

## THE SMART SUPERMARKET

How retailers can innovate beyond single-use plastics and packaging



# GREENPEACE

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## CONTENTS

4 Introduction 5 Welcome to the Smart Supermarket 6 Fresh Food 8 Staples **10** Personal & Home Care 12 Take-Away 14 Checkout 16 Online 18 Conclusion 19 Endnotes

### INTRODUCTION

In recent years, we have witnessed a transformation in the way public think about and use single-use plastics. From plastic bag bans the world over<sup>1</sup> to the growing zero-waste movement,<sup>2</sup> public awareness of the impacts of single-use plastics on our marine environment and our communities has never been greater.<sup>3</sup> This shift has been felt in the corporate sector too, with consumer goods companies increasingly recognising the need for systemic change in the way they deliver their products.<sup>4</sup>

"Elimination of problematic or unnecessary plastic packaging through redesign, innovation, and new delivery models is a priority.... We cannot recycle our way out of the plastics issues we currently face."

> The New Plastics Economy, signed by Coca-Cola, Colgate-Palmolive, Danone, Johnson & Johnson, Mars, PepsiCo, Nestlé, and Unilever.<sup>5</sup>

This progress is also being reflected in the retail sector, with in-store innovations offering a promising insight into how businesses and individuals can work together to solve the plastic pollution crisis by championing reuse systems over single-use packaging. Whilst these alternatives are often spearheaded by start-ups and independent businesses, major retailers have a crucial role to play in bringing them to the mainstream market. The Ellen MacArthur Foundation calls reusable packaging "a USD 10+ billion innovation opportunity,"<sup>6</sup> making these alternatives as much a growth opportunity as a solution. This is an especially compelling figure, considering it is based on replacing just 20 percent of the single-use plastic packaging used globally. The benefits of replacing single-use plastics altogether are enormous. This report envisions "The Smart Supermarket," a hypothetical supermarket that uses real-world solutions from around the globe to map out how consumers could engage with a "smart packaging" store. It travels from the entrance of the store to the checkout, exploring how single-use packaging-free initiatives can be implemented in every aisle and what the financial and broader benefits are to the consumer and the retailer. The overarching goal of this exercise is to explore the impact systemic change in this sector could have on consumption habits and, therefore, the environment and society as a whole.

It is important to note that innovation is happening rapidly, and many of the approaches listed in this report would benefit from further improvement. Companies must adopt a full lifecycle approach to environmental impact reduction, ensuring that the logistical methods of these packaging solutions do not outweigh the initial benefits. For example, companies should not simply replace one single-use material with another, such as replacing plastic with pulp and paper, and must mitigate against an increased carbon footprint caused by online reuse deliveries. Devising this approach should be an urgent priority, rather than something that delays action.

These solutions do, however, help to create a vision for a world free from single-use plastics—a vision that is completely viable if retailers, companies, and individuals alike commit to making it a reality.

Welcome to The Smart Supermarket, where single-use plastics are history.

All examples provided in this report are for the purpose of illustrating the type of changes needed in stores worldwide. Greenpeace does not endorse any of the products, brands, or companies listed in this report.

#### **SMART PACKAGING**

A type of packaging that can be returned to the retailer or manufacturer for reuse or can be refilled and reused by the customer, often using technology to streamline the process.

## WELCOME TO THE SMART SUPERMARKET

To transform supermarket consumers' behaviour, they must be informed and empowered to make the right choices. For too long, major retailers have championed mass production over the environment, introducing excessive plastic to every aisle of the store.

A "grab and go" culture means that customers are not familiar with smart packaging principles, such as weighing their own rice or dispensing their own shampoo. Whilst it may seem hard to imagine society adapting to this new approach, many people will remember a time before plastic, when robust, reusable packaging was commonplace. Combine this with modern-day technologies and the transition to single-use packaging-free shopping is possible. The Smart Supermarket will be at the forefront of this transition, earning its name by taking advantage of the latest technological advancements and innovations. It will offer customers a digitally driven approach to grocery shopping that not only enables them to have more control over what they buy and how much they spend, it will also reduce their plastic footprint and impact on the environment. And with consumers now actively seeking companies that prioritise environmental issues,<sup>7</sup> smart packaging initiatives are a natural development for today's retailers.





## FRESH FOOD

One of the most controversial products in the fight against single-use plastics is fresh food. Plastic-wrapped cucumbers and bagged bananas have become symbolic of the problem, with customers actively removing packaging from produce in the store and handing it over at the checkout.<sup>8</sup> But it has not always been this way. Many customers will be familiar with farmers markets and street markets (known as wet markets in East Asia) that still offer fresh, unpackaged produce, which previously was the norm.

It is interesting to note that plastic packaging for fresh food, which is often justified as a means to reduce food waste, has increased in correlation with a growth in food waste.<sup>9</sup> Food waste largely has resulted from the current food system, which cannot be solved by adding layers of plastic packaging. "Standard" requirements for the perfect appearance of fruits and vegetables, excessive amount of supply, and undervaluing our food are all drivers of food waste.<sup>10</sup> Packaged food is often oversupplied to customers. This is not surprising, considering that in most major supermarkets, a customer who needs two potatoes is forced to buy an entire bag wrapped in plastic. And ironically, customers looking for the most environmentally friendly option, such as organic produce, often find it wrapped in even more plastic than its nonorganic counterparts. The Soil Association, the UK's organic certification body, argues that this is to avoid mixing organic with conventionally grown produce, but plastic is not necessary to make this distinction.<sup>11</sup>

Instead, The Smart Supermarket allows customers to buy what they need, with energy-efficient refrigeration systems keeping produce fresh, plastic-free labelling to distinguish organic from non-organic, and a weighing and barcoding system that avoids single-use plastics altogether.

#### How to achieve this

1. For products requiring unique labelling and identification, use innovative technology to replace single-use plastics, for example:

Laser food labeling (Spain): Laser Food in Spain has pioneered an environmentally friendly laser labeling system that it calls "Natural Branding," which removes a microscopic area of skin on fruit and vegetables to imprint a label with product information in place of a sticker.<sup>12</sup> In 2014, the company signed a landmark deal with JBT Corporation, which sells food processing equipment in more than 100 countries.<sup>13</sup> This technology is also being used by retailers, such as Dutch fruit and vegetable supplier Nature & More,<sup>14</sup> Swedish supermarket ICA,<sup>15</sup> and Delhaize in Belgium.<sup>16</sup> According to Peter Hagg, ICA business unit manager, "By using natural branding on all the organic avocados we would sell in one year, we will save 200km [135 miles] of plastic 30cm [about 12 inches] wide. It's small but I think it adds up."<sup>17</sup>

2. If products require wrapping, source local, natural materials that have minimal impact on the environment, for example:

**Banana leaves** (Thailand): Selling in Rimping Supermarket in Chiangmai, Thailand, a brand called "Viggie First" uses banana leaves to group chillies, spring onions, and peppers, tying the package together with a piece of bamboo twine.<sup>18</sup> These materials then decompose in the natural environment. However, this solution is only viable in a local context, where indigenous plant matter is used if it is a waste product. In non-tropical climates, companies should research making the most of local plant waste products in their own markets, rather than shipping banana leaves from abroad.

3. Work with suppliers to remove packaging from the supply chain and invest in facilities to keep produce fresh and minimise packaging needs, for example:

**"Food in the nude"** (New Zealand): Retailer Foodstuffs has started a project called "food in the nude," working with suppliers to stop using plastic wrapping for most fruits and vegetables sold in stores. Instead, the supermarkets have installed a refrigeration system that uses "misting" to keep produce fresh, ensuring that the shelf life of products is maintained without single-use packaging. Since implementing the system, sales of some vegetables have soared by up to 300 percent.<sup>19</sup> Misting is already a popular alternative to single-use plastics around the world and can be implemented at every stage of the supply chain, including post-harvest, to extend the storage time of produce.

#### **Benefits**

- The individual needs of customers can be met. Rather than having to buy pre-packaged portions, customers can buy only what they need, which in turn reduces food waste.
- "Nude" food incentivises customers to buy fresh produce that is sourced locally and in season, reducing air miles of fresh produce and supporting local businesses.
- A misting system is visually appealing and a great way to engage customers in packaging-free initiatives.
- Packaging-free labelling, such as laser labelling, can improve traceability control and create distinctive marks that differentiate products and make them more desirable to customers.

- Retailers should implement a straightforward weighing and barcoding system that allows customers to weigh their produce and eliminates the need for single-use packaging.
- An energy-efficient refrigeration system needs to be installed to manage the shelf life of "nude" produce.



## STAPLES

A staple food is one that is eaten regularly enough to constitute a central part of someone's diet and can be stored and bought in bulk. Rice, for example, is the most widely consumed staple food in Asia and yet, more often than not, it is packaged in single-use plastics. This not only is bad for the environment but limits how much, or how little, a customer can buy. In low-income communities, customers have no choice but to buy small quantities more frequently, even though buying larger quantities costs less in the long run. This means that even more plastic is produced and customers end up spending more.

In The Smart Supermarket, bulk-buying dispensaries and weighing scales allow customers to purchase the quantities they need and what they can afford. Customers dispense products into reusable containers that they have brought from home or that are supplied by the store.



#### How to achieve this

1. Work with suppliers to reduce packaging at the manufacturing stage, and develop smart dispensing systems that allow customers to control how much they buy, for example:

Algramo (Chile): Algramo ("by the gram") distributes vending machines to provide goods such as rice, beans, lentils, and cleaning products to low-income neighbourhoods around Santiago. Customers can select the desired quantity of a product and fill a reusable container to take it home, rather than buying small sachets of products, which are eventually thrown away. This system encourages customers to reuse their containers. The company is also using technology to its advantage in Las Condes, launching smart detergent containers that allow users to receive money back each time they refill their bottles.<sup>20</sup> In addition, Algramo introduced touchscreen dispensers on an electric tricycle to deliver the products, mobilising the refill-and-reuse system in the neighbourhood.<sup>21</sup> Algramo estimates that it has already reached 250,000 people since its launch,<sup>22</sup> and has gone beyond a start-up stage, piloting the mobilised refill and reuse model with multinational brands, such as Unilever and Nestlé.<sup>23</sup>

2. Develop self-service weighing scales and encourage customers to bring their own containers, for example:

**Unpackaged** (UK): Unpackaged began as a market stall in 2006, before opening a concept store in London where consumers could buy loose produce. The company has developed a self-service weighing scale, which makes it easy to remove the weight of any container, allowing the consumer to bring containers from home. Simple instructions explain to customers the process and the benefits of zero-waste shopping.<sup>24</sup> Unpackaged recently collaborated with Waitrose,<sup>25</sup> a major UK retailer, to trial a mainstream supermarket version of its zero-waste store. Feedback from customers has been overwhelmingly positive, with one telling the BBC, "Stores have got to take it on the chin and do this sort of thing. It's not just the stores, it's the manufacturers, too. We didn't use to have all these packages. It's going to be a huge task for industry, but they have got to do it, because otherwise we're going to be in trouble."<sup>26</sup>

3. Develop an app that allows customers to pre-order staples from home, for example:

MIWA (Czech Republic): MIWA, short for minimum waste, is a system that focuses on "precycling"—the practice of reducing consumer waste *before* the point of purchase. The company delivers bulk staples such as pasta and pulses to stores, ready-packaged in reusable containers, which are then transferred into MIWA modular stands. Customers can use an app to order and pay for the exact quantities they need, which they then collect from the store with reusable containers.<sup>27</sup>

#### **Benefits**

- Customer's individual needs can be met. Customers can choose the portion they need with dispensing systems.
- Retailers can use incentives to increase brand loyalty, such as deposit and reward schemes for reusable packaging, encouraging customers to bring back reusable packaging for refill or return.

- Retailers should carefully design deposit-and-reward schemes to ensure customers return or reuse containers. This could be achieved by either working with a third-party company or providing incentives for customers to clean their own containers.
- Retailers should utilise equipment, such as commercial dishwashers or sanitisers, to ensure the cleanliness of instore containers.
- Retailers should ensure that any dispensing systems are clean and easy to use, with clear instructions and staff on hand to assist customers with self-service.



## **PERSONAL & HOME CARE**

Microbeads are normally the first thing that comes into mind when it comes to single-use plastics in personal and home care products. These tiny plastic balls, added to face scrubs, toothpastes, and cleaning products as an exfoliating agent, are on the frontier of the plastic-free movement and have been banned in a number of countries. However, the fight against single-use plastics associated with personal and home care products is far from over. Every major retailer has shelves upon shelves of beauty and cleaning products in single-use plastic bottles and containers. And whilst the public is becoming aware of the need for reusable shopping bags and coffee cups, there is less awareness about the alternatives to single-use plastics for these products.

There are, however, plenty of alternatives at The Smart Supermarket, which stocks a variety of well-known single-use packagingfree brands and is continuously trialling the latest innovations to ensure that single-use packaged beauty and cleaning products are a thing of the past.



#### How to achieve this

1. Work with suppliers to create cosmetic and cleaning products that do not require a plastic bottle to transport or sell, for example:

Lush (operating in 44 countries): For more than 20 years, Lush has been making a range of package-free soaps, shampoos, and cosmetics. Approximately 60 percent of Lush products are "naked" and do not come in packaging. The company claims that its solid shampoo bar saves nearly 6 million plastic bottles globally every year, with each bar lasting 80 washes, or the equivalent of three 250gram plastic bottles of liquid shampoo.<sup>28</sup> The company has recently opened "naked" stores in Milan, Berlin, and Manchester, which feature various plastic-free cosmetics, including solid deodorant and facial cleansers.<sup>29</sup> 2. Invest in the development of innovative materials, for example:

**Procter & Gamble DS3 Clean swatches** (US): Multinational consumer goods corporation Procter & Gamble has created a line of plastic- and water-free products called "DS3 Clean" swatches. The swatches are the size of a tea bag and foam up when mixed with water, making them much lighter and easier to transport than traditional products. Procter & Gamble claims that this innovation removes 80 percent of the weight, 70 percent of the space, and 75 percent of the emissions compared with traditional products.<sup>30</sup> In addition to cleansers, body wash, hand soap, shampoo, and conditioner, the product line includes laundry detergent, surface cleaner, and toilet cleaner. This line of products has not yet reached full market launch.<sup>31</sup> Although it is an exciting technological breakthrough, we would like to see it is scaled to meet customer needs for cleaning products.

3. Develop refill systems and encourage customers to reuse containers for products, for example:

**Unilever All Things Hair Refillery** (Philippines): The All Things Hair Refillery invited customers to bring their old Unilever shampoo and conditioner bottles to be refilled with certain hair care products, such as Dove, Sunsilk, and TRESemmé.<sup>32</sup> Products were priced per gram and, because the total amount was based on the weight, customers did not pay extra for the packaging, which made it cheaper than buying a product in plastic. This refillery, which was a month-long trial in a shopping mall, exhibits a simple solution by a major global brand to the single-use packaging problem.

#### **Benefits**

- Customers can choose the quantity they need rather than having to buy pre-packaged products, which in turn improves the shopping experiences.
- Businesses can reduce transportation and packaging costs, which in turn reduces costs for the retailer.
- Customers are encouraged to repeat their purchase by bringing the original containers back to the store for a refill.

- Retailers should design reward schemes to encourage customers to reuse the containers.
- Retailers should develop protocols and policies to ensure regular maintenance and cleanliness of the dispensing system. The dispensing system should be easy to use.
- Retailers should work with consumer goods companies and manufacturers to develop effective refillery systems that are implemented across the supply chain.



### TAKE-AWAY

Many major retailers have "to-go" options, like salad bars, hot food counters, and take-away cafés, which often use significant amounts of single-use plastics. Whilst the take-away market has seen improvements in recent years, with a significant growth in the number of people using reusable coffee cups in cafés,<sup>33</sup> the problem is by no means solved. Globally, half a trillion disposable cups are manufactured and sold every year—equivalent to more than 70 coffee cups for every person on the planet<sup>34</sup>—most of which are not recycled.<sup>35</sup> Combine this with the take-away lunch market, which generates 11 billion items of packaging waste a year in the UK alone,<sup>36</sup> and it is clear that a colossal amount of work needs to be done to end our dependence on single-use plastics for to-go operations.

At The Smart Supermarket, take-away does not mean throwaway. Technology is at the heart of the take-away counter, with customers using an app to collect rewards when they return reusable cups and containers. Thanks to the app, customers are reminded to return their containers to any Smart Supermarket or designated kiosk, ensuring participation is easy and, ultimately, rewarding.



#### How to achieve this

1. Design a return scheme that provides customers with reusable containers, for example:

**reCIRCLE** (Switzerland): reCIRCLE is an innovative container return scheme that has partnered with retailers, restaurants, and cafés across Switzerland to offer customers an easy reuse system for take-away food. Customers pay about \$10<sup>37</sup> for a purple "reBox" and then return the box to the participating store to get their deposit back. Customers can also wash and reuse the box as many times as they like. According to the company, one person using a "reBox" once a week instead of disposable tableware prevents 1.5 kilograms of plastic from ending up in waste incineration each year.<sup>38</sup>

2. Use technology for on-site management to strengthen the return rate of reusable containers, for example:

**Revolv** (Bali, Singapore, Hong Kong): Revolv is trialling a deposit return scheme for reusable coffee cups in Bali. It has test-run its cup service at events in Hong Kong and has recently launched in Singapore. It aims to have a fully integrated app to provide returnable takeaway cups, bottles, and food containers to customers, which will be tracked using radio-frequency identification tags.<sup>39</sup> The aim, according to the company, is to make using Revolv as easy as throwing a cup in the bin. **Vessel** (US): Vessel is a cup-sharing company that, like a library, only charges for reusable coffee cups that are not returned.<sup>40</sup> When customers order a hot drink using the Vessel app, they scan a quick response (QR) code on the bottom of their free Vessel cup before it is filled with their drink of choice. They then have five days to return the cup to a designated kiosk or café. The dirty cups are then picked up by bicycle, washed, and returned to cafés. If, after several reminders, they do not return the cup, customers are charged \$15 via the app.

3. Encourage customers to use their own containers, for example:

**Dabbawalas** (India): This lunchbox delivery system was introduced in India in the 1890s and still operates today. Lunch boxes containing a fresh home-cooked lunch are collected by a dabbawala by bike, then identified with a colour-coding system for the destination of the lunch. Lunch boxes are sorted into groups to load onto trains. Local dabbawalas at each station unload the boxes and deliver them to office blocks to be distributed. Lunch boxes are then returned for washing and reuse. Customers pay up to \$21 per month for the service and between 175,000 and 200,000 lunch boxes are delivered each day.<sup>41</sup> This century-old delivery service has thrived without technology or GPS device. Inspired by the program, DabbaDrop, a London start-up, is transporting ready-made meals to doorsteps in tiffin boxes and collecting them for reuse.<sup>42</sup>

#### **Benefits**

- Retailers can improve brand loyalty and glean customer insights through these subscription services whilst ensuring customers keep returning.
- Customers can enjoy an improved service by using reusable containers that are more practical, aesthetically pleasing, and environmentally friendly.

- Retailers should establish the return-and-reuse logistics of providing reusable containers to customers, by either working with third-party companies or setting up their own system. This needs to include cleaning and cataloguing the containers to ensure their return.
- Retailers should ensure the cleanliness of in-store containers by utilising equipment, such as commercial dishwashers or sanitisers.
- Retailers should establish an effective deposit return scheme. The scheme needs to be easy enough to motivate customers and incentivise the return of containers without putting customers off with big deposits.



## CHECKOUT

The plastic checkout bag is, for many, where their awareness of the plastic pollution problem began. In recent years, there has been a phenomenal international effort to reduce our consumption of single-use plastic bags. As of 2018, the United Nations reports that at least 127 countries have adopted some form of legislation to regulate plastic bags.<sup>43</sup> Despite this leadership, 5 trillion single-use plastic bags will be used this year alone—that is 160,000 bags per second.<sup>44</sup> We are far from addressing the problem; retailers have an important role to play in encouraging customers to bring their own bags. The checkout also offers a unique opportunity to use loyalty programmes to improve sustainable shopping habits.

Thankfully, The Smart Supermarket has a variety of incentives that enable customers to ditch single-use plastic bags and make use of reward schemes, improving brand loyalty and generally making customers proud to shop there.

#### How to achieve this

1. Customers can purchase durable, reusable bags, for example:

IKEA (global): IKEA was an early adopter of the plastic-free movement. Back in 2006, IKEA started the "Bag the Plastic Bag" program in the UK, to charge customers 5 pence for a single-use plastic bag with an aim to encourage the use of reusable bags.<sup>45</sup> The same program was extended to the US in 2007.<sup>46</sup> A year into the program, 92 percent of IKEA shoppers in the US chose reusable over single-use bags.<sup>47</sup> Since then, IKEA has enacted a policy in several countries to eliminate single-use paper and plastic bags altogether and allow customers to purchase reusable bags for 59 cents or bring their own. 2. Provide a borrow-a-bag or rent-a-bag scheme for customers who forget to bring their own, for example:

**Boomerang Bags** (operating in 13 countries): Boomerang Bags is a grassroots project that started in Australia and now operates in 952 communities worldwide. The scheme turns donated fabric into tote bags, which are then distributed to participating retailers. Customers who forget to bring their own bag can borrow one, which they then "boomerang" back to the store after they have used it. The scheme operates on trust alone, but at scale, a small deposit would be an effective way of ensuring that the bags are returned. According to the company, more than 200,000 bags have been made by hand, diverting



77,862 kilograms of waste from landfill, including fabric that would otherwise end up trashed.<sup>48</sup>

**Carrefour and A-Mart** (Taipei): In collaboration with the Department of Environmental Protection in Taipei, Carrefour and A-Mart have started to provide rental reusable shopping bags in participating stores. Customers can pay a small deposit fee to rent a reusable bag if they forget to bring their own, then return the bag in 30 days at any participating store. The bag is then cleaned by a laundry company and sent back to the store for reuse.<sup>49</sup>

3. Use online checkouts and digital technology to encourage participation, for example:

**Woolworths** (Australia): Woolworths has a range of reusable bags and initiatives to encourage customers to use them, especially online.<sup>50</sup> For delivery orders, customers can choose a "crate to bench service," where a delivery person drops off groceries in a crate and then unpacks it when they arrive. For pick up orders, customers can choose to bring their own bags to pack their orders directly from a shopping trolley in the store. These initiatives extend to offline, too, with the Woolworths app reminding customers to bring a reusable bag if they are near a store.

#### **Benefits**

- Retailers can improve brand loyalty with deposit return schemes that incentivise repeat customers.
- Retailers can save money by no longer paying for single-use plastic bags.

- Retailers should consider a clear reduction target or phaseout date for single-use plastic bags when planning to sell reusable bags.
- Retailers should motivate customers to reuse their own bags instead of buying new ones.
- Retailers should establish an effective deposit return scheme for any rental or borrowed bags, which should also be extended to online ordering services.
- Retailers should be careful to not replace one single-use material with another.



## ONLINE

Online shopping is an important revenue stream for major retailers. According to the 2018 Nielsen Connected Commerce Report,<sup>51</sup> globally, 95 percent of consumers with internet access have made a purchase online that year, with 26 percent purchasing fresh groceries. This has contributed to consumer goods companies' growth in the e-commerce sector, of around \$70 billion globally in the past two years. However, online shopping relies on enormous amounts of single-use plastics and other single-use packaging. From cardboard boxes to packing "peanuts" and air-filled plastic bags, the protective packaging industry is booming, with plastic packing foam valued at \$6 billion alone.<sup>52</sup> And it is not just a plastics problem. According to LimeLoop, a start-up company designing reusable shippers, 165 billion cardboard packages are shipped in the US each year, removing more than one billion trees<sup>53</sup>—a reminder of why switching from one single-use material to another is not a viable solution.

Clearly, there is an urgent need for alternatives to single-use packaging in e-commerce. A number of online retailers are already using effective reuse models, dropping off and collecting reusable containers via more sustainable transport.

At The Smart Supermarket, reuse schemes are at the heart of the online store, with every order delivered using sustainable transport that ensures that reverse shipping requirements are carbon neutral. This is rewarding for customers, who can eliminate the enormous single-use burden of online shopping while stocking up on their favourite products.



#### How to achieve this

1. Work with consumer goods companies to design reusable packaging for online deliveries and develop reuse systems, for example:

**Loop** (United States, Paris): This digital shopping platform is trialling "the milkman model" to deliver products in durable, reusable packaging.<sup>54</sup> Loop works with its brand partners to redesign their product packaging for easy refill and reuse. These include many global brands and products, including Häagen-Dazs, Gillette, and Pantene. Customers pay a refundable deposit to borrow the packaging and receive their products in durable, reusable containers that eliminate the need for disposable, single-use shipping materials.<sup>55</sup> Customers then arrange a pick-up when they need a refill. Loop intends to expand to the US West Coast, Toronto, and the United Kingdom by 2020, followed by Japan. This service is currently only available in limited regions, but it has raised the possibility of systematically changing the way products are packaged.



2. Work with a third-party company to provide reusable containers and reverse logistics, for example:

**RePack** (Finland): This start-up, founded in 2011, creates reusable packaging options from recycled materials and aims to help eliminate some of the waste created by e-commerce. The concept is similar to the returnable bottle system: Online shoppers pay a small deposit to use the RePack shipping option when shopping at a participating online store. Once their goods have been delivered, they can fold the empty RePack packages to letter size and return them free of charge. The customer is then emailed a voucher that can be used at any participating store. Each RePack package can be used at least 20 times.<sup>56</sup>

3. Establish deposit return schemes to incentivise reuse for online orders and utilise sustainable transport, for example:

**The Wally Shop** (US): Launched in New York in 2018, this company uses bike couriers to deliver dry goods and local produce that are ordered online, and everything is packed in reusable packaging - organic cotton mesh bags, sealable glass jars, and totes. Each piece of reusable packaging is charged a \$1 deposit. The Wally Shop deducts the deposit as store credit during their next delivery when customers exchange the packaging. Returned packagings are cleaned in the company's warehouse and used again with another delivery. The name is inspired by the dabbawala delivery system in India and has expanded worldwide—an indication of the enormous potential of these kinds of schemes.<sup>57</sup>

#### **Benefits**

- Retailers can improve brand loyalty and glean customer insights through these reuse-and-return models, which encourage customers to repeat their purchase.
- Customers can enjoy an improved service by using reusable containers that are more practical, aesthetically pleasing, and environmentally friendly.
- Customers do not need to accumulate reusable packaging at home or remember to bring it to the shops, saving time and space.

- Retailers should work with consumer goods companies to better design and reduce single-use packaging for online products.
- Retailers should establish local reverse logistics, cleaning, and refilling infrastructure to ensure economic and environmental feasibility. This could be achieved by working with local logistics companies.
- Retailers should develop the right deposit reward scheme. The scheme needs to incentivise the return of packaging without scaring customers away with a very high initial deposit.
- Retailers should use sustainable transport methods to ensure that reverse logistics do not have an adverse environmental impact.

## CONCLUSION

The world has woken up to the impact of single-use plastics and packaging on the environment and communities in highly affected countries. Yet without decisive action, plastic production is set to quadruple by 2050.<sup>58</sup> It is crucial, therefore, that retailers and consumer goods companies work together to accelerate a systematic shift away from single-use plastics and towards reuse systems.

Whilst the task is substantial, viable solutions are already available. From smart refillery tricycles in Chile to radiofrequency enabled cups in Indonesia, all around the world companies are harnessing the power of technology to evolve beyond single-use plastics. Not only is sustainable consumption essential for the future of our oceans, climate, and communities; ultimately, it is better for business. Retailers stand to gain and retain customers, reduce costs, and increase profitability, whilst customers can enjoy better service, collect rewards, and tailor grocery shopping to their individual needs.

But if this growing movement is to put a stop to the plastic pollution crisis, major retailers and consumer goods companies must listen to what people are already demanding. It is time to champion smart packaging solutions that can be returned, refilled, and reused, making The Smart Supermarket the new standard in modern retail.





## ENDNOTES

- 1 Reuse This Bag. "Where Are Plastic Bags Banned around the World?" Accessed 26 June 2019. https://www.reusethisbag.com/articles/whereare-plastic-bags-banned-around-the-world/.
- 2 Jennings, Rebecca. "The Zero-Waste Movement Is Coming for Your Garbage." Vox, 28 January 2019. <u>https://www.vox.com/the-goods/2019/1/28/18196057/zero-waste-plastic-pollution.</u>
- 3 Alegado, Jed. "Global Movement Demands Elimination of Single-Use, Disposable Plastics." Break Free From Plastic, 20 April 2018. <u>https://www. breakfreefromplastic.org/2018/04/20/global-movement-demandselimination-of-single-use-disposable-plastics-calls-on-corporationsand-governments-to-break-free-from-plastic/.</u>
- 4 Benson Wahlen, Catherine. "Over 290 Companies Sign Global Commitment on New Plastics Economy." International Institute for Sustainable Development (IISD), 6 November 2018. <u>https://sdg.iisd.org/</u> <u>news/over-290-companies-sign-global-commitment-on-new-plasticseconomy/.</u>
- 5 New Plastics Economy Global Commitment. June 2019 Report. https://www.newplasticseconomy.org/assets/doc/GC-Report-June19-Summary.pdf.
- Lendal, Annette, and Sara Lindeblad Wingstrant. Reuse: Rethinking Packaging. Ellen Macarthur Foundation and New Plastics Economy, 13 June 2019. <u>https://www.newplasticseconomy.org/assets/doc/</u> Reuse.pdf.
- 7 Nielsen. "Global Consumers Seek Companies That Care about Environmental Issues." 9 November 2018. <u>https://www.nielsen.com/</u> <u>uk/en/insights/article/2018/global-consumers-seek-companies-that-</u> <u>care-about-environmental-issues/</u>.
- 8 Murdern, Terry. "Shoppers Leave Plastic Waste at Supermarket Checkouts." Daily Business, 16 September 2018. <u>https://</u> <u>dailybusinessgroup.co.uk/2018/09/shoppers-leave-plastic-waste-at-</u> <u>supermarket-checkouts/</u>.
- 9 Schweitzer, J.-P., S. Gionfra, M. Pantzar, D. Mottershead, E. Watkins, F. Petsinaris, P. ten Brink, E. Ptak, C. Lacey, and C. Janssen. Unwrapped: How Throwaway Plastic Is Failing to Solve Europe's Food Waste Problem (and What We Need to Do Instead). A study by Zero Waste Europe and Friends of the Earth Europe for the Rethink Plastic Alliance. Brussels: Institute for European Environmental Policy (IEEP). Accessed 18 July 2019. https://www.foeeurope.org/sites/default/files/materials\_and\_waste/2018/unwrapped\_-\_throwaway\_plastic\_failing\_to\_solve\_europes\_food\_waste\_problem.pdf.
- 10 Eosta. "Hate Waste Love Food." Accessed 15 September 2019. https://www.natureandmore.com/en/hate-waste-love-food.
- 11 Brignall, Miles. "'Why Do Supermarkets Sell Organic Food Wrapped in Plastic?" The Guardian, 20 January 2018. <u>https://www.theguardian.com/</u> environment/2018/jan/20/supermarkets-organic-food-packaging.
- 12 Laser Food. "Technology." Accessed 27 June 2019. https://www.laserfood.es/index.php/en/technology.
- 13 Fresh Food Portal. "Spain: Laser Food Signs Global Deal with US\$900M Equipment Group." 2 December 2014. <u>https://www.freshfruitportal.</u> <u>com/news/2014/12/02/spain-laser-food-signs-global-deal-with-us900m-equipment-group/</u>.
- 14 Eosta. "Nature & More Wins International Prize with Natural Branding." 11 June 2018. <u>https://www.natureandmore.com/en/news/nature-</u> more-wins-international-prize-with-natural-branding.

- 15 Pullman, Nina. "Swedish Supermarkets to Replace Sticky Labels with Laser Marking." The Guardian, 16 January 2017. <u>https://www.</u> theguardian.com/sustainable-business/2017/jan/16/ms-and-swedishsupermarkets-ditch-sticky-labels-for-natural-branding?CMP=fb\_ gu&fbclid=IwAR1lpXHLLBCD0TD6a5iMFeo7PrKtPjhu8fEflgYaV punwyfpxB3bo2xF\_Lk.
- 16 Ahold Delhaize. "Delhaize Introduces 'Natural Branding' for Organic Produce." Accessed 22 August 2018. https://www.aholddelhaize.com/ en/sustainable-retailing/in-action/product-safety-and-sustainability/ delhaize-introduces-natural-branding-for-organic-produce/.
- 17 Pullman, Nina. "Swedish Supermarkets to Replace Sticky Labels with Laser Marking," The Guardian, 16 January 2017. <u>https://www.</u> <u>theguardian.com/sustainable-business/2017/jan/16/ms-and-swedish-</u> <u>supermarkets-ditch-sticky-labels-for-natural-branding?CMP=fb\_</u> <u>gu&fbclid=IwAR1lpXHLLBCD0TD6a5iMFeo7PrKtPjhu8fEflgYaV</u> <u>punwyfpxB3b02xF\_Lk</u>.
- 18 Nace, Trevor. "Thailand Supermarket Ditches Plastic Packaging for Banana Leaves." Forbes, 25 March 2019. <u>https://www.forbes.com/sites/</u> <u>trevornace/2019/03/25/thailand-supermarket-uses-banana-leavesinstead-of-plastic-packaging/#607968257102</u>.
- 19 Chow, Lorraine."Nude' Shopping Increases Vegetable Sales for New Zealand Markets." 29 January 2019. <u>https://www.ecowatch.com/nudeshopping-new-zealand-markets-2627421411.html</u>.
- 20 Pinsky, David, and James Mitchel. Packaging Away the Planet: US Grocery Retailers and the Plastic Pollution Crisis. Greenpeace, June 2019. <u>https://</u> <u>www.greenpeace.org/usa/wp-content/uploads/2019/06/packaging-</u> <u>away-the-planet.pdf</u>.
- 21 Sánchez Jiménez, Matías. "Algramo Vuelve a la Carga." Economía y Negocios, 27 April 2019. <u>http://www.economiaynegocios.cl/noticias/</u> noticias.asp?id=564950.
- 22 Larsson, Naomi. "How One Chilean Startup Is Bringing an End to Single-Use Plastics." The Guardian. Accessed 23 August 2019. <u>https://www.</u> <u>theguardian.com/business-call-to-action-partnerzone/2018/jul/04/</u> how-one-chilean-startup-is-bringing-an-end-to-single-use-plastics.
- 23 Sánchez Jiménez, Matías. "Algramo Vuelve a la Carga." Economía y Negocios, 27 April 2019. <u>http://www.economiaynegocios.cl/noticias/</u> noticias.asp?id=564950.
- 24 Arnwell, Kate. "Where to Buy Bulk in London." Eco Boost, 16 January 2017. https://eco-boost.co/where-to-buy-bulk-in-london/.
- 25 Unpackaged. "Press Release: Waitrose Unpacked Launch." 4 June 2019. https://www.beunpackaged.com/blog.
- 26 Spivey, Rosemary. "Oxford Waitrose Unpacked Campaign: Shoppers Give Verdict." BBC News, 4 June 2019. <u>https://www.bbc.co.uk/news/uk-england-oxfordshire-48517126</u>.
- 27 MIWA, "How It Works." Accessed 15 September 2019. <u>http://www.miwa.</u> eu/how-it-works.
- 28 Lush. "'Our Environmental Policy." Accessed 27 June 2019. <u>https://</u> uk.lush.com/article/our-environmental-policy.
- 29 Nickell, Amy, and Christobel Hastings. "Yaaas! Lush Is Opening Its Very First 'Naked' Shop in the UK Where Everything Is Completely Package-Free." Glamour, 10 January 2019. <u>https://www.glamourmagazine.co.uk/</u> gallery/lush-plastic-free-collection.

- 30 McGrath, Jenny. "DS3 Clean Water-Free Swatches Could Be the Future of Cleaning Products." Digital Trends,18 January 2019. <u>https://www. digitaltrends.com/home/ces-2019-ds3-clean/</u>.
- 31 Indiegogo. "DS3 Next Generation Cleaning for Body and Home." Accessed 18 September 2019. <u>https://www.indiegogo.com/projects/ds3-next-generation-cleaning-for-body-and-home#/.</u>
- 32 Eco-Business. "5 Things You Need to Know about Unilever Philippines' All Things Hair Refillery." Unilever Philippines, 22 March 2019. <u>https://www.eco-business.com/press-releases/5-things-you-need-to-know-about-unilever-philippines-all-things-hair-refillery/</u>.
- 33 Gabbatiss, Josh. "Starbucks Reports 150% Increase in Reusable Cup Use since Introduction of 5P Charge." The Independent, 26 April 2018. <u>https://</u> www.independent.co.uk/news/business/starbucks-coffee-cupdisposable-recycling-waste-latte-levy-a8323921.html.
- 34 Margolis, Jason. "Starbucks Tries to Save 6 Billion Cups a Year from the Trash ... With Help from McDonald's." PRI, 13 August 2018. <u>https://www.pri.org/stories/2018-08-13/starbucks-tries-save-6-billion-cups-year-trash-help-mcdonalds</u>.
- 35 Reality Check Team. "Plastic Recycling: Why Are 99.75% of Coffee Cups Not Recycled?" BBC News, 17 April 2018. <u>https://www.bbc.co.uk/news/</u> science-environment-43739043.
- 36 Smithers, Rebecca. "'Lunch on the Go' Habit Generates 11Bn Items of Packaging Waste a Year." The Guardian, 14 May 2019. <u>https://www.</u> <u>theguardian.com/environment/2019/may/14/lunch-on-go-habit-generates-11bn-items-packaging-waste-year-uk.</u>
- 37 All currency listed in this document are US dollars if not specified.
- 38 reCIRCLE. "That's How It's Done." Accessed 18 July 2019. <u>https://www.</u> recircle.ch/what#toc246.
- 39 Hicks, Robin. "Singapore, This New Service Gets Rid of Single-Use Plastic from Takeaways." Eco-Business, 15 January 2019. <u>https://www.ecobusiness.com/news/singapore-this-new-service-gets-rid-of-singleuse-plastic-from-takeaways/</u>.
- 40 Vessel. Accessed 21 August 2019. https://vesselworks.org.
- 41 Gross, Lottie. "Forget Uber Eats: Mumbai's 125-Year-Old Food Delivery System Wins the Day." 12 March 2019. <u>https://adventure.com/</u> dabbawalas-mumbai-india/.
- 42 Dabbadrop. "How It Works." Accessed 15 September 2019. https://dabbadrop.co.uk/how-it-works.
- 43 Excell, Carole, Celine Salcedo-La Viña, Jesse Worker, and Elizabeth Moses. Legal Limits of Single-Use Plastics and Microplastics: A Global Review of National Laws and Regulations. UN Environment. Accessed 28 June 2019. <u>https://www.unenvironment.org/resources/report/legal-limitssingle-use-plastics-and-microplastics</u>.
- 44 The World Counts. "Plastic Bag Counter." Accessed 28 June 2019. https://www.theworldcounts.com/counters/waste\_pollution\_facts/ plastic\_bags\_used\_per\_year.
- Laumer, John. "IKEA UK Will Charge for Plastic Bags." Treehugger,
  June 2006. <u>https://www.treehugger.com/sustainable-product-design/ikea-uk-will-charge-for-plastic-bags.html.</u>
- 46 IKEA. "IKEA 'Bag the Plastic Bag': Questions and Answers." <u>https://</u> ctgreenscene.typepad.com/ct\_green\_scene/files/final\_plastic\_bag\_ faq.pdf.

- 47 IKEA. "The Results Are In ... Over 92% of IKEA Customers Bagged the Plastic Bag." National Press Releases, October 2008. <u>https://www.ikea.</u> com/ms/en\_US/about\_ikea/press\_room/press\_release/national/ blue\_bag\_thank\_you.html.
- 48 Boomerang Bags. Accessed 21 August 2019. <u>https://boomerangbags.org/</u>.
- 49 臺北市政府環境保護局, '押金環保袋上路 減塑省錢愛地球', 6 July 2017. https://www.dep.gov.taipei/News\_Content. aspx?n=CB6D5C560DE4D2DD&sms=72544237BBE4C5F6&s= 81AF78FE281A721F.
- 50 Woolworths. "Gone (for Good): We're Now Single-Use Plastic Bag Free." Accessed 23 August 2019. <u>https://www.woolworths.com.au/shop/</u> <u>discover/reusable-bags</u>.
- 51 Nielsen. "Global Online Grocery Purchasing Is Up 15% in Last Two Years, Leading to an Estimated US\$70B in Additional Sales in Online FMCG." 19 November 2018. <u>https://www.nielsen.com/eu/en/press-</u> releases/2018/global-online-grocery-purchasing-is-up-15-percent-inlast-two-years/.
- 52 Nuwer, Rachel, and Jennifer Kho. "Thinking Outside the Box: Unwrapping a Massive Packaging Problem." The Guardian, 18 November 2014. <u>https://</u> www.theguardian.com/sustainable-business/2014/nov/18/onlineshopping-holidays-packaging-waste-recycling.
- 53 Bird, Jon. "What a Waste: Online Retail's Big Packaging Problem." Forbes,
  29 July 2018. <u>https://www.forbes.com/sites/jonbird1/2018/07/29/</u>
  what-a-waste-online-retails-big-packaging-problem/.
- 54 Roth, Katherine. "'The Milkman Model': Big Brand Names Try Reusable Containers." APNews, 24 January 2019. <u>https://www.apnews.</u> com/74c8d8c2780a43fcb1f05882d28f1442.
- 55 Loop US. "How It Works." Accessed 28 June 2019. <u>https://loopstore.com/</u> how-it-works.
- 56 RePack. "FAQ." Accessed 18 September 2019. <u>https://www.</u> originalrepack.com/service/.
- 57 The Wally Shop. "About." Accessed 10 September 2019. https://thewallyshop.co/about.
- 58 Forbes, Graham. "Greenpeace Ships Are Setting Sail to Tackle the Global Plastic Pollution Crisis." Greenpeace, 29 January 2019. <u>https://www.greenpeace.org/international/story/20554/our-ships-are-setting-sail-to-tackle-the-global-plastic-pollution-crisis/</u>.



# EVERYDAY



#### kg/lb conversion

448 Ber Cler 10 10-10 10-10 10-10

# REFILLS



ONE PRODUCT PER CONTAINER

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