

WHY GLASS IS BEST PACKAGING FOR WINE

Updated February 2023



THE WINE MARKET TODAY

The history of wine goes back a millennium, with the first evidence found between 8000 and 4100 BC. However, the challenge from the beginning was how to store wine safely and preserve its properties.

It wasn't until the 17th century that winemakers discovered the advantages of glass and began to produce wine bottles on a large scale. A symbol of pride, tradition and quality that has stood the test of time.

Today, 90% of wine is already sold in glass bottles - and 32% of consumers want to see even more.

Sources:

- 1) Euromonitor, 2021, Container Glass Markets Statistics
- 2) Statista, 2022, Revenue of the wine market in Europe from 2012 to 2025
- 3) FEVE/Insites Consulting, 2022, Consumer packaging and Recycling Survey



€149B

EU Wine market
Revenue in 2022

In the 1820s,
glass wine
bottles began
to resemble
those we use
today.

THE EUROPEAN WINE INDUSTRY BY THE NUMBERS

#1

Europe is the first producer, consumer and exporter of wine

€ 149 billion

EU Wine market revenue in 2022

45%

Of world's wine growing areas are located in Europe

Top 3

Wine is among the top 3 agri-food export categories in 2022

57%

Of global wine consumption is in Europe



Sources:

- 1) [European Commission, 2022, The EU maintained its position of top trader in agri-food products in 2021](#)
- 2) [Comité Européen des Entreprises Vins, EU Wine Sector](#)
- 3) [Statista, 2022, Revenue of the wine market in Europe from 2012 to 2025](#)

... AND ROLE OF GLASS PACKAGING'S ROLE FOR WINE INDUSTRY

90.2%

Of wine products in the EU are packaged in glass

32%

Of consumers would like to find even more wine in glass packaging

70%

Of consumers believe that glass packaging can enhance the value of a product

+50%

Of consumers agree that glass bottles are a sustainable form of packaging, compared to other material alternatives.



Sources:

- 1) Euromonitor, 2021, Container Glass Markets Statistics
- 2) FEVE/Insites Consulting, 2022, Consumer packaging and Recycling Survey
- 3) The Drink Business, 2021, New research shows glass bottles considered much more sustainable than bag-in-box

TRENDS SHAPING THE WINE INDUSTRY



Looking to other regions

- As a result of increasing inflation and rising wine prices, the average consumer cannot afford 'classic' wines.
- Consequently, consumers are increasingly looking for lesser-known alternatives, which has led to the emergence of new regions such as Santa Barbara in California or Sierra de Gredos in Spain.
- It's expected that this trend will soon be followed by traditional collectors too.



The growth of low- to no-alcohol beverages

- As health becomes more prominent amongst consumers, adults are increasingly reducing their alcohol consumption.
- Millennials and Gen Z are showing growing interest in 'sober curious' movements, (such as Dry January and Sober October) and in low or no-alcohol products



Sustainable winemaking and farmers well-being

- Capgemini research shows 79% of today's consumers are changing their purchasing preferences based on social responsibility, inclusiveness, or environmental impact.
- Consumers are paying more attention to the environmental and social impacts of the wine they buy and are showing increasing concern for the welfare of harvest workers.

Sources:

- 1) [Decanter, 2022, Top wine trends for 2022: styles, sustainability and supply](#)
- 2) [The IWSR, 2021, No-and Low-Alcohol Products Gain Share Within Total Beverage Alcohol](#)
- 3) [Capgemini, 2020, Research: How sustainability is changing consumer preferences.](#)

TRENDS SHAPING THE WINE INDUSTRY



Value-driven wines

- In addition to seeking out lesser-known regions, consumers are also showing an interest in wines with a backstory.
- Developing a compelling narrative that aligns with the brand's identity can help it stand out and bring added value to wine producers.



Palate expansion and consumer curiosity

- As consumers budgets are shrinking, we expect to see greater variety in wine choices in the marketplace.
- Naturally, curious wine consumers will embrace this opportunity to expand their own wine choices and discover new and interesting flavours.



Improved demand from premium consumers

- Despite lower purchasing power, premium wines sales increased in 2021 and are expected to continue in 2022, albeit at a lower growth rate. This is mainly due to the reopening of small fine dining restaurants and the rise in online sales after the pandemic.
- Premium consumers want to buy wine that is not only of high quality, but also healthy and sustainable. At the same time, wine producers are keen to promote responsible consumption and add value to their products. **That's where glass comes in.**

Sources:

- 1) [Decanter, 2022, Top wine trends for 2022: styles, sustainability and supply](#)
- 2) [Silicon Valley Bank, 2022, State of the Wine Industry Report 2022](#)
- 3) [The IWSR, 2022, Key Trends Driving the Global Beverage Alcohol Industry in 2022](#)
- 4) [Capgemini, 2020, Research: How sustainability is changing consumer preferences](#)

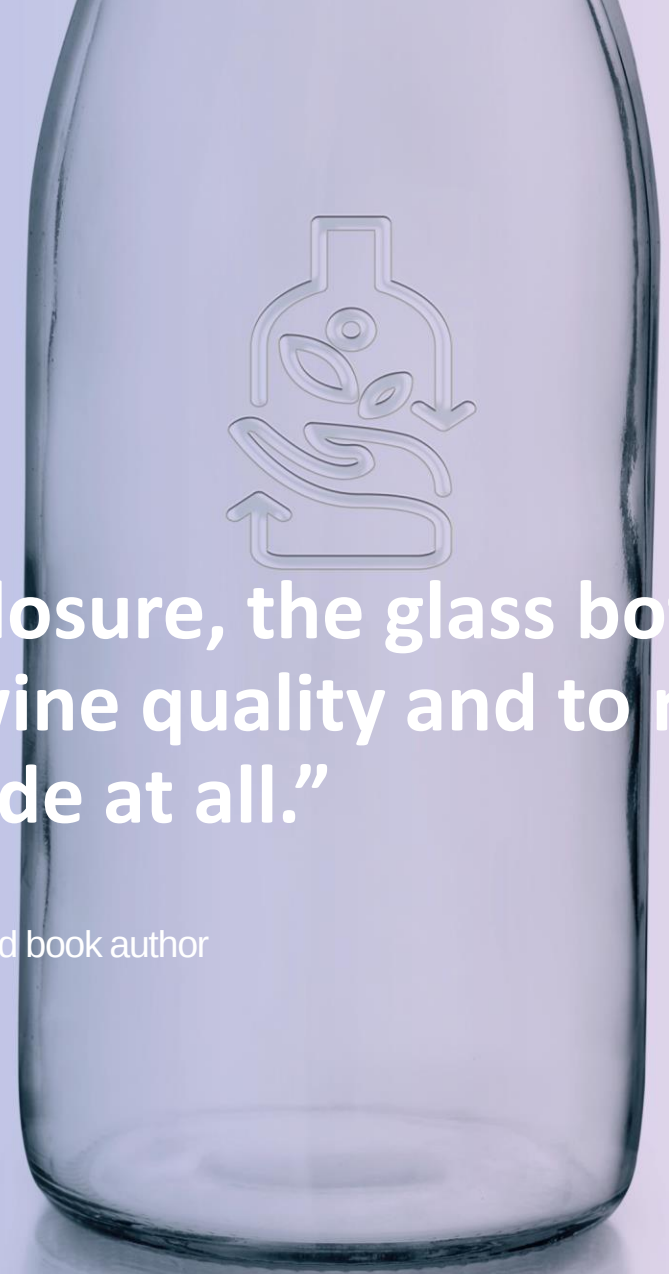


1 WHY IS GLASS THE BEST PACKAGING MATERIAL FOR WINE?

“When used together with a suitable closure, the glass bottle is ideally suited to wine. To preserve wine quality and to not allow the quality to degrade at all.”

Jamie Goode, 2021

Wine columnist at The Sunday Express, lecturer, and book author



IN A NUTSHELL, GLASS...

- is made from **ingredients found in nature**.
- is **non-toxic and inert** – preventing any transfer of flavours and preserving taste, odour, colour and texture.
- is a **single-layer material** – so there's no need for chemical liners that can interact with food and beverages.
- is one of the most effective packaging materials for **protecting products** – forming a virtually complete barrier which prevents any loss of quality.
- has strong environmental credentials – it's **100% and infinitely recyclable in a local closed loop system**, making recycled glass a vital resource for new production.
- on average, a glass container made in Europe contains **52% post-consumer recycled glass**.



GLASS THE TASTE AND QUALITY OF WINE

- Taste is an **inherently human sense**, and one of the main purchase drivers for food and drink products*. Today, consumers are **looking beyond the label** and turning their attention to the packaging as an extension of the product and brand itself.
- As a **tasteless** and **odourless** material with no chemical interaction, glass prevents transfer of flavours and preserves the colour, aroma and texture of wine.
- Thanks to its inertness and protective properties, **glass acts as a secure barrier against external influences**, ensuring the wine's integrity and preserving its taste.

It's well known that wine improves with age, but in order for it to age gracefully, it must be packaged in glass. Once the wine is sealed in its glass bottle, it can age for years or even decades without losing its integrity - (Jamie Goode, 2022).



GLASS IS PROVEN TO PRESERVE PRODUCT FLAVOUR AND QUALITY, COMPARED TO OTHER FPMS...

How do different packaging materials affect flavour?

Material	Absorbs flavour?	Transfer or loss of flavour?	Access of oxygen or off-flavour compounds?	Migration of off-flavour components from the packaging?	Loses flavour from light radiation?
Plastic polymers	Likely	Possible	Possible	Likely	Possible
Cardboard and paper	Yes	Yes	Yes	Possible	No
Composite Food Packaging Materials, including Metals depending on type of polymer used	Likely	Possible	Possible	Likely	No
Glass	No	No	No	No	No * * Coloured glass

“...Glass due to its inert nature and completely non-toxic constituents represents a 100% safe, ideal FPM with respect to consumer’s health and food safety.”

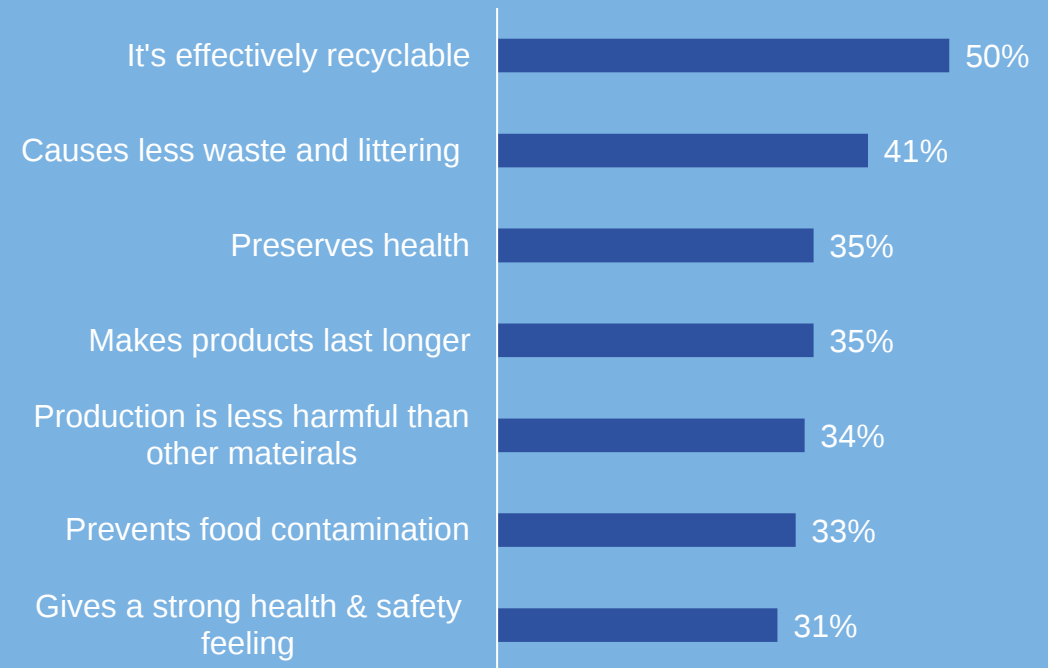
Dieter Schrenk MD, PhD Professor of Food Chemistry and Toxicology -
Technische Universität Kaiserslautern, Germany



GLASS IS MADE FROM NATURAL INGREDIENTS

- 1 Tasteless and odourless:** No chemical interaction, ensuring that wine products keep their strength, aroma and flavour.
- 2 Doesn't deteriorate, corrode, stain or fade.** No chemical reactions or contamination of content. Glass is one of the few containers that does not leach chemicals into its contents.
- 3 Gastight,** and impermeable to oxygen or heat. Amber and green glass **protect the product** from UV exposure.
- 4 Protects wine:** from oxygen, light and heat. Glass forms a natural barrier against external contamination, making for a healthier product with a longer shelf life.

Reasons why consumers buy more glass compared to other packaging materials than they did 3 years ago:



GLASS IS AN INERT AND SAFE FORM OF PACKAGING

Due to its inert nature and non-toxic constituents – **glass packaging won't leach or interact** with beverages to alter taste.

It acts as a **secure barrier** against external influences, protecting the organoleptic properties of wine and preserving taste, odour, colour and texture of wine. All of which, make glass one of the most effective packaging to preserve the quality of wine and protect the health and safety of consumers.

More than a third of consumers believe glass is better at preserving health and preventing food contamination, when compared to other materials.

Wine-Package interaction	Indices of Failure	Glass Bottle (Natural Cork or Plastic Caps)	Plastic Bottle (PET)	Bag-in-box
Light ingress	colour, flavour, nutrient degradation	✓ (If no UV blocker used and more prevalent for clear glass)	✓	
Oxygen ingress via package body	colour, flavour, oxidation		✓	✓
Oxygen ingress via packaging closure	colour, flavour, oxidation	✓ (if cork dried out due to inappropriate storage)	✓	✓
CO ₂ egress (sparkling wine only)	Flavour change		✓	✓
Package component migration	aroma, flavour change, contamination		✓	✓
Wine component scalping	Aroma, flavour loss, cork taint	✓ (at closure)	✓	✓

Source:

- 1) Dieter Schrenk MD, PhD Professor of Food Chemistry and Toxicology, 2014, Literature report on food packaging materials and their potential impact on human health
- 2) FEVE/Insites Consulting, 2022, Consumer packaging and Recycling Survey

Table: Wine-package interaction and related indices of failure for different wine packaging. Empty cells refer to the lack of interaction between product and packaging.

Source: Campden BRI Desk research\BC-REP- 884950-02 FEVE packaging on food quality.pdf

GLASS PROMOTES A HEALTHIER LIFESTYLE

- Health is **a top concern for consumers**: 68% judge healthy living as 'very' to 'extremely' influential when it comes to product choice.
- Safety and hygiene are top of mind: with increased health awareness, consumers now place significantly **more value on food safety and hygiene** than in pre-pandemic times.
- The **alchemy of ingredients** that make up glass – sand, soda ash, limestone and recycled content – combine to form **a single-layered packaging material with no synthetic chemicals**, one that can be counted on to protect people's health.

Europe's wine industry is working to encourage moderation and supporting European efforts to reduce harmful alcohol consumption. Thanks to its premium feel, glass offers wine a sense of quality and occasion, thus encouraging responsible consumption.



68%

are influenced by
healthy living in their
choice of products

Glass
guarantees
product safety
& encourages
moderation

PUTTING PRODUCT SAFETY FIRST!

Glass is recognised as inert and safe by international legislative authorities.



Glass is the only widely-used packaging material considered “**GRAS**” or “generally recognised as safe” by the U.S. Food and Drug Administration.



Due to its level of inertness and non-toxic properties, glass packaging is exempt from EU **REACH** (Registration, Evaluation, Authorisation and Restriction of Chemical substances) **regulations**.



GLASS VS. BAG IN BOX

Case study

Oenological characteristics such as titratable acidity, volatile acidity, pH, total SO₂, free SO₂, colour, volatile compounds and sensory attributes are also affected by packaging.

Bag in Box (BiB) packaging formats may affect the titratable acidity, total and free SO₂ and colour of wine. Wine aroma compounds can be absorbed by the plastic materials or lost through leakage via the valve.

On the other hand, Glass:

- It's made only from natural materials and doesn't require any additional lining
- It's an inert packaging recognised as safe by EU REACH and US FDA
- It meets consumers' desire for a healthier lifestyle
- It offers brands a distinctive and premium packaging design that allows them to express their brand identity and stand out on the shelves





HOW CAN GLASS HELP WINE STAND OUT?

PAIRING TIMELESS PRODUCTS WITH A TIMELESS PACKAGING

Glass and wine have belonged together since the 17th century – a symbol of pride, tradition and quality that transcends time.

- From the first winery, to the maritime trading routes mapped out by the Phoenicians, to the wine tourism opening up rural villages in the Mediterranean, wine has always been much more than just fermented grapes. It's a history lesson come to life, with a deep cultural heritage that we can savour.
- And glass has been part of wine's history since the 17th century. Until then, winemakers stored their wines in oak barrels. However, they faced a challenge that many other packaging materials still face today: barrels didn't prevent wine's oxidation.
- In the 17th century, winemakers discovered glass and its many advantages, including the fact that it prevents oxygen and other external agents from coming into contact with the wine.



Source:

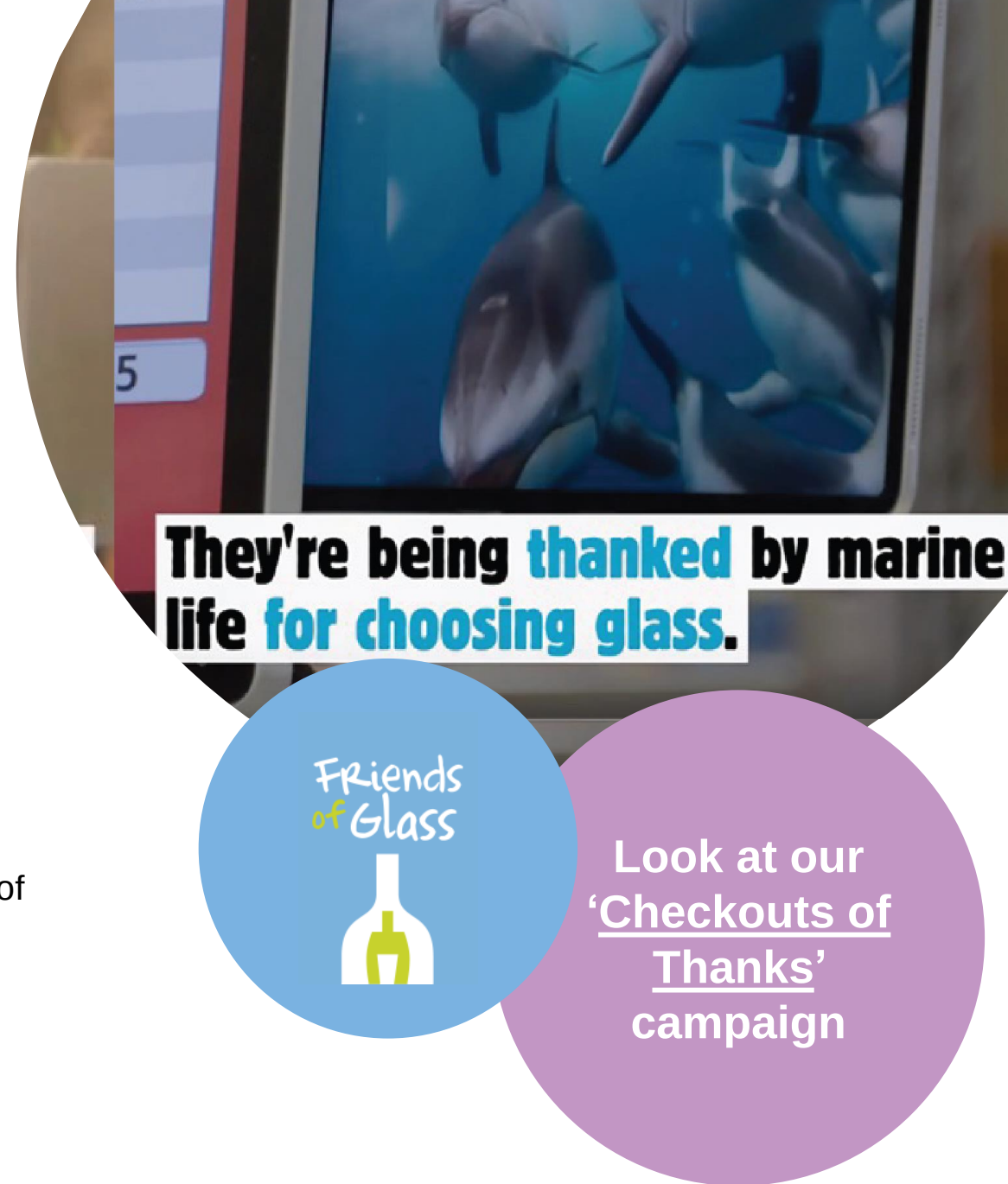
1) [Glass Hallmark, 2022, Will wine in glass bottles stand the test of time?](#)

2) [Friends of Glass, 2022, Why is wine stored in glass](#)

GLASS HAS CONSUMER AND INFLUENCER APPEAL

From Zero Waste living to pursuing holistic wellness, people across the world are adopting trends that increasingly tie into sustainability and health.

- Lifestyles focused on **wellness** and **zero-waste** are gaining increasing popularity due to the pandemic. Consumers have learnt the importance of **prioritising health** – of themselves and of the planet.
- People are adopting a **clean-living aesthetic**: inspired by influencers, glass has become the perfect look for those who care about health and sustainability.
- Glass **drives consumer engagement**. Consumer platform Friends of Glass has engaged with more than 90 million consumers over the past 3 years, always encouraging recycling along the way.
- Glass is Europe's favourite packaging material. **8 in 10 Europeans view glass as a material fit for the future.**



Sources:

1) FEVE/InSites Consulting, 2022, Consumer Packaging and Recycling Survey

2) Data from www.friendsofglass.com survey results

GLASS PACKAGING AND WINE: TWO ICONIC LOCAL EUROPEAN PRODUCTS

Wine is much more than just a drink. It's an integral part of the European cultural heritage, diet, and lifestyle. It is seen as a sharing experience, often associated with conviviality and food.

- Choosing glass packaging can be another way to **emphasise local origins**.
- The wine industry provides up to 1 million jobs in over 100,000 wineries worldwide. Europe tops the rankings, with Italy, France and Spain the largest wine producers. The glass production is a local industry by nature, counting more than **160 manufacturing plants in 23 European countries** and employing more than **125,000 people across the whole value chain**.
- More than **70% of raw materials** used in container glass production travel **less than 300 km** prior to being incorporated into a glass furnace. Likewise, glass plants deliver **more than 50%** of their products within 300 km.



The container glass industry has a strong local presence

	EU
Share of raw materials sources locally	89%
Share of container glass sold to the European market	83%
Upstream transport – Sourcing of cullet and virgin raw materials	
Share of raw materials supplied within a radius of 300 km	74%
Downstream transport – Delivery	
Share of bottles supplied to clients located within a radius of 300 km	56%

Source:

1) [Académie du Vin Library, 2021, Top Wine Drinking Countries](#)

2) [FEVE, 2022, Glass Packaging Industry](#)

GLASS TELLS A BRAND'S STORY...

Together with the University of Parma, FEVE studied the **importance of packaging design in brand differentiation and product enhancement**, and its role in harnessing consumers' attention. The findings? Distinctive, innovative glass packaging creates brand differentiation and makes products stand out on the shelf.

- 1 Product enhancement:** Packaging is a key factor in consumer choice, affecting the perception of the product itself. High-quality packaging elevates a product to be seen as more premium.
- 2 Brand image:** The iconic value represented by the material transfers to the brand, building recognition and loyalty. For example, glass transfers distinctiveness and quality to the contained product itself.
- 3 Design benefits:** Shape, size, colour, texture and graphics influence a product's perception and success. Consumers analyse the different (functional and non-functional) dimensions of packaging to decide which product to choose.



GLASS ADDS A PREMIUM FEEL TO HELP BRANDS STAND OUT

Whether at home or in the supermarket, consumers are looking for the elegant, high-end feel that wine provides, and there is no better material than glass packaging to showcase those qualities to consumers.

- **Transparency:** Natural appearance showcases natural ingredients; allows **the product** to shine.
- **Appearance & function:** **Glass comes in all shapes, sizes, colours and closures**, giving each wine bottle a unique identity.
- **Premium design:** Glass' **luxurious and high-quality design** helps wine to stand out on the shelves and command a premium price
- **Cultural heritage:** Glass is the expectation when it comes to good wine; there are **emotional and cultural values associated** with how Europeans enjoy wine.



GLASS ADDS A PREMIUM FEEL TO HELP BRANDS STAND OUT:

A success story

Winery **Joseph Castan** has partnered with **O-I Group** to design and launch **Crocodile Dandy Rosé**, a premium wine with a bottle that mimics crocodile skin.

O-I's design expertise enabled the creation of an artful bottle that **demonstrates how glass can enhance brand narrative and image**. They use “The Wheel of Motives” strategy, which combines biology and neuroscience, to influence consumer behaviour in glass packaging design.

The bottle is a fusion of authenticity with 2,000 years of history and modernity, making it a unique invitation to a chic party for young wine lovers.

[Read more about
the 'Crocodile
Dandy Rosé' wine
bottle](#)



GLASS IS A KEY PART OF THE DRINKING EXPERIENCE

No matter where you are in the world, it's likely that when you think of wine, you picture a glass bottle. Glass is an integral part of the entire wine drinking experience and is deeply rooted in European wine culture and history.

- Glass is more than just a packaging solution, it's an important component of the overall drinking experience and **part of the essence** of wine.
- There is an **emotional value** to buying and consuming wine; people come together to open the wine bottle, pour it into a glass, and celebrate
- Therefore, glass packaging **arouses emotions** in consumers, and can **influence their perception** of the product inside.

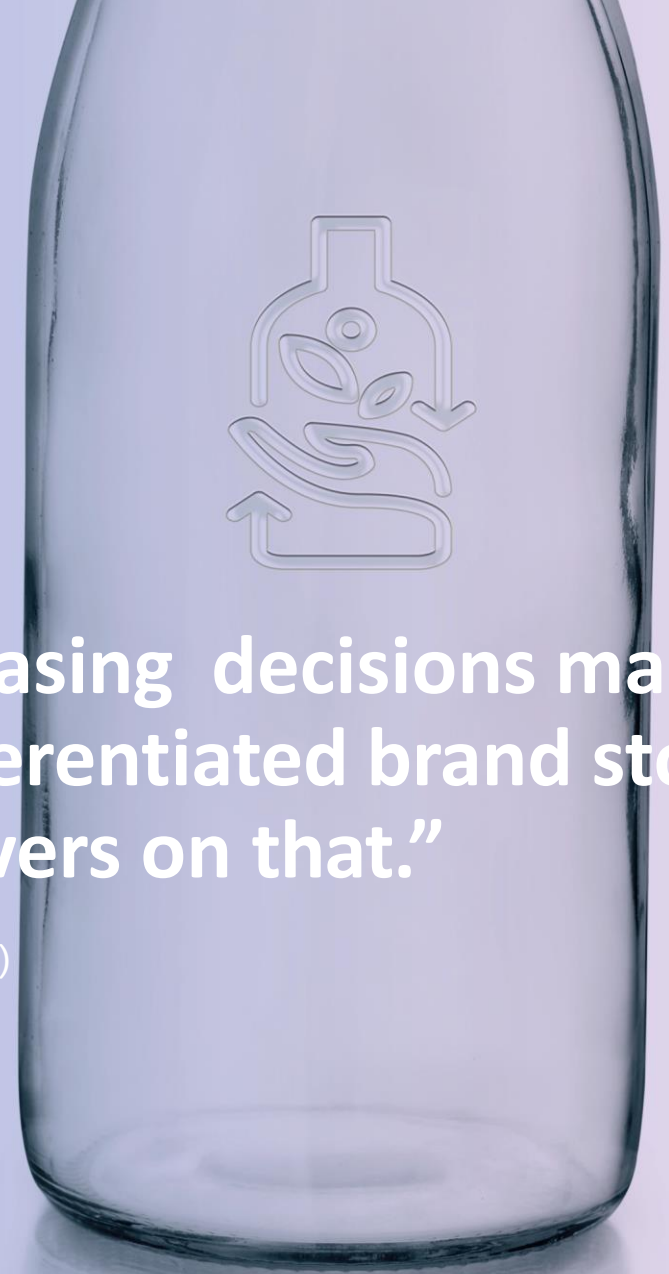
“[Wine] is a liquid that comes in a bottle. It’s sealed, you unseal it, you pour it into a glass and that’s something that’s really at the heart of the wine consumption moment and experience”

Jamie Goode (Wine Columnist at The Sunday Express, Wine Lecturer, and Book Author).



“With more than 70 per cent of purchasing decisions made in-store, packaging needs to tell a differentiated brand story at one glance, and glass delivers on that.”

Arnaud Aujouannet, Owens Illinois (o-i)



GLASS: BRINGING SUSTAINABILITY AND CULTURAL HERITAGE TOGETHER

To celebrate the **heritage and exclusivity of the Sicilian region**, O-I' has introduced the "100% Sicily" wine bottle.

The bottles are **made from 90% recycled glass collected exclusively in Sicily**, along with other locally sourced materials. Production takes place at the Marsala plant, the only glass manufacturing facility rooted in Sicily. Together with Sarco, a company that collects and cleans glass from separate waste collection in Sicily, O-I Group is working to increase the use of recycled glass in production and promote the circular economy.

Tom emphasise the history of Sicilian winemakers and illustrate the packaging's regional production, the bottle has a minimalist embossing on the bottom, representing the shape of the island and the circularity concept.



[Read more
about the '100%
Sicily' wine
bottle](#)

MAKING GLASS PACKAGING FIT FOR THE FUTURE

The **Julia Vitrum plant** in Italy is a joint venture between the **O-I Group** and **Zignago Vetro**, located in the Pordenone province.

It's the only cullet treatment center in the region and supports the industry's sustainability goals by using innovative technology to collect more and better recycled glass.

By **integrating cullet** (or recycled glass) into glass production, the industry **can reduce energy consumption, carbon emissions and raw materials use**. The plant's technology can clean impurities up to half a particle smaller, resulting in a higher volume of usable cullet.

This is just one of the many examples of how the glass packaging industry is working to make **glass packaging more sustainable and future-proof**.



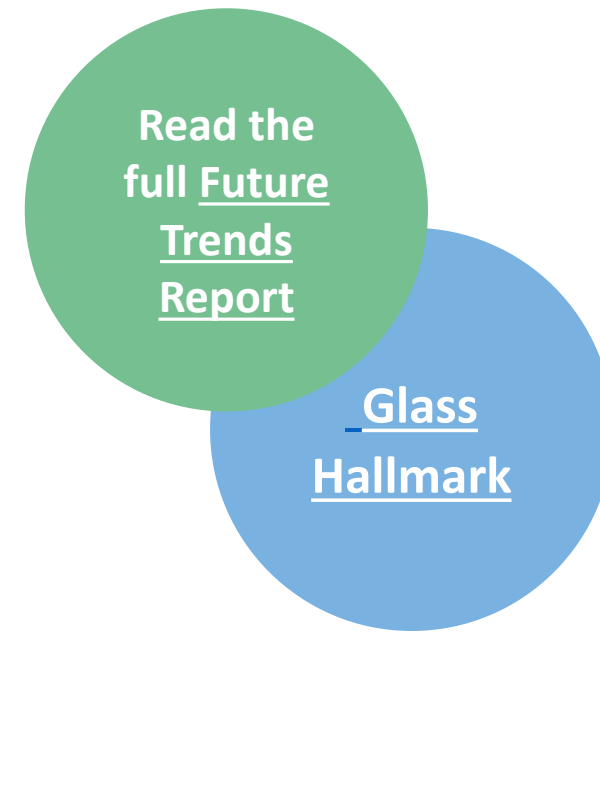
[Read more about the Julia Vitrum Plant](#)

The background is a solid green color. On the left side, there is a large, faint, light-green number '3'. On the right side, there are several overlapping, curved, light-green shapes that resemble parts of circles or arcs.

SUSTAINABILITY AND GROWTH: GLASS AS A BUSINESS PARTNER

WHAT DO CONSUMERS WANT?

We audited over 150 reports to find out. Our Future Made Clear report paints a picture of what today's consumers are looking for from brand & retailers.



CONSUMERS WANT TO BUY THEIR WINE IN GLASS!

According to a 2022 survey on attitudes conducted by FEVE

8 in
10

of European consumers **view glass as a material fit for the future**

65%

Of consumers **trust the quality of products** more when they're packaged in glass

28%

of Europeans buy **more glass packaging** than 3 years ago, driven by recycling, littering & health concerns.

7 in
10

of Europeans believe **glass packaging** can add value to a product



GLASS: THE SUSTAINABLE PACKAGING OPTION

- Glass is one of the most sustainable options in food and drink packaging. Made from sand, soda ash and limestone, it is **100% recyclable** and can be recycled infinitely without any loss in quality.
- Consumers are choosing glass not only for its **health benefits**, but also for its green credentials. Over two-thirds of shoppers rated glass as **the only food and beverage packaging to have a positive or neutral effect on the environment**.
- Consumers consistently rate glass as **the most environmentally friendly packaging material**.



80%

of consumers believe that **companies have a moral obligation to use sustainable packaging** - which has no negative impact on the environment, protects health and supports the circular economy.

GLASS IS THE CHOICE OF WINE LOVERS

A study of consumer preferences on the French market

A new Wine Intelligence research commissioned by Vinexposium (2022) in more than 7 markets worldwide found that glass bottles are perceived as more sustainable than other wine packaging materials.

KEY TRENDS:

- Glass bottles **are strongly associated with sustainability** and perceived as more eco-friendly than other packaging (namely bag-in-box)
- Wine is already perceived by consumers as more sustainable than other drinks, and glass bottles can help the wine industry take these sustainability credentials even further

55%

Of consumers agree that glass bottles are a sustainable packaging solution for wine

42%

of consumers view wine as more sustainable than other drinks

37%

of consumers are willing to pay more for sustainable wine

33%

of consumers are willing to pay more for sustainable wine

WE'RE HELPING BRANDS TO CAPTURE CONSUMER ATTENTION THROUGH A NEW...

Glass Hallmark

- The new Glass Hallmark is a **recognisable symbol, available for licensed use on all glass packaging**, created to communicate our messages about glass packaging at a glance.

Design:

- Co-developed with designers, consumers and brands.
- Incorporates the unique features of glass that make it a high quality and sustainable packaging material.
- Conveys key messages on product quality, environmental credentials and protective quality.

Our goal?

- **Help brands support consumers** to take more sustainable actions .
- Remind the world **what they already love about glass**, and how glass contributes to a more sustainable future.



Glass
Hallmark

Learn
more

SUSTAINABILITY IS DRIVING BUSINESS GROWTH, AND IT HAS NEVER BEEN A MORE PROMINENT ISSUE.

Commitments such as the **UN Sustainable Development Goals**, **EU Green Deal** and the **UN Global Compact** are setting sustainability at centre stage, politically and socially, prompting businesses to assess how they operate.

There is growing pressure on brands to behave more sustainably, and a growing need for additional recycled materials to meet their public sustainability targets.

The glass packaging industry understands the need for sustainable business commitments to match consumer action, through **climate neutrality**, **minimal environmental impact** and **ongoing investment in innovation**.



OUR COMMITMENT TO THE SDGs

Sustainability is a major driver for business and our industry spends €600 million per year on energy efficiency; decarbonisation and plant upgrades. Our dedication to innovation means we will continue to go further to protect the planet, maintain health and drive green and circular economies in the years to come.

As an industry, we aim to:

Maximise use of recycled content in production, by collecting 90% of all EU used glass by 2030



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION

Continuously decarbonise the production process



13 CLIMATE
ACTION

Build long term partnerships with the value chain, consumers, NGOs and other stakeholders to achieve our sustainability goals



17 PARTNERSHIPS
FOR THE GOALS

WE'RE COLLABORATING AS AN INDUSTRY ON SUSTAINABLE INNOVATION

- Constant improvements in **energy efficiency and resource management**.
- Reduction in virgin raw materials by maximising cullet collection & recycling and increasing recycled content. Each tonne of glass recycled can save **580 Kg of CO2** - **cutting emissions** and **reducing landfill waste**.
- Rapid strides in becoming **climate neutral** – several industry initiatives launched
- Annual €610mn investment on **decarbonisation, energy efficiency** and **upgrading 160 EU plants** - 10% of operational and maintenance costs.
- Ongoing **light-weighting** of glass containers to help producers and retailers achieve cost savings and sustainable production.



**Investments
in Innovative Production**



**Partnerships for Lasting
Sustainability**



Building Consumer Trust

OUR INDUSTRY'S COMMON DECARBONISATION VISION

- Addressing carbon emissions and securing our future, by transitioning towards climate neutral glass packaging that serves essential sectors of the EU Circular Economy
- Each year, the industry continuously invests in decarbonisation, energy efficiencies and plant upgrades to reach climate neutrality. For every 10% increase in recycled glass content, CO2 emissions decrease by 5%.
- We continue investing into multiple research and innovation paths to support low carbon transition – needs to be backed by financial and political support that provides enabling framework for this new industrial revolution.

Industry has set out to:

- Move away from fossil fuels to renewable energy sources, such as hydrogen, biomass and green electricity
- Reduce the use of virgin raw materials, by increasing the recycling rate from 79% to 90% of glass in Europe by 2030.
- Look for new ways to make glass bottles lighter to lower transport emissions.
- Reduce and decrease the overall environmental impact of glass packaging by reusing glass bottles

Our goal?

- Reduction in CO2 emissions
- Increased use of recycled glass
- Climate neutrality as an industry



MAKING EVER-LIGHTER & STRONGER GLASS PACKAGING

- In the face of climate challenges, innovations in glass design are setting a new standard for packaging that delivers on sustainability, quality and brand identity.
- The industry has invested heavily in continuous weight reduction of glass containers to help producers and retailers save costs and achieve more sustainable production.
- Producing glass packaging with the "right weight" while maintaining its strength, quality and design is one of the cornerstones of the glass industry.

The result?

- Glass bottles are 30% lighter than 20 years ago.
- Energy consumption has been reduced by almost 50% in 40 years, while CO2 emissions are down by 70% in 50 years.
- Industry innovations on light-weighting, from producing the world's lightest bottle to reducing carbon emissions by more than 25% through lightweight bottles.



30%

Glass bottles are **30% lighter** than 20 years ago.

WINE COMPANIES LEADING BY EXAMPLE IN RIGHTWEIGHTING

Success stories

Rightweighting is a newly found term that refers to the process of optimising the weight of a bottle without compromising the needs of any stakeholders within the supply chain, while still keeping glass quality, integrity and strength.

- Champagne was one of the first regions to join the 'rightweighting' movement and reduce the weight of its glass bottles.
- It reduced the standard weight of Champagne bottles from 900 grammes to 835 grammes, resulting in an overall 20% reduction in its carbon footprint.
- Not much later, in 2008, glass manufacturers in the UK began producing bottles weighing just 300 grammes, while maintaining the same reliability and performance that we are familiar with in heavier bottles. The bottle was a result of the GlassRite Project by the UK Waste and Resource and Action Programme (WRAP).

Sources:

1) [Glass Hallmark, 2022, For wine lovers, glass tops the charts](#)

WORKING WITH A NETWORK OF PARTNERS. ACROSS EUROPE TO 'CLOSE THE GLASS LOOP'

- The **more recycled glass** the industry collects, the **more cullet** can be used in a new production loop – lowering how much energy and raw materials are needed for the production of new bottles.
- That's why we're collaborating across and beyond the industry to advance recycling of glass packaging within a closed loop.
- Launched in June 2020, '**Close the Glass Loop**' is an industry partnership platform to increase quantity & quality of recycled glass – by establishing a material stewardship programme throughout the value chain that will result in more bottle-to-bottle recycling.

Our goal?

- **90% average EU collection rate of used glass packaging by 2030** (up from the current average of 79%)
- **Better quality of recycled glass**, so that more recycled content can be used in a new production loop.



**close the
glass loop**



A European platform and 11 national platforms



A VERSATILE PACKAGING SOLUTION: GLASS IS RECYCLABLE, RETURNABLE AND REFILLABLE



Recyclable



Today, **8 in 10 glass bottles are collected for recycling in the EU** – the majority close the loop as they go back into a bottle-to-bottle production system.

Glass packaging can be a **one-way (recycled)** or **returnable (re-used)** packaging solution.

- **Recyclable glass bottles:** best for local & global markets; can be filled by customers and shipped, sold and recycled anywhere.
- **Returnable glass bottles:** used for local, artisanal production in markets where local return schemes are in place



Returnable

Customers can calculate their own product footprints and decide which packaging solution best fits their needs through our publicly available EU average LCA results – one of the most **representative LCAs** of any packaging material.

SUPPORTING A TRUE EUROPEAN CIRCULAR ECONOMY

- Glass supports **economic growth and resilient local supply chains**: each plant provides nearly 300 direct jobs, while the sector contributes €1bn to public finances each year.
- The EU is scaling up Circular Economy efforts, following the adoption of the **European Green Deal**, the new agenda for sustainable growth.
- Glass is fully circular, and we're working to meet **new targets for waste prevention, reuse and recycling**,
 - e.g. increase in recycling targets for glass packaging to 70% by 2025, and 75% by 2030, per country
- Glass has long been **a leader in circularity**. We are committed to working with our partners throughout the whole ecosystem to meet new targets – and to ensure that glass continues to be seen as...



The leading sustainable material for healthy, reusable and infinitely recyclable packaging.



choose
tomorrow,
today

Thank you.

For further information on how glass packaging can enhance your company's sustainability footprint, please visit: www.glasshallmark.com



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