



2024 ANNUAL MEETING

Rinse & Repeat

Addressing the Carbon Footprint of Bottles & Packaging

Anna Brittain | Adam Rack | Keenan O'Hern



CARING FOR NATURE AND COMMUNITY
ELEVATES QUALITY AND EXPERIENCE



**Water Efficiency
& Savings**



**Energy Efficiency
& Savings**



**Waste Prevention &
Supply Chain**

**SIX PILLARS OF SUSTAINABLE
WINEGROWING LEADERSHIP**



**Proactive Farming, Soil
Health & Biodiversity**



**Social Justice, Diversity
& Inclusion**



**Climate Action &
Regenerative Ag**



**Napa Green Certified Vineyards implement
>100 sustainability & climate action practices:**

- I. Social Justice, Diversity & Inclusion**
- II. REGENERATIVE CARBON FARMING**
- III. IRRIGATION ASSESSMENTS & WATER EFFICIENCY**
- IV. Forest Health & Fire Risk Reduction**
- V. Prohibited & Restricted Pesticides**
- VI. CLIMATE-SMART BURNING**

Why Napa Green's Glyphosate Ban is Such a Big Deal

BY KATE DINGWALL





**Napa Green Certified Wineries implement
>120 sustainability & climate action practices:**

- I. Social Justice, Diversity & Inclusion**
- II. ENERGY EFFICIENCY**
- III. WATER EFFICIENCY**
- IV. WASTE PREVENTION**
 - Recycling & Composting
 - Purchasing & Supply Chain
- V. Climate Action**
 - Packaging & Distribution
- VI. Leadership & Sustainability Engagement**

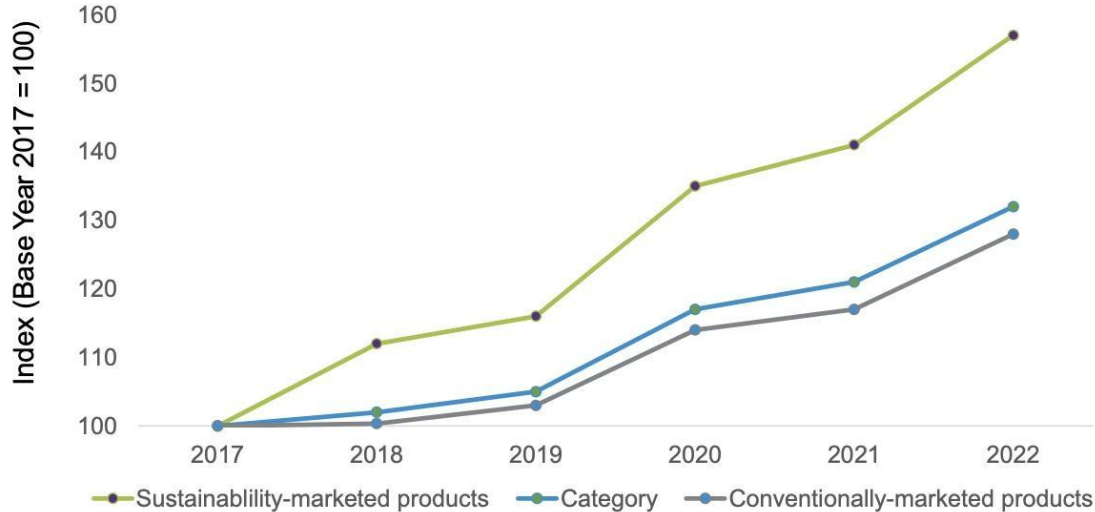
CONSUMER-GOODS' BRANDS THAT DEMONSTRATE
COMMITMENT TO SUSTAINABILITY OUTPERFORM
THOSE THAT DON'T

NYU Stern Center for Sustainable Business 2022 Sustainable Market Share Index

- Sustainability-marketed products delivered **30% of all CPG growth**, despite representing 17.3% share.
- Products marketed as sustainable **grew ~2x faster than non-sustainable** and achieved a 5-YR CAGR of 9.43% vs. 4.98% for conventional counterparts.
- Sustainability-marketed products have a **price premium of 27.6%** vs. their conventionally marketed branded counterparts.
- **Carbon labeled products now account for \$3.4B in sales**, doubling from \$1.7B in 2020.

Sustainable Market Share Index™: Growth Rate

Sustainability-marketed products grew **~2x faster** than conventionally marketed products

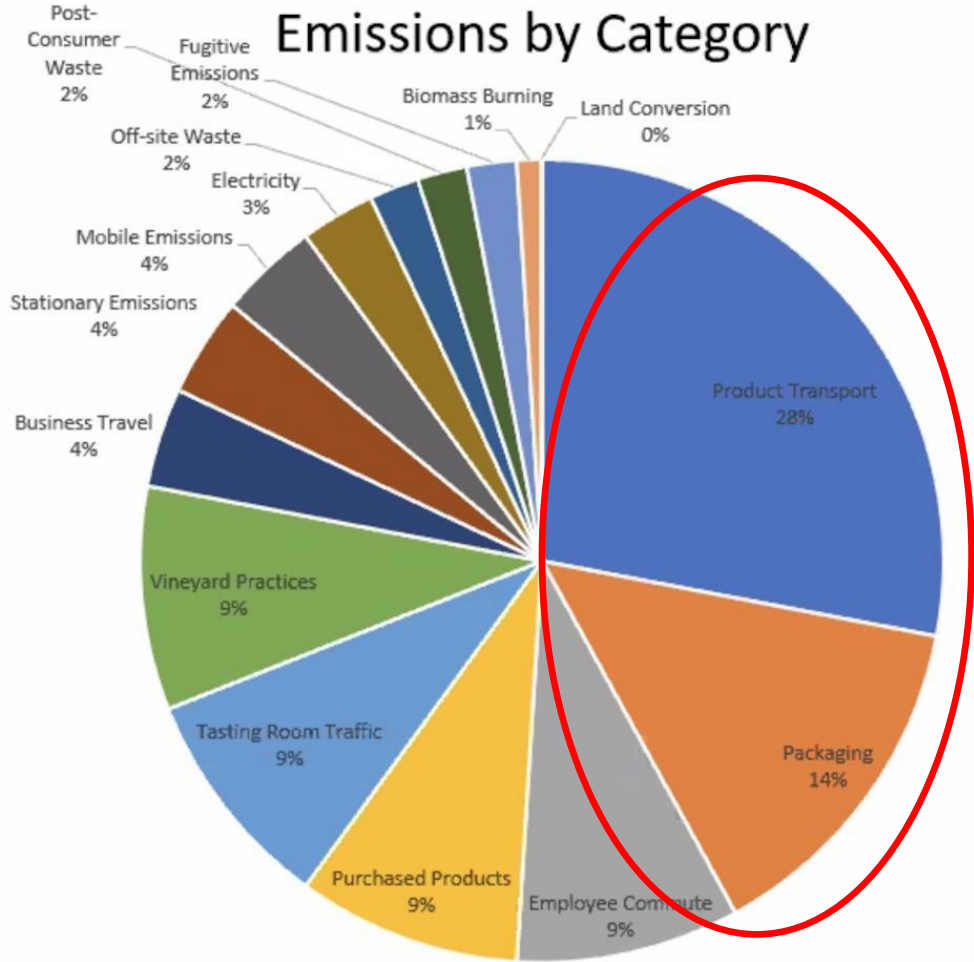


Sustainability-marketed
5-YR CAGR:
9.43%

Total Market 5-YR CAGR:
5.68%

Conventionally marketed
5-YR CAGR:
4.98%

Emissions by Category





Value: \$100
Bottle
Weight: 650 g
1.4 lbs.



Value: \$100
Bottle
Weight: 580 g
1.3 lbs.



Value: \$50
Bottle
Weight: 470 g
1 lb.



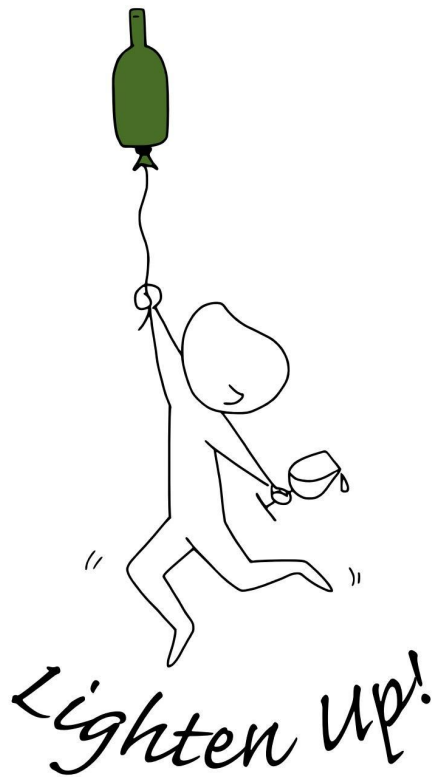
Value: \$30
Bottle
Weight: 880 g
1.9 lbs.



Value: \$300
Bottle
Weight: 560 g
1.2 lbs.



25,000 cases: ADDITIONAL 210,000 lbs. or 105 tons



Need another incentive to move to lightweight glass? How about \$2.2 million over 14 years?

March 09, 2023



Karen MacNeil · 2nd

Speaker. Consultant. Author. Karen MacNeil is one of t...

1mo · 🌐

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As of 2024, we will no longer write about wines that come in massive, heavy bottles. Maybe wineries continue to think we'll be (and you'll be) impressed by big overblown bottles, instead of what really counts—the wine inside. How about you? Let me know your thoughts on heavy, luxury glass bottles in the comments.

[#wine](#) [#winebottles](#) [#winenews](#) [#winereviews](#) [#climatechange](#)
[#climatechaos](#) [#wineries](#) [#internationalwineriesforclimateaction](#)



Ian Dooley and 199 others

71 comments · 12 reposts

Sustainable Wine Roundtable

750ml still wine bottles <420 g by the end of 2026.

Current bottle weight average ~550 g, so 25% decrease in weight

Members who sign the accord will implement a phased approach to reducing weight and average bottle weights will be reported to SWR and publicized every six months

'SWR Bottle Weight Accord'
Globally Supported by Leading Retailers

Logos of participating retailers: naked wines, LIDL, THE WINE SOCIETY 1874, LAITHWAITES WINE, Virgin wines, SYSTEM BOLAGET, WHOLE FOODS MARKET, WAITROSE & PARTNERS.

Collaboration to drive transformational change

Sustainable wine
ROUNDTABLE

WILD GLASS™

100% RECYCLED RAW GLASS BOTTLES



**BD Emblem Eco Wild Glass
750mL**



**BD Prima Bordeaux Wild Glass
750mL**



**BD Prima Burgundy Wild Glass
750mL**



BG Essentia Wild Glass 750mL

Neotempo – Sustainability Elevates Luxury

- 560 g 100% PCW (2025 will be 460 g)
- Hexagon adds geometric strength. Only wine finalist in Luxe Pack 2023 award
- Designed for high density packing & storage – 1014 bottles/pallet v. 672 industry average. **30-40% cost savings for size & weight alone (less space & fuel).**
- No bottling line customization required. Bottled 7800 bottles in 5 hours with zero broken bottles
- Custom cardboard packaging: Recycled paper; 100% compostable; Designed for drop impact and temp control using air canals (M7 & Impackful Solutions)
- Zero breakage in shipments
- Smart tracking sensor (WestRock) to monitor temp, shock, humidity & light

Neotempo – Sustainability Elevates Luxury

Setup: 49 DTC shipments with SMART tracking (110 total)

Carriers

- 13 GLS
- 16 FedEx
- 19 UPS

Transport Modes

- 31 Ground
- 15 Air

Packaging Materials

- 12 insulated “eco” friendly packages - green cell foam
- 37 cardboard neotempo designed boxes

Ship To by State

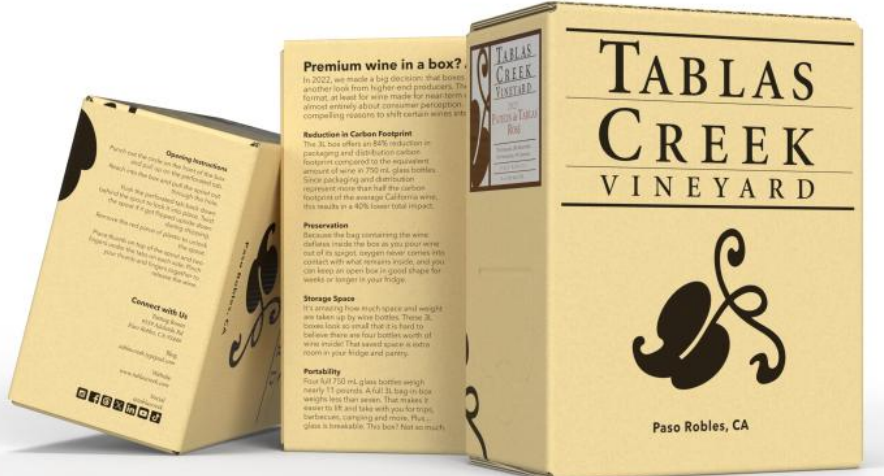
- AZ – 1
- CA – 20
- FL – 4
- GA – 3
- IL – 3
- IN – 1
- MA – 3
- NJ – 6
- NV – 1
- NY – 3
- TX – 4
- SC – 1

- Validated efficacy of sensor technology to support reliable near real-time location and condition tracking from shipping origin to destination.
- No major temperature or G-shock deltas between ground vs. air transport modes (FedEx and UPS)
- No major temperature or G-shock deltas between insulated vs. cardboard box shipments, regardless of transport mode or destination.
- **No dramatic improvement in air shipment. Eliminated air and standardized ground w/ 3-day as default (over 60% savings).**

Thinking about the Box in Which we are Thinking Inside the Box



Wines Industry Insiders Love





LIMITED RELEASE

ONLY 240 CANS PRODUCED

THE MOST PREMIUM
OAKVILLE
CABERNET SAUVIGNON
CAN WINE EVER PRODUCED

OAKVILLE
ESTD 1881
WINE MERCHANT
PURVEYORS OF FINE WINES



\$65 PER CAN
(1 1/2 BOTTLES)



Tablas Creek: Shipping via satellite hubs

Since March 2016 we've shipped club shipments via hubs (in addition to Santa Maria, CA)

- Two satellite hubs, located in MO and NY
- Wine trucked by ground (refrigerated) to hubs
- Shipments sent ground and arrive in 1-2 days
- Monetary savings of \$15-\$35 per shipment
- Carbon footprint savings of 85% vs. air on those shipments
- Next frontier: daily shipping

And remember, your packaging choices show up here too, in a big way



California Bottle Bill (CRV)

- Also applies mandatory reporting, fees and CRV labeling to out of state wineries who ship wine to California, as well as importers who import wine sold in California, officials said.
- These entities are responsible for registering on the CalRecycle system, monthly sales reporting monthly payments, and labeling CRV on wines sold in CA.

Recycled Cullet

- For every 10% added to the furnace there is 2-3% reduction in energy use and 5% reduction in CO₂ emission
- For every 6 tons of recycled glass 1 ton of CO₂ is offset
- Cullet lowers energy use because no endothermal decomposition



Decreases

- a. Raw material use
- b. Transport costs
- c. Pollutants

Ontario Reuse by 2027

- Deposit & return for alcohol through beer store (govt pays \$0.20 deposit)
- ONE facility for recycling (clear to food containers; colored to road construction)
- Currently no glass manufacturing in Ontario, limited availability from US, forced to purchase from China or Turkey
- LCBO sells ~130 L of wine/year. ~100 million wine bottles going to Brampton/year
- Goal to step in between return & Brampton. Reduced cost to government and helps meet climate commitments.
- Need large volume SKUs. 100k Kim Crawford. 2/3 of wine sold in Ontario is imported – nonstop flood of fresh glass.
- Washing facility in Brampton – ability to quickly & cost-effectively return unusable.
- *“Personally would look for scuffed with perfect seal – can tell a story.”*
- Peller & Arterra interested, but can’t alienate small producers.
- MOU w/government as part of “Master Framework Agreement”

Ultimate: Light(er), Reusable, Produced Regionally

- Cart:Horse – Getting washing line funded & operational
- Will CRV be able to provide undamaged glass?
- Economics of tasting room return & reuse?
- Convincing winemakers & marketers to shift to streamlined molds
- Cost of molds
- Wash-off labels







REVÍNO

THE REVINO TEAM



Keenan O'Hern | Adam Rack | Callie Edwards

Experienced team in: Wine Management, Supply Chain, Reuse Systems, Reusable Bottle Program Management, Production, Startups, and Marketing & Sales



VISION & MISSION

Vision: To empower sustainable glass packaging, helping people and markets build pathways to ambitious change.

Mission: We will revive the reusable glass bottle ecosystem, cleaning the planet one bottle at a time.



HISTORY OF REUSE



1900

100% of beverages and many foods were delivered in reusable bottles (i.e., the milkman).

POST
WWII

Lighter weight glass and aluminum cans were introduced, while the first non-reusable bottle ban was passed (and repealed) alongside an expansion of the alcoholic beverage industry and **rise of disposable bottles.**

1970

Reusable bottles declined to **26%**, while the concept of Reduce, Reuse, Recycle emerged and the first bottle bill with a deposit was passed in Oregon.

1990

Reusable bottles continued to drop to **5-7%**, with glass waste rising to **8.5 million tons** annually in landfills.

2008

Wine Bottle Renew LLC launches first large-scale glass bottle cleaning effort but fails, reusable bottles dipped to **0-2%**, and glass bottle **consumption peaked at 4.8 billion annually.**



THE PROBLEM TODAY

1. Glass packaging: Responsible for **30-60%** of overall winery emissions.
2. Glass is a negative commodity in recycling.
3. Glass is the *only* **inert packaging material** for wines.



INCONGRUITY



Bottles

Waste estimated 9-31% recycled.

VS

Glassware

Cherished item with unlimited reuse potential.



SAME
MATERIAL



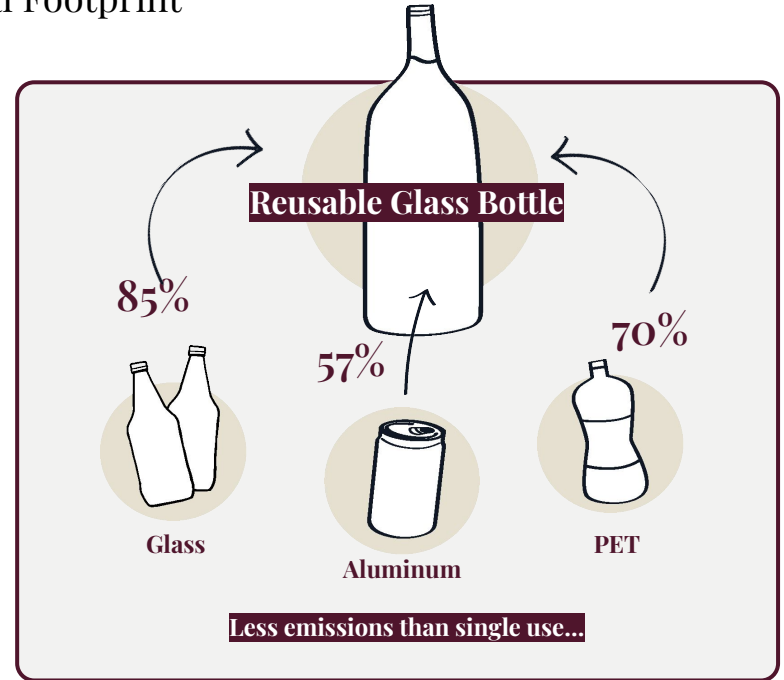
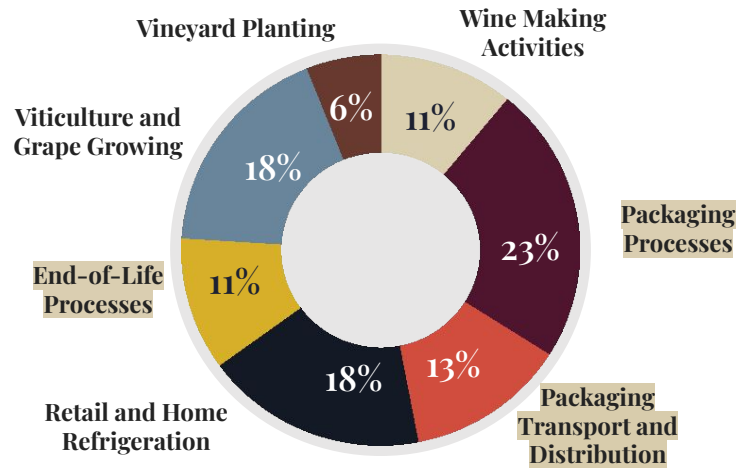
The United States remains the only industrialized nation lacking refillable bottle infrastructure.



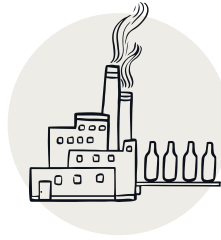
SOLUTION: REUSE

CO₂ emissions reusable glass bottles vs. single-use containers.

- 2017 DEQ Report on Wine Industry Environmental Footprint



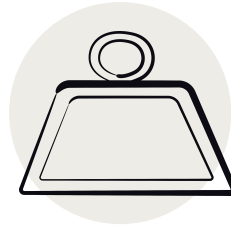
WHY REUSE MATTERS



Unstable glass import markets.



Stabilizing factor in glass costs for ALL of us.



Scarcity of raw materials and unstable energy markets



Our only sustainable (wide definition) option.

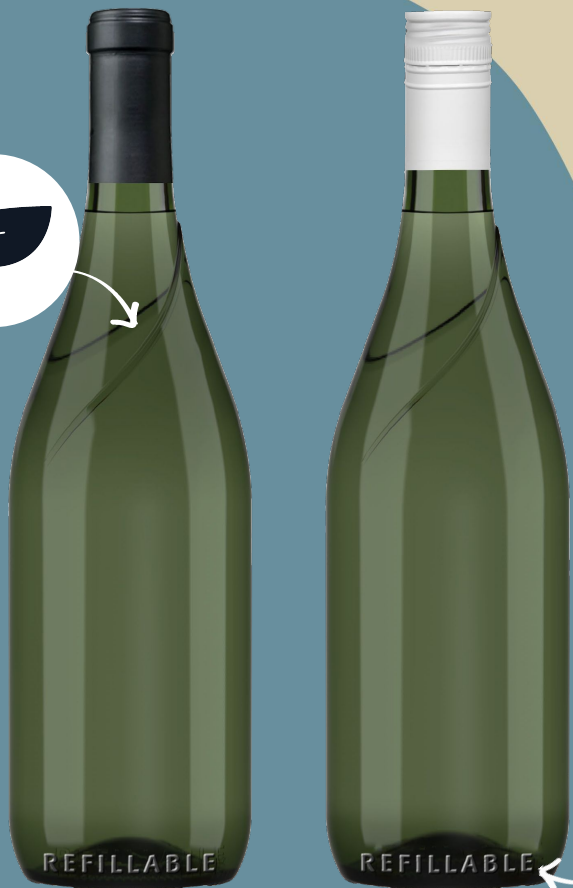


START WITH THE BOTTLE

Elegant & Identifiable

Designed by wineries, for wineries.

- Functional in optical sorting systems.
- Compatible with standard bottling, wash & inspection equipment.
- Comparable cost to similar bottles.
- Visible display of sustainable values.



LIFE OF A BOTTLE



HOW TO ENGAGE

Select reusable bottles for:

- All DTC and West Coast focused wines.
 - A replacement for all bottles over 500 g
-

Share **forecasted volumes** and **bottling dates** for refillable bottles.

Engage your network: Talk about packaging!

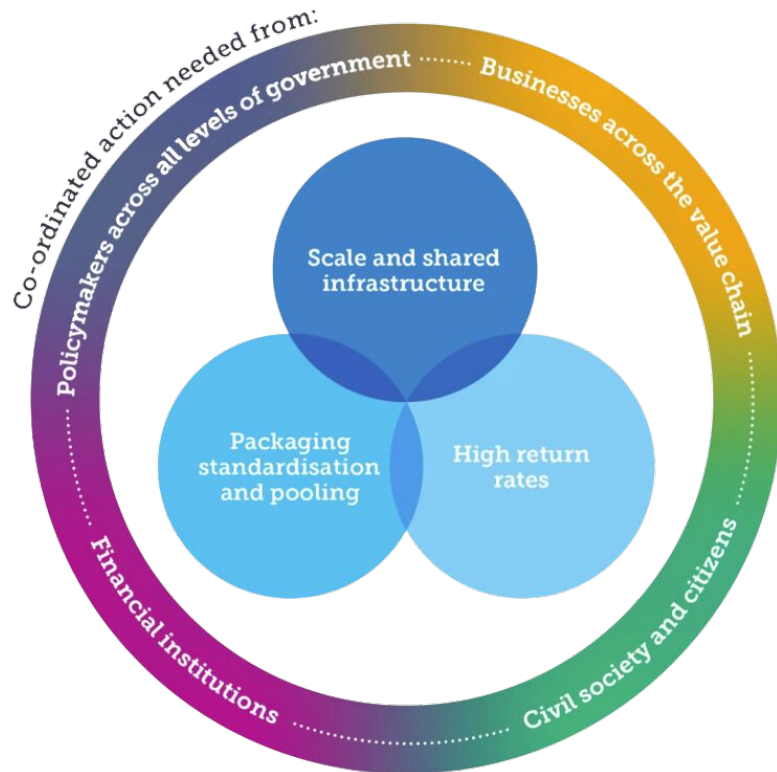
Tell us what you need for success.

- Stelvin AG Burgundy - June/July 2024
- Next bottle types and colors.
- Educational materials, pickup changes, ect.



REUSE VISION

Shared Systems for reusable glass bottles.



Shared Vision

- **States:** OR, WA, CA, ID, NY, VT, ME, PA, MD, TX
- **Countries:** Canada, New Zealand, Australia, Portugal, Spain, Netherlands, UK, Austria

Government Policy

- Limited Landfill Space » Solution = Reuse
- Plastic & Toxic Materials Reduction
- Incentives supporting reuse.

Glass Industry

- Lightweight = Diminishing Returns & Increased Costs
- Long-Term Stability
- Demand for cullet and recycled materials.



Long-Term Participation

Tasting room returns

- Drive foot traffic by encouraging direct returns. (Winery participation credit.)
- Club member events & reusable packaging.

Share the vision

- Educate staff, buyers & club members
- Share success stories and consumer feedback.

Help scale reuse

- Report best markets and engaged distributors or sustainably focused retailers.
- Advocate for reuse in policy.





NOTABLE PARTNERSHIPS

Revino is built on a foundation of partnerships and strategic planning throughout the supply chain.



RESOLVE/PR3

Development of ANSI Standards in Reuse systems throughout all CPG, Food & Beverage sectors.



Owens-Illinois (O-I Glass)

Bottle Manufacturing, Logistics and Marketing support from the largest glass manufacturer in the world.



Porto Protocol

Global community of wine industry sustainability focused brands, wineries and industry stakeholders.



Recyclops

Recycling and reverse logistics provider operating aggregation and pickup services in over 33 states. Currently supporting many reuse and specialty item recycling streams.



Deposit Return Operators

Collaborating with multiple Deposit Return System operators for consumer facing collections in existing deposit networks.



QUESTIONS

Looking forward to working with you as
stewards towards a more sustainable
industry!



Contact:
adam@revinobottles.com
keenan@revinobottles.com

The Revino logo, featuring the word "REVINO" in a white, stylized font with a bottle silhouette integrated into the letter "V", and a white curved line underneath. It is positioned in the bottom left corner of the image.

REVINO