



BSR®

The Business of a Better World

Clean
Cargo

Clean Cargo Working Group

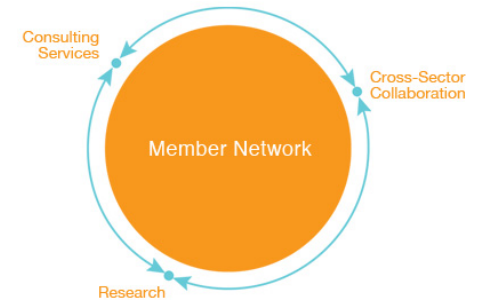
March 4, 2013



BSR's Mission and Strategy

Our mission: We work with business to create a just and sustainable world.

Our strategy: We develop sustainable business strategies and solutions through consulting, research, and cross-sector collaboration with our global network of approximately 300 member companies.



- Alcatel-Lucent
- A.P Moller-Maersk Group
- Aramex
- AREVA Group
- Best Buy
- Bloomberg L.P.
- Boeing
- Cisco Systems
- Coca-Cola
- DONG Energy
- Duke Energy
- Electrolux
- Ford Motor Company
- GE
- Hitachi
- Hyatt Hotels
- IBM
- IKEA
- Kraft Foods
- Levis Strauss
- McDonald's
- Microsoft
- Nike
- Novo Nordisk A/S
- OIA Global
- Panasonic
- Pfizer
- Rio Tinto
- Royal Dutch Shell
- SAP
- Sodexo Group
- Toshiba
- Unilever
- United Airlines
- UPS
- Yahoo!
- Walmart Stores

Clean Cargo Working Group's Focus and Members

Clean Cargo (CCWG)

- A global B2B initiative made up of leading cargo carriers and their customers (33 companies), dedicated to environmental performance improvement in marine container transport through measurement, evaluation, and reporting.

Goals:

- Enabling ocean freight carriers to **track and benchmark** their performance and easily report to customers in a standard format;
- Enabling cargo owners (shippers) **review and compare** carriers' environmental performance when reporting and making informed buying decisions;
- Driving collaborative effort to **raise the bar on environmental performance** of the maritime industry

Carriers



NVOCCs



Shippers






Shippers are Setting Public Goals to Reduce Transport and Total Footprint Emissions...

Electrolux

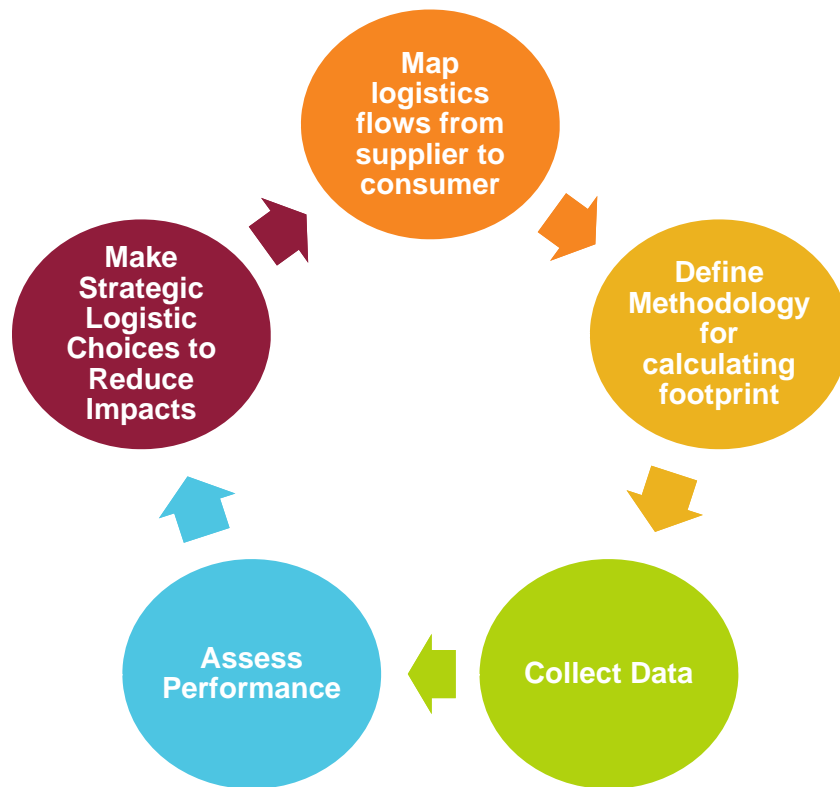
Aims to reduce transport carbon emissions 15% from 2010 levels by 2014



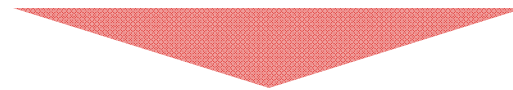
Nutrition Facts	
Peanut Butter	
Serving Size: 2 tablespoons Servings Per Container: about 14	
Amount Per Serving	
Calories 200	Calories from fat 10
% Daily Value	
Total Fat 16g	25%
Saturated Fat 2.5 g	12%
Trans Fat 0 g	0%
Cholesterol 0 mg	0%
Sodium 120 mg	5%
Total Carbohydrates 6 g	2%
Dietary Fiber 2 g	8%
Sugars 1 g	
Protein 6 g	
Carbon Footprint	
Per Serving	11kg CO ₂ e
Total Carbon	154kg CO ₂ e
Primary location of origin: Orville, Ohio	
Method of transportation: Train/Truck	
	
<small>Note: Carbon labeling ranges from 1 to 16, with lower numbers being more sustainable choices.</small>	

TARGET	PERFORMANCE	PROGRESS
 <p>Deliver 30-percent absolute reduction in CO₂ emissions from 2003 by FY20. (2003 baseline is 311,859 tonnes)</p>	<p>FY09 produced a 14-percent increase in CO₂ emissions from the FY03 baseline.</p> <p>Efforts to reduce this impact can be appreciated when the CO₂ percent change is compared to the overall growth in business during this timeframe. Nike brand revenue increased approximately 70 percent from FY03 to FY09.</p>	 <p>On track</p>

...But They are Challenged to Measure Total Logistics Footprint



- In order to understand where reductions within the logistics network can be made, it is necessary to understand the impacts across the value chain
- Essential factors for measurement include:
 - standardized widely accepted **methodologies**
 - comparable basis of **reporting** across modes
 - good input **data**
 - effective **output** information



- The work of Clean Cargo is shaped by continually addressing these factors within the maritime segment and across the intermodal chain

Clean Cargo Enables Companies to Address the Challenge

A Standardized Annual Data Collection Process...

1. Clean Cargo Carrier Environmental Performance Metrics (EPM):

- Standardized set of metrics for assessing ocean carriers' environmental performance – vessel by vessel incl. CO2 using an industry std. methodology
- **Verification** of carrier information
- Shippers receive **individual 'Carrier Scorecards'**

The image shows a screenshot of a Carrier Scorecard table. The table has multiple columns representing different environmental metrics and rows representing individual carriers. The metrics include CO2 emissions, SOx emissions, NOx emissions, and other environmental indicators. The scores are color-coded, with green indicating better performance and red indicating worse performance.

2. Carrier Environmental Performance Survey (EPS):

- Gathers **qualitative information** on carriers' environmental management and performance annually
- Regular review of **alignment with standard shipper questionnaires**
- Shippers receive **carrier specific EPS**

The image shows a screenshot of a Carrier Environmental Performance Survey (EPS) questionnaire form. The form is titled "Clean Cargo Working Group Environmental Performance Survey 2011" and includes sections for "Company & Location", "Environmental Management", and "Environmental Performance". The form contains various questions and checkboxes for respondents to complete.

A Verified Process:

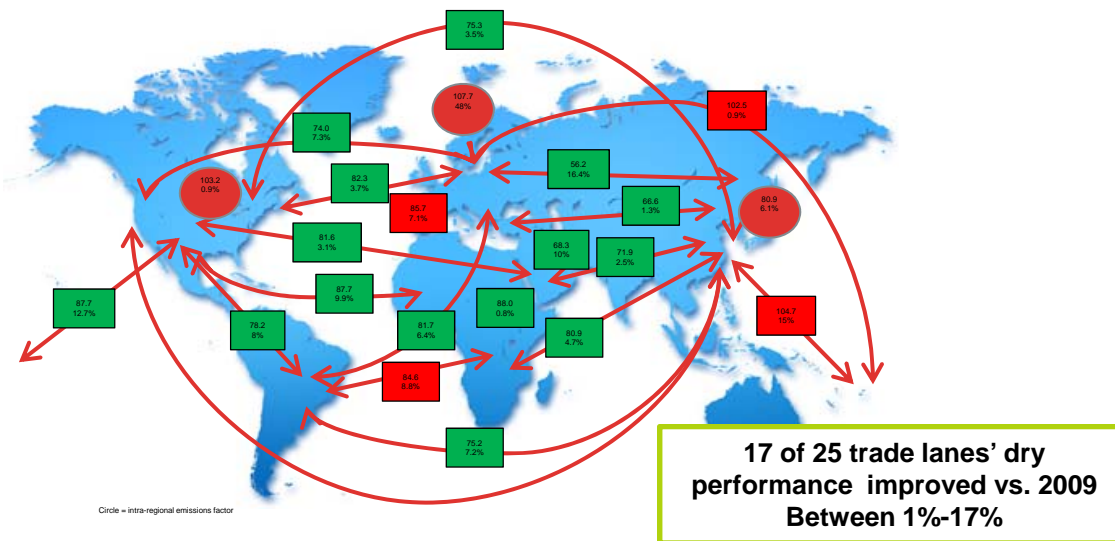
- Verification protocol drafted in 2010 with Lloyds Register and others, in collaboration with all members to define scope and depth

Assessing Key Areas of Performance:

- CO₂, SO_x and NO_x
- Waste management, water effluents, chemical use
- EMS, transparency

...Provides Aggregated Industry Performance Data... Clean Cargo

- CCWG gathered CO2, SOX, NOx emissions data from 10+ carriers for 7 years – reflecting one of **the largest environmental data sets** in the shipping industry
- Aggregated environmental performance data is released to membership annually, highlighting industry-wide performance:



Carriers represent over

60%

of global ocean container capacity

Clean Cargo gathers environmental data for over

2,000

container vessels

- Data can be used to benchmark individual carriers against industry performance

...Individual Carrier KPIs and Scoring...

- Performance scores and KPIs at a carrier level:

Carrier Name: ABC Line
 Carrier Data Verified? Yes Bureau Veritas

TABLE 1 - PERFORMANCE SCORE

	% of Fleet Reported On		Max Score Possible	Carrier Score	Score as % of Max
	Owned	Time-Chartered			
CO2 Emissions (across all trade lanes)	100%	100%	40	29.5	74%
SOx Emissions	100%	100%	20	15.0	75%
NOx Emissions (based on reporting vessels built/converted after 1999)	100%	78%	10	0.2	2%
Environmental management systems	97%	15%	10	10.0	100%
Waste, Water & Chemicals	97%	2%	10	5.5	55%
Transparency	Not applicable*	Not applicable*	10	10.0	100%
Overall Performance			100	70.2	70%

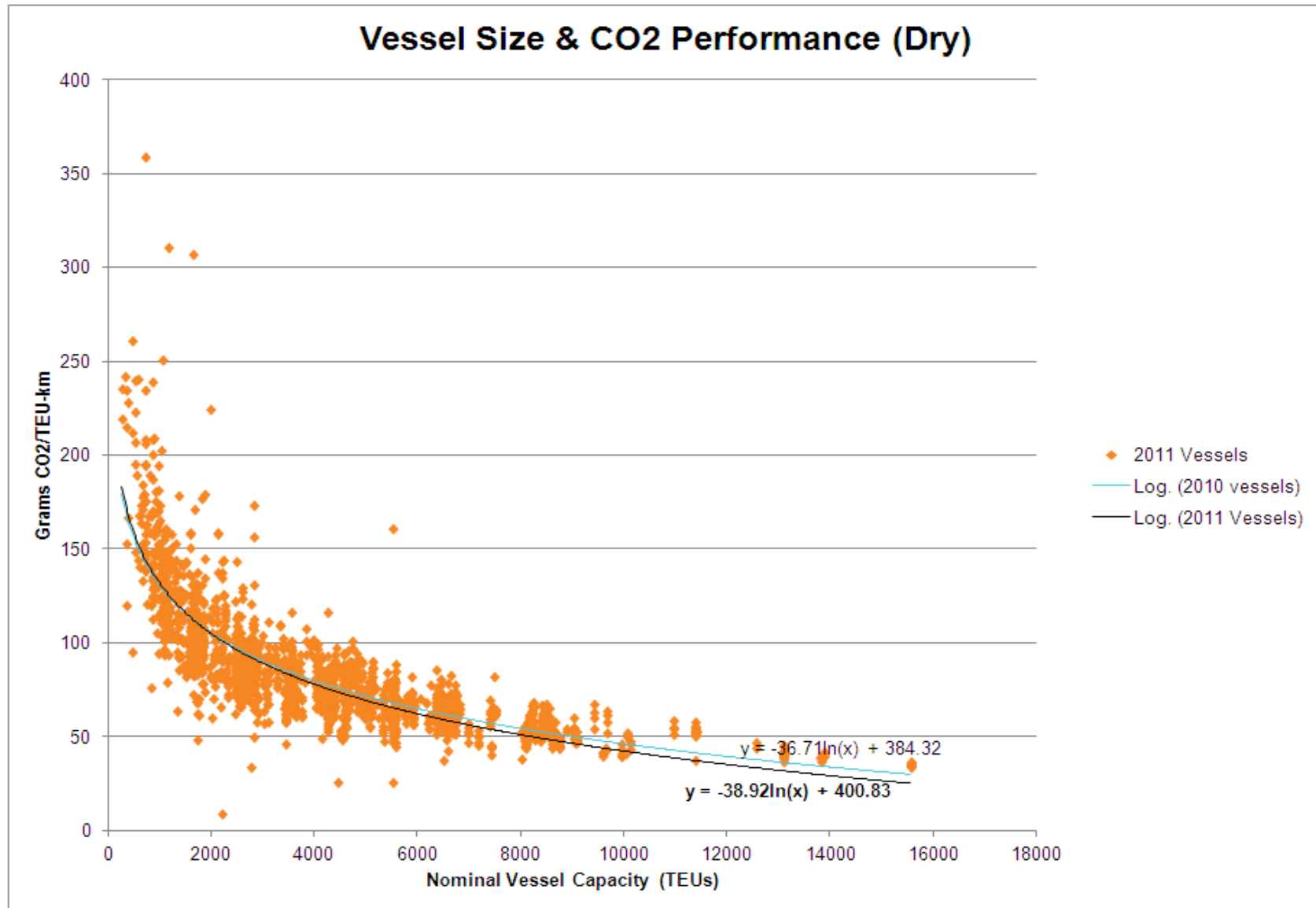
*Not applicable because Transparency is assessed at a corporate-level, not a fleet-level.

- Carbon (and in 2013 SOx) emissions factors at a trade lane level, year-over-year:

TABLE 4 - Year-over-Year CO2 PERFORMANCE

CO2 Emissions - by trade Lane	DRY CONTAINERS		
	grams CO2/ TEU-km	Prior Year	% Change
Asia--Africa	96.9	84.88	12%
Asia--South America (EC/WC)	91.4	95.50	-4%
Asia--Oceania	105.5	91.10	14%
Asia--North Europe	57.6	67.25	-17%
Asia--Mediterranean	64.8	67.53	-4%
Asia--North America EC	77.6	78.11	-1%
Asia--North America WC	60.6	68.80	-14%
Asia--Middle East/India	71.1	73.73	-4%
North Europe--North America EC (incl. Gulf)	109.8	85.42	22%
North Europe--North America WC	-	79.81	0%
Mediterranean--North America EC (incl. Gulf)	67.1	80.04	-19%
Mediterranean--North America WC	46.4	59.70	-29%
Europe (North & Med)--Middle East/India	77.4	76.19	2%

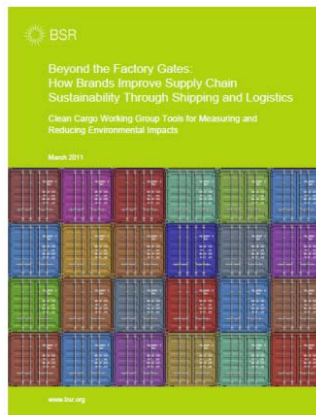
...And Additional Analysis to Support Improvement



Clean Cargo Improves Transparency and Availability of Information for the Industry

Clean Cargo has **released reports** for the past 3 years **on industry-leading aggregate emissions factors** by trade lane, in the interest of public disclosure and to share credible industry wide data for stakeholders to use and analyze:

Beyond the Factory Gates



https://www.bsr.org/reports/CCWG_Report_Mar_2011_FINAL.pdf

2012 Trade Lane Emissions Brief



https://www.bsr.org/reports/BSR_CCWG_TradeLaneEmissionsFactorsReport.pdf

CO2 emissions rates among Clean Cargo carriers showed an average

6.1% decrease

from 2010 to 2011 and an average

7.1% decrease

from 2009 to 2010

Clean Cargo Collaborates to Enable Better Industry Standardization and Alignment

- CCWG CO2 methodology is the **ocean container segment standard** – influencing entire maritime segment & other modes

CCWG tools and methods are informed by:

- WRI GHG Protocol
- Global Reporting Initiative (GRI)
- World Economic Forum (WEF)
- International Maritime Organization (IMO)
- World Shipping Council (WSC)
- U.S. EPA SmartWay
- Clean Shipping Project
- WPCI Environmental Ship Index (ESI)

CCWG discusses alignment of intermodal tools with:

- World Economic Forum (WEF)
- EcoTransIT, NTM
- Software providers
- U.S. EPA SmartWay
- Green Freight Europe
- COFRET

CCWG is advisory panel to:

- COFRET
- European Commission
- ICCT World Shipping Efficiency project

Thank You!

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Visit the Clean Cargo website:
www.bsr.org/cleancargo

