs.[279]

In the campaign against DRS, Paprec even released a statement claiming '*not a single French plastic bottle ended up in the oceans*' and blaming the problem of marine plastic pollution on countries without proper waste-management systems. It also stated that France has one of the most advanced waste-management systems in the world, with 98% of water bottles collected[280] – a false number used to downplay the need for mandatory measures.

Veolia – another big player in waste management – held a favourable position on DRS, and only became more vocal towards the end of national discussions.[281] Even though Veolia referred to the system as '*complementary to the already existing selective sorting approach*',[282] its silence up to that point meant the opportunity for ambitious legislation was lost.

4.6.4. A missed opportunity

Three public opinion polls conducted in March,[d] September[e] and November[f] 2019 showed support for DRS stood at 89%, 90% and 84% respectively. Although NGOs supported DRS, they mostly focused on targets for reuse, including financing a deposit for refillables, and were very sceptical about a deposit system for recycling.[283] In a joint paper contribution to the debate, France Nature Environment, Surfrider, WWF, Tara Ocean and Zero Waste France stated that, as environmental organisations, their aims were reducing the disposable packaging placed on the market and increasing the use of reusable packaging.[284] In fact, while further reuse provides undeniable environmental benefits, pushing for refill without an underpinning DRS hampers the uptake of reuse and refill by creating an uneven playing field (see Box 4.4).

The French example shows how an unusual coalition of players united against DRS, resulting in the loss of critical time that could have been used to develop infrastructure, steer consumer behaviour towards returning beverage containers and reduce plastic pollution. It also shows the government missed a trick by not including glass and the reuse target in its DRS proposal from the start. While the French reuse target sends an important signal, without DRS on all beverage containers, it remains a lost opportunity to prevent plastic pollution.

Non, les bouteilles d'eau ne finissent pas dans la mer

Data di pubblicazione: 5 settembre 2019

Jean-Luc Petithuguenin
PDG chez PAPREC GROUP

1 articolo + Segui

Hier matin, j'étais invité de :l'Eco de France Info. C'était l'occasion de dénoncer une « fake news ». Il est en effet faux de dire que les bouteilles d'eau, en France, finissent à la mer.

La pollution des océans par des emballages plastiques est dramatique et indéniable. Mais ces emballages viennent de pays qui ne bénéficient pas de système de gestion des déchets. En France, il existe un des systèmes de gestion des déchets les plus évolués au monde. Les bouteilles d'eau y sont collectées à 98% !

Figure 4.5: 'Not a single French plastic bottle ended up in the oceans.'

Source: Statement released by Founder and CEO of Paprec Group Jean-Luc Petithuguenin.[285]

d Poll conducted by The Institut français d'opinion publique (IFOP) for the organisation Agir pour l'environnement on 20 – 22 March 2019 via a self-administered online questionnaire with a sample size of 1,004. 55% voted strongly in favour of introducing a DRS on glass bottles; 35% voted partly in favour. Merceron, A. and Moizo, M. (2019) *Ifop pour Agir pour l'environnement: Les Français et le plastique* [ONLINE] Available at: https://www.agirpourlenvironnement.org/sites/default/files/communiques_presses/190401%20-%20Sondage%20Plastique.pdf

e Poll conducted by Ipsos on 17 – 20 September 2019 via a self-administered online questionnaire with a sample size of 2,138. Reloop (2020) *Fact sheet: Public support for Deposit-Return Systems (2003–2020)* [ONLINE] Available at: https://www.reloopplatform.org/wp-content/uploads/2020/03/Table-of-Polling-Studies-2003-2020-updated-10March2020.pdf

f Poll conducted by Oceans sans Plastiques, Tara Océan Foundation, in partnership with the Harris Interactive Institute on 22 – 27 November 2019 via an online questionnaire with a sample size of 1,044 people, representative of the French population aged 18 and over and an over-sample making it possible to obtain 546 young people under 35. Tara Océan Fondation (2019) *84% des Millenials favorables à la mise en place de la consigne* [ONLINE] Available at: https://oceans.taraexpeditions.org/m/environnement/ocean-homme-et-pollution/etude-millenials-consigne/#

Box 4.4: Refill and reuse

Refillables are crucial to tackling plastic pollution and achieving a circular economy. Refillable beverage containers can be used several times before they are recycled, keeping valuable resources in the production cycle for a longer time. Refillable PET bottles can be reused up to 15 times, and refillable glass bottles around 25 times,[286] eliminating the need to manufacture new bottles and avoiding many of the environmental impacts associated with their production and end-of-life management. Some LCAs calculate that refillable bottles can save 40% of the equivalent raw materials and 50% of the carbon emissions of single-use bottles, although this depends on key variables, such as the size of the distribution network.[287]

Reuse offers significant economic benefits – replacing just 20% of single-use plastic packaging with reusable alternatives offers a business opportunity of at least $10 billion.[288] Reusables not only eliminate plastic waste but also reduce many of the GHG emissions associated with plastic or glass production and recycling.

Over the past two decades, we have seen a decline in the use of refillables across the world, with single-use packaging becoming the predominant choice for producers. In Western Europe alone, sales of refillable beverage containers have dropped from 63.2 billion units in 2000 to 40.2 billion units in 2015 – a decrease of 36%.[289]

A reusable plastic bottle can be reused up 15 times, preventing up to 14 single-use ones from being made. As such, if you displace 1 refillable bottle from the market you replace it with 15 single-use ones over the course of its use[290] (or 25, in the case of glass bottles). In countries such as Mexico, the Philippines and Indonesia, refillables still make up more than 30% of beverages sold. However, the share of refillables continues to drop; in India, for example, refill declined from 86% in 1999 to 37% in 2018.[291]

This decline has occurred for a variety of reasons. First, many FMCGs have enacted a deliberate policy of removing refillables from the market and replacing them with single-use plastic; this is particularly prevalent in low- and middle-income countries. [292] Second, large retailers have opposed selling products in reusable packaging, and many are only required to pay a small EPR fee for single-use packaging, rather than bearing the higher costs of a refill system.[293] Third, without supportive legislation, refill systems cannot compete in countries where single-use containers can be produced, delivered and sold cheaply at scale.

Many refill systems operate through a deposit system to incentivise the return of packaging. However, having DRS only for refill – and not for single-use packaging – ends up creating an uneven playing field, whereby participating in the refill system involves an extra cost and inconvenience for the consumer, who must pay a refundable deposit and return the packaging after use; single-use is cheaper, as it has no deposit and can be thrown away after use. In contrast, a DRS system combining refill and single-use containers places both types of packaging at the same level of convenience – both types have a deposit, and both must be returned after use. Furthermore, additional policy mechanisms must be applied to shore up refill in such a system; for example, higher deposits for single use, refillable quotas, lower fees for refillables producers and a tax on virgin material.[294]

Minimal packaging and refillable store: 'Harm Less Store' in Hornsey, UK

Credit: David Mirzoeff

Refillable glass bottles

Credit: Mateo Abrahan

Other challenges that need to be addressed to operate DRS for refill at scale include container standardisation across brands; managing decentralised bottling and distribution in nationwide schemes, particularly for imported goods; and the economic cost of setting up the initial system. Crucially, levelling the playing field through mandatory DRS is an important first step, ensuring the system is set up to anticipate a future move to refillables from the start, with further policy measures available for reinforcing refill and reuse once a level playing field has been created.

4.7. Scotland: Coca-Cola's U-turn

In Scotland – the first UK country to implement such a system – a DRS will come into force in July 2022, after a delay of over a year due to the Covid-19 pandemic.[295] The plan was finally announced in 2017, but the idea has been mooted since the very first session of the Scottish parliament over 20 years ago, and has gained traction since then.[296] While Scotland turned out to be a success story, as DRS got the green light to go ahead, it is also a case study of delay – and a case study for Coca-Cola's and retailers' lobbying against progressive legislation.

The breakthrough for DRS in Scotland came in 2017, when Coca-Cola changed its opposing position, following weeks of negative press after a leaked internal document showed the company perceived legislation for refill quotas and DRS to be risks warranting '*fight back*'.[297] The Greenpeace investigation also revealed years of behind-the-scenes lobbying by the drinks giant, which spent close to $1 million lobbying the EU Commission, and (alongside industry association Packaging Recycling Group Scotland) met frequently with senior government officials to assure deposit systems would be off the table in future policy considerations.[298]

Plastic pollution on a beach in North West Scotland |
Credit: John Campbell/ Flickr |

Other FMCG companies also applied direct and indirect political pressure by co-opting civil society groups, creating a greater perceived plurality of dissenting voices. Keep Scotland Beautiful (KSB), an environmental NGO active in many areas of Scottish policy, receives funding from corporate supporters – including Coca-Cola.[300] KSB took a sceptical position on DRS, citing similar arguments to industry, namely that the system would be costly but wouldn't significantly reduce litter levels.[301] Opponents to DRS – such as Packaging Recycling Group Scotland and Coca-Cola – cited litter-count surveys, conducted by KSB and commissioned by the Industry Council for Packaging & the Environment (whose members include Coca-Cola, Danone, Diageo, Dow, Nestlé and Unilever), despite those surveys' simplistic counting methodology.[302] Following Coca-Cola's U-turn in February 2017 (the company now backs a '*well-designed deposit scheme*'),[303] KSB released an opinion piece (since deleted) stating DRS was '*a step forward*' and could make a '*positive difference*' in addressing litter in Scotland.[304]

While many hurdles remain for fully implementing the system, the Scottish example demonstrates the determination of industry actors to derail or delay progressive plastic legislation by lobbying, funding diverse voices from NGOs (and influencing their positions), and commissioning studies claiming systems like DRS are costly and/or unfeasible – all to protect business as usual. While beverage companies such as Coca-Cola eventually caved to pressure on DRS in Europe, its policy is not global, begging the question of where else they're working behind closed doors to prevent progress on plastic pollution. Scotland also demonstrates how the industry will continue to look for opportunities to water down or undermine legislation, even into the eleventh hour, with many retailers recently using the Covid-19 pandemic to attempt to derail DRS on economic and sanitation arguments.[305]

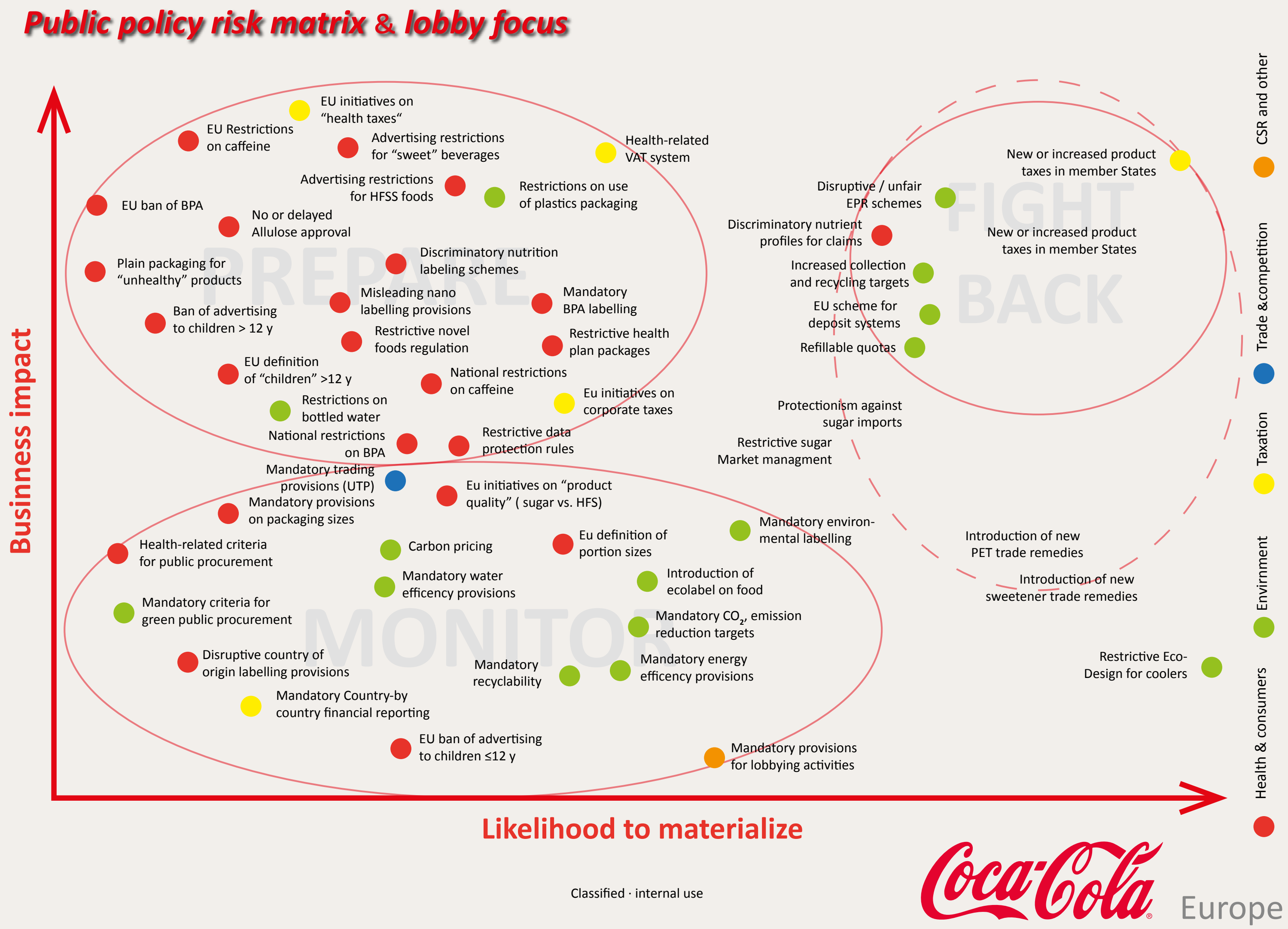


Figure 4.6: A leaked document showing Coca-Cola's intention to fight back against deposit systems in Europe *Source: Coca-Cola Europe*[299]

4.8. Czech Republic: The cleanest thing in the Czech waste business is the waste

Battle lines were drawn early around the introduction of DRS in the Czech Republic, following a similar pattern to countries like Spain and Austria – the central EPR organisation (representing key industry players) fought against DRS, while NGOs, campaigners and the public were overwhelmingly in favour. Both sides remain entrenched in their position, with the Ministry of Environment (MoE) siding with the industry in resisting DRS as late as January 2020, despite the impending SUP Directive timelines. The opposition has sought to delay legislation by claiming the collection system in place is already achieving EU targets, distracting through 'study wars', and undermining potential legislative approaches through behind-the-scenes relationships between the MoE and waste management.

4.8.1. Data manipulation

According to the Czech EPR organisation, EKO-KOM, around 80% of single-use plastic beverage containers are currently collected, from a total of more than 267,000 tonnes of plastic-packaging waste.[306] However, there is a great deal of scepticism around EKO-KOM's figures and inconsistency in reporting. For example, in 2018, EKO-KOM reported a rate of 82% for PET collection – a jump up from EKOKOM's own data in previous years, as well as the 74% rate reported by the MoE in 2017, and an unrealistic increase without a corresponding development in collection infrastructure.[307] The data remains a black box, unverifiable and not officially or independently audited – which is concerning, given that the MoE takes its official figures from EKO-KOM.

This led the Czech research organisation Institut Cirkulární Ekonomiky[308] (INCIEN) to conduct a study of material flow analysis in December 2018, with the results showing significantly lower collection rates than EKO-KOM suggested. For PET bottles, this was estimated at 69.5%, with 25% of PET bottles ending up in mixed municipal waste and 5.5% as litter. In total, 24,000 tonnes of PET bottles, or 42.7% of the total put on the market, were lost during consumption, separation and sorting – a significant volume, and justification for greater action. In a futher spread of misinformation, EKOKOM's claimed collection rate of 82% has been labelled as recycling, whereas INCIEN's study showed that in reality, only 57.3% was recycled.

4.8.2. Campaign in support of DRS

This case for action was followed by the release of research, conducted by Eunomia in January 2019, evaluating the cost-benefit ratio of introducing DRS in the Czech Republic.[309] The research concluded DRS was the most efficient way to comply with the SUP Directive on separate collection. Following this, a public campaign, *Zálohujme* ('Let's Deposit'),[310] was launched with the support of several Czech beer and mineral-water producers, including Mattoni 1873 (formerly known as KMV).[311] Mattoni is one of the largest producers of mineral water in Central Europe – and one of the largest users of single-use plastic packaging. It also owns the licence to sell PepsiCo brands in the Czech Republic, Slovakia and Hungary.[312] In early 2020, KMV explored the idea of introducing an independent deposit system for PET bottles for delivery company, Kosik, in Prague.[313]

The campaign was also supported by public figures, such as singer and jiu-jitsu fighter Ben Cristovao, and singer-songwriter Tomáš Klus. The campaign found widespread public support; in September 2019, two opinion polls (commissioned by the movement and carried out separately by Ipsos Mori and Kantar TNS) showed that 76% and 85% of the population were in favour of DRS. Additionally, Greenpeace, Friends of the Earth and Fashion Revolution in the Czech Republic launched a compatible campaign, *Máš na Míň* ('More for Less'), which collected more than 90,000 signatures urging politicians to introduce DRS legislation.[314]

4.8.3. Government opposition

Six months after Eunomia and INCIEN's studies, the MoE commissioned its own study, conducted by the Centre for Economic and Market Analysis (CETA),[315] a Czech research institution. On the same day that the study was first introduced to key stakeholders (including KMV, INCIEN and EKO-KOM), the MoE announced in a press conference that it would not introduce a DRS, and used the CETA study to justify its position.[316]

The MoE's decision reflected protracted lobbying against DRS by certain interest groups. These include EKO-KOM – which, as an industry-owned company responsible for managing the country's present waste-management system, has strong vested interests in the status quo and operates a de facto monopoly over waste separation. In January 2020, the Environment Minister, Richard Brabec, declared the Czech Republic would not need to introduce such a '*cost-intensive refund system*'. The main arguments used were that it is too risky and costly, and that collection rates are already high enough.[317] It is important to remember, however, that the MoE bases its rates on EKO-KOM's disputed collection figures.

More recently (May 2020), the Environment Committee of the Czech Parliament voted down mandatory deposits; instead, it said, companies could establish voluntary systems – a proposal denounced as '*completely insufficient*' by environmental experts.[318] A final decision on the new waste law has been postponed to September 2020, when renewed discussions on packaging and DRS will take place.

4.8.4. Industry using EKO-KOM to oppose DRS

Unravelling the motivation for EKO-KOM and the MoE rejecting a system proven to create high return rates and effective closed-loop recycling reveals a web of conflicting interests and industry tactics to put off change.

First – and like other EPR organisations – EKO-KOM offers a convenient front for a familiar cast of beverage and consumer-goods companies looking to protect their interests, without undermining their brand value by coming out against DRS in their own names. EKO-KOM was founded by a number of companies – including Coca-Cola's bottler, Coca-Cola Hellenic Bottling Company (HBC)[319] – in the mid-1990s to set up the EPR system.[320] Today, EKO-KOM is owned by 10 additional shareholders, including top-10 plastic polluters Unilever, P&G and PepsiCo, as well as packaging companies Ball and Tetra Pak.[321] The chairman of EKO-KOM's supervisory board is the former CEO of HBC in the Czech Republic, and held both positions for several years.[322] Coca-Cola promotes a close partnership with EKO-KOM on its website.[323] Despite Coca-Cola European Partners now supporting DRS in Western Europe, Coca-Cola HBC does not appear to follow the same line.[324]

Second, EKO-KOM has a business interest in the status-quo separation system. Fronted by its CETA study, and with the MoE acting as a key ally, EKO-KOM is keen to retain control over lucrative PET waste streams from kerbside collection, and is even considering sorting facilities at incinerators to capture any valuable material before it is burned.[325] As part of the current system, it receives funding from beverage companies, as well as taxpayer money, to subsidise the separation system. A deposit system would not only remove PET bottles from its waste streams but also apportion industry funding to running the new system.

Third, EKO-KOM is the only authorised company to manage the plastic waste stream in the Czech Republic, and has established an effective monopoly. Four other companies tried to acquire an authorisation under the Czech Packaging Act from 2001, including Interseroh (from the German Alba Group),[326] Slovakian company Natur-Pack,[327] and the Czech companies REMA AOS and Ekovedic. All these companies' applications failed, or remain pending, as a result of EKO-KOM maintaining a stranglehold on the Packaging Act. Under the Act, competitors' applications requires EKO-KOM's approval,[328] resulting in an institutionalised monopoly by a privately owned company operating on behalf of the Czech Republic's legislation.

To be approved, sources complain they would have to share their financial data, business plans and offers they have made to municipalities with EKO-KOM – their competitor. In one case, the MoE shared an applicant's confidential business intel with EKO-KOM, which subsequently (in 2018) led to a legal case against MoE on proceedings against illegal interference.[329] This strongly suggests it is not EKO-KOM that works for the MoE but the MoE that serves to protect EKO-KOM's vested interests. Furthermore, the MoE summarily dismissed several complaints brought against EKO-KOM in 2015–16, including allegations it had pressured municipalities into accepting its contracts and attempted to illegally enrich shareholders through the company's reserve fund.[330] This is part of an ongoing police investigation.[331]

The case of the Czech Republic is another example of how Green Dot organisations, which are central to a country's waste management, often stand in the way of progress due to vested interests. EKO-KOM is particularly egregious in its efforts to squash competition, manipulate legislation through its close allegiance with the MoE, and use opaque and misleading data to justify its case. Claiming questionably high collection rates in this way is an attempt to delay mandatory measures for as long as possible by showing voluntary measures can achieve high rates by themselves. Crucially, the companies behind EKO-KOM are the same culprits undermining legislation in other countries. Especially interesting here is that Coca-Cola – despite its proclaimed support for DRS elsewhere in Europe – is again behind the scenes, under the guise of a Green Dot organisation, opposing this important legislation.

Box 4.5: Bioplastics: A false solution to plastic pollution?

The market for so-called 'bioplastics' is projected to grow exponentially – from $17 billion in 2017 to $44 billion in 2022 – in a corporate rush to find a 'green' alternative to single-use plastics.[332] However, bioplastic is not a silver bullet to the problem of plastics; indeed, it can lead to many environmental problems and unintended consequences. So, what are bioplastics, and are they as environmentally friendly as they are made out to be?

'Bioplastics' has become a misleading catch-all term, incorporating bio-based plastics, biodegradable plastics and compostable plastics.

Bio-based plastics refer to the source material, or feedstock, used to make the plastic. For conventional plastics this means fossil fuels (such as oil or shale gas), whereas bio-based plastics are made from biological material (such as animal or plant products).[333] The term makes no assumptions regarding the technical properties of the material in use, or how it behaves or should be disposed of at the end of its life. In fact, in many cases, bio-based plastics can be identical to fossil-fuel-based plastics, and frequently contain a blend of the two.[334] Bio-based plastics can either be 'drop-in' replacements for fossil-fuel-based plastics (such as bio-PET) or 'novel' bio-based plastics with different structures and properties. While the former can be recycled with conventional PET, the latter is problematic; it creates consumer confusion, and existing recycling facilities do not have separate collection for novel plastics, meaning they will either clog up recycling facilities or be sent to landfills or incinerators.

Biodegradable or **compostable** refers to how the material behaves in specific environments with conditions allowing it to break down. This is an entirely separate issue to what raw material the plastic is made from, and biodegradable plastics are usually made from fossil fuels. *Not all bio-based plastics are compostable or biodegradable, and not all compostable or biodegradable plastics are bio-based.*[335] The biodegradability of a plastic is also heavily influenced by the environmental conditions it ends up in; for example, one plastic may biodegrade relatively quickly in one environment but take hundreds of years in a different environment. Any 'biodegradable' material may decompose quickly in industrial composting conditions but not (or at a considerably slower rate) on land, in a marine environment or in anaerobic digesters, which some municipalities use for compostable waste. While it decomposes and is digested by micro-organisms, the material fragments into microplastics, which have the risk of being eaten by wildlife and entering the food chain.[336] Additionally, many markets in which compostable packaging is available are not equipped with the facilities to manage it, meaning it is instead landfilled or incinerated, releasing harmful emissions into the atmosphere.[337] Finally, efforts around biodegradable plastic beg the question: Why would companies design a product to break down in the ocean or soil, rather than work on preventing it from leaking into the natural environment in the first place?

Consumer perception

Consumer-goods companies' promotion of bio-based, biodegradable or compostable packaging efforts demonstrates they are attempting to trade off the eco-credentials of a material being perceived as 'green'. These efforts are not only questionable from an environmental perspective but have also generated a large amount of consumer confusion.[338] Indeed, a recent study demonstrated that, although consumers perceived bio-based and compostable plastics to be better for the environment, they were still confused about how to dispose of these materials correctly.[339] As a result, consumers accidentally contaminate recyclable waste streams, compromising recycling infrastructure with compostable or biodegradable packaging – or may even litter it, because they assume it will break down in the natural environment. Likewise, bio-based plastics can be erroneously assumed to be biodegradable, and therefore disposed of in composters or the natural environment.

Land use

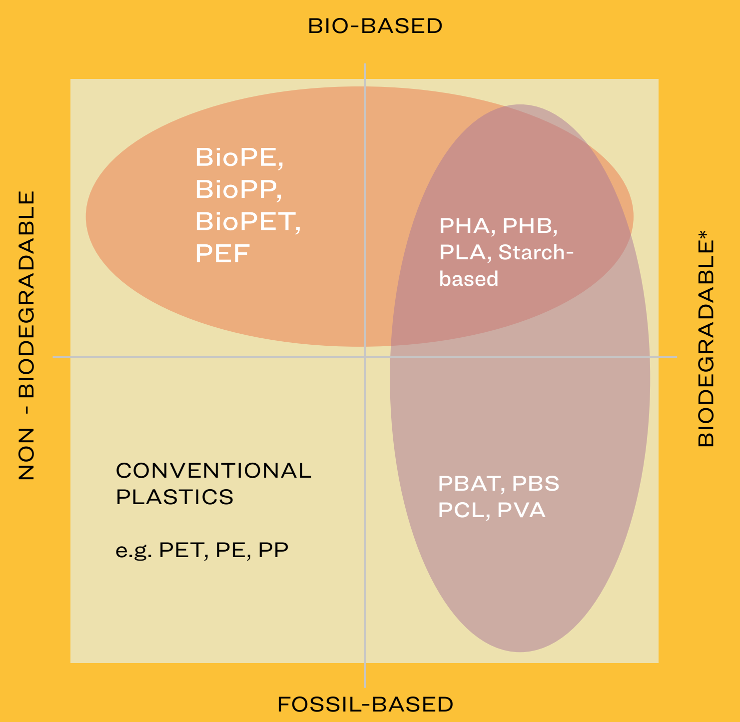


Figure 4.7: Bioplastic materials[a]

a Based on figures available at https://www.european-bioplastics.org/bioplastics/materials/.

A further complication regarding the environmental impacts of bio-based, biodegradable and compostable plastics is the origin of their feedstocks. Raw material can come from a wide range of crops, such as corn, wheat, potatoes and cassava (representing around 80% of bioplastics on the market);[340] less commonly from agricultural by-product, such as straw or cornhusk; and even from novel ingredients, such as algae, or even fish skin and crustacean shells.[341,342] However, many feedstocks are grown or rely on fertile agricultural land, and therefore displace natural ecosystems or crops that could be grown for food. A push to scale up bio-based plastics could therefore drive competition for scarce land, leading to deforestation, habitat destruction and undermining the fight for food security and biodiversity protection.[343]

Greenhouse gases

Bio-based plastics are often presented as a more climate-friendly alternative to conventional plastics. Coming from theoretically renewable raw materials, they are assumed to be carbon neutral over their life cycle, as opposed to fossil plastics. However, from a GHG perspective, bio-based plastic can be even worse than conventional plastics, as the EU's Joint Research Centre has found regarding bio-PET bottles and flexible packaging film.[344] First, they can lead to cropland expansion, displacing forests or other carbon sinks.[345] Second, for biodegradable bio-based plastics, those that end up in landfill, industrial composting or anaerobic digestors release varying (but significant) amounts of carbon dioxide and methane – a GHG up to 84 times more potent than carbon dioxide[346] – depending on the feedstock.

Corporate activity

Our research into the corporate commitments of the biggest plastic polluters shows a range of approaches to bio-based, biodegradable and compostable plastics. Many of these efforts are highly publicised – such as Coca-Cola's PlantBottle, which uses a bio-PET blend[347] – in an attempt to trade on the perceived 'greenness' of bio-based plastics. While bio-based plastics that are fully recyclable can fit in with existing systems, some companies have highly ill-advised approaches to biodegradable or compostable plastics, which run counter to wider circular-economy efforts. This includes Nestlé's ambition to develop a biodegradable water bottle for areas without recycling infrastructure,[348] and PepsiCo investing in snack packaging that will '*fully biodegrade regardless of how it is disposed of*'.[349] These applications show consumer-goods brands opting for a simple swap-out approach – replacing one single-use material with another, and perpetuating a throwaway culture – rather than pushing for different ways of distributing and collecting, which could lead to greater reuse and recycling for their packaging.

Furthermore, many of the companies investigated have publicly committed to making all packaging 'recyclable, reusable or compostable' within the next 10 years, as part of the *EMF New Plastics Economy Global Commitment*. Although compostable plastics currently represent only 1% of signatories' plastic packaging,[350] there is a danger this will lead to scaling up the use of biodegradable or compostable material as an easy solution to replace some single-use packaging. Commitments to increase the recyclability of products should be coupled with ensuring those products are not just *theoretically* able to be recycled, but are *in fact* collected and recycled, in practice and at scale. The same should be the case for any introduction of compostable packaging.

Any commitments to these materials should be accompanied by an explicit public acknowledgement of the role of compostable/biodegradable plastics only in beneficial niche applications, and not used to negate wider responsibilities to address plastic pollution at source, scaling reuse and recycling, and reducing plastic output in absolute terms.

In short, there is ample evidence that bio-based, biodegradable and compostable plastics could lead to significant environmental consequences. Companies' attempts to salvage their reputations through the proxy of bioplastics should be regarded as another greenwashing tactic to continue a business-as-usual linear economy.

Coca-Cola's PlantBottle
Credit: Dunk/Flickr

4.9. China: Banking on biodegradables

In 2019, China's annual output of plastic products reached 81.8 million tonnes, with an increase of 3.9% year on year,[351] accounting for about 25% of the world's total output.[352] China is also the largest user of plastic in the world on aggregate, and one of the 20 worst countries for plastic-waste management, producing 8.82 million metres of mishandled plastic waste every year. Of that, at least 1.32 million metres of plastic finally goes into the ocean[353] – the equivalent of filling almost twice the area of Beijing's Forbidden City with a layer of trash 1 metre thick.

Chinese citizens' awareness of plastic pollution and desire to do more has also steadily increased: While a 2008 survey reported that only 26% of citizens participated in eco-friendly behaviour,[354] another national survey a decade later found that 93% of Chinese customers actively sought to buy fewer single-use plastic items.[355] A more comprehensive national survey in 2019 revealed that 94.6% of respondents indicated they were willing to sort their waste, although about half (51.6%) thought that the result of garbage classification was only OK, while 39.1% found it unsatisfactory.[356]

Grocery stores vegetables wrapped in single-use plastic in China

Credit: Wen Bo

The Chinese government has been among the more strident in terms of sweeping legislation to tackle plastic waste – from a poorly enforced plastic-ban bag in 2007 to the landmark National Sword policy of January 2018, which sent shockwaves through the world of waste management, and, in January 2020, an extended plan to curb plastic pollution that seeks to reduce the use of problematic single-use plastics – such as cutlery, straws and bags – by 2025.[357] Crucially, the plan is not binding and does not go into detail on collection mechanisms or targets, devolving specific waste-management policies to provincial governments. A concerning amount of emphasis is placed on the use of 'alternative' materials (such as biodegradable and compostable materials) to replace packaging, rather than on scaling collection, effective recycling or reuse-and-refill systems. As one of the world's largest suppliers of biodegradable plastics, China accounts for about 20% of global production capacity, with output expected to rise with favourable national policies.[358] The push towards biodegradable plastics lacks specific guidelines on their suitable uses or precautions against scaling other environmental problems in their wake, and is a concerning extension of a linear, throwaway economy.

Despite this, a promising signal from the central government was the State Council's Zero Waste Cities pilot programme, which includes development of waste infrastructure, improved recycling and restricting production of single-use plastics, although retains the same focus on biodegradability. Sixteen cities were selected as pilots, with an emphasis on exploring partnerships and innovation to reduce plastic waste.[359] Yet, beyond the central government's efforts to regulate the problem, corporates' responses to the plastics challenge have been tepid.

Bottled beverages in a supermarket in Hainan, China

Credit: Wen Bo

4.9.1. Corporate response

Beach clean-ups and brand litter audits conducted between 2017[360] and 2019[361] reveal a different cast of corporate characters responsible for marine pollution in China, with the top five polluters listed as Master Kong, Wahaha, C'estbon, Nongfu Spring and the ever-present Coca-Cola.[362] Some of these brands (such as Nongfu Spring) are household names to Chinese consumers, while others are better known by their branded products. These consumer brands' responses and initiatives highlight the relative lack of progress in China on key areas such as collection, recycled-content inclusion, and reduction and reuse. The majority of their efforts – with the notable exception of Coca-Cola's global targets (100% recyclability by 2025 and use of at least 50% recycled content in packaging by 2030)[363] – fall into several categories of tactics designed to pay lip service to their responsibility for the plastics crisis (at best) or ignore it altogether (at worst).

4.9.1.1. Awarding prizes

The top-polluting Chinese brands boast a glut of sustainability and CSR awards, handed out by government departments, trade associations and even state media (such as *CCTV*, *People's Daily* and *Xinhua News*). Examples include 'Outstanding Chinese Enterprise in CSR 2018' and 'The Honorary Title of Cleaner Production Enterprise' for Master Kong,[364] and 'Water-Saving Excellent Enterprise of China Beverage Industry' and 'China's Pioneer for Improving People's Livelihood' for Wahaha.[365] Many companies also prominently display the Sustainable Development Goals on their websites and publications, yet offer no further detail – and none at all regarding any aspect of plastic or packaging.

4.9.1.2. Avoiding mentions of plastic waste

With the exclusion of Coca-Cola, these brands are also keen to highlight their efforts to tackle other sustainability challenges, such as emissions and water usage. Neither Master Kong, Wahaha nor C'estbon makes more than a scant mention of plastic or recycling, let alone plastics' environmental harm, in their publicly accessible information,[366] and Nongfu Spring has no environmental sustainability-related information available online at all. Furthermore, in 2018, Master Kong assessed plastic-waste management as having a low potential impact on their business, and as being of limited importance to shareholders.[367] For companies with vast plastic footprints and high litter counts, simply ignoring or not mentioning packaging or pollution is a significant abdication of responsibility.

The CEOs or senior executives of these five brands are also vice-chairmen of the China Beverage Industry Association (CBIA), an industry association with close ties to the government. The CBIA is a staunch defender of these beverage brands,[368] in one case denouncing the methodology of a media report that found antimony in PET bottles sold by several large brands, including Coca-Cola and Nongfu Spring.[369]

In 2018, Master Kong organised a team of more than 500 people – comprised of student volunteers, parents and members of staff – to pick up garbage on an island in Chongqing city, and called on the general public to protect the environment. The company has not acknowledged its position as one of the worst sources of beach litter in China.

4.9.1.3. Voluntary collection or tokenism

Chinese consumer-goods companies have initiated several voluntary pilots designed to showcase recycling and collection, but seemingly without advocating mandatory collection or scaling these pilots beyond their limited timescale or scope. These include 'Bottles Recycle Program: Re-Create Together', a temporary event stand sponsored by Wahaha at the 34th International Exhibition on Plastics and Rubber Industries. Visitors were invited to recycle plastic bottles in RVMs; as a prize, they received a novelty T-shirt or Wahaha beverage – in a plastic bottle.[370]

Partnering with Incom Recycle, C'estbon participated in the Green Lucky Star pilot in 2016. Consumers who returned used C'estbon bottles with star stickers to waste-sorting and -recycling machines, placed by Incom in a supermarket chain in Beijing, received a small amount of money back.[371] However, this pilot was not extended beyond Beijing, and is not mentioned in the company's sustainability reports.

Finally, Coca-Cola installed 2,000 RVMs in schools and communities in Beijing in 2017 and 2018 to encourage recycling or plastic bottles, using the slogans '*We care*' and '*It's up to you to take environmental action*'. There is no information about whether this scheme was successful, and it appears to have been discontinued.[372] The company also teamed up with e-commerce platform JD.com in Shanghai, using JD.com's logistics network to collect bottles from 50,000 households. However, the project only ran for two weeks.

4.9.2. Hainan's disappearing DRS

The island province of Hainan is a key tourist destination and burgeoning Special Economic Zone. It currently uses about 120,000 tonnes of plastic each year, and is one of the more progressive provinces in its efforts to curb plastic pollution. The island's capital, Sanya, is one of China's pilot Zero Waste Cities, and Hainan has plans to implement a ban on broad range of non-biodegradable single-use plastics by 2025 (such as straws, bags and some single-use tableware),[373] which will come into force in December 2020.[374] During the consultation process, PLASTICS of Hainan strongly opposed the ban, and the China Plastics Processing Industry Association made comments on the policy;[375] yet the secretary-general of the former spoke positively of the ban in an interview with the bioplastics industry.[376] The industry association counts at least one bioplastic producer among its members.

Article in the Sanya Daily announcing the progress of DRS

Credit: Sanya Daily

Hainan's legislation additionally indicates that recycling plastic bottles should be managed through an EPR system; yet, come the official issuing of the regulation, DRS was conspicuously missing. In documents and media coverage from mid-2019, DRS was explicitly mentioned as an avenue of exploration in Hainan.[377,378] A further article in state media outlet the *People's Daily* refers to DRS as though it is already a done deal, stating Hainan will lead the way in establishing deposit systems in China.[379] As late as November 2019, the *Sanya Daily* declared that the Hainanese government issued '*strong signals that the establishment of DRS in Hainan will go from request to reality*', and extolled the benefits of the system for reducing plastic waste and ushering in an '*ecological civilisation*'.[380] Despite getting the green light, backroom dealing seems to have undermined DRS at the last moment. Indeed, industry sources in our investigation revealed that a coalition of vested interests – including Coca-Cola – entered discussions in the final stages to ensure that DRS was taken off the table. Furthermore, on-the-ground investigations revealed significant reluctance from local business and retailers to participate in DRS, stating there would be little incentive were the system not made compulsory. Today, DRS remains a small, voluntary system, undertaken in some shops and with little public awareness. It is unknown whether similar DRS proposals in Fujian and Guizhou met the same fate.

Action on plastics in China reveals a very different landscape to other developed economies. Broad and high-profile government moves pale in comparison to the level of production and consumption of the world's most populous nation. While the willingness to legislate on the issue is promising, the focus on end-of-pipe solutions (like biodegradable plastics) is not, and serves to perpetuate a linear economy. Meanwhile, companies are well behind the curve, and many do not even acknowledge the plastics problem they perpetuate. With Hainan set to be a pioneer in the introduction of DRS in China, its apparent failure is a significant stumbling block, and demonstrates the hypocrisy of multinational consumer-goods companies that want to appear progressive, where it matters to their image, but continue to campaign to undermining progressive legislation whenever they can get away with it.

Automatic vending machines in Tokyo

Credit: Pietro Bruni

4.10. Japan: Out of sight, out of mind

We shouldn't treat plastic as an enemy, nor ostracize those who use it … What's needed is appropriate management of trash and to search for solutions through innovation.[381]

– Prime Minister Shinzo Abe, October 2019

It is, for the most part, business as usual in Japan when it comes to plastic. According to a report in *The Japan Times*, Japan produces an estimated 9 million tonnes of plastic waste each year, with disposable packaging and food containers accounting for more than 40% of this waste.[382] The report also estimated that Japanese shoppers use 30 billion plastic shopping bags, and that the average person in Japan buys 183 plastic drink bottles, each year. According to the United Nations Environmental Programme, this makes Japan the second-biggest consumer of plastic on a per-capita basis – second only to the US – with around 35kg of plastic-packaging waste per capita.[383]

Japan is also home to several of the largest global consumer-goods, chemical and plastics companies. Despite this, the Japanese government has done little to address the global plastic pollution crisis. There remains no strong time-bound national framework or legislation for the reduction of single-use plastics, besides a plastic-bag fee with several loopholes. Voluntary commitments include a government target for corporations to reduce single-use plastics by 25% by 2030.[384]

4.10.1. Misleading recycling data

The plastic crisis is obscured by official figures, which inflate the national recycling rate and confuse citizens with inaccurate language. The oft-cited national recycling rate of 80–85% includes categories such as '*thermal recycling*' and '*chemical recycling*', which are false solutions and misleading. The former is incineration, which accounts for 56% of plastics' end use in Japan; the latter, which includes liquefaction and gasification, accounts for 4%.[385]

The Japanese public is mostly unaware of this; a recent Greenpeace Japan survey found that 80% believe the plastic they so carefully sort through is recycled, rather than incinerated or exported abroad.[386] When all of this is factored in, Japan's true municipal recycling rate is just 23%. Even that figure is problematic, as it assumes the 14% total plastic waste exported to countries like China, Malaysia, and Thailand *is* recycled – rather than landfilled, burned or dumped in the environment, as investigations have found. The remainder of Japan's plastic waste (8%) is landfilled. There is some discrepancy in the figures for waste exports, which Greenpeace Japan claims accounts for 14% of plastic waste; other reports put the raw figure at, variously, 900,000 and 510,000 tonnes;[387,388] while the most recent figure – from Japan External Trade Organization, via Bloomberg – put the 2018 figure at more than 1 million tonnes.[389]

Prior to 2018, by some estimates, Japan was the second-biggest exporter of plastic waste to China (by weight). Those exports have completely stopped due to China's National Sword Policy. However, to date, this has had limited upstream impact in Japan due to authorities diverting plastic waste to other markets; in 2018, 80% of exports went to Thailand, Malaysia, Vietnam and Taiwan.[390] As those markets are also closing to waste imports, there are now reports that plastic waste is gathering in warehouses and other facilities in Japan. Despite this, the government has yet to put forth a meaningful plan to deal with this crisis. Without a clear policy to reduce plastic production, increase recycling capacity or introduce reuse at scale, Japan is likely to see a crisis with mounting plastic waste. Akira Sakano of Zero Waste Japan has observed early signs of economic challenges in the industry, with plastic recyclers at capacity and waste piling up across the country, and believes that, if action is not taken, the system could collapse.

4.10.2. Corporate laggards

Japanese brands are mostly lagging behind European and US brands, even when it comes to voluntary commitments. Of the 17 major retailers and consumer brands we investigated, only Kirin,[391] Coca-Cola Japan[392] and 7 & i Holdings[393] have time-bound commitments. Others merely mention either lightweighting plastic packaging (like Meiji,[394] Kao[395] and Lion[396]), commitments to use plant-based or biodegradable plastics (like Lawson[397] and Nissin Foods[398]), or switching to paper packaging (like Sapporo[399]). Overall, the industry is lacking actionable plans to reduce plastic use or promote genuine circular-economy solutions, such as reuse or collection.

Japan has some strengths. The collection system is strong, despite the lack of a DRS, due to high resident awareness and education. High-quality PET bottles are recycled at a relatively high rate, though only partially reintroduced into the system. In 2017, bottle-to-bottle accounted for 25% of rPET, with the remainder going to textiles, sheets and moulding/industrial use. This figure has grown every year, more than doubling since 2012.[400] Besides PET, however, very little of Japan's plastic is getting recycled – most ends up being incinerated. Prior to 2018, Japan's efforts to expand mechanical recycling took a back seat to the growing demand for recyclable materials being sent to China, which undercut the economic viability of proposed recycling facilities.

What has been proposed either remains voluntary or focuses on false solutions. Both the government and brands have focused heavily on bioplastics or biodegradable plastics, which distract from the core problem of disposable single-use products. Worryingly, the government – through partnerships, foreign aid and development agencies – is promoting solutions such as bioplastics and Japanese incineration technology to low- and middle-income countries, as both a waste-management and marine-litter solution.[401]

The case of Japan underlines how crucial it is to look beyond reported statistics to reveal the true fate of plastic. By collecting high volumes of packaging without any way to effectively recycle or reuse it – relying instead on end-of-pipe solutions, like incineration, gasification or waste exporting – the problem is hidden from consumers, who, in turn, will be less inclined to demand change from companies and government. Without mandatory collection and recycled-content targets, there is no incentive to improve recycling infrastructure – and, having invested heavily in incineration, there is a perverse incentive against finding better ways to tackle plastic waste.

Beverage bottles for sale in a Japanese supermarket

Credit: Pietro Bruni

A single banana wrapped in plastic

Credit: Pietro Bruni

4.11. Kenya: A game of cat and mouse

Growing plastic pollution in a dumpsite in Nairobi, Kenya
Credit: Clean-Up Kenya

An overflowing dumpsite in Nairobi, Kenya
Credit: Clean-Up Kenya

While a great deal of attention is paid to plastic pollution in high-income countries (such as those in the EU and North America), middle- or low-income countries, including many in Africa and Asia, are bearing a disproportionate share of the burden of plastic waste.[402] Beverage companies and FMCGs increasingly see these countries as key markets for growth; in 2019, for example, Coca-Cola's CEO, James Quincey, said Africa represents '*one of the core growth engines for the company going forward*'.[403] When consumer-goods companies push their products into new markets, they frequently do so without ensuring country's waste infrastructure can cope with the new materials arriving by the truckload. A report by the NGO Tearfund also found that many FMCGs use a larger amount of plastic, per euro of sales, in middle- and low-income countries.[404]

The result is a pernicious and growing plastic pollution nightmare, creating environmental devastation and crippling the health of communities deluged in plastic trash.[405] Communities on the frontline of the plastics crisis are struggling to find ways to stem the tide of trash, from both imports and mismanaged domestic waste, contributing to the huge human-health and environmental ramifications of open waste burning and overflowing dump sites. According to a 2017 report by the World Bank, only about 7% of plastic waste in Kenya is ever recycled, about 24% is taken to dumpsites, where it is usually burnt, and an alarming 69% ends up in water bodies.[406]

Kenya, which made headlines in 2017 by successfully bringing in the world's strictest plastic-bag ban - the third attempt at passing the legislation - has been at the forefront of the 34 African nations with bag bans or taxes.[407] It is worth noting that the Kenya Association of Manufacturers (KAM) strongly opposed the ban and filed a legal challenge against it, which was ultimately unsuccessful.[408]

According to the National Environment Management Authority,[409] the bag ban resulted in 80% of the population ceasing to use single-use carrier bags. Subsequently, in 2018, the government signalled the extension of the ban to single-use plastics - including plastic bottles - in protected areas, such as national parks, from June 2020.[410]

In response to the plastic-bag ban, FMCGs such as Unilever and Coca-Cola have deployed a variety of tactics to ensure they can continue to sell single-use plastic products in the country. Together with KAM, they formed PETCO, an organisation (with offices in Coca-Cola's Nairobi headquarters) with the aim of '*self-regulating*' the recycling of PET, avoiding mandatory measures.[411,412] Akin to misleading Green Dot symbols or recycling numbers in other countries, the PETCO symbol (a green circle of arrows) and tagline ('*#do1thing. Recycle.*') pushes the responsibility and blame for pollution onto consumers. However, the initiative has not resulted in reliable streams of clean recyclates to stimulate the recycling market in Kenya, and plastic bottles continue to litter roadsides and rubbish dumps.[413] Furthermore, the subsidy PETCO provided for collection is so low - as little as 9 cents for 14kg of plastic[414] - that it requires many hours of hard work to collect enough for payment. Even then, due to limited demand for recyclable plastic some waste pickers report being stuck with thousands of kilos of plastic bottles, collected over months, with nowhere to go.[415]

As in other countries, the industry sponsors widely publicised litter-clean-up days, working with local groups, such as the clean-up days organised by Coca-Cola with the youth organisation Dandora HipHop City. For this initiative, ironically, volunteers were 'paid' in Coca-Cola beverages - in plastic bottles.

Proposals to introduce DRS for beverage containers have been met with fierce opposition, particularly from Coca-Cola, despite its commitment to collect a bottle for every bottle it sells globally and its grudging support for DRS in some European countries. Clean Up Kenya was even met with veiled threats from beverage-industry representatives when the local NGO met them to discuss a national bottle-deposit system.[416] Coca-Cola argues that DRS would not be appropriate for Kenya, even though KAM deemed it feasible in a 2019 report,[417] and despite the fact that a deposit for returnable glass bottles has long been a feature of Kenyan consumers' lives. In this regard, Coca-Co-

Plastic bottles, collected over months, with nowhere to go
Credit: Clean-Up Kenya

Waste pickers report being stuck with thousands of kilos of plastic bottles,
Credit: Clean-Up Kenya

The huge human-health and environmental ramifications of open waste burning and overflowing dump sites in Kenya

Credit: Clean-Up Kenya

la has a double incentive to stymie DRS – every refillable glass bottle that is displaced from the market is replaced by 25 single-use-plastic bottles, and, in Kenya, the advent of single-use-plastic bottles has outpaced local glass bottlers – which would also bottle beverages from local soda brands, stifling the company's competition.[418]

NGOs (such as Clean Up Kenya) attempts to directly engage with Coca-Cola have fallen on deaf ears. The plastic giant is accused of failing to recognise the scale of the plastic-bottle problem in Kenya and of failing in its commitment to the Kenyan people – and even of being complicit in child labour and human-rights violations, through its control of PETCO and its weak subsidy scheme, which requires waste pickers to collect as many as 320 bottles for a single US dollar.[419]

The case of Kenya demonstrates the hypocrisy of consumer brands pushing their products on markets not adequately equipped to manage the resultant waste, while also actively blocking measures that would equip them to do so. It demonstrates the importance of forcing companies to adopt a consistent approach to tackling plastic waste across all markets, and not continuing with its double standards. While the industry is under the watchful eye of consumers and NGOs in the EU and North America, it often escapes such scrutiny in low- and middle-income countries, where citizens are more directly and heavily impacted by plastic pollution.

4.12. Bolivia: The rights of plastics trump the rights of Mother Earth

Bolivia's Law of the Rights of Mother Earth is one of the first pieces of national environmental legislation that recognises the rights of a natural entity as equal to the rights of humans.[420] One might assume that, under such an overarching law, the lobbying of large FMCG companies and the plastics industry would have been curtailed, but the case of Bolivia shows otherwise.

In May of 2019, the city of La Paz approved the first ever legislative project to ban all plastic bags, PET bottles and single-use plastic at the local level.[421] The bill, which garnered support from the Municipal La Paz government (which has continuously worked to put forward progressive environmental and waste-management legislation), mandated that all commercial establishments – including informal commerce, but particularly targeting supermarkets – would have 45 days to stop using plastic bags and start using cloth bags.[422] The regulation also gave a 60-day deadline to end the delivery, supply, use and marketing of PET plastic bottles and containers, and of expanded polystyrene containers for beverages and food.[423] Companies using plastic bottles would be required to report the number of PET bottles in stock, and the timeframe for using that stock, to the Secretary of Mother Earth – a separate entity that operates under the Autonomous Municipal Government of La Paz.

Under this law, companies would have had an obligation to present a contingency plan for the collection of PET bottles introduced onto the market,[424] and to be responsible for collecting existing PET bottles and replacing them with alternative materials, such as glass.

The opposition – loud and public – came from the National Chamber of Industry (CNI).[425] The industry warned that 470 companies – including large retailers, like Hipermaxi, Pil Andina S.A. and Coca-Cola's bottling company, EMBOL – would be affected by the plastic-disposal law. The president of the CNI, Ibo Blazicevic, depicted the law as '*a serious issue*' that would put great pressure on the industry, which would not be able to find a substitute for PET bottles.[426] The industry has always used the argument of lack of legislative action

Plastic Trash in La Paz, Bolivia

Credit: Shutterstock

or taxation in the informal sector to disregard any new legislative action pursued by the local or national governments. REDciclar Bolivia – a virtual platform and citizen initiative for environmental waste management – also came out in opposition, with its founder Barbara Giaviarini claiming this type of change '*is rather a process and you can't tell the producers of PET bottles to suddenly stop using this product*'.[427] The organisation proposed the implementation of awareness campaigns, targeting the reduction of plastic consumption in civil society, and said it didn't want a new law that '*would just be written in paper and not fully executed*'.[428] The law was put on hold – initially for the three months but, later on, completely changed.[429] During discussions between the industry and legislators, the introduction of biodegradable plastic bags was mooted as a way to prevent a shift away from plastic in its entirety. However, the introduction of biodegradable bags has been previously contested by environmental organisations such as Plástico? No Gracias! and Greenpeace, which analysed plastic bags and plastic-container samples in a 2018 study. The results indicated that plastic bags in Bolivia fragment but do not fully biodegrade (despite the claims on the label),[430] showing this solution to be environmentally problematic.

The ban, which the industry referred to as '*the crazy law*', was slowly weakened.[431] Evidence as to just how much the ban was watered down comes from the testimonies of legislators who initially proposed it, such as the President of the Legislative, Legal and Electoral Commission of the Departmental Assembly of the city of La Paz, Elizabeth Morales Gutierrez, who explained on national television that '*the law is not a prohibitive or forceful law but rather of gradual implementation*'.[432]

Persistent arguments against the ban finally led to its rejection, with municipalities within La Paz saying they had neither the resources nor the budgets to apply the ban or control the new system, and that smaller local businesses – especially local beverage manufacturers – would bear the burden of the ban's costs. The legislation was ultimately postponed, and will be totally revised in dialogue with the National Chamber of Commerce and the CNI of La Paz.

Given the turbulent political situation that followed in 2019, all discussions regarding this law have been put on hold. And while this is happening in La Paz, in other Bolivian cities continue to run greenwashing campaigns – like Coca-Cola, via its bottling company Nudelpa. In Trinidad, a distraction campaign – marketed as a big community effort – focuses on downcycling 'brooms for bottles' teaches communities how to make brooms out of plastic bottles collected from river clean-ups. Instead of implementing proper collection methods, pushing for closed-loop recycling or supporting refill in the area, residents are told that, for every 20 plastic bottles collected from the river clean-ups, they will be taught to make a downcycled broom.[433]

This case study shows us not how nervous the industry is of bans, how quickly it mobilises against even local initiatives and how, in countries like Bolivia (which do not have the capacity to deal with excess plastic), ambitious policies are still rejected in favour of single-use plastics.

4.13. Uruguay: Tax backlash

Uruguay is an interesting case study, given the recent introduction of legislation that makes the industry more accountable for both the waste it produces and the plastic products it puts on the market. According to the MoE in Uruguay, 16% of the waste generated is plastic, and only 10% of this plastic is recycled.[434] According to CTplas, 14,000 tonnes of beverage containers where placed on the Uruguayan market in 2017 – and, shockingly, almost 1 million beverage containers end up in landfills or the natural environment every day.[435] Montevideo, the capital and most populous city, generates 1,600 tonnes of household waste per day,[436] making urban solid waste management a huge problem.

4.13.1. The General Law of Integral Waste Management

In August 2019, Alejo Umpierrez presented a bill in the chamber of representatives to prohibit the production, import, distribution and marketing of PET bottles and single-use containers – which ultimately failed.[437] Shortly after, in September 2019, the chamber of senators approved the General Law of Integral Waste Management, which became the new legislation for plastic-waste management in Uruguay.[438]

This legislation sought to minimise waste generation by promoting the reuse and recovery of resources through recycling, energy recovery and other forms of waste recovery, and, ultimately, evaluating alternatives for end-of-life disposal.[439] It also set EPR for manufacturers and importers, and introduced an environmental tax to finance special waste-management programmes and promote the recovery of waste nationally.

Although manufacturers and importers will have to pay the corresponding environmental tax, they will also have the option of implementing a collection system to recover the containers placed on the market. This will enable them to redeem the environmental tax through a tax credit. Article 40 of the law also stipulates that, once the useful life of a single-use-plastic container or product ends, the merchants, retailers and sales stores – as well as other intermediaries in the chain of distribution and commercialisation – will be obliged to accept the return of the products or packaging.[440]

Acting as an EPR system, the tax applies to products placed on the market in single-use containers, disposable trays used as food containers, plastic packaging film, disposable cups and plastic bags. Great emphasis was placed on single-use plastics. During the legislative process, the industry lobbied to prevent this legislation from coming to fruition, according to National Director of the Environment, Alejandro Nario.[441] The most active lobbyist was the Association of the Plastics Industry in Uruguay (AUIP) – whose members include plastic producers Ecopet SA and CristalPet SA – which declared that consumers would be the most affected by the legislation, because the price of products would likely have to increase in order to compensate for the tax.[442]

A clear example of how the lobby materialised is its influence of several articles in the law. For example, the responsibility for implementing the environmental tax on single-use plastics falls exclusively on the producers and importer, and gives companies a leeway; they have the options of reusing or recycling the waste they generate, or just paying a tax. Unfortunately, the tax – which was initially set higher than the amount finally agreed – was, at first, completely rejected by the AUIP. This segment of the legislation was received with great disapproval by both sides, with other political party members also arguing that taxing certain types of waste acts as a perverse incentive for companies to continue using single-use plastics and producing waste, while exempting them from any responsibility. A member of the Colorado Party, Cecilia Eguiluz, acknowledged: '*If you pay the tax, you have the right to keep producing waste and not be accountable for it*'.

The new General Law of Integral Waste Management ended up disregarding the earlier proposed bill to prohibit PET bottles and containers, which would have been a much bolder step towards tackling the plastics issue in Uruguay.[443]

4.13.2. Business as usual for the plastics industry

Figure 4.8: 'it's not plastic, it's you' (No es el plástico, eres tú) *Source: AUIP*[445]

AUIP includes approximately 49 members of the plastics industry, such as the prominent names Ecopet and CristalPet.[444] Its mission is to defend the general interests of the plastics industry, and, particularly, those of its members – companies that represent approximately 90% of the total processing of imported plastic raw materials.

AUIP is in charge of a great part of the lobbying executed in Uruguay. To continue business as usual, it places the blame on the consumer, diverting responsibility away from producers and onto citizens. An example of this messaging can be found on their official website – '*It's not plastics, it's you*' – which places the blame on consumers for not knowing how to dispose of their waste. As we have seen, this is a typical industry tactic to shift responsibility onto others, while continuing to produce products and packaging that can't be properly recycled at the end of their life cycle.

4.13.3. Cristalpet and Ecopet blame consumers

CristalPet is one of the largest plastic producers in Uruguay, while Ecopet is the environmental responsibility branch that poses as its corporate responsibility organisation. Ecopet recycles approximately 60% of the plastic CristalPet produces, dedicating itself exclusively to recycling PET bottles (mainly of sodas and water) and working closely with Coca-Cola, among other beverage companies.[446] Ecopet is the first recycling plant in Uruguay capable of processing the PET plastic bottles placed on the market.[447] According to Ecopet, the largest bottle manufacturer in Uruguay has the capacity to inject 900 tonnes of bottles into the market per month, while Ecopet processes only 120 tonnes per month.[448] These figures expose that Ecopet is capable of processing much more than it actually does; its full capacity is not used, due to the lack of proper collection of PET bottles.

However, testimonies from Ecopet's managers have identified that the main obstacle to a sustainable world is not so much '*technical but cultural*', blaming consumers yet again instead of promoting improved collection, mandatory recycled content or true producer responsibility.[449]

Additionally, the connections between Ecopet and Coca-Cola in Uruguay are intimate. Coca-Cola currently uses 100% recycled material only in it still-water brand, Vitale (625ml).[450] However, it is not clear how Coca-Cola reaches these numbers. The two companies' collaborations are convoluted; they create joint advertisement campaigns, advocating for more public education, clean-ups and public-awareness campaigns[451] – all while promoting downcycling plastic bottles for use in clothing, accessories, glasses, frames or even roofing.[452]

Uruguay is a fascinating case for several reasons. First, it constantly seeks to lead on the improvement of environmental legislation in the region, setting stronger environmental standards. Second, due to its cultural and geographical proximity to other Latin American nations, it can set a clear example of the correct path to take to introduce further legislative environmental action. It seems the industry is well aware of this, and has quickly mobilised to prevent any progressive legislative precedent on the Latin American continent.

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