



BECOMING SUSTAINABLE BY DESIGN

# Reinventing *Packaging*

DIAGEO

## Contents

We have written this strategy to not only share the ambitious commitments we are making as a business to tackling the environmental impact of packaging across our value chain but also share our approach to reimagining the future of packaging at Diageo. Our hope is to set out our direction and progressive vision for the future.

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# Reinventing *Packaging*

## **Packaging is a large and important part of our business**

It matters to us because our packaging not only ensures the quality and integrity of our products but is also a key touchpoint for our consumers and customers. For us, it's a critical way of connecting with consumers, telling them about our iconic brands and differentiating them from the competition. It impacts the look, feel, and price of our products as well as how and where they're sold and enjoyed.

In our business, packaging can range from 50L stainless steel kegs containing freshly brewed Guinness, to a case of Smirnoff in glass bottles or even crystal decanters containing rare Johnnie Walker.

**As custodians of over 200 brands which are sold in more than 180 countries around the world, packaging makes up a significant part of our yearly spend. The choices we make have both considerable commercial and environmental impact.** The nature of our business also means that packaging represents a significant part of our supply chain carbon.

Our strategy to reimagine packaging is part of our commitment to be sustainable by design - one of the three core pillars upholding our grain to glass sustainability commitment. It's a part of our 'Society 2030: Spirit of Progress' action plan to create a more inclusive and sustainable world.

## **Evolving our thinking**

We've been tackling the problem of sustainable packaging since 2010, as part of our 2020 vision. The key drive then was to achieve year-on-year improvements. However, in 2016 we went further, committing to 100% sustainably sourced paper and cardboard, 15% weight reduction across packaging, increased recycled content to 45% and ensuring 100% of our packaging is recyclable. As part of our 'Society 2030: Spirit of Progress' vision, we're redoubling our efforts in this space. The rest of this document aims to show how, where and why.



**We recognise that to reduce our environmental impact and reach our ambitious Society 2030 targets, we need to take radical measures.** We believe this is not only the right thing to do, but that there's considerable commercial benefit in managing the cost of waste, fluctuating raw materials and energy costs, as well as in being proactive around the changing regulatory environment, creating business upside through premiumisation, driving consumer appeal and giving consumers more and better choices. In packaging, we believe that radical change can positively impact our people, profit and planet – all of which are central to our approach.

# Our 2030 targets

As a business, we've committed to making responsible choices about our packaging and have set ambitious targets.

These targets will force us to not only reduce waste and increase recyclability, but also look at how we can reinvent some of our packaging systems. This will mean reimagining the traditional 'take-make-dispose' approach and adopting more circular supply chain models.



# Our Targets *Explained*

To deliver these targets, our approach to packaging is to continue improving our current packaging while trialling innovative solutions to nurture and scale.

This experimentation and knowledge transfer within our business and with partners is central to our ability to make a measurable impact.

As part of our 'Society 2030: Spirit of Progress' plan ambition, we're committed to making our packaging **Sustainable by Design**. To do this, we will:

Increase recycled content to **60%** for all packaging

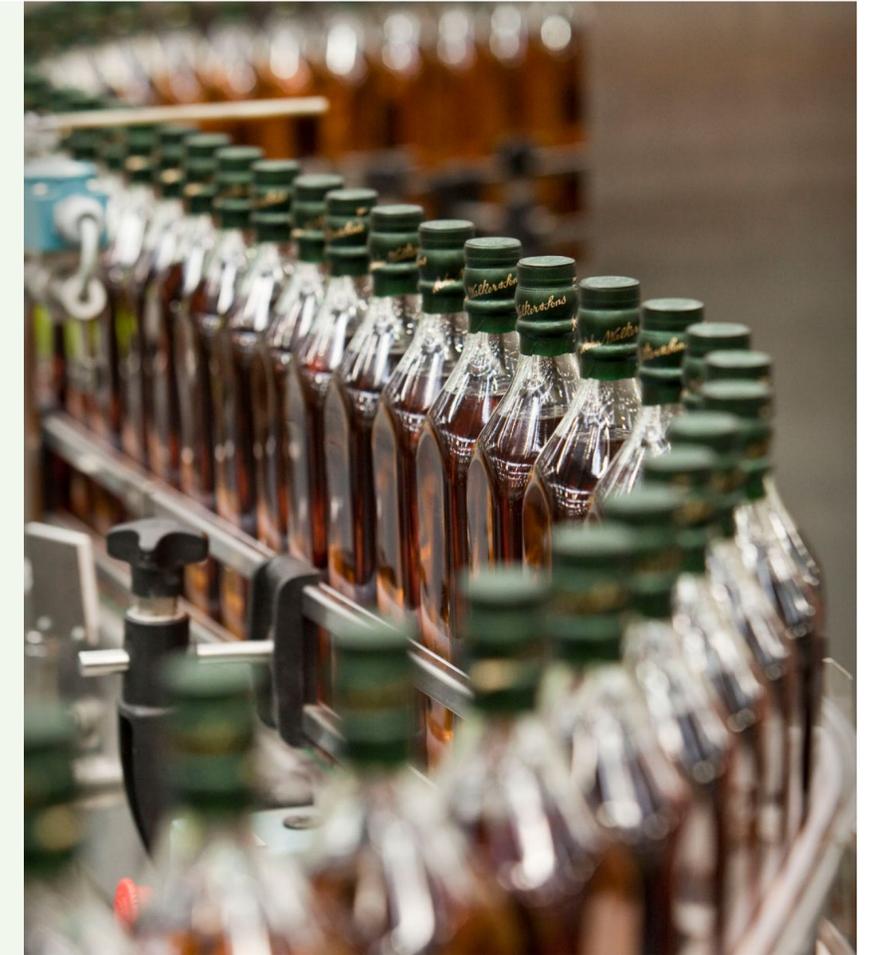
Reduce total packaging weight by **10%**

Ensure **100%** of our plastics are designed to be widely recyclable, reusable, or compostable in countries where we operate by 2025

Sustainably source all our paper and board packaging to ensure **zero net** deforestation

Make **100%** of our packaging widely recyclable

Achieve **40%** average recycled content in all plastic bottles by 2025 and **100%** by 2030



## What types of packaging are most important to our business?

Diageo global packaging materials by volume  
(Total 1.42 million tonnes)



# Our Commitment

## Dedicated to driving circularity

Our approach is based on the basic principles of circularity. We believe that as a business that relies on packaging, we have a duty to strive towards a more circular model. This is at the heart of our long-term view of packaging and its future.

We take circularity as both a practical guide and a mindset. It reflects a desire to push beyond recycling. It's a powerful idea that impacts how we build our brands and our business.

**It means less waste.** All single use packaging is problematic, and the take-make-dispose model isn't viable long-term due to its impact on our planet, consumers, and business.

**It means more responsibility.** Circularity makes brand responsible for the entire life cycle of packaging instead of passing the responsibility on to consumers. We're therefore supportive of Extended Producer Responsibility, in which producers hold

responsibility for the treatment or disposal of post-consumer products, despite the cost and implications.

**It means closing the loop.** Circularity allows us to conserve natural resources by treating packaging materials as reusable assets. This requires a better aligned view of what we do, how and where we sell. It can even require different infrastructure, approach to investment and different kinds of partnerships to ensure resources stay in circulation.

**It means working locally.** Circularity is inherently local with the economic viability and the environmental benefits reduced with distance. Cooperation with local governments and NGOs can accelerate progress, enabling us to support local economies and create new employment opportunities. Investing in local capabilities across the value stream is an important part of our commitment to becoming sustainable by design.

## Circularity Explained

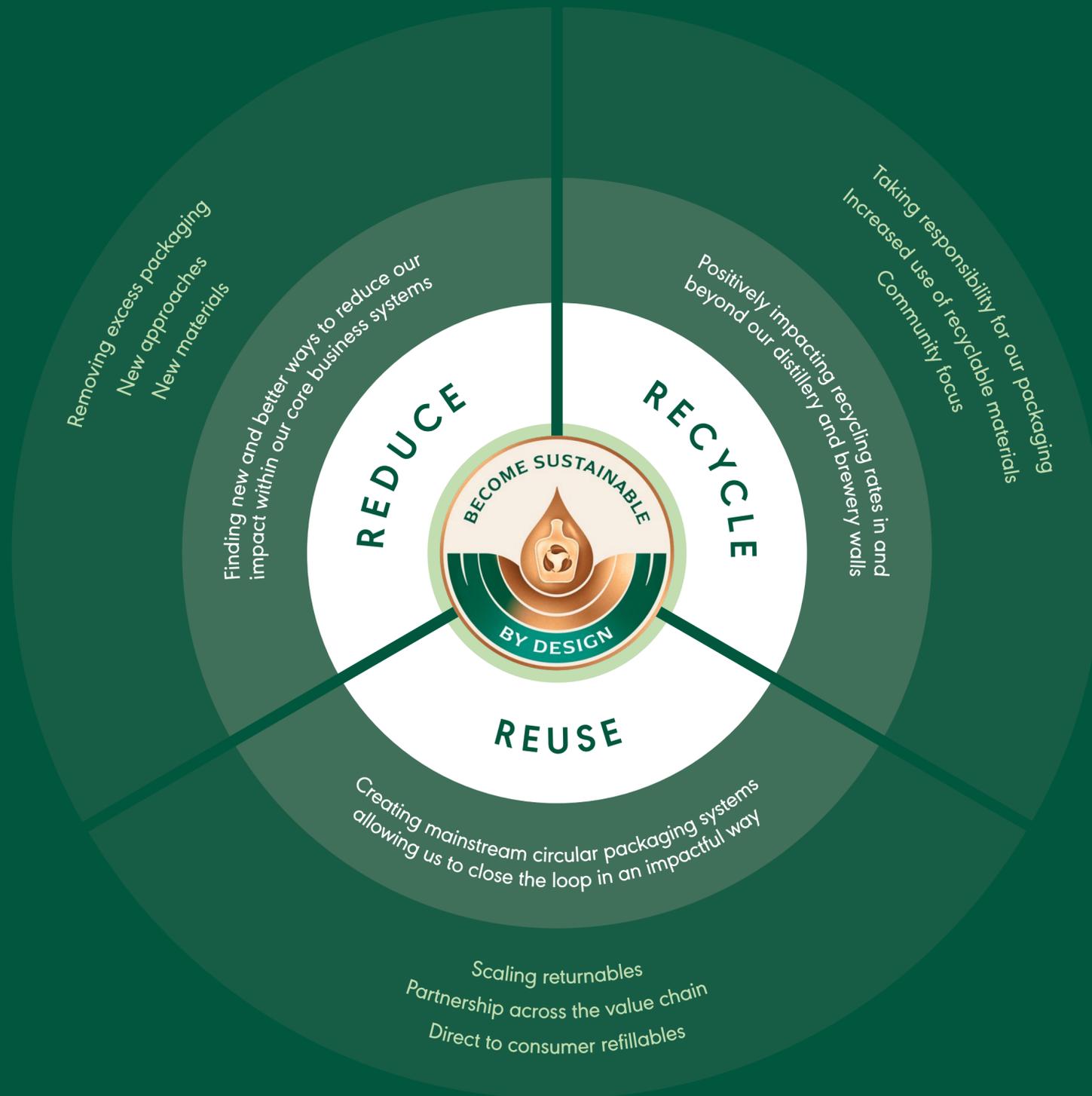
Although circularity can relate to any waste stream, we're referring to supply chain models to advance packaging reuse and refill. Recycling plays a key role in improving the lifecycle of packaging, but it requires significant reprocessing

in order to be used again and rarely achieves true circularity. Whilst it's critical that recycling rates are improved (it forms a crucial part of our strategy), we believe circularity can push us - and society - further.



## A continuation of our journey

Diageo is already operating circular packaging systems at significant scale but we're pushing ourselves to expand on these initiatives to create greater impact. In Africa, we deliver over 90% of our beer volume through the combination of returnable glass bottles and kegs for on-trade consumption.



## Our Approach

Our packaging strategy work falls into 3 areas of focus - **reduce, recycle, and reuse**. Given the scale of the challenge, we are tackling these simultaneously across our business with teams from R&D, marketing, innovation, & supply chain working closely together.

In so doing we believe that we can create a positive cycle of commercial benefit and a reduction in environmental impact. These streams are underpinned by investment in new technology and partnerships while strengthening internal management metrics to enable data-driven decision making into our everyday work.

# Influencing *Factors*

The practical, environmental and commercial concerns underpinning our approach to reimagining packaging.

## **An important role in our long-term success**

Packaging plays an important role in protecting our products and is vital to the product and brand experience. Packaging is a central part of how consumers consciously and unconsciously evaluate quality – it impacts how they think something will taste and informs what they think of a brand. For some, it also shows the world who they are or aspire to be. For this reason, Diageo has trademarks on many packaging shapes – from the Guinness pint and Johnnie Walker’s distinctive square bottle, to Crown Royals cut-glass bottle and crown stopper and Zacapa Rum’s Petate band. Naturally, any choice around packaging also has an impact on cost and affordability for consumers. All of these factors mean packaging can be a reason for choosing, gifting, displaying, and choosing again.

## **Meeting the expectations of our consumers**

Increasingly, packaging is impacting consumer choice in another way, based on its impact on the environment. The focus on what happens after the packaging has been used has been scrutinised in recent years and is increasingly impacting what we buy. Consumers and regulators are pushing companies to reduce waste and develop packaging that can be easily recycled. Packaging is tangible, there’s no hiding poor design decisions, and if not careful it quickly becomes branded trash. As a creator and user of packaging we’re invested in its future development and how it can be used in such a way that minimises the potential negative impact on both the environment and our brands.

## **Impacting our environment and its communities**

Globally, the use of packaging has evolved into a ‘take-make-dispose’ model, driven by convenience, at the cost of our natural resources. Packaging has become synonymous with waste, something we at Diageo are looking to change.

According to Circle Economy, at a global level, 91% of all materials humans use are either wasted or lost – only 8.6% of what we take from the planet is reused. As a global business, we’re increasingly looking to apply learnings from developing markets where resources have traditionally been scarcer, to more developed markets, where an abundance of resources has led to more waste.

## IN DETAIL

# Reduce

The most significant step towards becoming more sustainable by design is to reduce the amount of single-use materials we're putting into market. We're working hard to reduce the weight of our existing materials and innovating to create lower carbon alternatives.

### Taking out unnecessary waste

We're constantly reviewing all of our brands and seeing where we can make better choices, learning and adapting as technology and consumer expectations evolve. For example, we invested £16million to remove plastic from the multipacks for our Irish-made beer brands Guinness, Harp, and Smithwick's and switch to easy-to-recycle cardboard. At the United States Guinness Open Gate Brewery, we have moved to can carriers made from byproduct waste and other compostable fibers creating a fully compostable and biodegradable option for multipacks sold at the brewery. In addition, we have committed to removing cartons from many of our scotch whisky brands, removing 184 million boxes that would otherwise be disposed of.

### New approaches to glass

Glass is essential to the spirits industry, making up the largest proportion of our packaging materials and is an important part of the heritage of many Diageo brands. It's crucial for us to design bottles that consumers are proud to gift and display, but at the right weight. To this end, we're committed to reducing the weight of our packaging by 10% by 2030.

We're also looking at the type of glass we use and alternatives to virgin glass and traditional glass manufacturing. This means increasing the percentage of recycled glass across our portfolio but with a greater focus on higher volume, more impactful brands like Johnnie Walker and Smirnoff. On Black & White, Scotch whisky, we created the lowest carbon bottles ever made in Scotland. The trial made over 170k bottles with 90% less footprint by combining 100% recycled glass and biomass fuelled furnaces. We aim to use these learnings to implement at larger scale across the business to create greater impact.

### New materials

Beyond this we're exploring new and novel alternatives to glass to find the next generation of lightweight, convenient packaging. On Johnnie Walker, working with Pilot Lite, we're developing the world's first ever PET-free paper-based spirits bottle. In addition, we have been experimenting with a home-compostable Mycelium gift carton on our leading alcohol-free spirit brand, Seedlip.

We believe that these approaches will make a significant contribution to addressing our impact as well as give consumers new reasons to choose our brands.



### Reduction - in action

In 2020, we announced that our iconic American whiskey brand, Seagram's 7 Crown, would be moving to 100% recycled plastic across all of its PET formats: 200ml, 375ml, 750ml, & 1.75L. This change reduces that use of virgin plastic by almost 1,000 tonnes annually - the equivalent of removing 100million 500ml plastic bottles.

Seagram's 7 Crown was the first Diageo brand to shift away from virgin plastic and kicked off the decade of action toward our goal of moving to 100% recycled plastic in our plastic bottles by 2030.



## IN DETAIL

# Recycle

Irrespective of what packaging is made from or how it's made, too much packaging ends up in landfill. As recycled content targets drive demand for recycled material, without impacting community involvement and increasing recycling rates we will continue to have to rely on virgin materials. To positively impact recycling rates, we need to tackle the challenge beyond our immediate operations.

### Shifting to widely recycled materials

It's important to us that our consumers have a realistic means to responsibly dispose of our packaging after consumption. Where reuse isn't possible, we're making sure our packaging is widely recyclable - both in terms of community infrastructure and ease of recycling our materials.

We understand our duty to consumers to make sure they know how to properly recycle packaging that they no longer have a use for and we do so by using commonly understood packaging formats and avoid mixing material types. When developing novel materials, it's critical that we keep this front of mind and communicate with the consumers on how to properly dispose of empty packaging.

### Engaging with local communities

Recycling infrastructure varies significantly around the world, so it's important to us to partner with consumers, local authorities, and other local players to help develop recycling programs to increase accessibility.

Glass is Good - our pioneering project operating at scale in Brazil - is an example of a scheme that has engaged the local community via cross-industry partnership.

The scheme engages the entire supply chain: bars, restaurants, housing complexes, the glass industry, the beverage industry, and cooperatives, ultimately resulting in the collection and recycling of about 5,000 tonnes of glass in 4 years.

The material impact, along with the benefits of mobilising the supply chain and promoting social and environmental issues among its employees have made this project a national reference point for recycling schemes aimed at tackling other materials.

Learnings on this, as well as our efforts with plastic in Ghana (see right), will soon be transferred via our support of Don't Trash Glass in the United States.

### Recycling - in action

In Ghana, acting as Guinness Ghana Breweries - a subsidiary of Diageo - we have set up 10 plastic Buy-back Centres across Accra and Kumasi to collect plastic bottles after consumer use. A bottle buy-back centre is a depot or station where individual waste collectors can drop off or sell off their plastic bottles for recycling. The project will collect 800 tonnes of plastic during the first year of operation.

Our hope is that this marks a major step in the right direction in the fight against plastic pollution in Ghana, with scale-up and broader partnerships to come in the following years.





## IN DETAIL

# Reuse

In order to make consumer packaged goods more sustainable, we need to create packaging systems that allow true circularity - from packaging design to the business model needed to close the loop. This will require cross industry collaboration across the value chain.

### Scaling returnables

Where we have the capability, we're looking to scale returnables. While we utilise this model across beer and spirits brands already, we're looking to further scale our current initiatives and expand to include additional brands and markets. We have trials live in several of our growth markets on local brands - in Brazil (on Ypióca) and in India (on McDowells).

### Creating new networks and models

Making alcohol a more sustainable product from grain to glass will require us to be more collaborative than ever before. We're working with our customers, establishing new networks and creating new models, in order to positively impact their business so that we can all mutually benefit from a more sustainable economy.

In Southeast Asia, we have partnered with ecoSPIRITS to pilot an on-trade refillable dispense system, starting with our iconic brands Smirnoff and Captain Morgan. The trial will deploy branded, next-generation packaging technologies to bottle, distribute and dispense spirits in select bars and

restaurants. By leveraging the ecoSPIRITS closed-loop system, we aim to reduce our carbon footprint and waste from single-use glass spirits bottles.

### Direct to consumer refillables

We're also looking to more disruptive models that directly engage with consumers. At our Johnnie Walker Princes Street brand home, we've developed beautiful whisky and cocktail dispense systems to engage and excite consumers. These systems can be found throughout the consumer experience to try new whiskies, enjoy a cocktail, or to refill your own specially designed bottle while saving about 40,000 glass bottles a year. This is just one example of how we're pushing our business to a more circular packaging model.

**Our strategy here is to pilot, optimise and then scale. We are focusing on working with our more mainstream, higher volume brands to create impact and accessibility for our consumers.**



### Reuse - in action

In the spirit of closing the loop and creating a more circular model, we have implemented a glass bottle return system on Ypióca, one of Brazil's leading cachaça spirit brands. Covering an 800km radius around the manufacturing facility in Brazil, empty bottles are brought back to the manufacturing site routinely to be sanitised, refilled, and reused. Each bottle on average is able to withstand 8 cycles of reuse - when the bottles come to the end of their life, the collected bottles are recycled appropriately. During the last fiscal year, the bottle return system supplied enough bottles to cover over 70% of the Ypióca Gold and Ypióca Silver bottles filled at the site.

# Beyond *the Packaging*

To deliver the above and ensure we're making the right choices, there are several additional workstreams.

## Investment in technology

In an area as complex and technically challenging as packaging, we know that we don't have all the answers. As a result, we launched Diageo Sustainable Solutions, inviting innovators to share and develop their ideas in partnership with Diageo in order to enhance the sustainability of our brands and businesses. Born out of a passion for – and experience in – brewing and distilling, we want to advance more sustainable technologies and practices across the full supply chain of our brands and thereby help consumers make choices that protect our natural resources. We will provide our time, resources and assets and fully-fund proof-of-concept pilots that we select from the programme.

## Internal management and metrics

We must acknowledge that we can't make the impact we want to through special projects and extraordinary investments alone. We're working hard to bring impact reduction into how we work on a day-to-day basis around the world. As a result, we're investing in tracking and measuring the role of packaging in the total footprint in all our major brands. Using life cycle analysis, we can see where the biggest issues are, make interventions and track progress. We utilise a range of tools to help make better and more informed decisions, from internally developed packaging sustainability assessment tools to third party life cycle assessment.

## Progressive partnerships

As part of our belief that we need to work with the best and brightest, we're also partnering with a range of industry partners, as well as regulators, local and national governments, NGOs and wider groups.

## Summary

As we have seen, there's no one single, easy solution but we expect that the combination of the above will dramatically improve our performance and deliver against our 2030 goals.

As we continue our journey to create a more circular future, it will require us to have relentless focus on all 3 pillars of reduce, recycle and reuse.

We must act now, push for innovation where solutions don't exist, and shift consumer behaviour in order to embrace circularity.



# Measuring *Our Performance*

We must do business the right way from grain to glass. One way of doing this is through reporting transparently on environmental, social and governance (ESG) issues, as this plays a vital role in delivering our strategy. It helps us to manage ESG risks, seize opportunities and promote sustainable development everywhere we live, work, source and sell.

Our '2030 Society: Spirit of Progress' Sustainable Packaging targets are tracked annually in our Annual Report. We use key performance measures (KPIs) to measure performance to become sustainable by design. These include:

- Percentage reduction in total waste to landfill (tonnes)
- Percentage reduction of total packaging (by weight)
- Percentage of recycled content (by weight)
- Percentage of recyclable packaging (by weight)
- Percentage of recycled content/percentage of plastics used
- Percentage of recyclable (or reusable/compostable)/percentage of plastic used

We track progress against these targets internally throughout the year, informing cross-functional, strategic planning.

Analysing our KPIs enables us to build strong and positive relationships with our suppliers to ultimately make our packaging more sustainable by increasing the recycled content and reducing packaging weight in pursuit of our sustainable by design commitments.

In order to benchmark our sustainability work against our peers and the wider business community, and to make sure we're continually striving for success, we submit non-financial information to a range of indices throughout the year: Diageo was one of the top ranked beverage companies in the FTSE4Good index series and features on the Ethibel Sustainability Index (ESI) Excellence Global.

## **Accountability**

Strong governance structures and clear lines of accountability ensure the commitments in this strategy are met. Diageo's Executive Committee, chaired by our Chief Executive, is accountable for the overall strategy and allocates responsibility for implementation to different parts of the business, including the Environment Executive Working Group which is chaired by the President of Global Supply and Procurement and Chief Sustainability Officer (also a member of the Executive Committee).

Day-to-day accountability for managing key packaging-related risks to the business sits with the general managers for each market and the President of Global Supply and Procurement and Corporate Relations Director.

## GLOSSARY

**Carbon Footprint:** A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product.

**Circular Economy:** The Circular Economy (CE) is to move away from a traditional 'take, make, dispose' linear process, which has seen the extraction of raw materials to be manufactured and then thrown away, often before they have failed or reached end of life. The CE looks to minimise the demand for resources and eliminate waste by keeping products and materials circulating in a high value state for as long as possible. This can be achieved when products and buildings are designed with their whole life in mind, allowing for reuse, repair and extending their useful life before being remanufactured. Where materials reach end of life and are not able to be remanufactured, they can still retain value; for example, products which are made from biological materials can be produced without any toxic chemicals so that they can be recycled or returned to the biosphere for composting or anaerobic digestion.

**Climate Change:** Refers to any change in climate over time, whether due to natural variability or, as now known, unequivocally as a result of human activity.

**Compostable:** compostable is used to describe a product that can disintegrate into non-toxic, natural elements in a compost environment. This means that it requires microorganisms, humidity and heat to yield a finish compost product and it does so at a rate consistent with similar organic products.

**Downcycling:** The opposite of upcycling and the transformation of products materials into lower quality and/or lower value products and materials.

**GHG Emissions:** Greenhouse gas emissions. Carbon is often used to encompass all 7 GHGs as defined by the Kyoto protocol, including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride.

**Net Zero:** Net zero emissions are reached when anthropogenic (i.e., human-caused) emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

**NGOs:** Non-governmental organisations.

**PET:** Polyethylene terephthalate. Most commonly taking the form of a plastic bottle. PET is completely recyclable and is the most recycled plastic globally.

**Recycled content:** Recycled content refers to the total percentage of recovered material in a product, including pre-consumer and post-consumer materials.

**Recyclable:** Recyclable materials are those that would have otherwise been thrown away/ disregarded as waste and thus are processed, collected and turned into new products for re-use, in the process of recycling.

**Recycling:** The outermost loop of the circular economy, recycling which allows materials to be recycled back into the same material/product. The conversion of waste into new materials and products by remanufacturing in ways that reduce demands for extracting raw materials from the natural environment.

**Re-use:** The keeping of components and materials within the circular economy by redeployment and use again.

**Scope 3 Emissions:** Includes all other indirect emissions that occur in a company's upstream and downstream value chain, typically from sources that they do not control or own. This includes purchased goods and services, capital goods, fuel and energy related activities, transportation and distribution, waste generated in operations, business travel, employee commuting, leased assets, use of sold products, end of life treatment of sold products, franchises and investments.

**Zero net deforestation:** "Zero Net deforestation" can be distinguished from "zero deforestation", which means no deforestation anywhere. "Zero net deforestation" acknowledges that some forest loss could be offset by forest restoration.

**Primary packaging:** Packaging in direct contact with the product, with the main purpose of protecting/containing the product.

**Secondary packaging:** Packaging where the main purpose is for logistical ease (collating individual items together) or brand display.

**Tertiary packaging:** Packaging used for handling, protection and transportation of multiple sales units.

## SUPPORTING DOCUMENTS

To help us achieve our strategic goals to be sustainable by design, we have developed guidelines, standards, and implementation toolkits to help everyone across our entire business and supply chain understand what their role is, and how to take action.

We will develop our internal standards to set out requirements and expectations to deliver our 2030 sustainable by design commitments. They will provide direction on mandatory aspects that meet corporate deliverables and external reporting frameworks.

We also continue to extend our assessment of climate change impacts, and our existing disclosures, on our journey to adopting all the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We have incorporated the TCFD framework into our reporting and are accelerating efforts to mitigate climate change risks and identify opportunities for transitioning quickly to a low carbon future.

Our ESG Reporting Index contains additional information which is not included in the Annual Report. It is structured as three frameworks: the GRI index follows the GRI Sustainability Reporting Standards framework, while the UNGC index follows the UNGC advanced reporting criteria and serves as our annual Communication on Progress. We also report against the Sustainability Accounting Standards Board (SASB) framework.

## HOW WE REPORT TO OUR STAKEHOLDERS OUR REPORTING SUITE

### Annual Report

Where we present our most material disclosures and describe how our strategy delivers value for our business and other stakeholders.



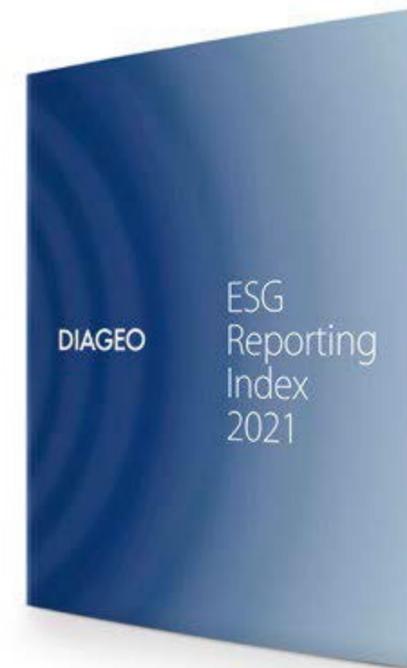
### Diageo.com

Where, through the 'Society 2030: Spirit of Progress' section, we give further details of our approach and performance, including examples of our strategy in action.



### ESG Reporting Index

Where we give additional disclosures in line with the GRI Standards index and the UNGC advanced reporting criteria index, plus our response to the Sustainability Accounting Standards Board (SASB). This document also includes detailed non-financial reporting boundaries and methodologies.



## DOCUMENT DETAILS

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