

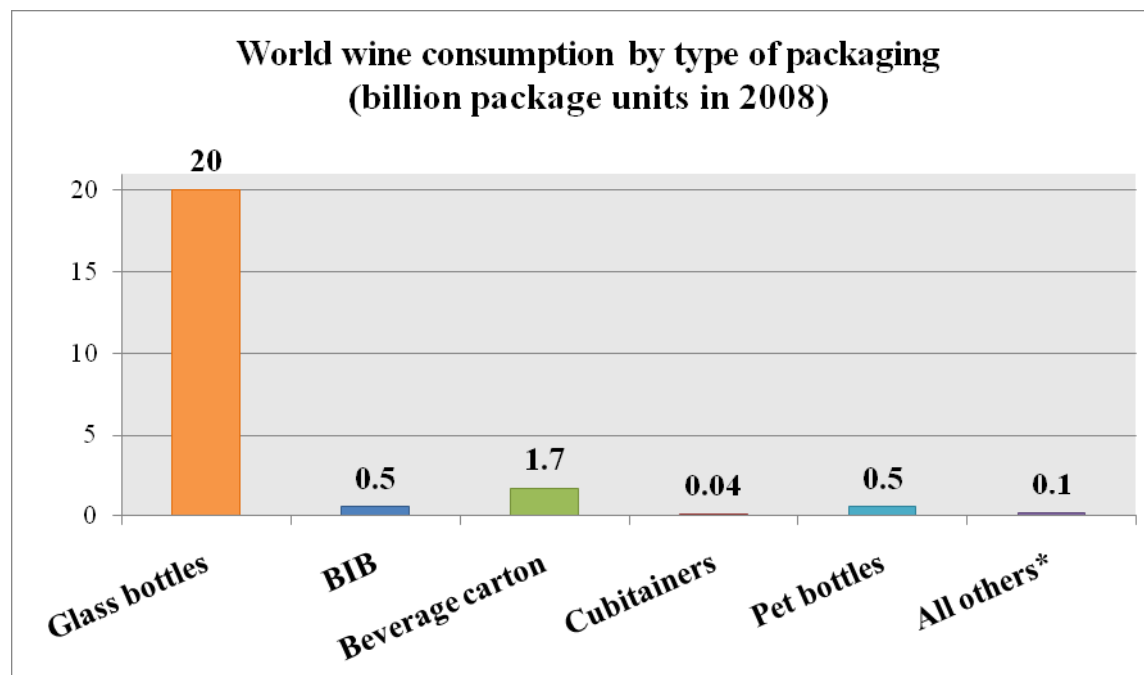


Title: Total Carbon Emissions for Wine Packaging

Speaker: Patrick Shea, vitop 



Estimation of total world wine consumption in billion package units



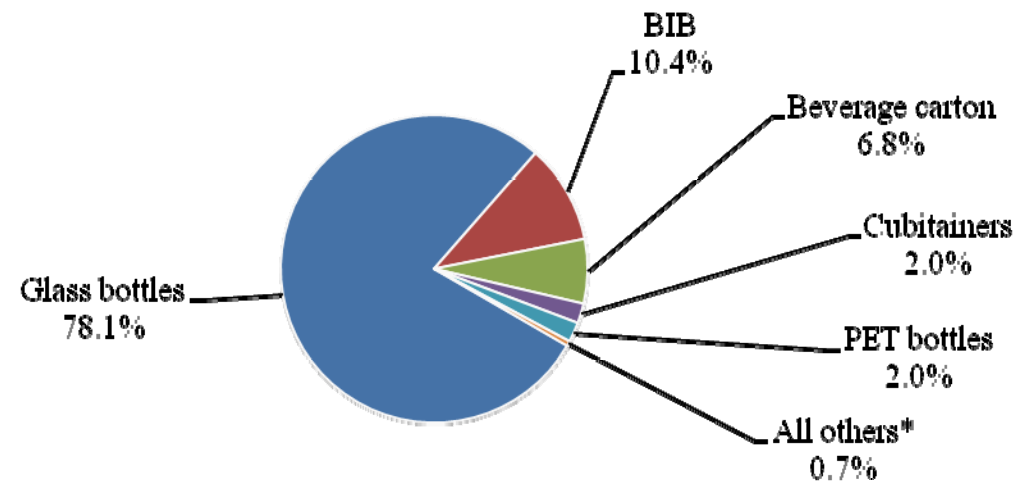
**All others: Stand-up pouches, aluminium cans or bottles, ceramic vessels, etc.*

Source: Eva Shea, **Environmental Impact of Wine Packaging**, Université de Provence Aix-Marseille I
Département Master LEA, September 2010



Estimation of total world wine consumption by % of type of packaging

**World wine consumption by type of packaging
(% of total volume in 2008)**

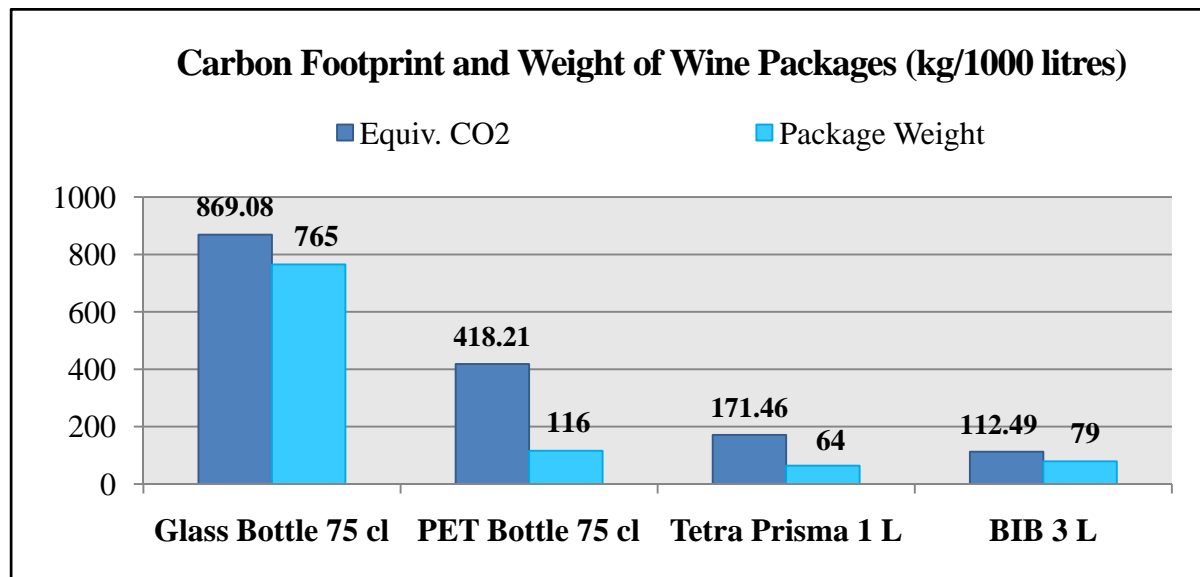


**All others: Stand-up pouches, aluminium cans or bottles, ceramic vessels, etc.*

Source: Eva Shea, **Environmental Impact of Wine Packaging**, Université de Provence Aix-Marseille I
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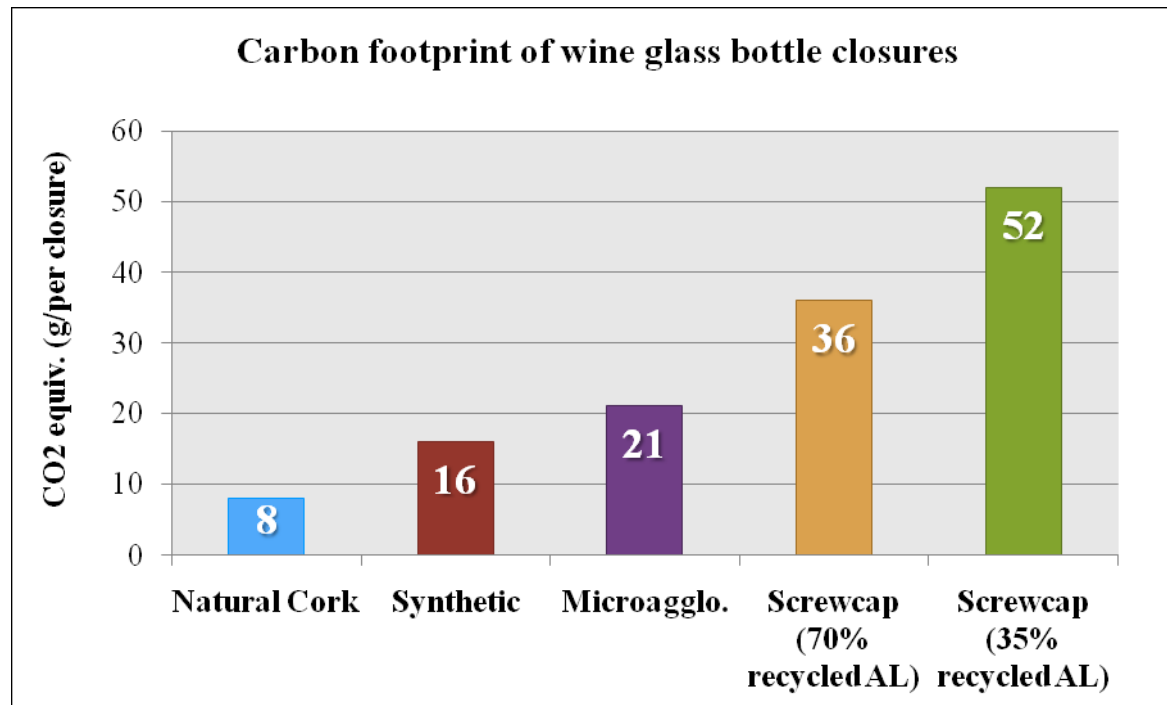
Per unit greenhouse gas emissions and package weights by package type



Sources: Franklin Associates, 2006 and Bellmore D., 2008



Per unit greenhouse gas emissions by closure type



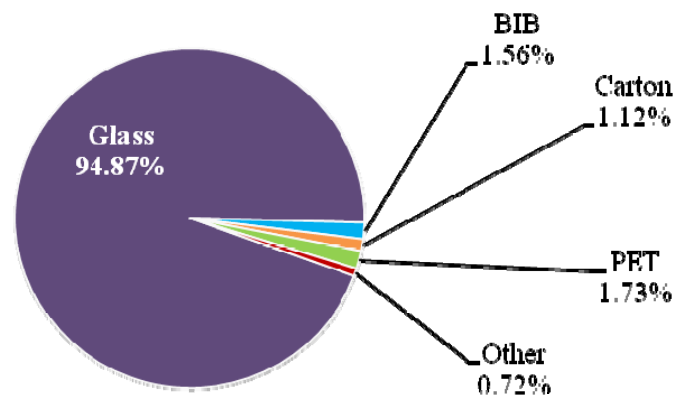
Sources: Cairn Environnement, 2007 and Greenloop, 2008



Total greenhouse gas emissions by package type

Based upon estimates of annual sales by package types and their carbon footprints, we can calculate that wine packages are responsible for 14 million metric tons of CO₂ equivalent per year, which represents about 0.05 % of total human generated greenhouse gases (26 000 million metric tons).

**Greenhouse gas contribution by wine package type in 2008
(% of total CO₂ equiv. emissions)**



Total world wine consumption slightly increased (+ 1% per year) during the 2004-2008 period but total greenhouse gas emissions probably decreased during this period because of a trend towards lower package weights and a shift in consumption towards lower carbon package choices.

Sources: For per unit emissions data, Franklin Associates, 2006, study carried out for Tetra Pak, 16 October 2006, Life Cycle Inventory of Container Systems for Wine, 137 p. and updated in 2008 for BIB packaging. Glass bottle closures emissions added based upon data from Cairn Environnement 2007 and Greenloop 2008. Full calculations can be found in « The Environmental Impact of Wine Packaging », Eva Shea, Université de Provence Aix-Marseille I, Département Master LEA, September 2010