



# Collaborative Progress

Clean Cargo Working Group  
2013 Progress Report



## About This Report

Published in October 2013, this report references Clean Cargo Working Group's (CCWG or Clean Cargo) activities and developments over its 10-year history, with a focus on achievements accomplished from January 1, 2012, through October 1, 2013.

The information reported is limited to the activities of the current group membership, and the environmental data presented in the report is limited to the carrier membership reporting in the given year stated. This report is written with a range of readers in mind, including shipping customers, transportation providers, freight forwarders, industry associations, regulatory bodies, NGOs, academics, and the general public. The report structure follows the guidance of the Global Reporting Initiative (GRI) framework but does not seek an application level.

This report was drafted by BSR, the secretariat and facilitator of the Clean Cargo Working Group, with input and direction from the working group members. Please direct all comments to [ccwg@bsr.org](mailto:ccwg@bsr.org).

### **ABOUT BSR**

BSR works with its global network of more than 250 member companies to build a just and sustainable world. From its offices in Asia, Europe, and North and South America, BSR develops sustainable business strategies and solutions through consulting, research, and cross-sector collaboration.

Visit [www.bsr.org](http://www.bsr.org) for more information about BSR's more than 20 years of leadership in sustainability.

### **ABOUT CLEAN CARGO**

BSR's Clean Cargo Working Group (CCWG) is a leading global carrier-shipper initiative dedicated to environmental performance improvement in marine container transport through measurement, evaluation, and reporting.

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## Introduction

Customers, investors, regulators, and other stakeholders are increasing the pressure on cargo-transport providers to report and reduce CO<sub>2</sub> emissions, as well as other environmental impacts. The need for standardized, industry-approved calculation methodologies is crucial in order to begin fulfilling these demands. Clean Cargo is a global business-to-business platform where such developments are realized.



Dedicated to improving the environmental performance of ocean container transport, CCWG develops standardized methodologies to measure key environmental performance indicators and easy-to-use tools that meet both shipping customers and cargo carriers' needs to reduce environmental impacts. Container carriers have been reporting their CO<sub>2</sub> performance to their customers in a credible and comparable format, based on the CCWG CO<sub>2</sub> methodology—the only existing and broadly recognized industry standard for container shipping—for the past five years.

This reporting and dialogue enables shipping customers to calculate the environmental impacts of transporting goods around the world and benchmark carriers' performance. Having this information helps shipping customers make informed buying decisions in their supply chains. CCWG also consistently engages in dialogue with other initiatives and experts working on these issues in the global transport industry to align approaches that can improve information sharing and performance for shipping customers and cargo carriers across the full transport supply chain.

Through this brief report, we invite you to learn more about the group's objectives, impact, and next steps—we want to be held accountable annually for our progress. This report also publicly provides the CCWG annual aggregated global CO<sub>2</sub> emissions by trade lane for 2009 through 2012 (see page 5).

## 2012-2013 Highlights

Clean Cargo's data collection activities over the 2012 reporting period show:

Clean Cargo carriers represent more than

# 60%

of global ocean container capacity.

# 19 of 25

trade lanes show CO<sub>2</sub> emissions improvements in 2012.

Clean Cargo gathers environmental data for more than

# 2,300

container vessels.

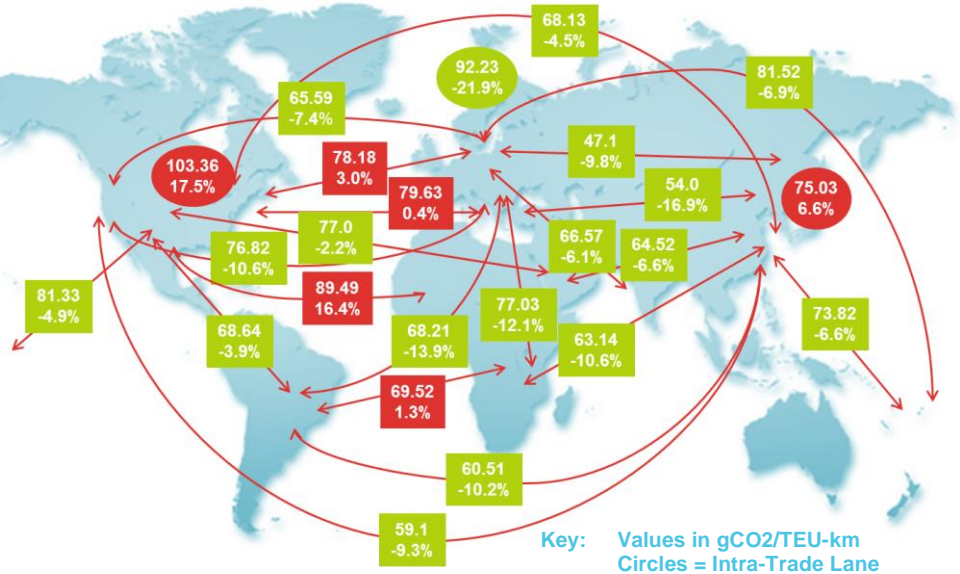
# 1.6

trillion TEU-km traveled by Clean Cargo carriers.

# 50m

tons of CO<sub>2</sub> offset by Clean Cargo carriers since 2008.

2011-2012 Changes in Trade Lane CO<sub>2</sub> Emissions Factors



Clean Cargo members represent

# 16 of the top 20

global container fleet operators, according to Alphaliner Top 100.

# 16%

CO<sub>2</sub> emissions decrease since 2009, on average.

# 9,889,615

TEU (twenty-foot equivalent unit) container capacity carried.



## Annual Trade Lane CO<sub>2</sub> Emission Factors

Every year Clean Cargo carriers report on vessel-specific environmental performance data to BSR via a standard template. The aggregated data is provided to shipping customers via individualized carrier scorecards.

In order to continually increase data transparency, as well as the availability of quality metrics, Clean Cargo annually publishes aggregated trade-lane emissions factors. Clean Cargo's fourth annual release indicates that average CO<sub>2</sub> emissions for global ocean transportation routes have declined by more than 7 percent from 2011 to 2012 and by nearly 16 percent since 2009.

While changes in carrier representation or global trade conditions likely explain a portion of these results, the continued performance improvement is also attributed to carrier fleet efficiency and data quality, both of which have direct benefits for shipping customers.

CO <sub>2</sub> Emissions by Trade Lane (grams of CO <sub>2</sub> per TEU kilometer)	2012 (2,300-plus vessels)		2011 (2,000-plus vessels)		2010 (1,900-plus vessels)		2009 (1,026 vessels)	
	Dry	Reefer	Dry	Reefer	Dry	Reefer	Dry	Reefer
Asia to Africa	63.1	99.8	70.6	98.8	81.6	115.3	84.87	110.51
Asia to the Mediterranean	54.0	85.7	65.0	93.9	65.0	95.5	67.52	96.71
Asia to the Middle East and India	64.5	96.1	69.1	96.8	71.9	100.4	73.72	103.5
Asia to North Europe	47.1	75.9	52.2	80.4	55.4	84.4	67.26	93.91
Asia to North America (East Coast)	68.1	95.3	71.9	97.4	74.8	101.0	78.15	97.44
Asia to North America (West Coast)	59.1	87.9	65.1	92.3	69.8	97.8	74.2	97.13
Asia to Oceania	73.8	106.4	79.1	109.1	103.9	133.2	92.8	120.34
Asia to South America (East and West Coasts)	60.5	90.7	67.4	94.4	75.1	102.8	80.57	104.4
North Europe to North America (East Coast, including the Gulf)	78.2	107.6	75.9	103.6	81.2	111.6	85.41	112.46
North Europe to North America (West Coast)	69.6	98.2	75.2	102.3	74.0	100.0	79.81	104.64
Mediterranean to North America (East Coast, including the Gulf)	79.6	113.9	79.3	110.9	88.5	125.7	80.03	108.83
Mediterranean to North America (West Coast)	76.8	112.4	85.9	119.2	56.8	87.1	59.69	89.93
Europe (North and Mediterranean) to Africa	77.0	120.2	87.6	129.0	85.7	128.8	88.67	122.65
Europe (North and Mediterranean) to Latin America and South America	68.2	99.6	79.3	108.6	82.3	115.7	87.33	114.91
Europe (North and Mediterranean) to Middle East and India	66.6	99.2	70.9	101.5	69.5	101.9	76.19	106.1
Europe (North and Mediterranean) to Oceania (via Suez or Panama)	81.5	113.1	87.6	118.2	94.8	126.5	101.52	128.62
North America to Africa	89.5	127.1	76.9	103.9	87.3	122.6	97.37	139.65
North America (East Coast) to Middle East and India	77.0	101.0	78.7	104.6	81.6	106.4	84.2	108.59
North America to Oceania	81.3	109.2	85.5	112.9	87.7	115.3	100.48	126.87
North America to South America (East Coast and West Coast)	68.6	102.1	71.4	97.0	77.8	110.6	84.96	112.84
South America (East Coast and West Coast) to Africa	69.5	94.1	68.6	89.5	84.6	116.0	77.81	97.79
Intra-Americas (Caribbean)	103.4	147.2	87.9	116.6	101.8	142.9	102.28	133.41
Intra-Asia	75.0	105.5	70.4	99.0	80.9	112.5	76.14	100.67
Intra-Europe	92.2	138.1	118.1	174.7	104.8	152.2	72.75	102.59
Other	79.6	114.3	90.5	128.3	n/a	n/a	n/a	n/a
<b>Fleet-Wide Average CO<sub>2</sub> Performance</b>	<b>63.1</b>	<b>94.1</b>	<b>68.1</b>	<b>97.4</b>	<b>72.2</b>	<b>102.7</b>	<b>75.16</b>	<b>98.23</b>

\*Trade lanes listed in alphabetical order by regional point of departure.

# About Clean Cargo

## WHAT WE DO

### Mission Statement

The Clean Cargo Working Group is a global, business-to-business initiative dedicated to improving the environmental performance of marine container transport.

Clean Cargo creates practical tools for measuring, evaluating, and reporting the environmental impacts of global goods transportation.

- » Helping ocean freight carriers track and benchmark their performance and easily report to customers in a standard format.
- » Helping shipping customers to review and compare carriers' environmental performance when reporting and making informed buying decisions.

The work of Clean Cargo enables the ocean container freight industry to credibly measure and report on its environmental performance to its customers using consistent, industry-approved methodology and tools. As more and more global companies that ship goods around the world begin to consider how to reduce the impact of their transport and logistics networks, the availability of credible data and easy-to-use tools become increasingly important.

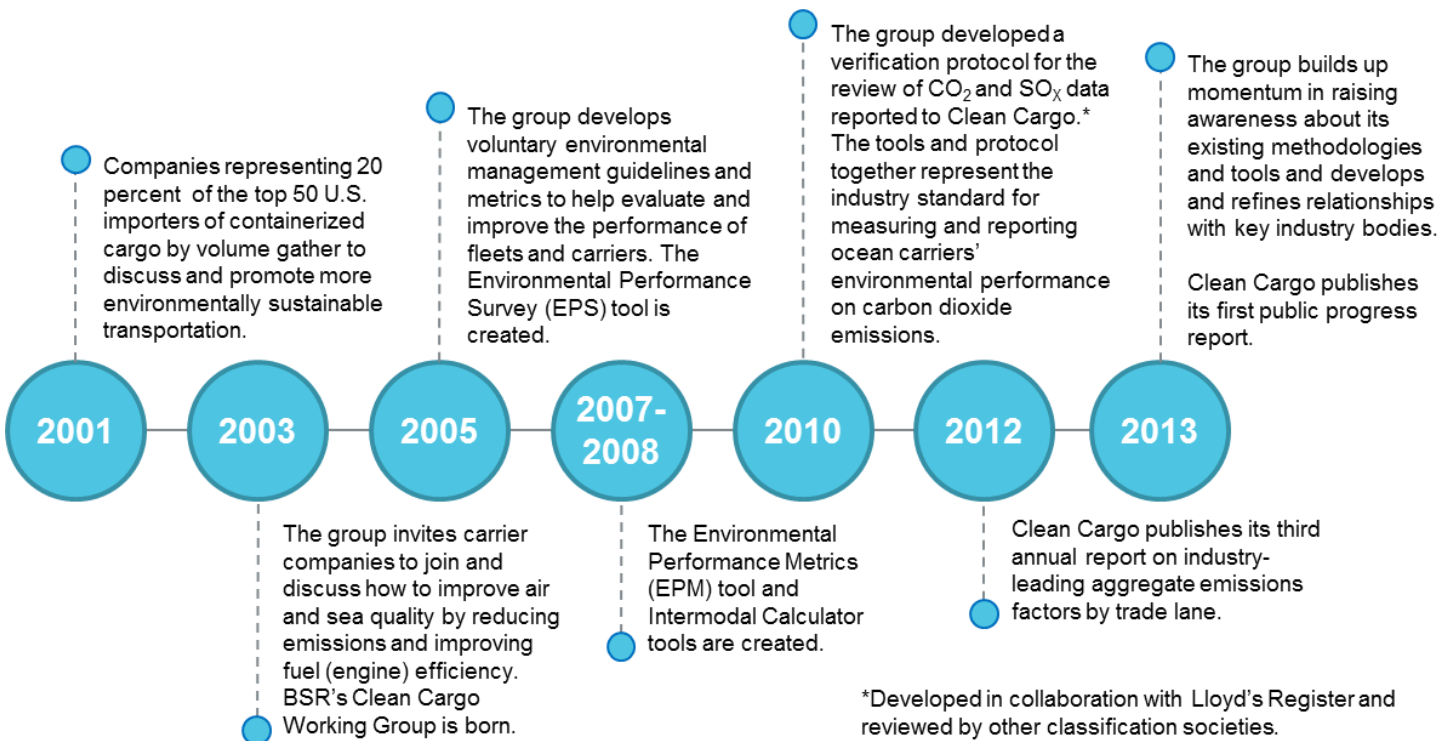
But Clean Cargo members know that measuring and reporting is only the beginning. Business partners need to engage in meaningful dialogue about how the environmental performance of moving cargo can be improved over time. That's why Clean Cargo provides a network where:

- » Peer group companies can share best practices for integrating environmental criteria into business decision-making processes and supplier-selection procedures.
- » Shipping customers can directly engage with their transportation providers to build appropriate environmental expectations into supplier relationships.
- » Shipping customers use Clean Cargo as a one-stop shop through which they are kept abreast of the latest developments in methodology alignment across the transport supply chain, enabling them to use resources more effectively.

Furthermore, Clean Cargo continues to play an important role engaging with experts and influencers about methodology development at regional and global levels, as policy makers evolve toward regulating CO<sub>2</sub> emissions in the maritime industry.

## WHERE WE COME FROM

Clean Cargo has met several major milestones across its 10-year history:



# About Clean Cargo

## WHAT WE PROVIDE

Clean Cargo offers its members several tools and resources:

### STANDARDIZED MEASUREMENT AND REPORTING TOOLS

Clean Cargo  
Carrier  
Scorecard

Carrier Name: X  
Verified: Yes  
Performance Score:  
CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>  
EMS  
Waste, Water, Chemicals  
Transparency

- » **CCWG Environmental Performance Survey (EPS):** The EPS covers a series of qualitative questions on carriers’ environmental focus areas.
- » **CCWG Intermodal Carbon Calculator:** This CO<sub>2</sub> emissions calculation tool covers the whole transportation supply chain. Updated versions are issued annually, and training decks are available.
- » **CCWG Environmental Performance Metrics (EMS):** The EMS is a tool that enables container shipping customers to benchmark carriers’ performance on a broad range of environmental impacts (e.g., CO<sub>2</sub>, SO<sub>x</sub>, and NO<sub>x</sub>; chemical use; and wastes) of the carriers’ operated fleets (including charter vessels). The EMS is updated every year with the latest performance data for each CCWG carrier.
- » **The CCWG Verification Protocol:** This tool enables carriers to have their CO<sub>2</sub> and SO<sub>x</sub> performance data verified independently based on a standardized framework. Audits are conducted to a limited level of assurance.

Clean Cargo CO<sub>2</sub>  
Calculation  
Methodology

$$i_{Dry} = \frac{(\sum c * m_{fuel}) - m_{RC} * c}{V_{total} * d}$$

### STANDARDIZED, INDUSTRY-APPROVED METHODOLOGIES

Although CCWG CO<sub>2</sub> methodology is based on the World Resources Institutes’ (WRI) distance-based approach to supply chain calculations and the International Maritime Organization’s (IMO) Energy Efficiency Operational Index guideline, it is tailor-made for container shipping. Based on actual fuel consumed, actual distance traveled, and the maximum capacity of the vessel, the CCWG CO<sub>2</sub> methodology provides emissions data in grams of CO<sub>2</sub> per container per kilometer. Since the methodology was first issued in 2005, it has undergone several improvements, and work continues to provide more accurate information while retaining practicality of use and transparency.

During 2013 CCWG piloted the collection of average vessel utilization data, and in 2014 the group will decide how to integrate it into future calculations.

Clean Cargo  
Shipper Report

*"Industry initiatives like Clean Cargo are the most effective way to collaborate with both carriers and shippers."*

– Clean Cargo Shipper

### ACCESS TO BEST PRACTICE SHARING

Through in-person meetings, webinars, case studies, and other means of interaction, Clean Cargo promotes the sharing of best practices between shipping customers, freight forwarders, and ocean transport providers. Recently, Clean Cargo published a report entitled [“How Clean Cargo Shippers Use, Integrate, and Benefit from Ocean Transport Emissions Data.”](#)

The group regularly reports on other outputs for the general public to raise awareness and encourage more companies to consider how to reduce the environmental impact of their transport and logistics networks.



## Our Commitments

### INDIVIDUAL MEMBER COMMITMENTS

Upon joining Clean Cargo, members commit to a set of shared principles, which includes endorsing the group’s mission, methodologies, and tools. Members also agree to the following:

- » **Carrier members** commit to compiling annual vessel-level data for owned and chartered vessels, as well as completing the annual environmental performance survey.
- » **Shippers** commit to integrating the CCWG tools, data, and scorecards into their procurement process; to training relevant staff on using these resources; and to disclosing to their carrier business partners how CCWG data informs their decision making.

### PROGRESS ON GROUP COMMITMENTS

As a whole the Clean Cargo group works toward shared objectives to progress its mission through a number of dedicated task forces composed of member companies who meet regularly via teleconference to address specific topics. The full group meets twice each year to make decisions on actions presented by the task forces and set further objectives. The following table summarizes our current activities and seeks to ensure our accountability for progress going forward.

Task Force	2012-2013 Goals	2012-2013 Accomplishments	2013-2014 Objectives <sup>1</sup>
<b>Data Collection, Analysis and Methodology</b>	<ul style="list-style-type: none"> <li>» Improve data handling (including verification) and functionality of system tools.</li> <li>» Deliver more detailed annual aggregate performance trends analysis.</li> <li>» Pilot collection of aggregated, trade-lane-specific, average-vessel utilization data.</li> <li>» Agree upon new methodology to report on SO<sub>x</sub> emissions.</li> </ul>	<ul style="list-style-type: none"> <li>» Eleven carriers verified submissions using the CCWG verification process.</li> <li>» Confirmed online reporting and benchmarking platform development.</li> <li>» Established partnership with Kühne Logistics University to undertake detailed performance trends analysis.</li> </ul>	<ul style="list-style-type: none"> <li>» <b>Develop online reporting functionality.</b></li> <li>» <b>Deliver more detailed performance trends analysis.</b></li> <li>» <b>Prepare detailed report on CCWG methodology.</b></li> <li>» <b>Endorse technical advisory board.</b></li> <li>» <b>Include feeder operators.</b></li> </ul>
<b>External Alignment and Engagement</b>	<ul style="list-style-type: none"> <li>» Identify and align EPS with third-party surveys where possible, ensuring relevance for carriers and shippers.</li> <li>» Continue engagements with targeted industry bodies and groups.</li> <li>» Endorse the CCWG methodology as the maritime standard.</li> </ul>	<ul style="list-style-type: none"> <li>» Established partnership with EcoVadis to align supplier surveys for ocean cargo transport.</li> <li>» Clean Cargo represents ocean industry on the Advisory Board of <a href="#">COFRET</a> and other key forums including the European Commission stakeholder consultations on future MRV</li> </ul>	<ul style="list-style-type: none"> <li>» <b>Continue engagements with targeted industry bodies and groups.</b></li> </ul>
<b>Member Value</b>	<ul style="list-style-type: none"> <li>» Develop a series of case studies to share how CCWG shippers use CCWG data and tools within operations.</li> <li>» Create training materials to help new and existing shippers better understand the use of CCWG data and tools.</li> <li>» Publish CCWG progress report.</li> </ul>	<ul style="list-style-type: none"> <li>» Gathered six shipper case studies for members.</li> <li>» Published shipper report.</li> <li>» Drafted how-to training toolkit.</li> <li>» Published CCWG progress report.</li> </ul>	<ul style="list-style-type: none"> <li>» <b>Define and engage on one collective action focused on environmental leadership.</b></li> <li>» <b>Develop mechanism to track progress on implementation of member commitments.</b></li> </ul>

<sup>1</sup> Further objectives may be included following the CCWG member meeting in November 2013.

## Join Us—An Invitation from the Steering Committee



For more information about Clean Cargo, visit the following links:

- » [Clean Cargo Home Page](#)
- » [Clean Cargo Working Group 1-Page Overview](#)
- » [Report: How Shippers Use, Integrate and Benefit from Ocean Emissions Data](#)
- » [2011 Trade Lane Emissions Factors Report](#)
- » [Introductory Webinar Recording with Members Heineken and Maersk](#)
- » [Webinar on Data Collection with Nike and Hapag-Lloyd](#)
- » [BSR Transport & Logistics Practice Home Page](#)

### 2013 Clean Cargo BSR Secretariat

#### EMEA

- » [Angie Farrag-Thibault](#)
- » [Jonathan Morris](#)

#### North America

- » [Nate Springer](#)
- » [Marshall Chase](#)

#### Asia

- » [Laura Ediger](#)

On behalf of the Clean Cargo Working Group (CCWG or Clean Cargo), we hope this report has expanded your understanding of Clean Cargo and the goals and objectives we strive to attain.

Since our founding in 2003, Clean Cargo has reinforced the belief that more transparent information leads to better business relationships. Over the past decade, we have established a level of transparency, collaboration, and visibility within the maritime container shipping industry that allows cargo carriers to accurately and confidently share performance data with cargo customers. We've been using this data to report emissions and make better business decisions. This transparent disclosure leads to greater understanding among business partners, enabling shippers and carriers to collaborate on strategies and action plans to improve their environmental performance.

Our membership continues to grow, and we have expanded our scope both geographically and across industries. Throughout 2012 and 2013, we made significant strides in our core activity of environmental performance data measurement, reporting, and verification. Looking forward, we are improving the reporting systems to allow for more flexibility in supplier performance analysis and industry performance benchmarking, as well as tools for members to integrate the data within operations and business partner relationships.

Clean Cargo membership symbolizes a commitment to drive real environmental performance through the maritime shipping industry and transportation supply chain. Members are actively engaged in shaping the group's strategic priorities and sharing experiences and best practices for integrating environmental criteria into business decision making. We encourage you to join us on the journey.

Clean Cargo membership is open to any carrier, freight forwarder, or shipping customer in the maritime shipping supply chain. Clean Cargo encourages all companies who operate or purchase ocean transportation services to adopt and use the Clean Cargo Performance Metrics scorecard.

If you are interested in joining our work and benefiting from our ready-made tools and data, we encourage you to contact BSR, the CCWG secretariat: [ccwg@bsr.org](mailto:ccwg@bsr.org).

### CLEAN CARGO WORKING GROUP STEERING COMMITTEE

Dawn Vance, Nike  
Gorm Kjærboell, Electrolux<sup>2</sup>  
George Solomon, APL  
Julien Topenot, CMA CGM  
Sarah Flagg, DAMCO  
Teun van der Linden, Heineken

Chair: Angie Farrag-Thibault, Associate Director, BSR Transport & Logistics Practice

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<sup>2</sup> 2012 Steering Committee member.

## 2013 Clean Cargo Members

Carriers		Shippers & Freight Forwarders	
 Moving Business Forward			
			
			
			 <small>PHILIPS VAN HEUSEN CORPORATION</small>
			
			
 Mitsui O.S.K. Lines			
 We take it personally			
	 GLOBAL REACH LOCAL TOUCH Integrated Shipping Services Ltd	 global beverage logistics	 KUEHNE+NAGEL