WINE GB
GREAT BRITAIN

SUSTAINABLE WINES OF GREAT BRITAIN

The Mini Sustainable Packaging Toolkit

How To Use This Guide

This toolkit is a one stop document to help you make the most sustainable packaging choices that works for your business.

Section 1: Introduction and Context

This section provides essential background for anyone working in or with the wine industry. It covers key definitions, environmental impact, consumer trends, and why packaging sustainability matters. Recommended for all readers.

Section 2: Packaging in Practice: A Guide for Wine Producers

This is the hands-on, practical core of the guide – ideal for wine producers and business owners. It includes real-world examples, supplier advice, and practical tools to help you make informed, sustainable packaging decisions.

Section 3: Compliance and Policy

This section offers a deeper dive into the regulatory landscape and support schemes. It's particularly relevant for consultants, sustainability officers, or producers operating at scale who need to stay compliant and informed on national and industry-level policies.

Section 4: Insights and Further Learning

For those wanting to explore beyond the basics, this section signposts further reading, and researching. It's useful for anyone looking to deepen their understanding or stay on top of developments in sustainable wine packaging.

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Section 1:

Introduction and Context

Introduction

The landscape of packaging within the wine industry is evolving rapidly, driven by regulatory changes, sustainability initiatives, and consumer expectations. This guidance document serves as a comprehensive resource for navigating the complexities of responsible packaging. Whether you are looking to ensure compliance, adopt best practices, explore alternative materials, or understand the future of packaging, this document provides the insights and tools needed to make informed decisions.

We cover key areas such as:

- Training & Compliance: Meeting industry standards, including Portman Group regulations, wine packaging requirements, and legislative frameworks.
- Best Practices & Alternatives: Exploring innovative solutions, sustainable packaging materials, and circular economy principles.
- Life Cycle Understanding: Gaining a holistic view of packaging impacts from production to disposal.
- Future Trends & Regulations: Anticipating upcoming changes such as Extended Producer Responsibility (EPR) and Deposit Return Schemes (DRS).
- Industry Schemes & Research: Insights into initiatives like the Bottle Weight Accord and research shaping the future of packaging.
- Practical Tools & Checklists: Covering carbon footprint measurement, policy templates, and consumer perception insights.
- Collaboration & Resources: Engaging with key packaging partners, including WineGB Partners and Patrons, and, as well as spotlighting useful resources such as the Porto Protocol Guide.
- Growing retailer demand: Examines the scale of opportunity and what major players like M&S are looking for.

What do we mean by ‘packaging’?

Glass Bottles

Corks

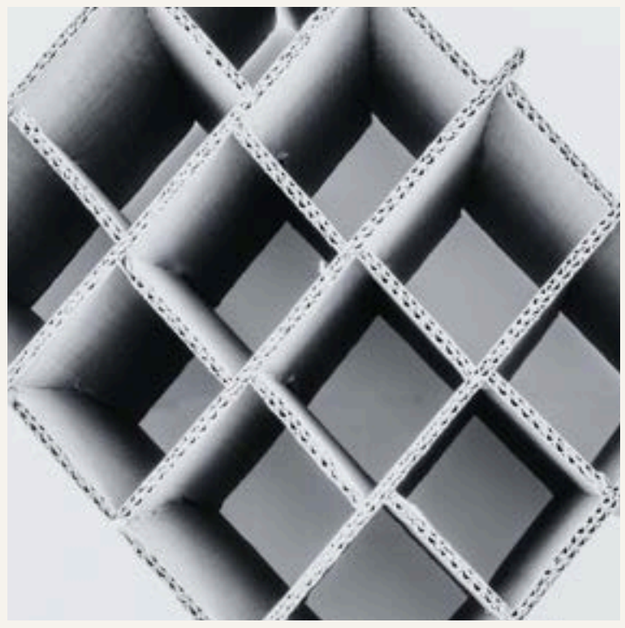
Screw Caps

Labels

Foils

Cans

Bag-in-box



Protective inserts

Pallet Wraps

Sustainability at a Glance

When considering sustainable packaging, key factors include:

- Weight of materials, as lighter packaging reduces transport emissions
- Use of recycled content to minimise reliance on virgin resources
- Recyclability is crucial, ensuring that packaging can be easily processed within existing waste systems.
- Durability and reusability can help extend the life cycle of packaging, reducing overall waste.

Businesses must balance these factors with functionality, cost, and consumer convenience to create truly sustainable packaging solutions.

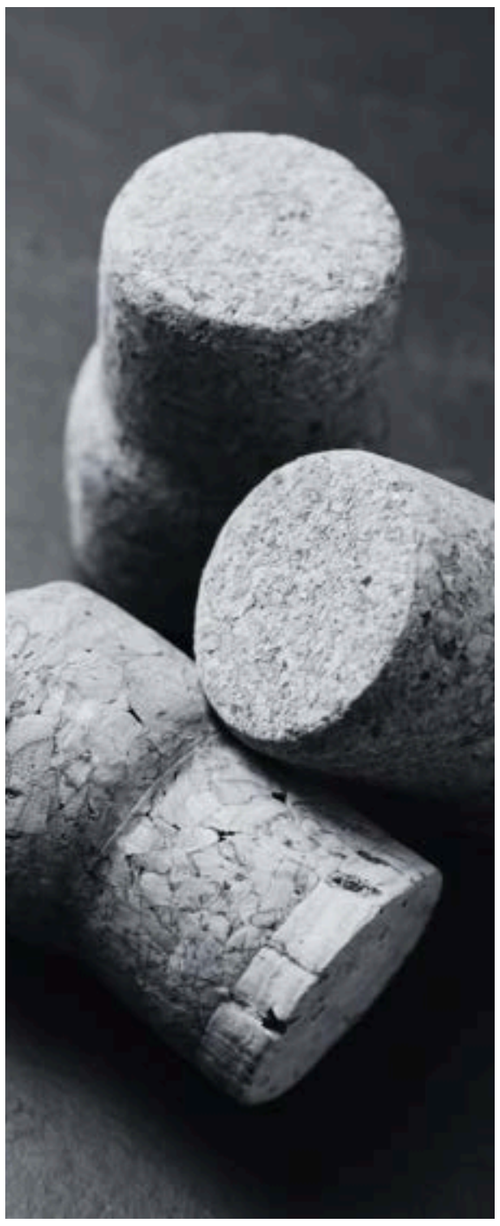
Bottles and Alternatives

Heavyweight Glass increases carbon footprint without necessarily improving wine quality

Lightweight Glass Bottles reduce carbon footprint in production and transportation. Some producers have cut bottle weight by 20-40%, leading to significant CO_2 reductions.

Recycled Content in Glass Using recycled glass lowers energy consumption and raw material use.

Alternative Materials (Paper Bottles, PET, Aluminum Cans, Bag-in-Box) can lower emissions in production and transport but require strong and consistent recycling systems.



Closures

Synthetic Corks are made from plastic, difficult to recycle, and contribute to plastic waste.

Natural Cork is biodegradable, renewable, and carbon-negative due to cork oak forests capturing CO_2. Some producers use certified sustainable cork (e.g., FSC-certified).

Technical & Agglomerated Corks offer a sustainable option with reduced risk of 'corked wine'.

Aluminum Screw Caps are recyclable but require separation from the bottle. Carbon footprint depends on whether they are made from recycled aluminum.

Foils, Capsules and Wax Seals

Wax Seals may look premium but complicate bottle recycling and consumer disposal.

PVC & Plastic Capsules are not widely recyclable and contribute to plastic waste.

Foil-Free Design some wineries are eliminating foil or plastic capsules, reducing waste and simplifying recycling.

Aluminum or Tin Capsules are recyclable in theory but often recycled correctly or consistently.

Labels and Inks

Plastic or Metallic Labels are often difficult to remove and interfere with glass recycling.

Recyclable Paper Labels improves bottle recyclability compared to plastic-coated or metallic labels.

Minimalist & Direct-Print Labeling printing directly onto bottles reduces label waste and removes the issue of not being able to remove the label when it comes to recycling the bottle.

Water-Based & Soy-Based Inks have lower volatile organic compounds emissions and better environmental impact than petroleum-based inks.

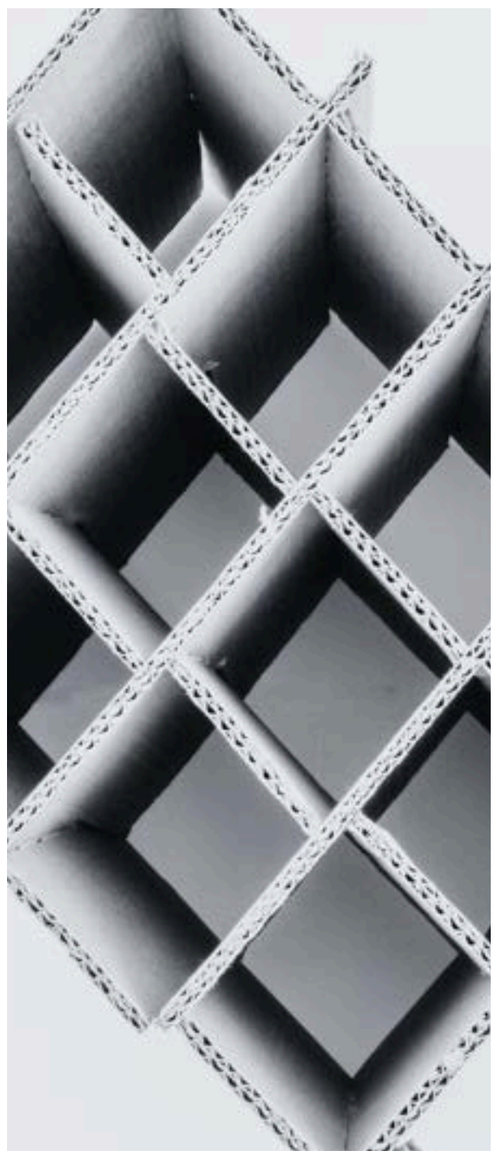
Outer Packaging & Transport Materials

Plastic Shrink Wrap & Straps are deemed necessary for pallet stability but hard to recycle. Some companies are switching to biodegradable alternatives.

Recycled & Recyclable Cardboard has high post-consumer recycled content reduces deforestation impacts and is widely recyclable for consumers.

Biodegradable & Compostable Packing Materials such as mushroom-based or recycled paper inserts instead of polystyrene which will not biodegrade and end up at landfill.

Pallet Optimisation reducing space and weight per shipment lowers transport emissions.

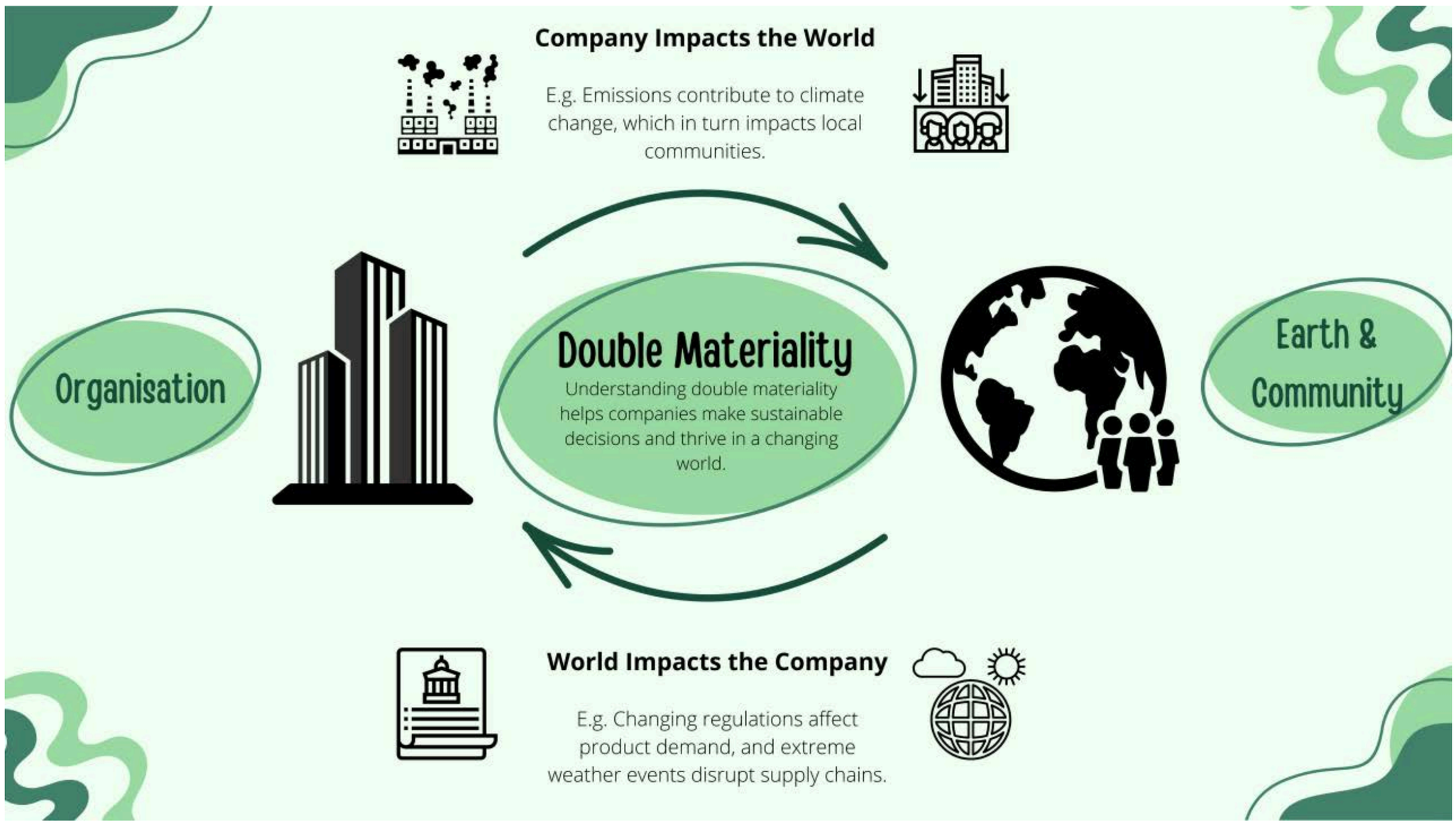


Environmental Impact

The best way to assess your environmental impact is to do what is known as a 'materiality assessment' or 'double materiality assessment'. This can be as simple or as complicated as needed, but it's essentially looking at what the biggest environmental impact is upon you (e.g. floods) and what is your biggest impact on the environment (e.g. the carbon footprint of using glass). Then you prioritise your actions as to what can mitigate those impacts. For wine producers, this usually distills down into the need to improve soil health on the one hand (both for climate resilience and for sequestration), and to decarbonise packaging on the other.

To effect change in either of these areas, the first step is to get a baseline understanding of your current position. This can be through good soil testing or a life cycle assessment of your packaging.

The structure of Sustainable Wines of Great Britain (SWGB) and the free carbon calculator can be a good first step if you don't know where to start



Once you've completed a materiality assessment you are able to see what your largest impacts are and can then begin tackling your highest impact areas. If you look at the carbon impact of all areas of the winemaking production line, it is obvious what a large impact the packaging choices you make have on the environment.

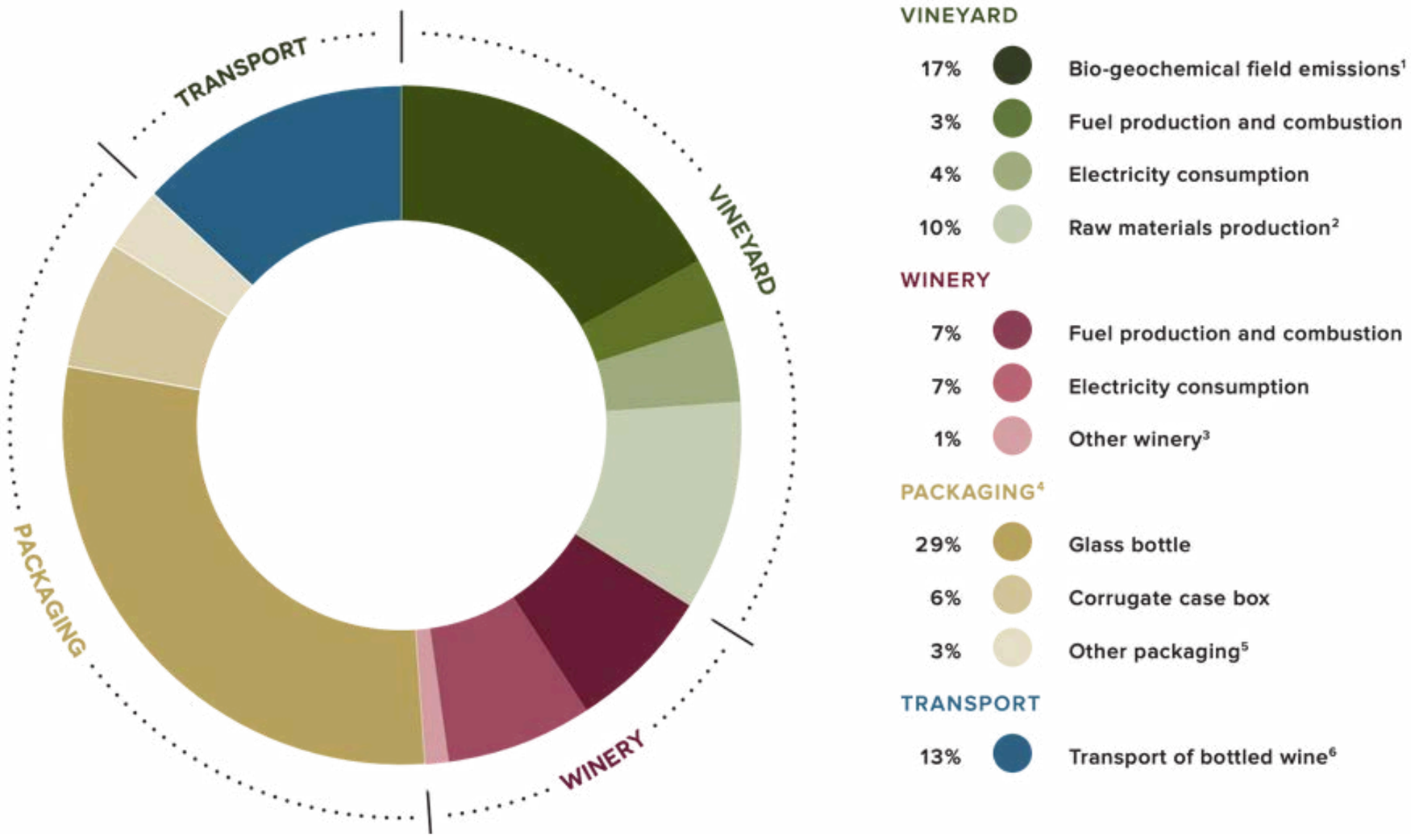


Image: California Sustainable Winegrowing Alliance

An average glass bottle (440g) creates over 550g of carbon even when including recycled content. This is due to the mining and dredging of the raw material which is not renewable and the huge amounts of energy to fire the furnaces to create the heavy weight glass bottle.

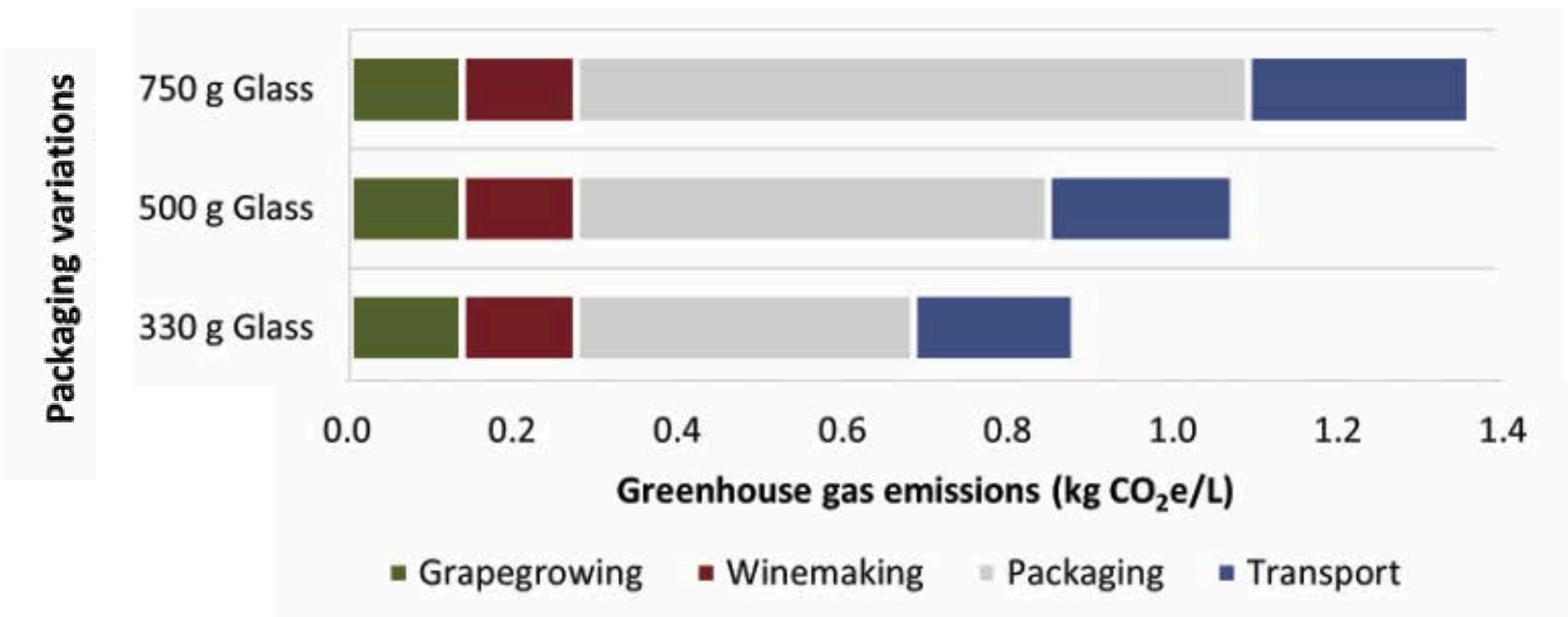


Image: Life cycle analysis of Australian wine (Hirlam et al. 2023)

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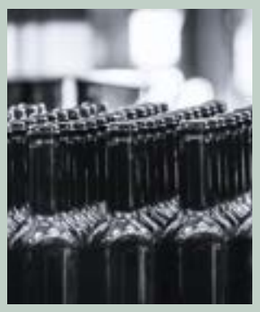
Section 2:

Packaging in Practice: A Guide for Wine Producers

What Packaging Type Brands Are Using

Global Market Share by Packaging Type



Glass Bottles continue to lead the market, accounting for approximately 60% of global wine packaging. However, projections indicate a decline to around 33.8% by 2032 as alternative packaging formats gain popularity.

Bag-in-Box (BiB) packaging has seen significant growth, especially in Europe. In France, BiB represents 44% of supermarket wine sales , and in Sweden, it accounts for about 29% . Globally, BiB holds a 25% market share.

Cans are emerging as a convenient option, particularly among younger consumers. While specific global market share data is limited, cans are gaining popularity in various markets.

Plastic Bottles currently constitute about 15% of the market.

Regional Insights

Europe leads in adopting alternative packaging formats. In France, BiB is prevalent in supermarkets, and in Sweden, it is the most popular packaging format.

North America. In the U.S., BiB accounts for approximately 17.5% of wine sales . Glass bottles dominate but are experiencing a gradual decline in favor of more sustainable options.

Choosing a Packaging Partner

Select packaging partners with experience in wine packaging, strong quality control (ISO9001, BRC), and a collaborative approach. Ensure they have both conventional and digital print capabilities for efficiency.

Energy Source Impact: Prefer suppliers with renewable energy sources, but not at the cost of quality and expertise. Printing energy use is minor compared to glass production but varies by equipment efficiency.

Assessing Environmental Commitment: Look for certified improvement records, a published Environmental Management System, and clear CSR policies.

Key Questions for Providers:

- Can they recommend sustainable materials?
- Do they offer a sustainability audit?
- What are their certifications, recent improvements, and goals?
- How do they ensure labels suit the product?

Certifications & Compliance: Trusted certifications include ISO 14001, B-Corp, EcoVadis, Carbon Disclosure Project, Carbon Trust, and FSC (for responsible forestry).
Supply Chain Transparency: UK suppliers should provide full transparency to verify sustainability claims.

Checklist

What	How	Tick
Know your impact	Use a carbon calculator (such as the free to use WineGB carbon calculator) to work out your CO2 emissions. Increasingly removals (sequestration) will also be important.	
Set targets	Use this data to set environmental impact reduction targets.	
Choose your suppliers	Research what works for you and choose a supplier who aligns with your sustainability goals.	
Track your changes	Keep a track of what changes you make to your packaging as you go so you are able to display the changes you've made and track the reduction in environmental impact.	
Educate your stakeholders and consumers	Inform them of why you're making these choices and the impact it's having, and the impact their decision to choose your brand is having on their own environmental footprint.	
Implement a policy to keep the good work going	To ensure that the hard work you and your team have put into making meaningful change to the impact of your packaging continues, take our policy or create your own to ensure it stays a priority for the business.	
Create a routine of reporting, tracking KPIs and reassessing	Once you've implemented changes, set KPIs which will indicate the success of your packaging switches and continue to try new things to see what works best for your business.	
Keep up-to-date with new technologies within packaging	Ensure you are keeping up-to-date with studies on new packaging technologies and research studies to ensure you're aware of what best practice is.	

Case Studies

Case studies are powerful tools for learning about environmentally sustainable packaging in wine because they offer real-world context, showing how specific decisions play out in practice.

They help illustrate the trade-offs, challenges, and benefits of different packaging materials – like glass, cans, or alternative formats – based on actual results from producers.

By examining what has worked (or not) for others, wine businesses can make more informed, practical, and relevant decisions tailored to their own operations.

Case studies also bring credibility by showcasing evidence-based outcomes rather than theoretical assumptions.

Next, you'll see a series of case studies from WineGB Members, offering firsthand perspectives on sustainable packaging choices and the outcomes of their decisions.

Mallard Point

Mallard Point has introduced a reusable aluminium bottle for both wine and spirits, aiming to reduce environmental impact. Unlike traditional glass bottles, which are often discarded after a single use, the aluminium bottle can be returned, cleaned, and reused multiple times, lowering energy consumption and carbon emissions.

Lightweight, durable, and effective at temperature retention, the bottle also features a reusable swing-top closure that preserves the fizz in its Pét-Nat sparkling wine.

To encourage returns, the box the bottle comes in can be turned inside out, with a prepaid postage label and a discount voucher for future purchases.

This innovative approach not only reduces waste but also incentivises customers to participate in a more sustainable packaging cycle. Read more about it here.

Thirsty Birds

Thirsty Birds is redefining wine packaging by replacing single-use glass with eco-friendly pouches and kegs. Initially driven by cost concerns, they soon realised the switch also cut carbon emissions – glass production accounts for nearly half of a wine bottle's environmental impact.

Their wine pouches are lightweight, reduce transport emissions, and keep wine fresher for longer. Kegs, meanwhile, create a true circular economy, reducing waste and storage costs while offering wine on tap.

With EPR regulations set to push the industry towards sustainability, Thirsty Birds is leading the charge. By making premium wines more accessible and affordable, they're breaking industry barriers while protecting the planet.

Royal Agricultural University

Cotswold Hills, a wine brand developed by the Royal Agricultural University (RAU) in Cirencester, represents an inspiring example of how sustainability, enterprise, and education can come together to create meaningful change within the English wine industry.

Launched in 2016 as a social enterprise, Cotswold Hills is based at a six-acre vineyard in Down Ampney, Gloucestershire. Originally planted by the Co-Op, the site includes four grape varietals: Ortega, Seyval Blanc, Chardonnay and Bacchus. With support from RAU students, the university produces a range of white and rosé wines, with profits reinvested into its enterprise programme to support the next generation of entrepreneurs.

From vine to shelf, students are actively involved in all aspects of the business – and that includes sustainable packaging innovation. Sustainability is a core value at the RAU, and in 2017, a cohort of second-year Business students were challenged to develop a packaging solution that reduced environmental impact and allowed for wine service in settings where glass was unsuitable.

Their solution? A 250ml slimline aluminium can – carbonated for added consumer appeal. Launched in 2018, the fizzy white wine cans provided a portable, lightweight and recyclable option, ideal for festivals and events. Although early adoption was slow, particularly among traditional retailers due to a shorter shelf life, the format has since gained traction. To date, over 32,000 cans have been sold, and the product is now a staple of the Cotswold Hills range, with loyal retail partners including Midcounties Co-Op.

Cotswold Hills

In 2022, the Cotswold Hills team took their commitment to lower-carbon packaging a step further, collaborating with Packamama to introduce the UK's first eco-flat recycled plastic wine bottle. The flat bottle, made entirely from recycled PET and fully recyclable, significantly reduces the product's carbon footprint due to its lower weight and increased transport efficiency. The project was led by final-year Applied Farm Management student Hugo Sain-Ley-Berry-Gray, who reflected:

"As students of food and agriculture, we're conscious of the industry's carbon footprint. Glass bottles represent a significant proportion of wine's emissions. Switching to eco-flat bottles is a step towards solving that problem and aligns with our sustainability goals."

This innovation not only positioned Cotswold Hills as the first UK vineyard to trial the Packamama format, but also earned the brand a Bronze Award in the 2023 Global Wine Masters for Wine Design and Packaging.

In 2024, the team is continuing to trial alternatives – this time launching their latest white blend in a Frugalpac paperboard bottle. Following consumer testing, students will conduct a comprehensive review of both the Packamama and Frugalpac options to evaluate long-term viability and consumer acceptance.

Cotswold Hills demonstrates the power of student-led enterprise to drive practical, forward-thinking solutions for the future of the wine industry.

Langham Wine Estate

Langham Wine Estate has developed English Sparkling wine in kegs, making them one of the first producers in the UK to explore this format. The idea was sparked after noticing a local bar serving frizzante Prosecco sparkling on tap.

Rather than the Charmat method, Langham experimented with a Col Fondo-style second fermentation directly in the keg. They secured a small batch of kegs from a distributor and trialled the process using base wine from their 2020 vintage. The resulting wine was lightly sparkling, with roughly a third of the pressure of typical English sparkling. The format has found success in natural wine bars in London, where the style and sustainability is aligned with their customer base. Langham started with just 80 kegs, but demand has since grown.

Head Wine Winemaker Tommy Grimshaw said: "Using KeyKegs has been a fun journey of discovery for me. Working with the kegs is really easy, although the initial trial had its risks. KeyKeg initially said they weren't aware of people doing a second ferment in their kegs and advised against it. Nevertheless, we gave it a go, taking some wine with its lees that had recently finished primary ferment with indigenous yeast and added a small amount of sugar to trigger a second ferment. Filling the kegs is simple and then after a few weeks we had a two bar, cloudy sparkling wine that was ready to pour from tap. The most challenging part about this project was finding a home for the kegs. KeyKegs are widely used by beer producers and many top wine producers are now making waves with this format. The combination of a new format for wine, along with a style that is new to the general consumer meant that it was a slow burn to begin with, but we're really gaining traction with it now. It's important to be creative in winemaking and the packaging we use can be part of that."

LANGHAM
WINE ESTATE

Hattingley Valley

Hattingley Valley sets a strong example in sustainable packaging by using Eco Biofil loose fill chips – an eco-friendly alternative to traditional polystyrene peanuts. Though they look similar, these chips are made from renewable resources and are 100% biodegradable. They dissolve in water or can be composted at home, making disposal simple and sustainable.

Designed to cushion products efficiently, the chips are lightweight, odour-free, and five times more antistatic than polystyrene. They conform to EN 13432, the EU standard for compostable packaging, ensuring they meet rigorous environmental criteria.

Uncork, Unbox, Upcycle: How to Recycle & Reimagine your Hattingley Packaging

So, you've placed an order with us? Well, whether it's your first time or you're a returning Hattingley Valley enthusiast, we want to extend our heartfelt gratitude for supporting us on our journey! Your order plays a...

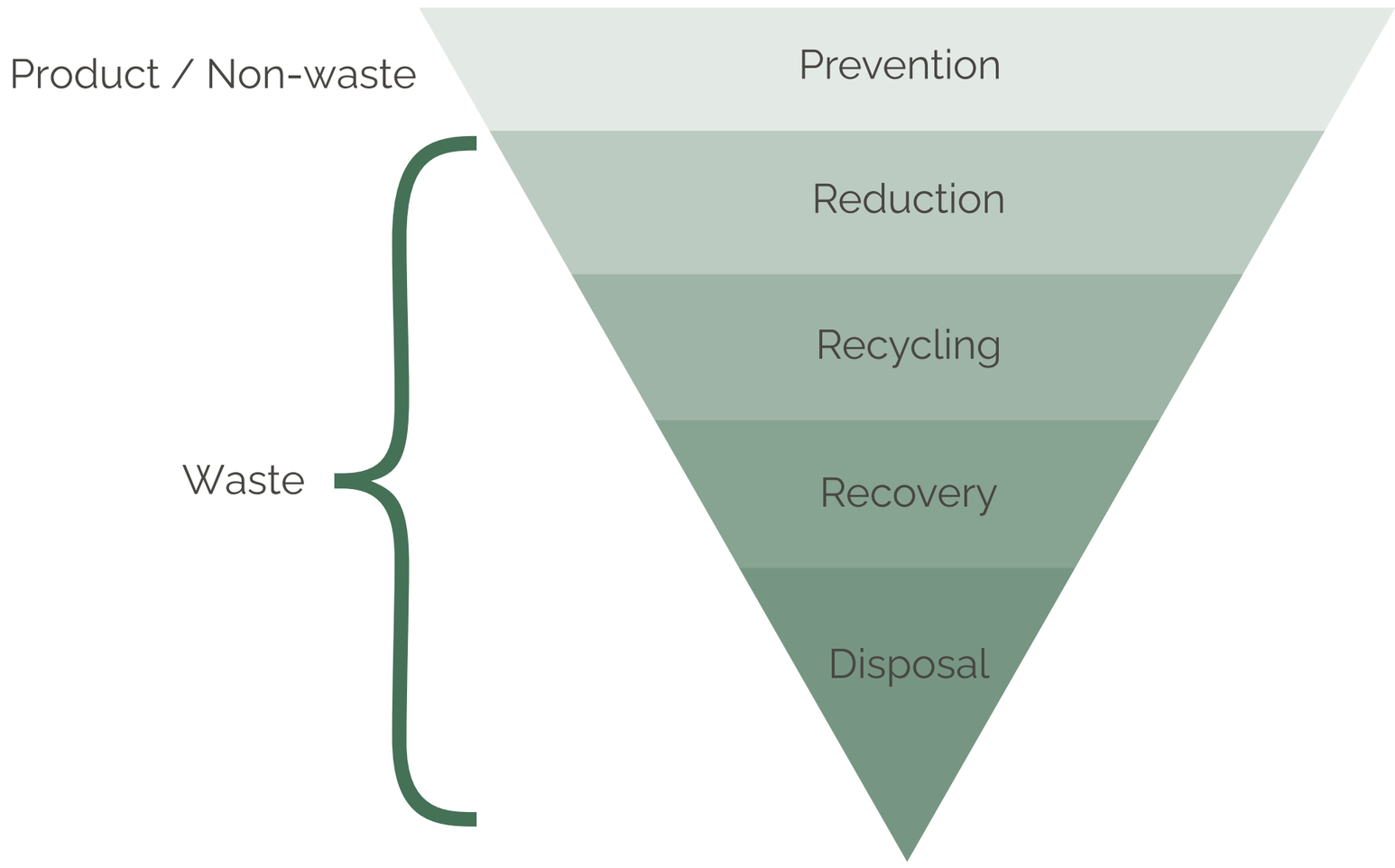
Hattingley Valley Wines / May 31, 2024

HATTINGLEY VALLEY

Hattingley Valley not only have some great environmentally friendly solutions in their packaging but also offer suggestions and ideas with what to do with their packaging once you've used it.

Sustainability Best Practice

Key Features



To consider best practice for the sustainability of your packaging, it is crucial to consider these key features. Prioritising reduction first, followed by reuse and recycling, aligns with the waste hierarchy and supports a more sustainable wine packaging system.

Reusability

- Design packaging to be refillable or returnable, supporting circular models like bottle return schemes or keg systems.
- Increases lifecycle of materials and significantly cuts waste generation.

Recycled Content

- Use packaging made from non-virgin materials, such as recycled glass, rPET (recycled plastic), or FSC-certified recycled cardboard.
- Reduces resource extraction and lowers the overall carbon footprint of packaging production.

Recyclability

- Ensure all packaging components are easily recyclable in standard domestic or commercial waste systems.
- Avoid composite materials that are difficult to separate or process.

Reduction of Materials

- Lightweight packaging (e.g. lightweight glass or paper bottles) reduces emissions from production and transport.
- Use minimal, purposeful packaging – no unnecessary foils, inks, or plastics.

Biodegradability & Composability

- Where recyclability is limited, consider biodegradable or compostable alternatives, particularly for protective packaging (e.g., pulp trays, biodegradable wraps).

Supply Chain & Transport Efficiency

- Choose packaging that is efficient to ship and stack, reducing emissions from transport and storage.
- Consider flat formats or materials that reduce bulk during logistics.

Responsible Sourcing

- Use certified materials (e.g., FSC, PEFC, Carbon Trust) to ensure ethical and sustainable sourcing of packaging inputs.

Consumer Experience & Education

- Clearly label packaging with recycling instructions or sustainability credentials to support consumer action.
- Build awareness around reuse or return schemes for greater environmental impact.

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Section 3:

Compliance and Policy

Compliance and the Law

Use this table to see what you need to know and do in terms of legal compliance and your packaging in the UK. The pages beyond this deep dive each section.

Topic	What You Need to Know	What You Need to Do
Packaging Legislation	UK's Extended Producer Responsibility (EPR) affects how packaging is labelled, reported, and disposed of.	Stay up to date with regulations; ensure traceable and recyclable packaging.
Planning & Environment	Local planning rules apply, especially in protected areas (AONBs, conservation areas).	Apply for necessary permissions for new buildings or changes; assess impact on biodiversity and water.
Health, Safety & Licensing	Regulations cover hygiene, safety, alcohol duty, and food laws.	Ensure facilities meet health and safety laws, comply with alcohol and food standards.
Labelling Requirements	Mandatory elements include: product type, provenance, alcohol %, allergens, bottler details, and volume.	Include all legal info on the label; consult FSA guidelines, especially for allergen declaration. Check Defra requirements.
Digital Labelling & QR Codes	Emerging trend: QR codes linking to sustainability info, provenance, and recycling guidance.	Consider adding QR codes to labels to future-proof and enhance transparency.
Best Practice Labelling (Optional)	Suggested by Portman Group: alcohol units, pregnancy warning, Drinkaware reference, low-risk drinking guidelines.	Include these elements to support responsible drinking (note Drinkaware logo requires a paid license).
Closures	Post-Brexit, the UK allows flexible closure choices (no more foil cap/stoppers mandate).	Use closures that best suit product and brand, no longer need specific EU sparkling wine closures.
Bottle & Serving Volumes	New approved sizes: Still wine can be sold in 200ml and 568ml; sparkling in 500ml and 568ml.	Offer correct volumes; 125ml must be available in venues for responsible drinking.
Exports	Requires compliant bottle materials, label info, and importer details. Certifications like VI-1 may be needed for some countries.	Use standard 750ml bottles; include UK importer/FBO details on label; follow ISPM-15 for wood packaging; check destination country requirements.

Government Policy

Extended Producer Responsibility (EPR)

What is EPR?

Extended Producer Responsibility (EPR) is an environmental policy approach that assigns producers the responsibility for the entire lifecycle of their products, particularly for their take-back, recycling, and final disposal. This strategy is intended to incentivise manufacturers to design environmentally friendly products by internalising the costs associated with product end-of-life management.

Who does it apply to?

EPR regulations apply to UK businesses that import or supply packaging and meet all of the following criteria:

- You are an individual business, subsidiary, or group (excluding charities).
- Your annual turnover is £1 million or more (based on your latest accounts up to 7 April).
- You were responsible for importing or supplying more than 25 tonnes of packaging to the UK market in the previous calendar year.
- You carry out any packaging activities (e.g., manufacturing, importing, supplying, or selling packaging).

What do you need to do?

If you meet the above criteria, you are considered an obligated producer and must take the following steps:

Determine Your Business Size

- Identify whether your company qualifies as large or small under EPR regulations.

Collect and Report Packaging Data

- For 2024, you must report packaging data based on 2023 figures, but no fees will be due (fees have been deferred for one year).
- From 2025, you must pay fees based on 2024 data.

Record and Report Data Every Six Months

- Regular reporting is mandatory to ensure compliance.

Pay Applicable Fees

  - The fee structure is being finalised and will be published in due course.

Next Steps

1. Assess whether your business is obligated under EPR.
2. Start tracking packaging data now to prepare for reporting requirements.
3. Stay on top of fee structures and reporting deadlines.
4. Keep up-to-date with EPR updates on the Government Website.

If you have any questions, contact: packaging@defra.gov.uk

Deposit Return Scheme

The UK's Deposit Return Scheme (DRS), initially announced in 2018, has experienced several delays, with the latest implementation date set for October 2027. The scheme proposes a 20p deposit on single-use drink containers, refunded upon return, aiming to boost recycling rates that have stagnated at 44% over the past decade, falling short of the 65% target by 2035.

The inclusion of glass bottles in the DRS has been a contentious issue. In Scotland, the exclusion of glass led to the abandonment of their DRS, resulting in legal action from waste management firm Biffa, which is suing the Scottish Government for £160 million over the failed scheme. Conversely, Wales plans to include glass bottles in its DRS, highlighting regional variations in approach.

The Welsh Government has announced plans to implement its own Deposit Return Scheme (DRS) to encourage recycling, distinct from the rest of the UK. A key feature of Wales' DRS is the inclusion of glass bottles, contrasting with the schemes in England and Northern Ireland, which currently exclude glass containers. This decision underscores Wales' commitment to comprehensive recycling initiatives and reflects its higher recycling rates compared to other UK nations.

To inform the UK's DRS development, officials are studying successful European models, such as those in the Netherlands, Denmark, Germany, and Sweden, where recycling rates exceed 90%. These systems typically feature centralised operators and appropriate fee structures, contributing to their effectiveness.

PackUK is the scheme administrator for the UK's Extended Producer Responsibility for packaging (pEPR) programme. Click here to learn more.

Recycling and Waste Regulations

As of 31 March 2025, all workplaces in England must comply with new 'Simpler Recycling rules' to enhance waste management and recycling rates. Key requirements include:

- Mandatory Waste Separation: Businesses must sort waste into bins for recyclables, food waste, and non-recyclable waste.
- Proper Waste Disposal Contracts: Collaborate with licensed waste carriers for legal waste collection and processing.
- Retention of Waste Records: Maintain records of waste management activities for regulatory compliance.
- Enforcement and Penalties: The Environment Agency will issue compliance notices, and persistent offenders may face fines or legal action.
- Transition Period for Small Businesses: Workplaces with fewer than 10 full-time employees have until 31 March 2027 to comply.

These regulations aim for consistency with household recycling rules across England and are relevant for numerous businesses types including hospitality and offices.

Recycling Partnerships

Several waste management companies provide specialised recycling services for wineries and vineyards to manage waste sustainably. They offer tailored programmes for recycling glass bottles, cardboard, and organic waste like grape pomace, reducing landfill waste and promoting sustainability. Examples include Wastesolve, Countrystyle Recycling, Veolia, and Biffa.

Example: Comprehensive waste handling with full UK coverage, ensuring all wineries can access these services regardless of location.

Example: Countrystyle offers convenient food waste collection, ideal for wineries during events.

Example: They conduct waste audits for wineries and vineyards to identify recycling opportunities, improving waste management, reducing environmental impact, and saving costs.

Example: Organic waste collection from grape skins and food waste during harvest events or hospitality operations.

Policy Template

Ensure that any changes you make, stay and continue to improve

Sustainable Packaging Policy

1. Purpose

[Company Name] is committed to reducing its environmental impact by implementing sustainable packaging practices across the entire supply chain. This policy ensures that our efforts are embedded within our company culture and operations, guiding both current and future business activities to continuously improve packaging sustainability.

2. Scope

This policy applies to all departments, suppliers, and partners involved in packaging design, sourcing, production, distribution, and disposal. It covers primary, secondary, and tertiary packaging materials used throughout our supply chain.

3. Guiding Principles

To achieve our sustainability goals, we commit to the following principles:

a. Reduce: Minimise packaging material use without compromising product integrity or safety.
b. Reuse: Prioritise reusable and returnable packaging where possible.
c. Recycle: Increase the use of recycled and recyclable materials in all packaging.
d. Innovate: Invest in research and development of alternative, low-impact materials.
e. Collaborate: Work with suppliers, customers, and industry partners to advance sustainable packaging solutions.
f. Educate: Provide ongoing training and awareness initiatives for employees on sustainable packaging practices.

4. Implementation Strategy

- Company-Wide Commitment: All departments must integrate sustainability principles into packaging decisions.
- Supply Chain Engagement: We will collaborate with suppliers to source environmentally responsible materials and packaging solutions.
- Lifecycle Assessment: Conduct [time period] audits to assess the environmental impact of packaging and identify areas for improvement.
- Regulatory Compliance: Ensure all packaging meets or exceeds national and international sustainability regulations.

5. Long-Term Commitment & Continuous Improvement

This policy will be reviewed annually to evaluate progress and adapt to new innovations, regulations, and industry best practices. Sustainability performance metrics will be tracked and reported periodically to drive accountability and continuous improvement.

6. Responsibilities & Accountability

- Senior Leadership: Responsible for endorsing and supporting the implementation of this policy.
- Sustainability Team/Committee: Oversees the execution of sustainable packaging initiatives and tracks progress.
- Product Development & Marketing: Integrate sustainable packaging considerations into product design and branding.
- All Employees: Expected to contribute to and uphold sustainable packaging practices in their respective roles.

7. Reporting & Communication

Regular updates on progress, achievements, and future goals related to sustainable packaging will be communicated internally and externally to stakeholders.

8. Review & Revisions

This policy is a living document and will be reviewed annually by the Sustainability Team/Committee to ensure it remains effective and aligned with evolving sustainability standards and company objectives.

Effective Date: [Insert Date]

Approved by: [Name/Title]

Next Review Date: [Insert Date]

Use this template (copy and paste, or take inspiration from it) to implement long term sustainable packaging solutions in your company. Begin by adapting the sections to fit the specific needs and objectives of your organisation. Ensure that the policy clearly outlines the roles and responsibilities of team members, sets measurable goals for sustainability, and includes a timeline for implementation. Regularly update stakeholders on progress and achievements to maintain transparency and accountability. Remember, this document should evolve with industry standards and organisational growth, so schedule annual reviews to make necessary adjustments.

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Section 4:

Insights and Further Learning

Research

What Research Is Being Done?

The wine industry is conducting extensive research into alternative packaging formats to reduce carbon emissions and environmental impact. Studies focus on materials, recyclability, consumer acceptance, and logistical efficiency. Key research initiatives include:

- Carbon Footprint Analysis of Packaging – Studies track emissions across the entire lifecycle of packaging, from production to disposal.

- Packaging Trials – Various alternative formats, including Bag-in-Box (BiB), rPET bottles, and paper bottles, are being tested for durability, wine quality preservation, and consumer response.

- Recycling & Circular Economy Studies – Researchers are assessing how returnable glass, PET, and BiB materials can be efficiently recycled and reintroduced into the supply chain.

- Lightweight Glass Development – Experiments are underway to reduce the weight of traditional glass bottles while maintaining strength and preventing breakage.

- Consumer Perception Studies – Surveys and sales data are being analysed to understand consumer willingness to adopt new packaging formats and pay for sustainable options.

What Conclusions Are Emerging?

Glass remains essential for aging wines, but alternatives work for ready-to-drink wines – Flat rPET bottles and BiB are viable for short-term consumption, but not for wines meant for long-term aging.

Lighter packaging significantly cuts emissions – Moving away from heavy glass reduces transport and production emissions, with lighter glass and BiB formats offering immediate benefits.

Consumer acceptance is growing – Trials show that wine buyers are increasingly open to alternative formats, particularly younger consumers and those prioritising sustainability.

- Regulations like EPR and DRS will drive change – Policies that increase producer responsibility for packaging waste will likely accelerate the shift to more sustainable options and the income derived from this scheme to the government *should* result in more consistent and better recycling infrastructure throughout the country.

Research into sustainable wine packaging is proving that alternative formats can reduce emissions, cut costs, and appeal to eco-conscious consumers. However, industry-wide adoption will depend on scalability, regulatory support, and maintaining wine quality across different packaging options.

Glass Alternatives

Canned Wine

Aluminum cans are emerging as a sustainable alternative due to their recyclability and lower weight, leading to reduced shipping emissions

Paper Wine Bottles

The product offers up to 84% lower carbon emissions and reduced water usage. Made from recycled paperboard with a recyclable food-grade liner, it is lightweight, easy to transport, and fully recyclable, making it eco-friendly for wineries and consumers.

Bag-in-box

Bag-in-box packaging is lighter and reduces transportation emissions. This method can result in a carbon footprint that is only 12-29% of that associated with traditional glass bottles.

Wine Kegs

Serving wine from kegs reduces wastage, lowers carbon footprint, and keeps wine fresh longer. It also cuts disposal and storage costs while enhancing sales with various serving sizes and refill options.

The Future of Packaging

Bottle Reuse

In the English wine sector, organisations such as Sustainable Wine Solutions are advocating for sustainable practices, including bottle return schemes. These initiatives aim to reduce waste and promote environmental responsibility within the industry.

The Bottle Return Scheme gives wine bottles a sustainable second life, allowing each to be returned, sterilised, and reused at least 30 times, reducing its carbon footprint by up to 95%. With the UK hospitality sector sending an estimated 129,000 tonnes of glass to landfill annually, traditional recycling is not enough to curb waste. This scheme offers a practical solution, delivering wine in reusable bottles with FSC-accredited recyclable paper labels, no neck foil, and a TCA-eliminating DIAM cork to further minimise waste. Bottles are collected and delivered in recycled plastic crates, eliminating the cost and hassle of glass and cardboard waste collection. A 50p refundable deposit incentivises return, with a goal of recovering 90% of bottles in off-trade and 60% in on-trade. While the bottles and labels are fully recyclable, the aim is to maximise reuse, preventing unnecessary energy consumption and emissions linked to glass production, transport, and disposal.

Ireland's recent success with its bottle deposit return scheme, which saw returns rise from 2 million to 111 million containers per month within six months, demonstrates the potential effectiveness of such programmes.

Sustainable Wine Solutions

Vino Tap: A Zero-Waste Wine Solution

Vino Tap is an innovative, zero-waste wine delivery system designed to minimise environmental impact by eliminating single-use packaging. This system allows consumers to purchase wine in reusable containers, which can be refilled multiple times, significantly reducing waste associated with traditional bottling methods. By utilising Vino Tap, both consumers and producers contribute to a circular economy, promoting sustainability within the wine industry.

Wine on Tap/Keg: Enhancing Sustainability in Wine Service

The concept of serving wine on tap, or from kegs, has gained traction in various venues, including pubs and restaurants. This approach offers several environmental and operational benefits:

- Reduced Waste and Recycling Costs: Serving wine from kegs diminishes the need for individual bottles, leading to lower recycling requirements and associated costs.
- Extended Freshness: Wine stored in kegs remains fresh for extended periods, reducing spoilage and waste compared to traditional bottling methods.
- Efficient Storage and Transportation: Kegs allow for more efficient storage and transportation, as they can hold larger quantities of wine compared to individual bottles, thus reducing the carbon footprint associated with logistics.

Frugalpac

The Frugal Bottle is a sustainable alternative to traditional glass bottles, It has a carbon footprint up to six times (84%) lower than a standard glass bottle, emitting only 91.9g CO2e compared to 558.2g CO2e for imported glass. Weighing just 83g, it is up to five times lighter than glass, making transportation more efficient, cost-effective, and less harmful to the environment.

Made from recycled paperboard, the Frugal Bottle uses 77% less plastic than a plastic bottle, containing only 15g of plastic compared to 64g in a fully recycled plastic bottle. It is also designed for easy recycling – users can separate the plastic food-grade liner from the paper bottle and place them in the appropriate recycling bins, or they can recycle the entire bottle in paper waste, where the liner will be automatically separated during the paper re-pulping process.

Additionally, the Frugal Bottle dramatically reduces water consumption, using four times less water than glass bottle production.

While it takes 2.5 litres of water to produce a lightweight 345g glass bottle, the Frugal Bottle requires just 0.6 litres.

The Green Gen Flax Bottle

The Green Gen Flax Bottle® is a sustainable alternative to traditional glass bottles developed by Green Gen Technologies as. Crafted entirely from bio-sourced or recycled materials, this bottle is approximately ten times lighter than standard glass bottles, significantly reducing transportation emissions. Key Features include:

- Weighing only 85 grams, the bottle's reduced weight contributes to lower carbon emissions during transportation.
- Sustainable Materials:
  - Composite Shell: Made from 100% natural flax fibres, providing durability and a unique, organic appearance.
  - Liner: Utilises rPET (or PET, depending on availability) for wines and PLA for spirits, both of which are food-safe and contribute to the bottle's recyclability and compostability.
  - Bio-sourced Resin: A natural French resin binds the flax fibres, creating a sturdy composite structure.
- Environmental Benefits:
  - Renewable Resources: Flax is a biodegradable, plant-based resource grown locally in France, the world's largest producer of flax.
  - Reusability: The bottle is designed for reuse, suitable for refilling with water or wine from a bag-in-box, promoting a circular economy.Green Gen Technologies
  - Customisability: The natural flax fibres can be dyed in various shades to align with brand identity, offering aesthetic flexibility.

The Green Gen Bottle Carton

The Green Gen Bottle® Carton is crafted entirely from renewable materials.

Key Features:

- Sustainable Materials: Made from kraft cardboard derived from plant fibers, a renewable and sustainable resource.

- Lightweight Design: Weighing only 130 grams with a cap, the bottle is significantly lighter than traditional glass bottles, reducing transportation emissions and costs.

- Recyclability: The bottle can be easily disassembled by consumers, allowing for straightforward recycling of its components.

- Protective Inner Liner: Features a retractable inner liner that ensures optimal preservation of the liquid's quality after opening.

- Customisable Design: Offers a design similar to traditional glass bottles, with options for colour and branding customisation to enhance shelf appeal

Reading List

- British Glass – Industry perspectives on the inclusion of glass in Wales' DRS.
- DEFRA Blog – Government insights into the upcoming DRS.
- FT.com – Explaining how the EPR scheme will cost UK retailers £2 billion annually.
- Just Drinks – Evaluating the sustainability impact of different wine packaging formats.
- Liquor & Wine Outlets – Future trends in eco-friendly and consumer-friendly wine packaging.
- Sensoneo– Container Deposit Legislation – Providing background on international bottle deposit return schemes.
- Sustainable Wine Solutions' research on bottle return schemes.
- The Ends Report – Reporting on Biffa's legal action against the Scottish Government over a failed Deposit Return Scheme (DRS).
- The Guardian – Discussing the rise of wine kegs and their sustainability benefits.
- The Guardian – Examining seasonal recycling challenges.
- The Guardian – Reporting on stagnating recycling rates in England.
- The Independent – Detailing Wales' decision to include glass in its DRS, differing from England's approach.
- The Times – Covering concerns from beverage companies about the potential impact of EPR and glass taxes.
- The Times – Exploring the UK's plans for a bottle return scheme and comparisons to successful European models.
- The Times – Highlighting how environmental groups are pushing for DRS to tackle littering.
- Water Technologies (Veolia) – Detailing Veolia's sustainable water treatment for wineries.
- Wine Ninjas – Discussing Thirsty Birds' transition to wine pouches.
- Wine Society's Alternative Packaging Trial (including BiB and rPET bottle testing).

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Section 5:

Thank You

Thank You

We would like to extend our heartfelt thanks to everyone who has contributed to the development of the toolkit. This toolkit was conceived and written by Emma Rix, Sustainability Executive. A special thank you goes to Anne Jones, SWGB Ambassador and sustainability consultant, and Gillian Jordan, WineGB Knowledge Manager, for their expert insights, and to the Sustainability Council for their review of the toolkit.

We also deeply appreciate the members who have supported this initiative, including Josh Donaghay-Spire from Chapel Down, Mallard Point, Amy Roberts from Thirsty Birds, Chris Unger from Hattingley Valley, Katy Duke from the Royal Agricultural University, and Tommy Grimshaw from Langham Wine Estate.

Our sincere gratitude also goes to our partners and patrons – Autajon Royston Labels, Rankin, and WBC – whose collaboration has been instrumental.

Additionally, we would like to thank organiations such as Porto Protocol, Sustainable Wine Roundtable, Green Gen Technologies, Frugalpac, Packamama, Sustainable Wine Solutions, The Wine Society, and Vinca for their ongoing support and commitment to sustainability. Your contributions have been invaluable in helping us create this toolkit, and we are truly grateful for your dedication to the cause.

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thirsty birds

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