

*the*  
**PORTO  
PROTOCOL**



# *Is the Bottle of the Future REUSABLE?*

*A report by  
The Porto Protocol &  
Sustainable Wine Solutions*



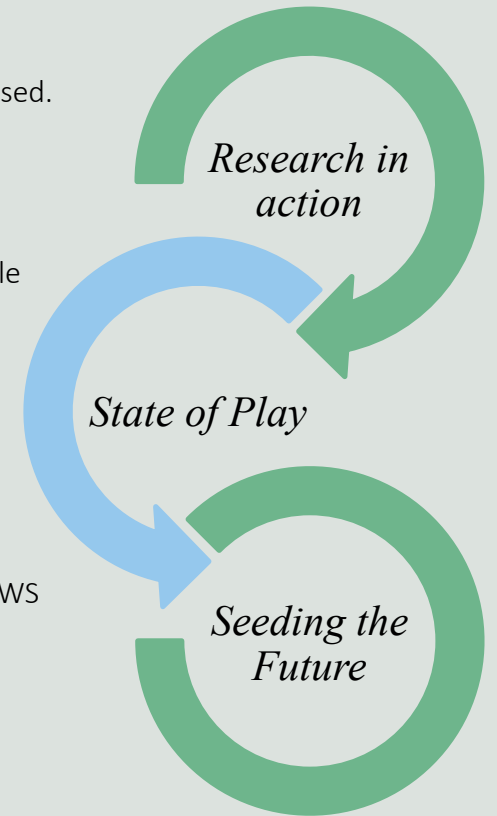
# INTRODUCTION

3 Years ago Porto Protocol started looking into ways to mitigate wine's biggest carbon footprint, the glass bottle, that went beyond the low hanging fruit. Diana Snowden Seysses was the first person that brought to our attention (and agenda) the potential for glass bottles to be reused. And we haven't stopped since. Muriel Chatel, Melissa Saunders, Caren Mcnamara, were a few of the many people we have met and realized they too were paving the way towards reusable bottle schemes in their own way.

Long story short, here we are today, mapping every single wine scheme out there. More importantly, we acknowledge that if we want reusable bottles to be an alternative to single use, we can only do it together.

And how are we addressing this quest of ours?

- Getting to know in detail each scheme's operation
- Gathering as much information as possible regarding the feasibility of this solution
- Partnering with different stakeholders to start proving to the world (and to ourselves) how we make this a reality. Our partnership with SWS at the London Wine Fair was the perfect example of this.
- Ultimately, bringing you all together so we seed the future together.
  - Launching a **Collaborative network**, so no one reinvents the wheel
  - Through collective learning, find shortcuts to accelerate this solution
  - Defining a **Common Vision**
  - Aligning Challenges, opportunities and Actions for producers
  - Agreeing on **Next Steps**



# Is the Bottle of the Future *REUSABLE?*

1

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## RESEARCH IN ACTION LONDON WINE FAIR

- Collected data
- Audits conducted
- Insights & Take-Aways

2

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## STATE OF PLAY

- Concepts
- Reusable Bottle Scheme's map
- Current legislation's map
- PPWR

3

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## SEEDING THE FUTURE

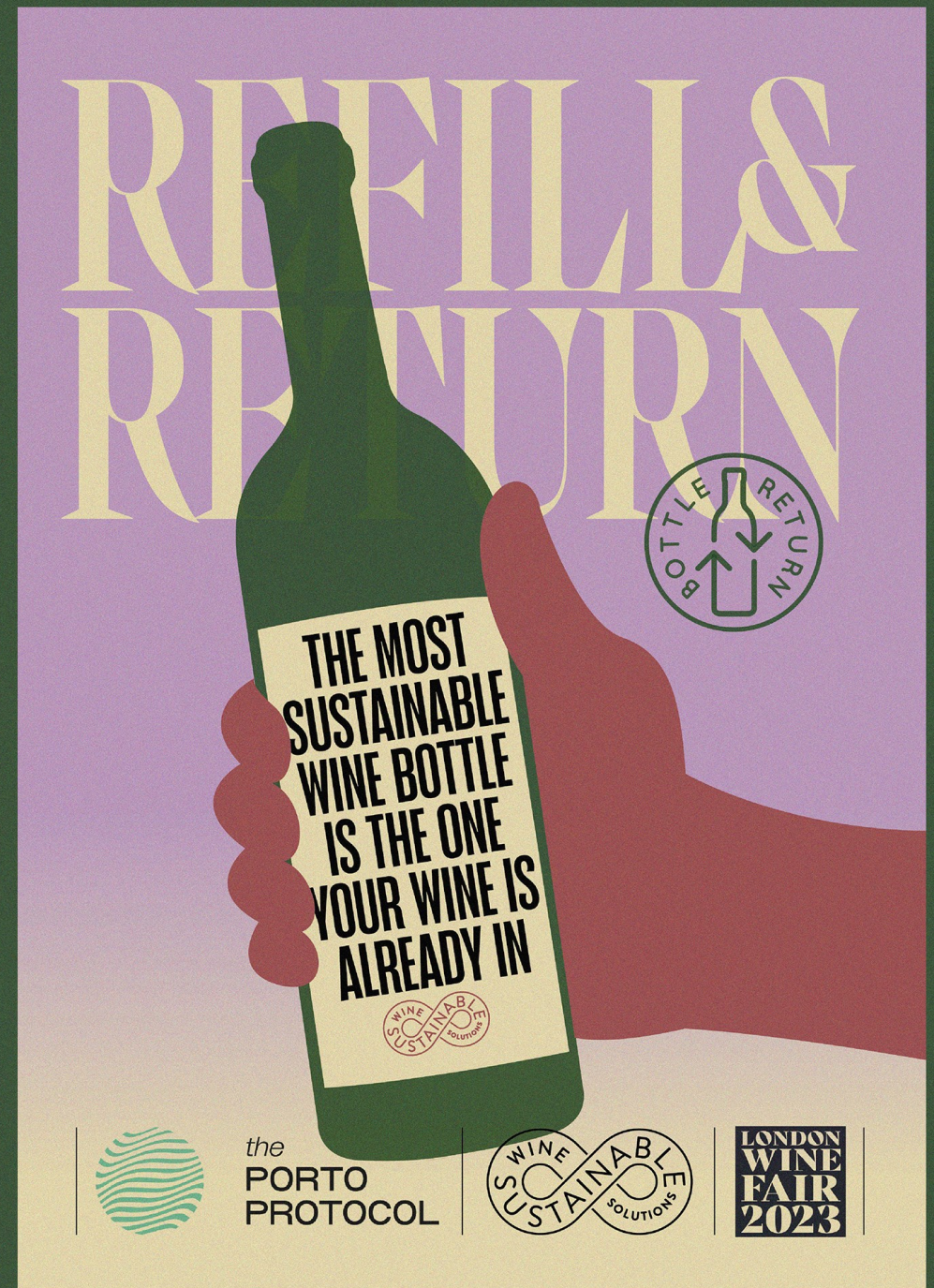
- Collaborative network
- Common Vision
- Challenges, opportunities  
Actions for producers
- Next Steps



1.  
*Research in Action*  
*London Wine Fair*

the PORTO PROTOCOL

Solutions to collectively  
tackle climate change



# *Wine map at* **THE LONDON WINE FAIR**

- UK
- Italy
- Portugal
- Romania
- Georgia
- Armenia
- Argentina
- Austria
- Moldova
- Hungary
- Slovakia
- Croatia
- Morocco
- New Zealand
- Tunisia
- Greece
- France
- Spain
- Ukraine
- South Africa
- Lebanon
- Chile
- Albania
- Ireland
- Netherlands
- Slovenia
- USA

417  
**EXHIBITORS**

100  
**WINEGROWING  
REGIONS**

27  
**COUNTRIES**



The number of exhibitors per country was not representative of the world's wine Production & consumption map





# *The London Wine Fair* **INITIATIVE**

## *WHAT?*

A global blueprint for bottle reuse to be pioneered at London Wine Fair.

## *WHY?*

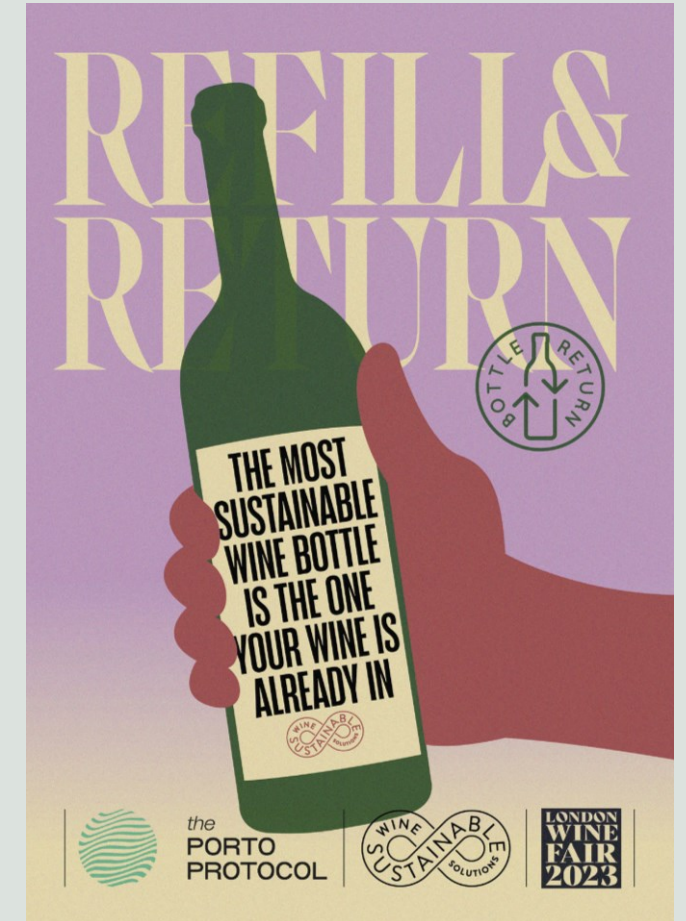
To open a non-dogmatic debate around reusing wine bottles, what does it mean concretely and what would it take for it to happen at scale.

## *WHO?*

A three-way partnership between The Porto Protocol, London Wine Fair and Sustainable Wine Solutions.

## *HOW?*

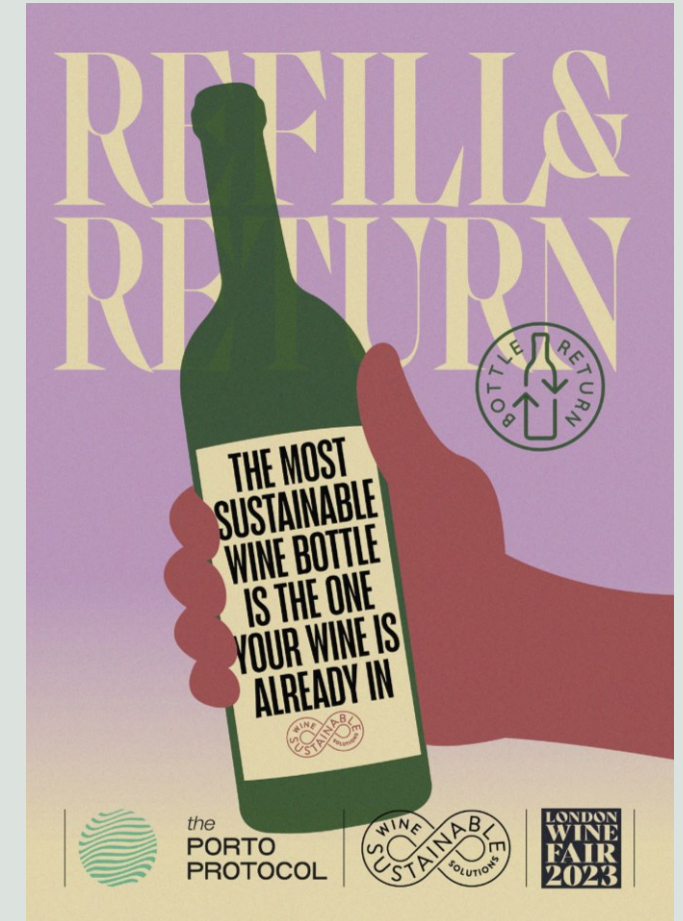
Categorization of a sample of all waste bottles collected at the show, aiming to show the number of bottle types in use; how many were reusable; and if they were not reusable, identify why.



# *The* **THE REASON WHY**

## Identifying the state of play

- How many bottle types are in use?
- Are they reusable and, if not, why?
- What does it mean for a bottle to be reusable?
- Is the lack of standardization a major roadblock?
- Does the data have a story to tell that will shed light and show us a way out of the conundrum?
- Are the producers aware that reusable can be a solution?



## *The size of the* **SAMPLE**

20,000

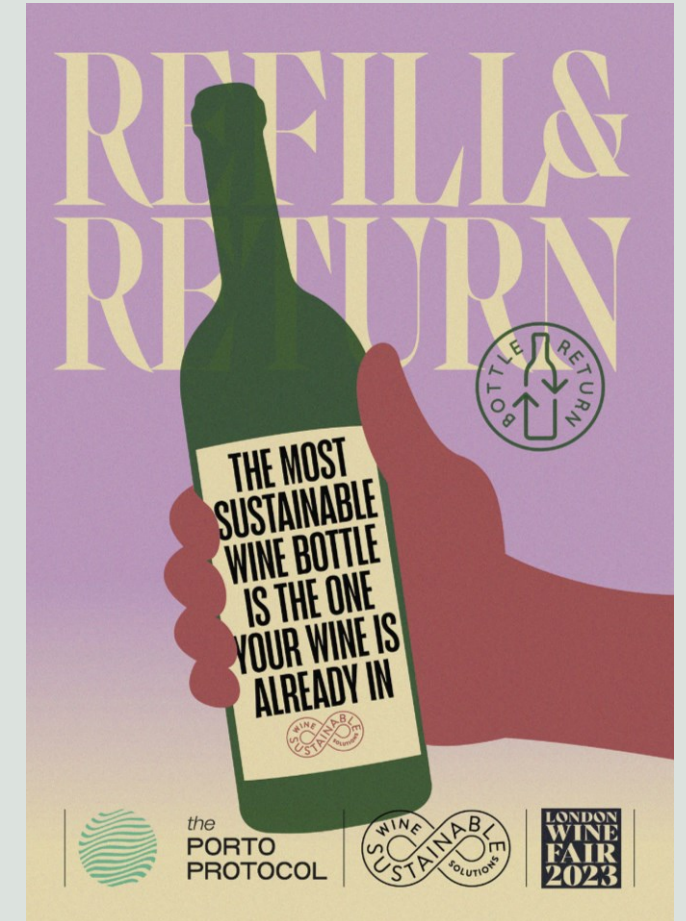
**COLLECTED  
BOTTLES**



1,095

**FULLY AUDITED  
BOTTLES**

- 18,000 bottles will be upgraded into sand
- Part of that sand will be used to build concrete wine tanks in SWS warehouse in London
- The rest will be sold (garden center, glass studio)
- Currently SWS equipment only enables the removal of water-soluble labels, which means that we were not able to reuse them most bottles





## 2 AUDITS

*conducted*



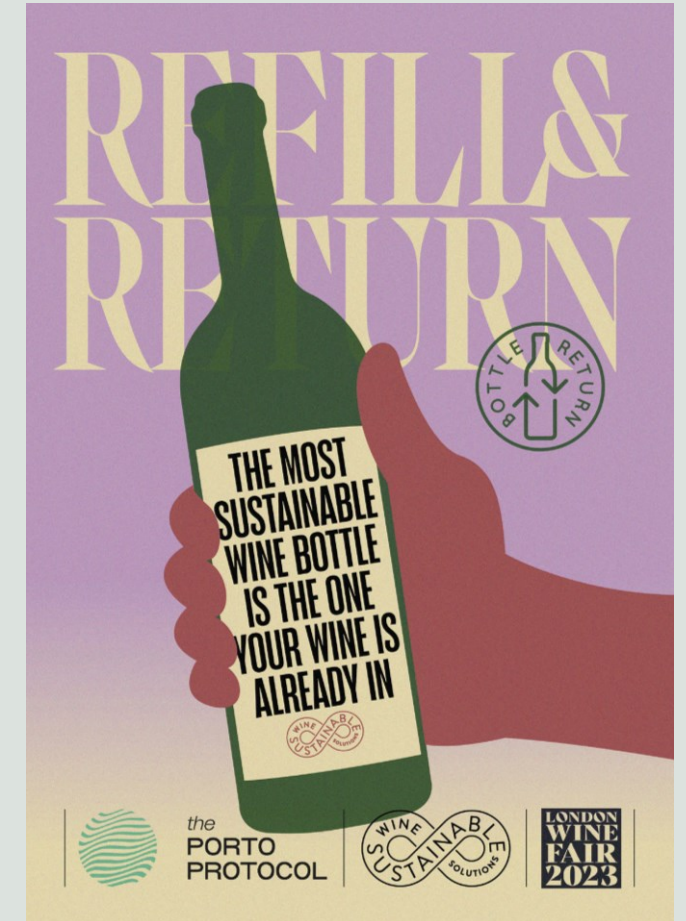
1,095 bottles

A **full audit** was conducted on **1095** bottles, as we felt that we had enough data for what we aimed to achieve



2,000 bottles

A **label removability audit** on a sample of **2,000** bottles that fitted our requirements:  
Burgundy shape, 30cm, standard thickness of the rim, between 390g and 500g



# *Characteristics* **ANALYZED**

Height

Shape

Reusability

Thickness of rim

Weight

Color

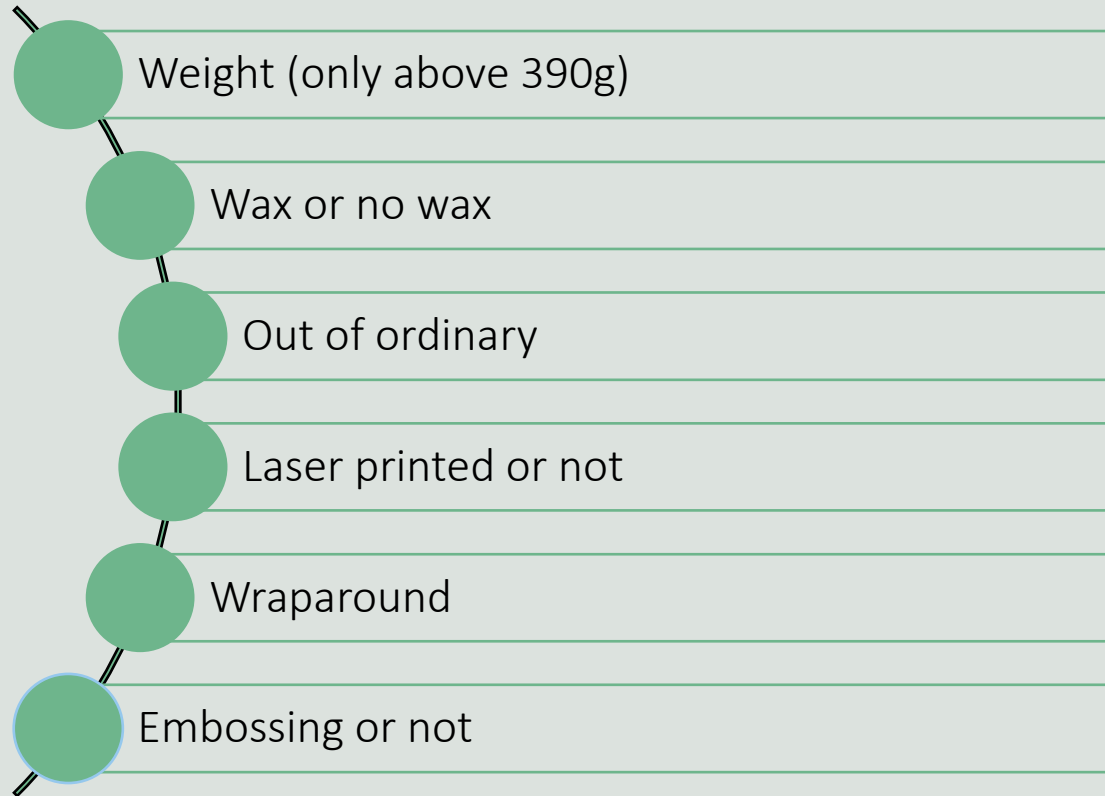
Closure type





# Assessing **REUSABILITY**

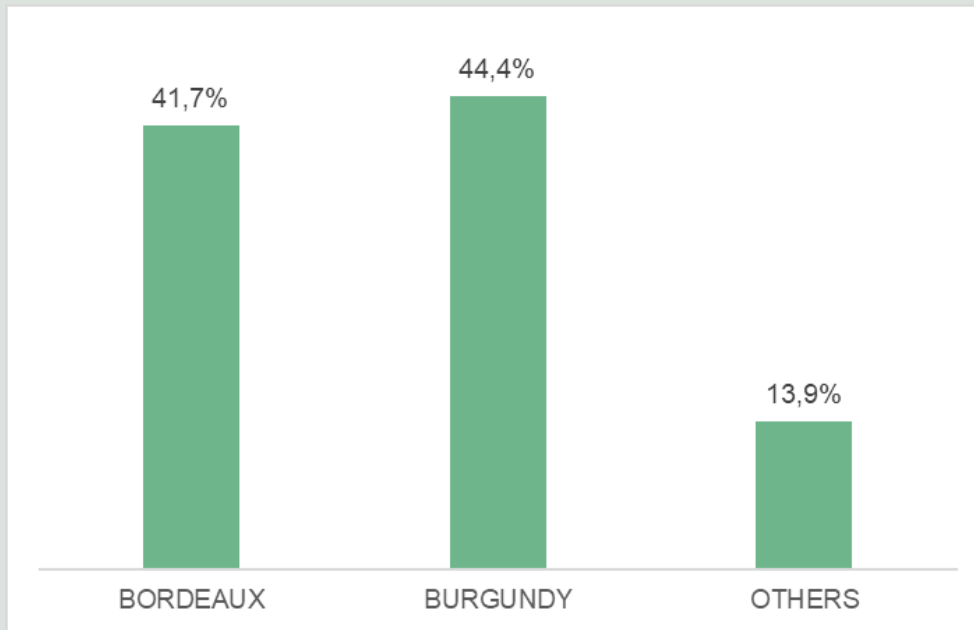
- Technically most bottles (number) were different
- On the question of **reuse**, each bottle was audited against the following criteria:



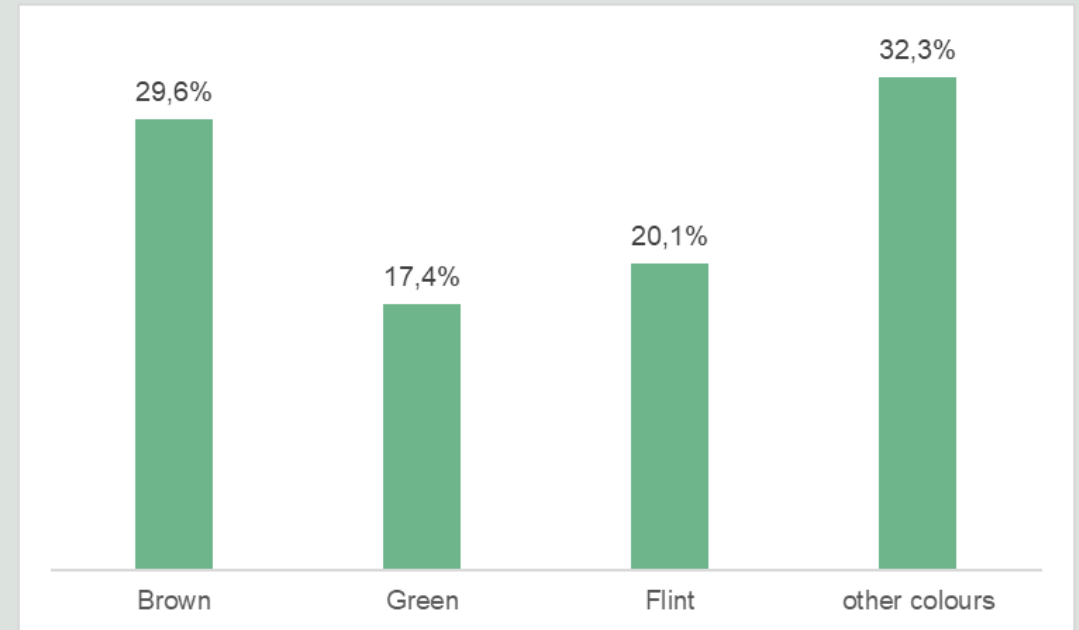
# *Bottles*

## **SHAPE & COLOUR**

SHAPE



COLOR



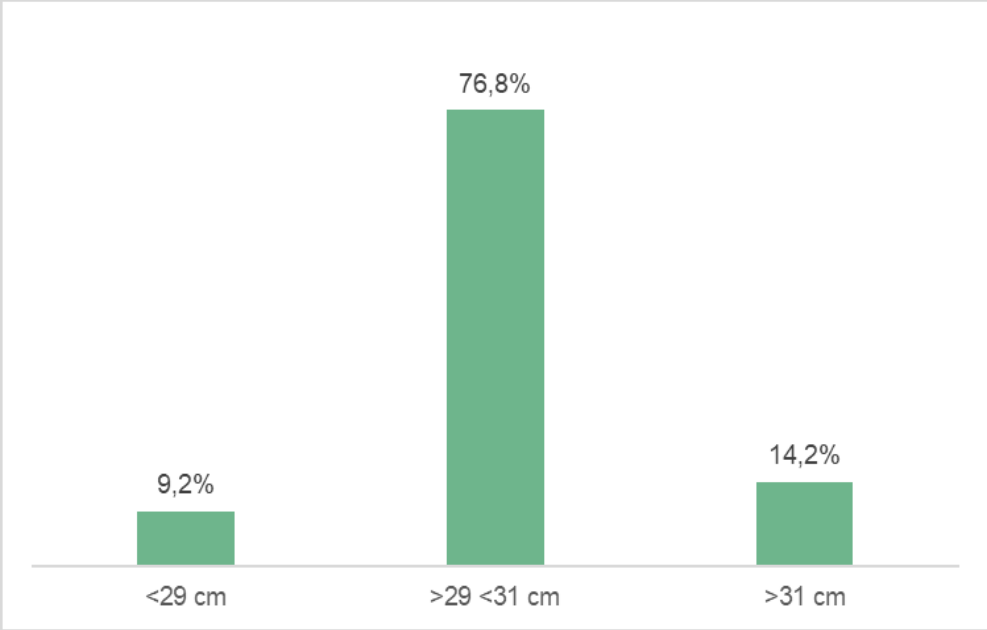
Most bottles are either Burgundy or Bordeaux, Sparkling or Regional



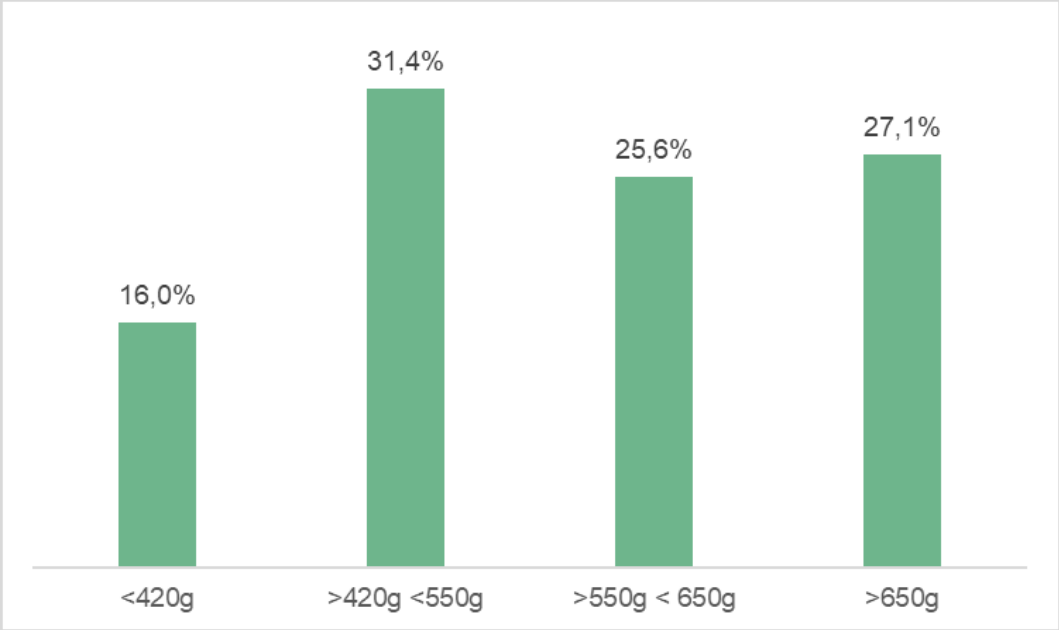


*Bottles*  
**LENGTH & WEIGHT**

LENGTH



WEIGHT



# ***LABELS***

- With SWS (limited) equipment, we managed to remove 80% of labels on 2.000 samples.



- Water soluble-labels are (obviously) a better option as they are free from chemicals and easily removable
- Conventional labels are an issue on a small scale. However, on a big scale, it should not be a roadblock to adopting reuse models as there are on the market machines that can remove every type of labels

# ***BOTTLES***

There is some harmony in the bottles

- **In shapes:** Burgundy, Bordeaux, Champagne, Flute, regional
- **In colours**
- **In height:** The vast majority of bottles are between **29** and **31** cm



- Although all bottles are technically different, visually they mostly **look the same..**



# Insights

- Chaos on a large scale: In the current state of play it is challenging for a reuse supply chain to flourish
  - The requirements of bottling lines, as well as expectation of uniformity from the market make it commercially difficult to adopt a reuse model at scale. However, niche opportunities should be encouraged
- Need for a federated\* supply chain to bring order to an industry, thus contributing to a certain level of self-regulation
- Empower producers with additional data to sustain an informed decision-making process
- Any attempt at market standardization needs to take into account the needs/wants of the wine producers
- Labels should not be a roadblock to adopting a reuse model
- A simple pragmatic international reuse charter (guidelines for winemakers) is a fundamental tool to amplify this path



\*Federation implies common operating procedures, established standards, driving aligned supply chain processes and tacit understanding



# Questions **RAISED**

- What makes a wine bottle reusable?
- Which characteristics prevent or complicate reusability?
- Why is the diversity of bottles types and shapes a problem?
- What level of standardization is required?
- Is reusable an understood concept by the industry?
- Is the case for reuse solid enough? Do we have enough evidence to support it?
- Perception of reusable vs recycling: what is best?
- How can the supply chain cope with the **35 BILLION WINE BOTTLES** used per year worldwide?
- What is the difference between a reusable and a refillable system? Do these need to go hand in hand?
- Can the linear supply chain be transformed into a circular one? Or do we need a new one?
- How many supply chains do we need to envision (b2b, Bdc)?
- What can we learn from others (beverages, countries, etc) that can be applied in our industry?





## To further **EXPLORE**

- Trends per market (HORECA, large retailers, export, local, independents, fine wines, natural wines, independent markets, other beverages: *interestingly, segmentation by markets seem to reveal a higher level of standardization.*
- What is in the head of wine producers? they want/need the same thing but what is it they need/want?
- Reinventing the role of the glass manufacturers: From bottle manufacturers to bottle washers
- Timeline: how long would it take to see a noticeable improvement once “guidelines/charter” were available?
- What are the quick wins? Where to start to achieve these?
- Start up opportunities
- A reuse strategy only makes sense if it goes hand in hand with a refill strategy?



# 2. *State OF PLAY*



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Solutions to collectively  
tackle climate change

# *Reusable* **PACKAGING**

Packaging which proves its capability of accomplishing a **minimum number of trips (or reuse cycles)** within its lifecycle, in a purposefully designed **system of reuse**.

Importantly, reusable packaging **must be used again in the same application** for which it was originally designed.



# *Reusable vs Refillable*

## **B2B**

### **REFILLABLE:**

Return logistics and some production-line steps such as **cleaning, maintenance** and **storage** are usually necessary to facilitate the reuse of packaging

B2B

B2C

### **REUSABLE:**

Easier to implement since it does not require a take-back mechanism or infrastructure such as cleaning and storage to be implemented.

B2C

B2B



# Legislation INITIATIVES

In April 2022, [France](#) saw a law passed which stipulates that by the end of 2027, 10% of bottles from producers with a production of over 10,000 bottles will have to be reused; this is an incremental target with some producers required to reach 5% by the end of 2023.

[Portugal](#) has amended its [law](#) to state by 2030, 30% of all packaging put on the market, of any material, must be reusable. But though it is law, it has not been implemented.

[Scotland](#) was due to introduce a deposit scheme to reduce its low rate of recycling this year, but this has had to be postponed until 2024.

In November 2020, [Austria](#) introduced binding quotas for the proportion of reusable packaging sold in retail, starting with a requirement of 25% in 2025 to at least 30% by 2030.

[Romania](#) has included a 5% annual reusable packaging increase until 2025 (reaching a minimum of 25% by 2025) in their ordinance [policy](#).

The Government of [Malta](#) is opening of the Reuse Centres across the country as part of its waste management plan.

[Spain](#) has drafted a [national decree](#), that would make significant leaps forward by outlining several reuse propositions; one of them being beverage reuse quotas in the hospitality sector (HORECA) for water, beer, juices and soft drinks, as well as a general beverage packaging reuse target for domestic consumption at home. Spanish regions [Navarra](#) and the [Balearic Islands](#) have had progressive beverage reuse packaging laws since 2018.



# *Packaging and Packaging Waste Regulation (PPWR)*

## **EU WASTE PROPOSAL (UNDER REVISION)**

### What does the proposal aim to do?

- Set weight-based waste reduction targets (vs material specific) involving primary packaging
- Address unnecessary packaging
- Foster reusable systems
- Decrease the need for virgin materials
- Standardization protocols

### What are the glass industry concerns?

1. More ambition on recyclability
2. Strong concerns on waste prevention proposal: material specific to avoid material substitution (since its weight-based)
3. Not to force brands to standardize
4. Protect intellectual rights and design
5. Reusable packaging is an important measure not always applicable, short area, and depending on the product

### What is the status of the proposal?

1. The first round has passed but all targets for wine (as well as takeaway) have been removed
2. The vote in plenary will take place in November 20/21, where amendments can be suggested that reinstate the removed targets and the Council's position, which, so far, does not point to the removal of reuse targets.

# Players

## AROUND THE WORLD



## *Retailers' efforts*

### **LIGHT WEIGHTING BOTTLES**

#### LCBO LIGHTWEIGHT GLASS BOTTLE PROGRAM

- Glass Weight Requirements
- A maximum weight is 420g and a weight tolerance of 15g for non-hock 750ml bottles.
- For 750 mL hock bottles, a maximum weight of 460g and a 15g weight tolerance.
- For 1 Lt bottles, a maximum weight of 550g and the weight tolerance is 20g.
- For bottles of 1.5 L, the maximum weight is 700g and the weight tolerance is 25g.



#### SWR BOTTLE WEIGHT ACCORD

- The 'SWR Bottle Weight Accord' is focused on the **light weighting** of 750 ml still wine bottles.
- The initial target is to lower the current average bottle weight among its retailer members from 550g to 420g until the end of 2026.
- This is an accord between [Alko Oy](#) (Finland), [Lidl GB](#) (UK), [Systembolaget AB](#) (Sweden), [The Wine Society \(The International Exhibition Co-operative Wine Society Limited\)](#) (UK), [Whole Foods Market](#) (USA), among others (7 in total this far).



# 3. *Seeding* **THE FUTURE**

- Launching a **Collaborative network**, so no one reinvents the wheel and fostering collaborative work
- Defining a **Common Vision**
- Aligning Challenges, opportunities and actions for producers
- Agreeing on **Next Steps**



# *The* **WORKING GROUP**



**Diana Snowden Seysses**  
Domaine Dujac &  
Snowden Vineyards  
France & USA



**Leonor Blázquez Villar**  
Gonzalez Byass /  
Rebo2vino  
Spain



**Michael Dorf**  
City Winery  
USA



**Celia Rennesson**  
Reseau Vrac  
France



**Muriel Chatel**  
Sustainable Wine  
Solutions  
UK



**Barclay Webster**  
Free Flow Wines  
USA



**Simon Lauinger**  
BWGV | Mitglieder Center  
Germany



**Bill Redelmeier**  
Southbrook Wines  
Canada



**Melissa Saunders**  
Communal Brands  
USA



**Claire Auzanne**  
Oé for Good  
France



**Ingrid Winter**  
Styria Bottle  
Austria



**Caren Macnamara**  
Conscious Container  
USA



**Adam Rack**  
Revino  
USA

# *Collaborative* **NETWORK OUTPUTS**

What do you consider to be the top **3 challenges** we are facing regarding the dissemination of reuse practices?

## BEHAVIORAL CHANGE

### ECONOMIC VIABILITY

- Reverse logistics
- Incentives (Consumers & Producers)

### STANDARDIZATION /SPECS

- How many ?
- Unique Bottle
- Quality specs for a reusable bottle
- Guidelines, obligations, and sanctions.

### ROLE OF THE VARIOUS STAKEHOLDERS

- Consumers awareness and willingness to buy a standardized bottle
- Government legislation & support
- Logistics



**A NEW  
INDUSTRY  
IS ARISING**

# *Collaborative* **NETWORK OUTPUTS**

According to you, what do you believe should be the top **3 initial actions or initiatives** that the we should prioritize?"

CONNECT & COLLABORATE

## INFORM & EDUCATE

- **Assess** the full landscape (inside and outside the wine world)
- **Raise** general awareness: reuse vs recycling
- **Produce** practical technical sheets for producers
- **Share** numbers & data to make a case
- **Educate** the wine industry

## INFLUENCE CHANGE

- **Lobbying**
- **Negotiate** industry standard
- **Push** unique identifiable bottle

## PROMOTE INTERACTION

- **Meeting** in real life, online & involve a wider community
- Share **Successes &** concrete **examples** of how it can work



**PUSH  
FORWARD  
REUSABLE**

# *Collaborative* **NETWORK** **OUTPUTS**

Tips to the industry:  
What could be the **1st easy step**?

## PRODUCERS

### INNOVATE TO BE PRATICAL

- **Avoid** embossed & exotic bottles/packaging
- Make it **simple** for consumers (making it the least dependent on their actions?)
- **Talk** with providers

### THERE IS NO ONE SOLUTION

- Format to match market **Needs**;
- **Innovate**: Addressing real needs based on consumers (fine vs Table Wine)

### START AT THE SOURCE:

- At the winery, the tasting room, hospitality
- Locally: restaurants, what might be the demand

## OTHER STAKEHOLDERS

### ALL STAKEHOLDERS

- **Engage** with discussions to speak about reuse, share inputs

### COUNTRY LEVEL

- **Change** the Appellation Systems - Regulations

### RETAIL & DISTRIBUTION

- **Collaborate**: Involve at an early-stage retailers, big distributors, Groceries, restaurants, etc...

### CONSUMERS:

- There is a better way than throw-away





### Domaine Dujac – Diana Snowden-Seysses

Diana Snowden Seysses was born and raised in the Napa Valley. She graduated from the Viticulture & Enology program at UC Davis in 2001, then worked in both California and French cellars with Robert Mondavi Winery, Mumm Napa, the Araujo Estate, Château La Fleur de Boüard, Domaine Leflaive and Ramey Wine Cellars. In 2003 Diana became enologist at Domaine Dujac in Burgundy, and consultant at Domaine de Triennes in Provence. In 2005 she became winemaker at Snowden Vineyards in St Helena, Ca and in 2016 became winemaker for Ashes & Diamonds in Oak Knoll, Ca. She splits her time between France and California bringing wisdom from each across the Atlantic.



### Sustainable Wine Solutions – Muriel Chatel

The founder of Borough Wines from a family of winemakers in Bergerac, Muriel led the way for wine refill in the U.K. with her ‘Straight from the Barrel’ concept at Borough Market in 2002. Sustainable Wine Solutions is the ultimate sustainable service provider for the wine trade. We provide quality driven sustainable wine systems that eliminate wasteful packaging and promote reuse: wine-on-tap keg systems using reusable Ecofoss kegs, 100% reusable stainless steel kegs and a 10L ‘VinoTap™’, and the Bottle Return Scheme. We are the only U.K. wine on tap company working with reusable kegs and returnable bottles. We work with independent, sustainably minded winemakers to deliver our Zero Waste wine list, with a wide selection of organic, biodynamic, natural and vegan wines. Our in-house team of operations and winery experts manage all elements of the supply chain from producer to customer, ensuring watertight quality control every step of the way.



### Oé for Good – Thomas Lemasle

We are a brand of organic, vegan and pesticide free wines that works hand in hand with French winemakers around the country to produce the best possible wine for both our taste buds and our ecosystem. Oé is B Corp certified since 2017, it follows high societal and environmental norms and is part of a process of progress. As a company, our mission is to promote sustainable viticulture and a considerate way to consume. Also, we pledge 1% of our turnover to the Oé Initiative for Biodiversity in the vineyards. The goal of this project is to make reusable wine bottles the norm. First, a French one, and with time an international one. “Reuse” or “deposit & refund” schemes have no greater utility if we are the only ones doing it. We ought to speak to as many stakeholders as possible, open the conversation in as many groups as possible and create a habit in every consumer’s mind to deposit their containers to refill or reuse.



### Revino – Adam Rack

Revino is reviving the glass bottle ecosystem starting with our home state of Oregon. We are a startup focused on building partnerships throughout the supply chain and collaborating with our stakeholders to ensure a viable and sustainable reuse economy at scale. Born and raised in Kansas, I have been interested in sustainability at an early age. After moving to Oregon, I spent the first 8 years of my wine career at a keg winery, building a brand around zero single use packaging and consulting or personally installing hundreds of wine taps throughout the Pacific Northwest. Beginning in 2018 I developed and launched a wine lineup and club exclusively packaged in refillable beer bottles. My role as COO at Revino follows in that legacy, with a focus on bringing a wine bottle and washing facility into Oregon. In my free time my partner and I enjoy gardening, running and fostering dogs. **Reusability to me means the adoption and access of reuse systems throughout our global economy is critical to a healthy and equitable future.**



### Conscious Container – Caren Mcnamara

Starting with due diligence, Caren explored why the U.S. lost its refillable glass system and how she could bring it back. She connected with beverage producers, policymakers, non-profits, and municipalities and determined there was a strong desire for a refillable bottle solution. Incorporating as a Benefit Corporation, she founded Conscious Container and set up proof-of-concept glass bottle collection pilots. Caren and the team know Conscious Container's refillable system brings a powerful business solution to our single-use packaging waste crisis while delivering reduced packaging costs and CO2 impacts for beverage producers.

### Free Flow Wines – Barclay Webster

Free Flow Wines is the only reusable packaging company in the US wine industry with national reach. We work with hundreds of wineries, importers and distributors to offer their wine in reusable steel kegs to thousands of restaurants, hotels and other On-Premise venues across all 50 states. Barclay has more than 15 years of experience working in the beverage industry. His diverse experience and cross-functional expertise, enables him to quickly assess scenarios, implement proven best practices where applicable and develop unique solutions to address unprecedented challenges as needed. As Vice President of Business Development, Barclay's primary responsibility is helping On-Premise operators discover how wine on tap can greatly improve the profitability, service speed, guest experience and environmental sustainability of their by-the-glass wine programs. **I believe Reuse rules!**



### City Winery – Michael Dorf

Michael Dorf was recognized as a pioneer in producing music on the Internet, through a variety of strategic relationships with Apple Computer, Intel, MCI, and Bell Atlantic. During his Knitting Factory tenure, he produced over 200 recordings, a television series, and built a new venue in Los Angeles.



### Réseau Vrac et Réemploi– Celia Rennesson

I am the Cofounder and General Director of a French national trade association that represents, federates and promotes refill and reuse businesses. **I believe Reusability is one of the best packaging solutions to preserve resources.**



### BWGV | Mitglieder Center - Simon Lauinger

Working group for reuse bottle schemes of wine. I am an enologist and wine-economist, consultant for wine-cooperatives - project coordination of the EU-financed OPG Wein-Mehrweg. I believe **Reusability is the major key to sustainability in the wine industry**



#### González Byass/Rebo2vino - Mrs. Leonor Blázquez Villar

González Byass has almost 190 years of history, since 1835. It's currently run by the fifth generation of the González family. It has 9 wineries in some of the most recognize growing areas in Spain and two more wineries in Chile and México. For more than a decade we have been working on sustainability, as it is something that concerns us greatly. Our sustainability plan is called "5+5 caring for the planet", representing the history and future of the family and the mission we have to conserve nature and the planet. I work in the environment and sustainability department of González Byass. In the technical area. My education is a degree in biological science and environment and sustainability specialize courses. My mission is to coordinate the sustainability plan in the group and support the sustainability director.

**Reusability, in our sector, at least in Spain, it is something that has not yet been implemented and that could be a great advantage from an environmental point of view. But there is still a lot of work ahead.**



#### Styria Bottle – Ingrid Winter

Head of the Department of Waste Management and Sustainability of the Province of Styria

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