Liviri vino

LIFE CYCLE ASSESSMENT FOR REUSABLE YEAR-ROUND WINE SHIPPER

LIVIRI VINO LIFE CYCLE ASSESSMENT

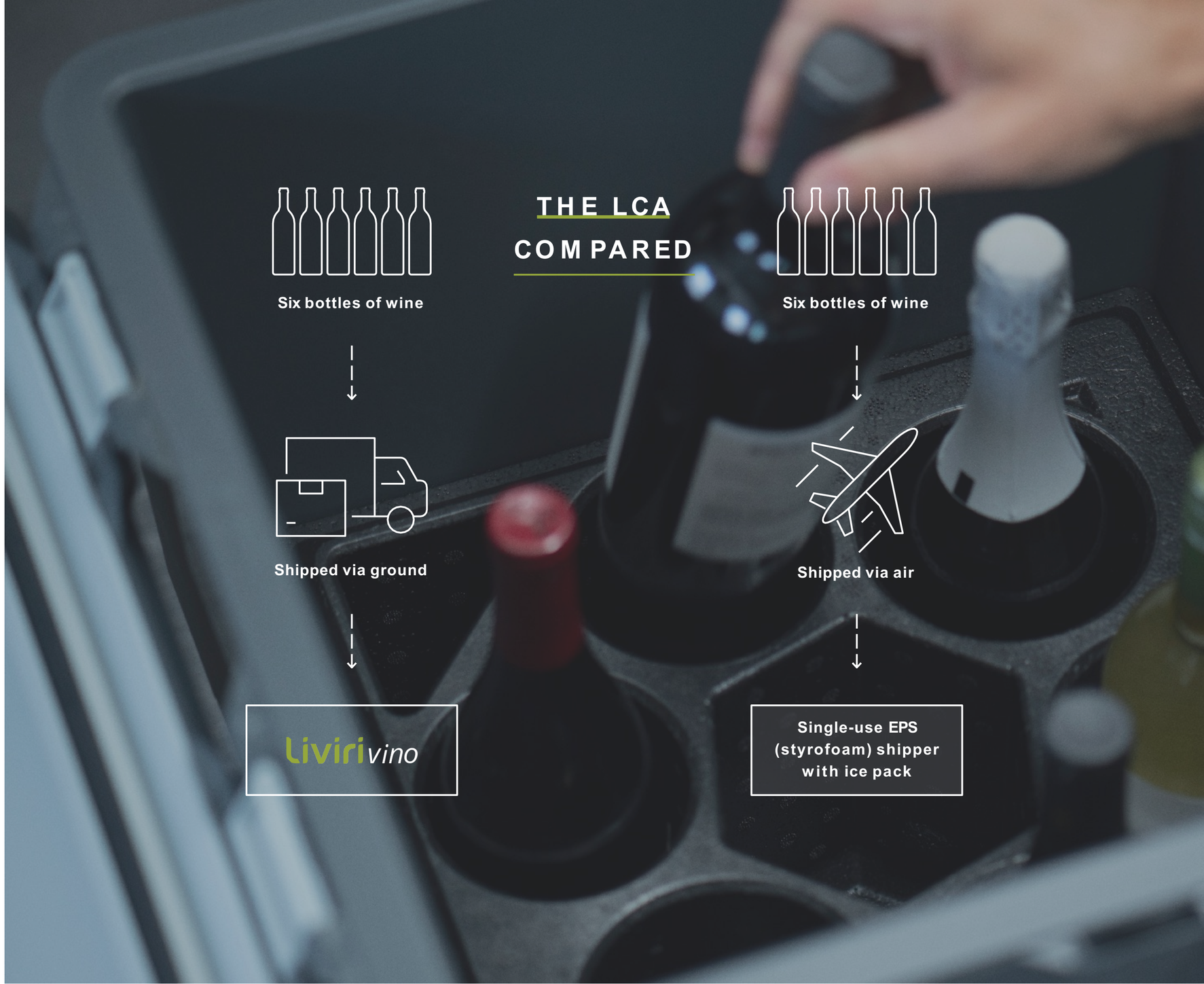
Liviri vino + thinkstep a sphera company

LIVIRI VINO ENGAGED LEADING ENVIRONMENTAL CONSULTANCY THINKSTEP INC. TO PERFORM THE INDUSTRY-STANDARD STUDY OF ENVIRONMENTAL IMPACT: A LIFE CYCLE ASSESSMENT (LCA).

The LCA for the six-bottle Liviri Vino wine shipping container compared the environmental impact of Liviri's reusable product against conventional single-use insulated corrugate wine shippers. The report was independently reviewed and verified by a critical review panel.

STUDY SCOPE

The study examined the six-bottle EPS shipper since it's the preferred option for summer and winter seasons and offers the highest thermal performance among other single-use boxes. Furthermore, it evaluated air shipping for the single-use option because air is used almost exclusively when wine is shipped in summer and winter months, otherwise wine is held while waiting for temperate weather.



KEY FINDINGS

BASED ON THE LCA RESULTS, REUSABLE LIVIRI VINO[6] SHIPPING CONTAINERS ARE ENVIRONMENTALLY PREFERABLE TO DISPOSABLE CORRUGATE WINE SHIPPERS.

1

Surpassed the single-use shipping alternative in environmental gains after 25 uses.

To reach that conclusion, the Liviri container was tested under the conservative assumption of 70 reuse cycles. In testing, thinkstep determined that Liviri Vino[6] surpassed the single-use shipping alternative in environmental gains, on average, after 25 uses. And, in the baseline scenario (70 reuse cycles, full carbon accounting), Liviri Vino[6] showed significantly lower potential environmental impacts.

KEY FINDINGS

BASED ON THE LCA RESULTS, REUSABLE LIVIRI VINO^6 SHIPPING CONTAINERS ARE ENVIRONMENTALLY PREFERABLE TO DISPOSABLE CORRUGATE WINE SHIPPERS.

2

Showed significantly lower potential environmental impact.

Most carbon emissions are produced in birth and death of a product. In contrast to a single-use product with an abbreviated lifespan, Liviri's environmental advantages are attributed to the fact that raw materials and manufacturing for the Liviri Vino^6 shipping container can be allocated across its 70+ uses. Here, Liviri Vino^6 leverages the benefits of a circular business model that keeps high-value products in use longer in order to minimize production waste. Additionally, the thermoplastic material used for Liviri Vino^6 is highly recyclable at end-of-life.

THE SCORE

Livri Vino outperforms single-use shippers in seven out of nine environmental factors. (The remaining two were considered even since they were within the 10% margin of error for the study).

LIVIRI VINO HAD THE MOST FAVORABLE RESULTS ON:

1. Ozone Depletion

→ Due to its ability to reduce air shipping,

2. Blue Water Consumption (BWC)

→ Due the amount of water that is consumed in the production of corrugated product.

IMPACT CATEGORY	UNITS	LIVIRI VINO	SINGLE-USE SYSTEM	RELATIVE TO LIVIRI VINO
GWP100, fossil	kg CO2e	870	1650	+90%
GWP100, total	kg CO2e	856	1604	+87%
AP	kg SO2e	4.31	6.64	+54%
BWC	kg	2,390	51,900	+2070%
EP	kg Ne	1.19	1.3	+9%
ODP	kg CFC-11e	6.00E-07	2.01E-06	+235%
PED, fossil	MJ	12,300	24,200	+97%
PM	kg PM2.5e	0.312	0.3	-4%
SFP	kb O3e	78.5	163	+107%

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Liviri