



BSR®

The Business of a Better World



BSR's Clean Cargo Working Group (CCWG)

US Dept. of
Transportation
Talking Freight Webinar

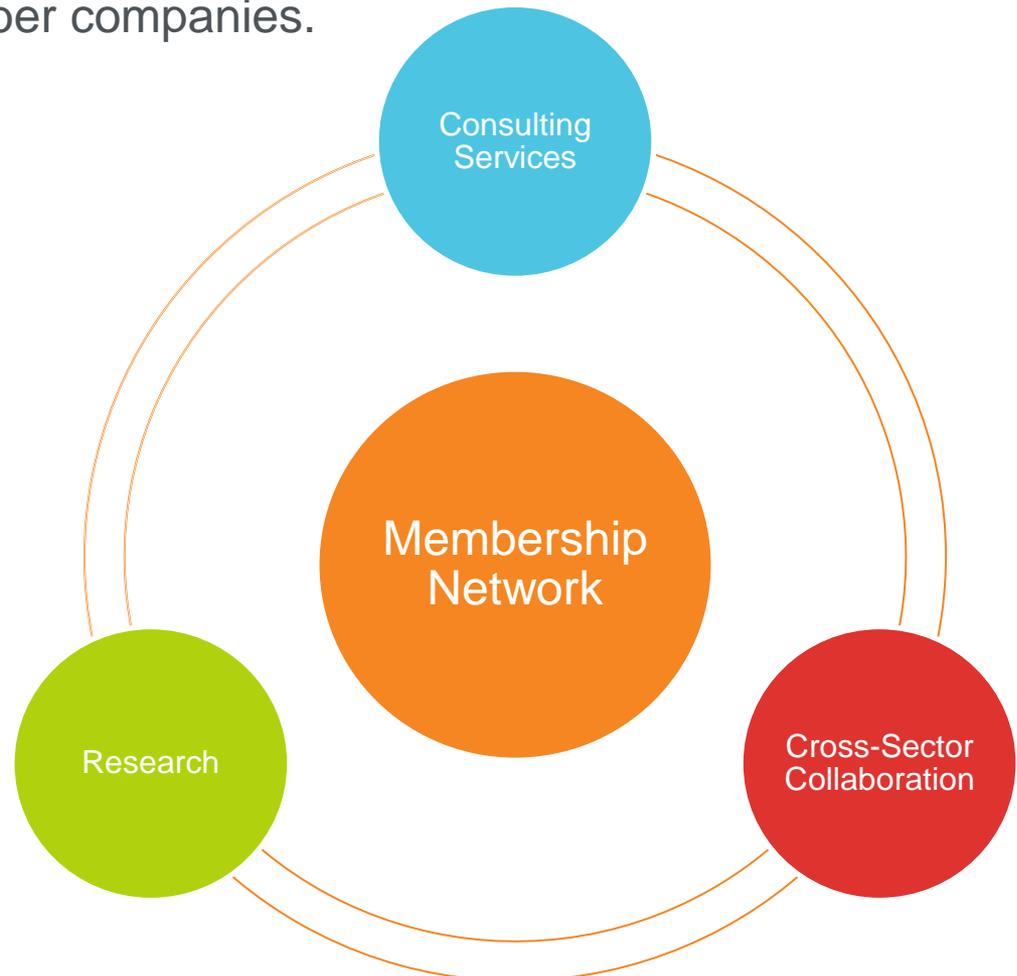
April 2014

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 more than 250 member companies.

- Insights gained from our research and collaborative partnerships feed our consulting work.
- Our real-world experience working closely with member companies informs our research.
- Our cross-sector efforts build on our extensive network of members and stakeholders.





50
Countries

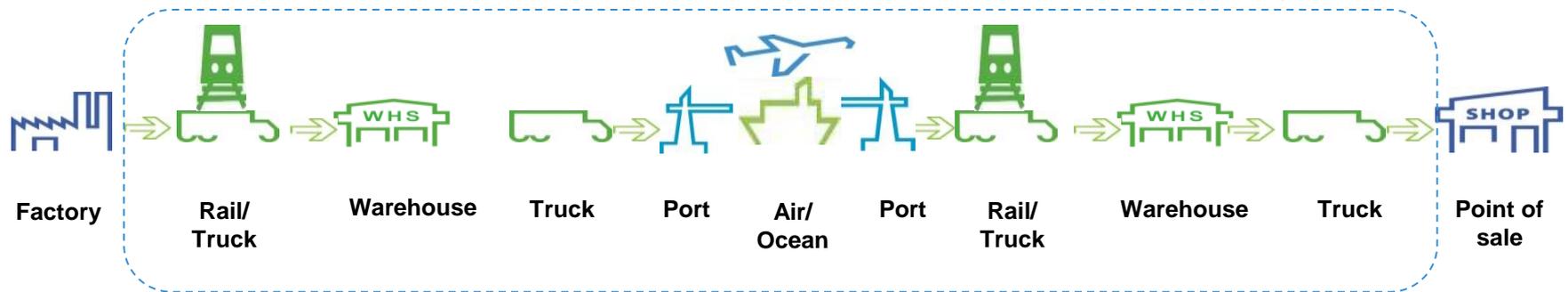
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Staff

8
Offices

BSR Transport & Logistics Practice

Mission: BSR works with companies and stakeholders across the transport supply chain to address sustainability expectations and integrate ethical, social, and environmental practices into the global logistics value chain.

Graphic credit: DAMCO



Scope of Work

Sustainability strategy & reporting

Measurement and evaluation

Industry collaborations

Member engagement

Example Initiatives and Member Companies



MAERSK LINE



Hapag-Lloyd



PORT METRO
vancouver



UNITED



WAL*MART



BSR



Clean Cargo Working Group

Transportation contributes to climate change and air pollution, but there is no reliable way to track freight's role

Transportation generates approximately 1/4 of energy-related GHG emissions globally and is the fastest rising source of emissions. Transportation service buyers seek credible and comparable information on environmental impacts.

The Challenge:

- Transportation accounts for about **a quarter of global energy-related carbon emissions** and these have risen faster than any other energy end-use sector.
- Without aggressive and sustained policy interventions, transport carbon emissions could **increase by 70% by 2050**, again outstripping all other sectors.
- Shippers – buyers of transport services – require **credible and comparable information** to understand and manage these emissions.



Climate Change



Air Quality

CCWG is a global B2B membership initiative that measures, evaluates, and reports environmental performance

Carriers

Shippers & Freight Forwarders



ARKAS Line



Electrolux

KOHL'S
expect great things®

HEINEKEN



CSAV

HAMBURG SÜD



PVH

MARKS &
SPENCER

HANJIN SHIPPING

Hapag-Lloyd



WAL*MART

RALPH LAUREN

ICL
INDEPENDENT CONTAINER LINE

Matson



MOL



BDP
INTERNATIONAL

DAMCO

DB SCHENKER

OOCL
We take it personally



YANG MING
GROUP



JFHillebrand
global beverage logistics

KUEHNE+NAGEL



ZIM
GLOBAL REACH
LOCAL TOUCH
Integrated Shipping Services Ltd

We represent industry with annual data used by shippers in procurement that improves environmental performance

Global initiative of carriers and shippers, dedicated to environmental performance improvement in ocean transport through measurement, evaluation, and reporting.

Key points:

- Provides reliable **year-over-year emissions performance data** from 23 of the world's leading ocean carriers that represent **approximately 85% of global ocean trade**.
- 95% of cargo transport buyers in CCWG use **CCWG data and tools** in **procurement decisions** and in **supplier relationships** with cargo carriers.
- CCWG Carriers have **offset CO2 per-container-mile** an average of **16% since 2009**.



Tools and Alignment

The Clean Cargo annual data collection process includes quantitative and qualitative data from 23 global carriers

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'**

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**

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

Tool 1 - Member Reporting: Sample Carrier Scorecard

Environmental performance data is rolled into an easy-to-use scorecard:

Clean Cargo Working Group Environmental Performance Assessment 2012 (Based on 2011 Data)

Scorecard

Carrier Name:
Carrier Data Verified?

Sample
Yes Bureau Veritas Certification

Breakdown of carrier CO₂ emissions per trade lane

TABLE 3 - CO2 PERFORMANCE DETAILS

CO2 Emissions - by trade Lane	% of Fleet Reported On		DRY CONTAINERS			REEFRERS		
	Owned	Time-Chartered	grams CO2/	CCWG	Points	grams CO2/	CCWG	Points
			TEU-km	Baseline*		TEU-km	Baseline*	
Asia--Africa	100%	100%	92.3	88.7	50.0	131.2	121.7	50.0
Asia--South America (EC/WC)	100%	100%	73.4	89.0	100.0	105.8	116.6	75.0
Asia--Oceania	--	100%	100.8	89.9	50.0	145.3	117.8	50.0
Asia--North Europe	100%	100%	55.3	73.1	100.0	81.8	100.6	100.0
Asia--Mediterranean	100%	100%	67.3	76.3	100.0	102.1	106.6	75.0
Asia--North America EC	100%	100%	72.5	85.7	100.0	96.4	110.8	100.0
Asia--North America WC	100%	100%	57.6	84.0	100.0	88.0	110.4	100.0
Asia--Middle East/India	100%	100%	67.1	79.5	100.0	99.3	109.3	75.0
North Europe--North America EC (incl. Gulf)	100%	100%	72.1	82.4	100.0	101.5	112.5	75.0
North Europe--North America WC	--	--	-	89.5	--	-	119.2	--
Mediterranean--North America EC (incl. Gulf)	100%	100%	89.5	89.6	50.0	129.6	112.3	50.0
Mediterranean--North America WC	--	--	-	89.5	--	-	101.6	--
Europe (North & Med)--Middle East/India	100%	100%	73.3	71.6	50.0	109.3	102.2	50.0
Europe (North & Med)--Africa	--	100%	73.2	74.5	75.0	102.9	108.2	75.0
Europe (North & Med)--Oceania (via Suez / via Panama)	--	100%	89.2	98.7	75.0	119.8	200.4	100.0
Europe (North & Med)--Latin America/South America	--	100%	120.3	94.8	50.0	154.3	124.0	50.0
North America--Africa	--	--	-	129.6	--	-	180.2	--
North America EC--Middle East/India	100%	--	93.2	80.6	50.0	114.3	106.9	50.0
North America--South America (EC/WC)	--	--	-	87.7	--	-	117.8	--
North America--Oceania	--	--	-	103.1	--	-	136.7	--
South America (EC/WC)--Africa	--	--	-	80.9	--	-	111.1	--
Intra-Americas (Caribbean)	--	100%	106.5	85.0	50.0	143.2	113.3	50.0
Intra-Asia	100%	100%	133.3	76.3	50.0	193.6	107.1	50.0
Intra-Europe	--	100%	137.9	74.1	50.0	194.3	105.1	50.0
-Other	100%	100%	146.5	116.0	50.0	218.6	153.8	50.0
Fleet-wide CO2 Performance			69.4		71	101.2		67

*CCWG Baseline is the CCWG 2009 average.

out of 100

out of 100

Tool 3 - Other Tools: CCWG Intermodal Emissions Calculator

Tool that allows members to calculate the absolute carbon emissions associated with moving goods

- Uses the best available emissions factors, including primary data from Clean Cargo carriers
- Is consistent with WRI's GHG Protocol methodology
- Accommodates all modes (ocean, rail, air, road)
- Working in collaboration with tool developers to share lessons

**Clean Cargo Working Group
Intermodal Emissions Calculator**

Route Info					Activity Data			Distance Data		Calculations		
Year	Qtr	Corridor Number [1-100]	Inbound/Outbound	Carrier Code	Mode [Specific]	Amount of Cargo Shipped	Units	Port Pair	Distance [Or manual entry]	Units of Measure	E-Factor [kg CO2/t-km]	Total CO2 Emissions [kg]
2008	1	1	Inbound		Ship_Asia-North-Europe	10	Tonnes	Bangkok - Rotterdam	16,958	kilometers	0.0074	1,262
2008	1	1	Inbound		Truck_32-40L_diesel	10	Tonnes	Rotterdam - Hamburg	568	kilometers	0.0825	469
2008	2	2	Inbound		Air_Freight_1000_>1500km	2	Tonnes	Hong Kong - Seattle	10,592	kilometers	0.5070	10,841
2008	2	3	Outbound		Truck_32-40L_diesel	30	Tonnes	Hamburg - Rotterdam	568	kilometers	0.0587	1,001
2008	2	3	Outbound		Train_diesel_general	30	Tonnes	Custom	2,050	kilometers	0.0202	1,242
2008	2	3	Outbound		Ship_Asia-North-Europe	30	Tonnes	Antwerp - Colombo	12,597	kilometers	0.0074	2,791
							Tonnes		0	kilometers	0.0000	0
							Tonnes		0	kilometers	0.0000	0
							Tonnes		0	kilometers	0.0000	0
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							Tonnes		0	kilometers	0.0000	0

Instructions | Distance Based Calculator | Scenario Comparisons | Summary Data | CO2 by Mode of Transport | CO2 by Corridor | Emissions Factors & Distances | Summary of Revisions

How Members Benefit from CCWG

Outcome: Tools allows shippers to quantify supply chain footprints, and compare carriers and routes.



Routing Via...	Total Distance	CO2/FFE
Miami	2574 km	1.47 kg
Savannah	2601 km	0.82 kg
Difference	1%	-44%

Vessel Operator	Emissions Factor (g/TEU-km)
Carrier A	76.5
Carrier B	69.3
Carrier C	92.7

Outcome: Alignment with other initiatives drives environmental improvements across the industry

- » CCWG CO2 methodology is the **ocean container segment standard** – influencing entire maritime segment & other modes
- » CCWG works to **align and harmonize** environmental methodologies globally **across modes**
- » **Collaboration and dialogue** between existing and emerging initiatives **drives transparency and improvements**



GREENHOUSE GAS PROTOCOL



Methodology allows Maersk to measure and report performance

CCWG aligns with Maersk's performance goals and provides a forum with customers to meet their needs.

Value to Maersk:

- » A platform for **dialogue and alignment** of container lines and customers, which enable it to **meet customer requirements** and needs
- » Develops and establishes **industry standards for container shipping**
- » **Credible and comparable** CO2 calculations, **internal benchmarking** for container lines and **informed decision making**
- » CCWG takes proactive part of **harmonizing CO2** methodologies across modes, **enabling comparison** across the supply chain



“Over the last five years, CCWG has become the standard way of measuring environmental impacts in the container shipping industry.” –Maersk Line Sustainability Progress Update 2013

Collaboration helps Nike to meet ambitious sustainability targets and goals

Nike uses CCWG to meet its environmental goals by measuring performance and comparing carriers.

Value to Nike:

- » CCWG enables **standard expectations of environmental capabilities** using a methodology for **reporting environmental performance**
- » Visibility to year over year **industry performance improvement**, as well as improved **transparency and verification**
- » BSR provides active facilitation to **exchange ideas and share expectations** between Shippers and Carriers



“To sharpen the focus, it is critical to pick the right partners and ideas, then invest appropriately.” – Dawn Vance, Director of Logistics Sustainability

Alignment with industry initiatives means Electrolux can reduce emissions across its entire transportation chain

CCWG provides tools to reduce one of Electrolux's highest emissions sources and align with cross-industry standards.

Value to Electrolux:

- » **Alignment with other initiatives** helps Electrolux **influence development of standards** suited for the industry.
- » Provides a **detailed understanding of data**, including weaknesses and opportunities for enhancements.
- » Electrolux pushes for **continuous data improvements** and for more **complete coverage** of total ocean shipping.



“Electrolux...found that emissions [from transport] are at least as high as energy use from operations. This reinforced the importance of working to reduce the company’s transportation footprint through initiatives like Clean Cargo.” -Gorm Kjærboell, Ocean Operations Manager

Thank you!

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