



## HOW TO AVOID CREATING WASTEFUL SUPPLY CHAINS KILLING THE COMPANY AND THE PLANET (« Sustainable Logistics ») by Bill Belt

Cod caught off Norway is shipped to China to be turned into filets, then shipped back to Norway for sale. Argentine lemons fill supermarket shelves on the Spanish Citrus Coast as local lemons rot on the ground. Half of the peas in Europe are grown and packaged in Kenya. Italy has become the world's leading supplier of the national fruit of New Zealand. Great Britain imports and exports 15,000 tons of waffles and exchanges 20 tons of bottled water with Australia.<sup>o</sup>

There are some of the strange economic and ecological consequences of globalization, of extending supply chains to the four corners of the planet, and searching for the lowest-cost producer.

Ironically, the actors themselves know, or soon realize, that it doesn't make sense. But pressured for performance, or for cost reduction, or by the hype benefiting supply chains for the moment, everybody is racing more and more frenetically in the great outsourcing race.

The basic problem is cost, three elements of which influence bad decisions:

- (1) Underestimating the costs other than direct labor in outsourcing decisions. These costs can include, as Jim Womack of Lean Enterprise Institute pointed out recently:
  - the cost of the additional inventory of goods to fill up the longer pipeline
  - the cost of additional safety stocks to cover the longer lead time
  - the cost of expedited shipments by premium transportation
  - the cost of warranty claims if the new supplier is a slow learner
  - the cost of visit by engineers to get the process started and get it right in terms of Quality terms
  - the cost of top management visits to manage intercompany relations
  - the cost of stockouts because of the slower reaction times

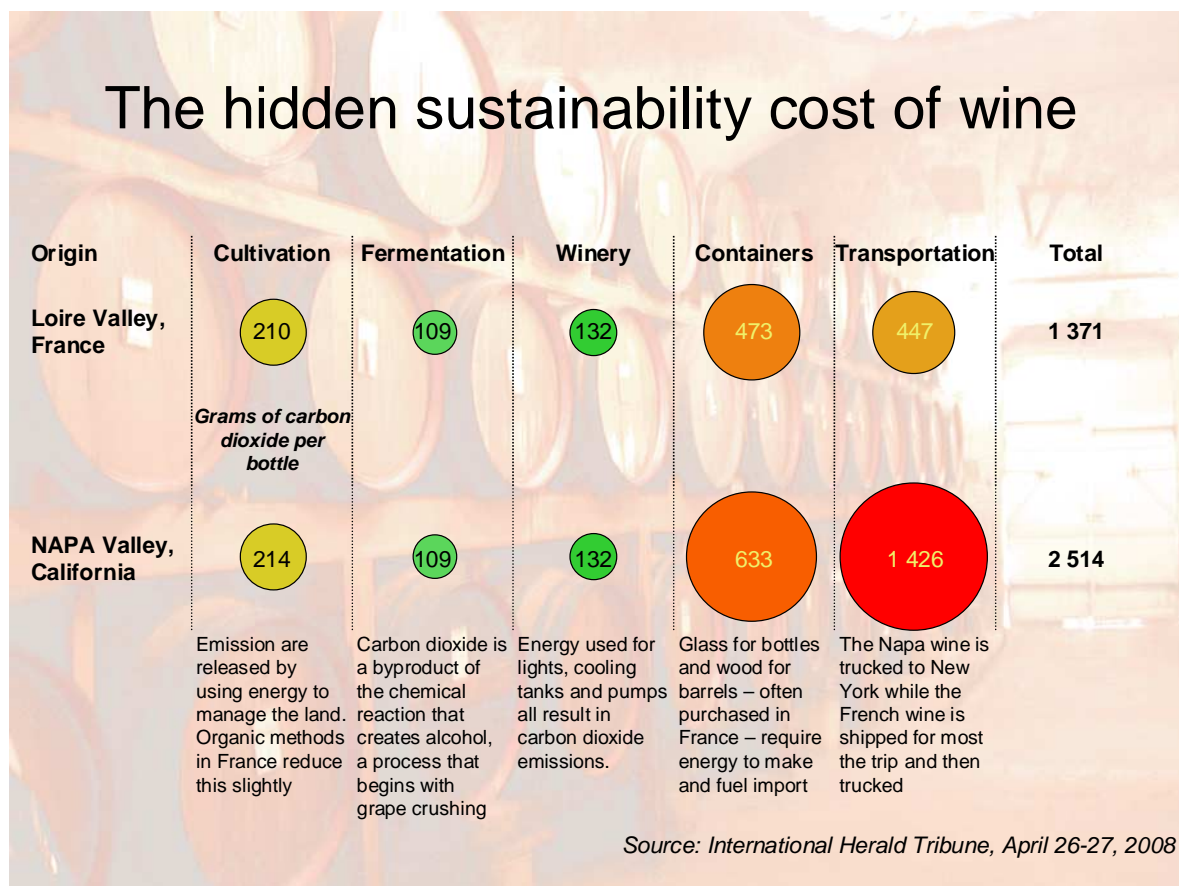
<sup>o</sup>*International Herald Tribune, 26-27 avril 2008*

- (2) The increase in the burden rate to cover fixed costs—which stay the same or increase—after the loss of volume to absorb
- (3) Not including all pertinent costs

This third point is a main argument for the current sustainability movement, or eco-logistics, where « eco » means ecological, not economic.

For example, according to the Civil Aviation Convention signed in Chicago in 1944 to help the fledgling aircraft industry, fuel for transporting goods, including good, are tax-exempt. This applies to ships and trucks as well as to airplanes. The carbon tax is one of the new manifestations of the current concern about sustainability or eco-logistics.

What can an individual company do to avoid creating supply chains which, sooner or later, won't be sustainable economically or ecologically? One way is to include, in the value stream map of the supply chain, its « carbon cost », even if a carbon tax is not yet assessed. For example, below is the cost of transporting wine made in either France or Napa Valley U.S., to New York:



Lean thinking in its entirety, looking to reduce or eliminate waste in all its forms, can help build supply chains which are economically and ecologically viable. Seeing the true costs is a first step towards better strategic decision-making about where in the supply chain to produce as well as how to configure it.